

# JOURNAL OF FINANCIAL AND MONETARY ECONOMICS

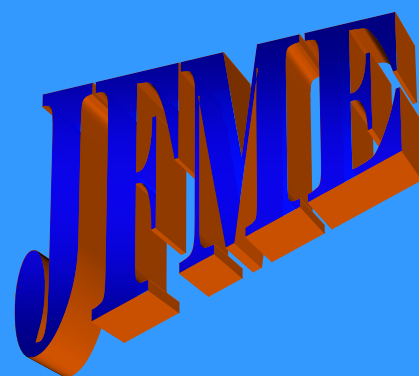
Annual Review

<http://jfm.e.icfm.ro>

**No.9/2021**

**ISSN 2537-3269**

**ISSN-L 2392-9685**



## **Editorial Board**

### **Director**

*PhD Gabriela Cornelia Piciu*

### **Editor in chief**

*PhD Alina Georgeta Ailincă*

### **Editorial Secretary**

*PhD Ionel Leonida  
PhD Nicoleta Mihăilă  
Georgiana Chițiga  
PhD Otilia Manta  
PhD(c) Monica Dutcaș*



ROMANIAN ACADEMY

“COSTIN C.KIRIȚESCU” NATIONAL INSTITUTE FOR ECONOMIC RESEARCH

“VICTOR SLĂVESCU” CENTRE FOR FINANCIAL AND MONETARY RESEARCH

## JOURNAL OF FINANCIAL AND MONETARY ECONOMICS

ISSN 2537 – 3269,

ISSN-L 2392-9685

Annual Review

### EDITORIAL BOARD

**Director:** Gabriela Cornelia PICIU

PhD Researcher II, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy

**Editor-in-Chief:** PhD Alina Georgeta AILINȚĂ

PhD Researcher III, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy

### Scientific Board:

- PhD Constantin MARIN – Director, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- PhD Lucian-Liviu ALBU – Member of the Romanian Academy, Director, Institute for Economic Forecasting, Romanian Academy
- PhD Luminița CHIVU – General Director, “Costin C. Kirițescu” National Institute for Economic Research, Romanian Academy
- PhD Adina CRISTE – Editor in Chief, “Financial Studies”, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- PhD Mitko DIMITROV – Director, Institute for Economic Research, Bulgarian Academy of Sciences
- PhD Emil DINGA – Senior Researcher, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- PhD Emilian M. DOBRESCU – Scientific Secretary, Economic, Law and Sociological Sciences Section, Romanian Academy
- PhD Aurel IANCU – Member of the Romanian Academy
- PhD Iulia LUPU – Head of Department, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- George Daniel MATEESCU – Senior Researcher, Institute for Economic Forecasting, Romanian Academy
- PhD Camelia MILEA – Researcher III, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- PhD Mihai-Sabin MUSCALU – Director, Centre for Industrial Economics and Services, Romanian Academy
- PhD Napoleon POP – Senior Researcher, “Costin C. Kirițescu” National Institute for Economic Research, Romanian Academy
- Alexandru STRATAN, PhD – Director, National Institute for Economic Research, Academy for Sciences of Moldova
- PhD Angela TIMUȘ – Scientific Secretary, National Institute for Economic Research, Academy for Sciences of Moldova

### Editorial Secretary:

- Otilia Elena MANTA, PhD(c) - Researcher, —Victor Slăvescu Centre for Financial and Monetary Research, Romanian Academy
- PhD(c) Monica DUTCAȘ – Researcher, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- PhD Ionel LEONIDA – Researcher III, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- PhD Nicoleta MIHĂILĂ – Researcher III, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy
- Georgiana CHIȚIGA – Researcher, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy

---

*All rights reserved this edition of “Victor Slăvescu” Centre for Financial and Monetary Research, Bucharest. Reproduction of all or part of text, by any means is permitted provided that the source is acknowledged. Liability for content and originality of the text lies with the authors.*

**“Victor Slăvescu” Centre for Financial and Monetary Research**

13 September no.13, Academy House, building B, 5<sup>th</sup> floor, 5<sup>th</sup> District, Bucharest, zip cod 050711,  
Phone: +40213182419, FAX +40213182419, e-mail: jfm@icfm.ro

*Journal of Financial and Monetary Economics* is edited by the "Victor Slăvescu" Centre for Financial and Monetary Research of the Romanian Academy since 2014. It is an annual review that has as main objective the dissemination of theoretical and applied economic research presented annually by the researcher in Romania and abroad in the international scientific conference "Financial and Monetary Economics".

Research published scientific research aimed both economic development and clarification of the current economic phenomena and processes. As a result, conclusions and proposals offered by the authors address both academia - scientists, teachers, students - as well as decision makers. We emphasize the importance of scientific contributions, together with the clarity of concepts, methodologies and conclusions offered.

# Contents

---

<b>SECTION I. Fiscal Issues in the Globalized Economy.....</b>	<b>5</b>
<b>WAYS TO IDENTIFY THE LEVEL OF THE PUBLIC DEBT LEVEL OR INTERVAL AS WELL AS POSSIBLE IN ACCORDANCE WITH THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT OBJECTIVES AT EU27 LEVEL.....</b>	<b>6</b>
<i>Alina Georgeta Ailincă, PhD., 3<sup>rd</sup> degree Scientific Researcher</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	
<b>FREE TRADE AREAS AND THE FISCAL HAVEN.....</b>	<b>23</b>
<i>PhD Edith Mihaela Dobrescu, Scientific Researcher grade III at Institute for World Academy, Romanian Academy, Calea 13 September no.13, Sector 5, Bucharest, Romania</i>	
<i>Professor PhD Emilian M. Dobrescu, Titular Member of the Academy of Scientists, Romania</i>	
<b>THE INCLUSION OF YOUNG NEETS IN THE LABOR MARKET CORRESPONDING TO NEW ASPECTS OF LABOR.....</b>	<b>30</b>
<i>Monica Florica Dutcaș, PhD. Candidate, Scientific Researcher</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	
<i>Denisa-Gabriela Grosu, Research Assistant</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	
<b>THE EVOLUTION OF THE TAXATION SYSTEM IN ROMANIA AND THE IMPACT ON THE YOUNG LABOR FORCE.....</b>	<b>37</b>
<i>Monica Florica Dutcaș, PhD. Candidate, Scientific Researcher</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	
<i>Denisa-Gabriela Grosu, Research Assistant</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	
<b>EVOLUTIONS AND TRENDS IN THE STRUCTURE OF TAXATION IN THE EUROPEAN UNION AND ROMANIA.....</b>	<b>50</b>
<i>Ionel Leonida, PhD., 3<sup>rd</sup> degree Scientific Researcher</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	
<b>ANALYSIS OF SOME TAX SYSTEMS AT GLOBAL LEVEL. EVOLUTIONS AND DIRECTIONS.....</b>	<b>59</b>
<i>Nicoleta Mihăilă, PhD., 3<sup>rd</sup> degree Scientific Researcher</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	
<b>ABOUT HOUSEHOLD WEALTH AND INEQUALITIES IN THE CONTEXT OF COVID 19 CRISIS AT GLOBAL LEVEL.....</b>	<b>68</b>
<i>Nicoleta Mihăilă, PhD., 3<sup>rd</sup> degree Scientific Researcher</i>	
<i>“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania</i>	

**SECTION II. FINANCIAL AND MONETARY CHALLENGES.....76**

**APPROACHES TO ASSESSING THE EFFECTIVENESS OF THE MACRO-PRUDENTIAL POLICY OF THE BANKING SECTOR IN THE REPUBLIC OF MOLDOVA.....77**

*Victoria Cociug, PhD, Associate Professor, Academy of Economic Studies, Chişinău, Republic of Moldova*

*Victoria Postolache, PhD, Associate Professor, Affiliation Balti State University “Alec Russo”, Faculty for Exact, Economic and Natural Science, Bălţi, Republic of Moldova*

**BANKING POLICIES IN 2020 – 2021.....86**

*PhD Edith Mihaela Dobrescu, 3rd degree Scientific Researcher, Institute for World Academy, Romanian Academy*

*Professor PhD Emilian M. Dobrescu, Titular Member of the Academy of Scientists, Romania*

**CHARACTERISTICS AND COSTS OF PUBLIC DEBT IN EUROPEAN UNION COUNTRIES.....90**

*Cătălin Drăgoi, Scientific Researcher, “Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

**GLOBAL TRENDS IN FOREIGN DIRECT INVESTMENT.....102**

*Ivan Luchian, International Institute of Management IMI-NOVA*

*Angela Filip, Moldova State University*

**ROMANIA'S FOREIGN DEFICIT IN THE PERSPECTIVE OF JOINING THE EURO AREA.....111**

*Camelia Milea, PhD., 3<sup>rd</sup> degree Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

**VULNERABILITIES AND RISKS ASSOCIATED WITH THE EVOLUTION OF THE CURRENT ACCOUNT DEFICIT IN ROMANIA. RECOMMENDATIONS FOR EURO ACCESSION..... 119**

*Camelia Milea, PhD., 3<sup>rd</sup> degree Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

**GLIMPSES AT A NEW GOLD STANDARD.....127**

*Iulian Oneaşcă, European Institute of Romania*

**DIRECTIONS FOR IMPROVING BUDGETING WITHIN THE COMMERCIAL BANK.....132**

*Victoria Postolache, PhD, Associate Professor, Affiliation Balti State University “Alec Russo”, Faculty for Exact, Economic and Natural Science, Bălţi, Republica Moldova*

*Natalia Branaşco, PhD, Associate Professor, Affiliation Balti State University “Alec Russo”, Faculty for Exact, Economic and Natural Science, Bălţi, Republica Moldova*

**CURRENT ASPECTS OF THE EUROPEAN MONETARY INTEGRATION STEMMING FROM THE THEORY OF OPTIMAL MONETARY AREAS AND SUBSEQUENT ASSOCIATED AMENDMENTS. PERSPECTIVES FOR THE CASE OF ROMANIA.....143**

*Silviu-Marius Şeitan, PhD., 3<sup>rd</sup> degree Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

**SECTION III. SUSTAINABLE DEVELOPMENT AND INCLUSIVE ECONOMIC GROWTH.....152**

**DIMENSIONS AND POSSIBLE CHALLENGES TO SUSTAINABILITY IN POST COVID-19 PANDEMIC SITUATION ON “CAPTURE” STATE STOCK MARKETS: THE CASE OF BULGARIA.....153**

*Julia Stoyancheva Stefanova, PhD., Economic Research Institute at the Bulgarian Academy of Sciences, Bulgaria, Sofia*

**IN MEMORIAM VICTOR SLĂVESCU -ON THE ECONOMIC THINKING OF THE ECONOMIST.....163**

*Alina Georgeta Ailincă, PhD., 3<sup>rd</sup> degree Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

*Gabriela Piciu, 2nd degree Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

**CONVERGENCE OF HORTICULTURAL FARMS IN ROMANIA FROM THE PERSPECTIVE OF COMPETITIVENESS AND PROFITABILITY in EU.....170**

*Cornelia Alboiu, Institute of Agricultural Economics, the Romanian Academy, Bucharest, Romania*

**POST - COVID RECOVERY FOR A MORE SUSTAINABLE, RESILIENT AND EQUITABLE EUROPE.....177**

*Georgiana Chițiga, Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

**INCLUSIVE ECONOMIC GROWTH, THROUGH EUROPEAN PROJECTS FOR SUSTAINABLE DEVELOPMENT.....187**

*Florin Diaconescu, National Institute for Economic Research “Costin C. Kiritescu” (INCE), Romanian Academy, Romania*

**THE OPPORTUNITY TO INTRODUCE THE TAX FOR NON-RECYCLED PLASTIC PACKAGING WASTE AND HOW TO IMPLEMENT IT IN ROMANIA.....193**

*Piciu Gabriela-Cornelia, PhD., 2nd degree Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

**A COMPARATIVE ANALYSIS OF SUSTAINABILITY PROMOTED BY THE CONCEPTS: CIRCULAR ECONOMY, SOCIAL ECONOMY, GREEN ECONOMY.....201**

*Piciu Gabriela-Cornelia, PhD., 2nd degree Scientific Researcher*

*“Victor Slăvescu” Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania*

## **SECTION I. FISCAL ISSUES IN THE GLOBALIZED ECONOMY**

---

# WAYS TO IDENTIFY THE LEVEL OF THE PUBLIC DEBT LEVEL OR INTERVAL AS WELL AS POSSIBLE IN ACCORDANCE WITH THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT OBJECTIVES AT EU27 LEVEL

Alina Georgeta Ailincă<sup>1</sup>

## **Abstract:**

*In addition to the risks posed by climate change, there is a global view that these changes can contribute to reshaping human thinking by stressing the need for human-nature harmony, so a real opportunity for development on a sustainable basis. Internationally, in order to reduce the effects of these climate changes, huge sums of money need to be invested so that humanity can achieve the much desired climate neutrality by 2050 or on a shorter horizon, a considerable approach through targets by 2030. In this regard, the article seeks to undermine the threads of funding for sustainable development at EU27 level by developing scenarios for the evolution of public debt in the context of this goal.*

**Keywords:** *financing, debt, debt sustainability, scenarios, sustainable development*

**JEL classification:** *E63, H63, Q01*

## **Introduction**

In addition to the risks posed by climate change, there is a global view that these changes can contribute to reshaping human thinking by highlighting human-nature harmony, so a real opportunity for development on a sustainable basis. If the areas currently most affected by these changes are those related to energy efficiency, transport, agriculture, construction, trade, etc. requiring massive investment, others seem to be seen as a response to these challenges, such as technology and information. To mitigate the effects of these changes, exorbitant sums are being circulated internationally (e.g. the UN) over \$ 800 billion annually by 2050, with a balanced distribution between emerging and developed states (National Committee for Macroprudential Oversight, in Romanian, CNSM, 2021). According to New Energy Outlook 2020, limiting global warming below 20C would require a significant volume of investment, with values between \$ 78-130 trillion, by 2050, of which about 64 trillions of dollars to energy production and changes to distribution networks. Also in this report is expected an increase in electricity consumption of about 60% by 2050, of which photovoltaic energy will account for about 56%, nuclear and hydrogen and other renewable sources of 20%, over time, what fossil fuels would represent the energy sources around no more than 24%. According to the calculations of the CNSM Working Group for Romania, the value of green projects that are expected to be implemented by the authorities and the private sector by 2030 is considerable - almost 60 billion Euros (value that is expected to increase after the adoption of the EU package Fit for 55), amount equivalent to the total investments carried out by the public sector in a period

---

<sup>1</sup> 3rd degree researcher, Centre For Financial And Monetary Research „Victor Slăvescu”, 13 Septembrie Way, Academy House, B Building, 5th Floor, 5th District, Post Code 050711, Bucharest, Romania, e-mail: alinageorgetaailinca@gmail.com



of 8 years (period 2013-2020) or to that of the allocations of European funds from 2007-2020. The CNSM report (2021) also states the estimates of the High-Level Group on Sustainable Finance (HLEG) at European level on the additional investment needs of 180 billion Euros for areas such as green transport, renewable energies, energy efficiency of buildings, strengthening social infrastructure, etc., with Central and Eastern European countries requiring a significant share of these investments.

It should be noted that, depending on the institutional capacity, there are two options for implementing the transition to the green economy, identified by some reports and studies: - a disorderly one, in which the institutional organization is extremely precarious and the capacity of institutions around green projects is reduced and - an orderly transition, in which European and national programs and especially national public institutions are able to attract the necessary funds and especially are able to use them effectively to produce a strong multiplier effect in the economy.

Also, depending on the direction of coagulation of the effort, we can speak of a vertical transition, with some dominant points, from the 17 objectives of the sustainable development strategy, which will attract, by their achievement, a multiplier effect and a better achievement of the other objectives or a horizontal transition, in which all targets will be pursued equally, without implementation priorities, implicitly funding. At the same time, depending on the pace of absorption, we can speak of a constant, slow or accelerated transition, over the entire duration of economic transformation, etc.

According to the same group (CNSM), the cumulative effect on economic growth is expected to be between 1.0 and 2.3 pp. for the period 2021-2026, and in the situation of implementing green investment projects, having as source all European resources that could be mobilized, the additional impact on medium-term economic growth could reach up to about 5.7 pp. for the next six years, and the unemployment rate could be reduced by 1 percentage point in the period 2022-2023. At the same time, it should be noted that Romania failed to absorb European funds at a high capacity, absorbing only about 39% of the total volume of allocations in two financial cycles (2007-2013, 2014-2020), there is a huge growth space for financing green (CNSM, 2021). According to information from the European press of the European Regional Development Fund (ERDF) and the Cohesion Fund (CF), for the period 2014-2020, at the EU28 level the absorption rate did not exceed 49.5% (Bruegel, 2020). According to the Ministry of European Investments and Projects, on July 30, 2021, for the programs financed from the European Structural and Investment Funds (ESF) for the period 2014-2020, their absorption rate was 51.36%, and the effective absorption rate was 43,80%. Therefore, we can count, on the one hand, that Romania (as well as several other European countries) has a limited degree of absorption of European funds compared to the EU average (the gap being about 10pp.), And on the other hand, that the level of effective absorption is also limited by all EU countries. This highlights the fact that part of the financing need for the committed and future projects may come in the form of other types of financing or loans.

For this reason, national and international financial institutions should be more actively involved in attracting and conducting green financing, especially since almost half of the value added and more than half of the assets of all companies are held by carbon-intensive companies (CNSM, 2021).

Therefore, this article aims to emphasize the need for a rapid but methodical transition to the green economy, thus implicitly outlining the need for adequate funding for this goal. Specifically, the purpose of the article is, even narrower, to identify, as realistically as possible, the additional level of public indebtedness in relation to the current scenario of public indebtedness in the context of achieving the goals of sustainable development at EU level. Therefore, the article is

constructed in such a way as to identify a series of logical forecasting models for the period 2021-2027 on the evolution of public debt expressed as a percentage of GDP, taking into account strictly the possible variants of the evolution of green financing. The results of the public debt forecasts will be presented graphically for a number of EU countries such as: Romania, France, Finland and Greece, along with the European Union and the euro area.

## **Description of the Problem and Literature Review**

Delaying the transition to the green economy and achieving the goals of sustainable development or a messy transition can be offset by substantial losses in competitiveness. More precisely by: the inability to change the model of economic growth both at national and microeconomic level of branches of the economy or companies, so that it cannot respond adequately to new challenges, losses and financial costs (e.g. financial constraints from creditors), but also the inability to capitalize on international or European funding to align with the climate agenda. At the macroeconomic level, as the green economy grows, there is a need for internal resources that are increasingly aligned with these requirements. On the contrary, both private and state-owned companies will have to import goods and services, but also raw materials suitable for the green economy, thus generating losses in budgetary and trade balances and affecting the internal labor market, creating welfare and jobs in other economies and not in the national economy, implicitly possibly also not in the European one.

Thus, regarding Romania, according to CNSM (2021), the current account deficit (% of GDP) will deteriorate by an additional 1.2 pp. in the medium term if Romania will not be able to align with the green transition and digitization requirements set by the industrial strategy for Europe, drawn up by the European Commission in 2020.

The consequences of a disorderly implementation of the transition to the circular economy and the achievement of sustainable development targets may also be of the nature of precarious sovereign ratings, with rating agencies already monitoring and assessing countries in sovereign ratings and national capacity to implement the climate agenda. Regarding the Romanian economy, the losses generated by the late start (e.g. 2 years, i.e. 2024 instead of 2022) of green projects will lead to a reduction of over 33% the favorable effect on the Romanian economy, according to CNSM analyzes (2021). Also, all European states will account for losses if the transition to this new type of economy occurs late or if the way in which each economy is restructured is not in line with making significant progress towards achieving the goals of sustainable development. It should be noted that in terms of both socio-economic and environmental targets, each EU Member State can only be seen in part as a beneficiary or bearer of favorable or unfavorable consequences for the proper or less appropriate implementation of public policies for achieving the goals of sustainable development. This is due to the fact that the challenges are increasingly regional or global, and externalities, with beneficial or detrimental effects, are reflected also, willingly or unwillingly, outside national or regional boundaries. Therefore, just as the dangers or vulnerabilities to the world's economies and the objective of achieving the goals of sustainable development manifest themselves as communicating channels, in the same manner, we can talk about the effect of funding in this regard.

In the High-Level Political Forum on sustainable development (HLPF) in 2021, it has been discussed the various aspects of the response to the COVID-19 pandemic and its impacts in order to put the world back on track to achieve the SDGs by 2030. Also, in the work of Gaspar and al. (2019) it is estimated the additional annual spending required for significant progress on the SDGs in areas such as: education, health, roads, electricity, and water and sanitation, and its main finding is that delivering on the SDG agenda will require additional spending in 2030 of

US \$0.5 trillion for low-income developing countries (or an average additional spending of 15 percentage points of GDP) and US \$2.1 trillion for emerging market economies. Regarding the EU, although the study signed by Kettunen and al. (2018) points out shortcomings of the EU methodology, implicitly of Eurostat, in monitoring progress related to sustainable development targets, emphasizing that: it has also been identified that the lack of consistent monitoring and evaluation systems across all funds has hampered assessment of both the fund-specific outcomes and their overall (comparative) performance and that there is a need to ensure tracking financial contributions across all 17 SDGs over time, however it speaks rather of the EU's external relationship with other parts of the world, and less of the need to track sustainable development targets and their funding at the level of EU countries.

Although numerous studies and reports try to identify the need for global and regional funding (in our case European funding) on the transition to this new type of economy and especially to achieve the goals of sustainable development, the real capacity for estimation is extremely limited, existing considerable differences in estimation from one evaluator to another. This variability is reflected not only in financing for sustainable development as a whole, but of course also in public indebtedness for this purpose.

## **Methodology and Data**

Based on the information that approximately 30% of the amounts allocated at EU level (for the NextGeneration package and for the multiannual framework 2021-2027) out of a total of 1824.3 billion Euros will be allocated to this green transition and to transpose the objectives of the sustainable development strategy into reality, green spending must be also, according to the national recovery and resilience plans (PNRR, engl. NRRP) be at least 37% of the global amount for each member country (CNSM, 2021), the article aims to outline a series of logical, empirical scenarios on the impact of sustainable development on public debt. It should be noted that of the € 1824.3 billion, € 1074 billion is the EU's multiannual budget (for the period 2021-2027), while the € 750 billion is the economic recovery fund allocated to pandemic contingency and its effects. Of this, € 390 billion is non-reimbursable grants, while € 360 billion is the loans fund drawn by the European Commission on behalf of the EU for member countries. Romania has allocated approximately 80 billion Euros, of which 16.7 billion euros are loans. In the National Recovery and Resilience Plan, developed within the Recovery and Resilience Mechanism, part of the Next Generation EU economic recovery package, the expenditure budget for the green transition is 15.89 billion Euros, out of a total of 29.2 billion euro for the whole plan, more exactly a share of more than 54% of the financial envelope of the plan.

Returning to the European level, if we consider that the entire volume of loans of 360 billion Euros, will be in one form or another conditioned by the transition to the new type of economy, so to a greater or lesser extent "green", and taking into account that the total of 1824.3 billion Euros of the EU Multiannual Financial Framework, 30% is for the green economy, i.e. 547.29 billion Euros, we can consider that, except for the presence of grants, the volume of loans is below the required level for this target. At the same time, if we refer only to loans and weigh the 360 billion at 37%, as strictly green loans, we get a volume of 133.2 billion Euros, which if we share evenly to the 27 EU countries we get about 5 (more precisely 4.9) billion Euros on average per country over the whole allocation period 2021-2027, i.e. an additional debt on average over 700 million Euros per year per country.

It should be noted that, we start from the assumption that European funding is covering the goals of sustainable development and that the aim of the study is to identify as accurately as possible the level of public debt in line with achieving sustainable development goals and that they overlap perfectly with the notion of "green" as it is understood and budgeted at EU level.

Basically, the study aims not to contest the volume of European financing or more precisely the repayable one (indebtedness), but starting from the global volume of financing for debts approved at EU level to be able to identify at country level, for EU countries, what level of public debt could be reached as a result of the additional amount of debt related to the need to transition to the green economy and thus also to the goals of sustainable development.

Thus, the article aims to identify a series of logical forecasting models on the evolution of public debt expressed as a percentage of GDP, taking into account strictly the possible variants of green financing on different scenarios and simplifying the allocation model at country level, considering that all countries of the EU receives equal amounts of green loans, which is not in line with reality, being a methodological simplification.

Also, as a limiting aspect, the article does not take into account the evolution of indebtedness according to other causes or potential crises. At the same time, if the European budgets contain a non-reimbursable and a reimbursable financing, the indebtedness foreseen in the projects and programs committed from the European funds does not mean that it will materialize in full.

On the plus side, the article incorporates information and working methods used in artificial neural networks for forecasting, including self-adaptive methods and taking into account moments of crisis or changes in the past business cycle (e.g. for GDP forecasting). The multitude of scenarios or models take into account certain predefined hypotheses in order to be able to distinguish the wide area of possibilities in the evolution of public debt. Exclusively green public debt variants are not presented separately, once - because of their relatively limited weights in relation to GDP and even to total debt, and secondly - because the debt for green projects and sustainable development should not be seen as “another” debt, but only an internal, stabilizing element for the general gross public debt. Data used come from the Eurostat database for the period 2010-2020, for gross public debt expressed as a percentage of GDP and the evolution of GDP expressed in millions of Euros, current prices. In order to reflect the funding from future European funds foreseen in the 2021-2027 multiannual frameworks and the NextGeneration package, we used information from EU reports and studies as well as from the CNSM report (2021). Thus, the forecast follows its own, logical, adaptive methodology, limiting itself to the gross public debt expressed as a percentage of GDP for the period 2021-2027, at the level of EU27 countries.

It should be noted that, in order to simplify the analysis, the beneficial multiplier effect generated by indebtedness for the environment or for sustainable development targets is not taken into account. This multiplier effect could lead to a considerable decrease in the values proposed by this study.

## **Results**

Thus, the article builds on partial variants, different scenarios, evolutions or models, regarding different components or factors in the evolution of public indebtedness. First, the article takes into account the evolution of GDP in volume (millions of Euros) for the same period, using the evolution of GDP to outline forecasts for GDP on 2 scenarios or variants. The first option starts from the hypothesis that GDP grows annually for 7 years (2021-2027) according to the growth rates of the period 2014-2020, considering that in or after 2021, GDP will evolve similarly to the period after the sovereign debt crisis and the global financial crisis for the period 2008-2009. We can note this variant PIB1. The second variant of GDP starts from the hypothesis that GDP will grow in the next 7 years after 2020 in growth rates according to the period 2012-2018, 2012 also marking a moment of crisis at EU level amid rising sovereign debt, more of Greece, the year marking the second program to save Greece's finances from the trinomial: the European



Commission, the European Central Bank and the IMF. This suggests that in the second variant (GDP2), GDP will continue to be disrupted by shortcomings similar to the period 2012-2018.

For the “green” debt, those 700 million Euros, the article uses three variants: 1- constant, the period 2021-2027 having allocated regardless of the country, 700 million Euros debt that is added to the gross public debt (noted in DV1 models), 2- increasing evolution, the green debt evolving in the period 2021-2027 thus 500 million Euros in the period 2021-2022, with 600 million Euros in 2023, with 700, 800 and 900 million Euros respectively in the period 2024-2026 and with 900 million Euros in 2027 (noted in DV2 models), 3- decreasing evolution, i.e. exactly the inverse of the previous variant, for the period 2021-2027, 900 million Euros per country being allocated in the first year (noted in DV3 models). Taking into account the two previous variants of GDP, we will have 6 variants of evolutions of green debt in relation to GDP.

At the same time, the article takes into account the current level of public debt in GDP, for the period 2010-2020, but also the possible variants in which it could evolve, thus constructing five possible main variants:

1. gross public debt (% of GDP) will evolve steadily over the next 7 years, but taking into account recurrent or iterative previous information. Basically, the gross public debt (DPB) (% of GDP) takes into account the previous public debt, but increases with the green debt by variants (note DPBct),
2. the gross public debt (GDP) (% of GDP) is growing at a rate for the period 2014-2020, and the “green” debt is in turn constant, increasing or decreasing (note DPBc14-20),
3. - the gross public debt (GDP) (% of GDP) decreases at a rate related to the period 2014-2020, and the “green” debt is in turn constant, increasing or decreasing (DPBs14-20),
4. the gross public debt (GDP) (% of GDP) is growing at a rate for the period 2012-2018, and the “green” debt is in turn constant, increasing or decreasing (note DPBc12-18),
5. the gross public debt (DPB) (% of GDP) decreases at a rate related to the period 2012-2018, and the “green” debt is in turn constant, increasing or decreasing (note DPBs12-18). Thus, finally, taking into account the evolution of DPB and the evolution of green debt (DV) we will obtain 30 variants, scenarios or possible models presented in the table below (Table 1).

Thus, taking into account the above, in order to briefly capture the possible developments of public debt in GDP we can see graphically the result of models developed for: EU27, Euro19, Romania, France, Finland and Greece. The countries were chosen according to the geographical position of the states in the EU: north, south, east and west, but also taking into account their level of transition to the society of sustainable development.

Therefore, if we look at the possible forecast, according to the methodology used, on gross public debt expressed as a percentage of GDP, we notice that there are generally 5 models more visible: 6, 12, 18, 24 and 30, all marking a decreasing evolution of “green” debt, with various evolutions of the initial gross public debt (until 2020).

For the European Union (EU27), we note that model 18 offers a maximum limit of over 100% of GDP, for 2026, and model 12 offers a minimum limit of 81.63% of GDP, so that next year to reach relatively low values. The range of variation calculated between the models used is thus about 20pp., but even the minimum possible value is well above the target of 60% of GDP proposed by the Maastricht Treaty and mandatory to reach, as a sustainability threshold, imposed by the European treaties ( see Figure 1). It is possible, in the absence of other additional shocks, for example the serious budgetary problems in the United States, which will roll like a roller coaster across the EU, that the normalization of indebtedness will occur, in the

medium term, in the range of 90-100%. If additional shocks are taken into account, the values used in this forecast will become irrelevant, far exceeding the anticipated levels.

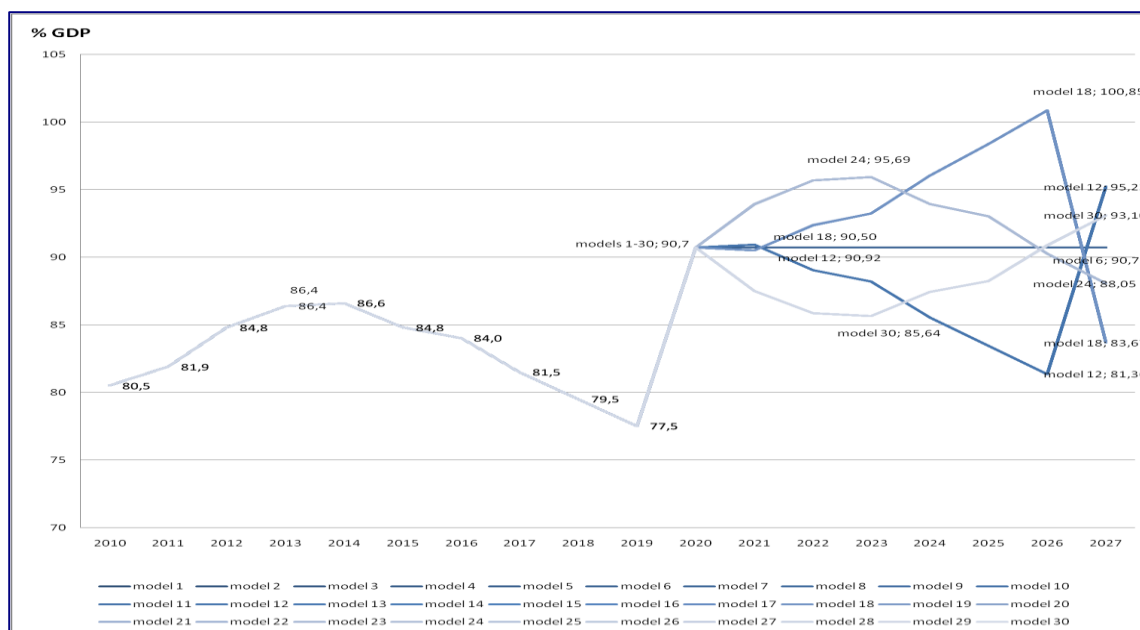
**Table 1**

**Possible evolutions of the public indebtedness taking into account the evolution of the “green” debt**

<b>Evolution / variant on Gross government debt (% of GDP)</b>	<b>Evolution of green debt or to achieve sustainable development targets depending on the GDP variant to which it relates</b>	<b>Name of the final model for public debt</b>	<b>Model variant</b>
DPBCt (1)	PIB1DV1	DPB1PIB1DV1	Model 1
	PIB1DV2	DPB1PIB1DV2	Model 2
	PIB1DV3	DPB1PIB1DV3	Model 3
	PIB2DV1	DPB1PIB2DV1	Model 4
	PIB2DV2	DPB1PIB2DV2	Model 5
	PIB2DV3	DPB1PIB2DV3	Model 6
DPBc14-20 (2)	PIB1DV1	DPB2PIB1DV1	Model 7
	PIB1DV2	DPB2PIB1DV2	Model 8
	PIB1DV3	DPB2PIB1DV3	Model 9
	PIB2DV1	DPB2PIB2DV1	Model 10
	PIB2DV2	DPB2PIB2DV2	Model 11
	PIB2DV3	DPB2PIB2DV3	Model 12
DPBs14-20(3)	PIB1DV1	DPB3PIB1DV1	Model 13
	PIB1DV2	DPB3PIB1DV2	Model 14
	PIB1DV3	DPB3PIB1DV3	Model 15
	PIB2DV1	DPB3PIB2DV1	Model 16
	PIB2DV2	DPB3PIB2DV2	Model 17
	PIB2DV3	DPB3PIB2DV3	Model 18
DPBc12-18(4)	PIB1DV1	DPB4PIB1DV1	Model 19
	PIB1DV2	DPB4PIB1DV2	Model 20
	PIB1DV3	DPB4PIB1DV3	Model 21
	PIB2DV1	DPB4PIB2DV1	Model 22
	PIB2DV2	DPB4PIB2DV2	Model 23
	PIB2DV3	DPB4PIB2DV3	Model 24
DPBs12-18(5)	PIB1DV1	DPB5PIB1DV1	Model 25
	PIB1DV2	DPB5PIB1DV2	Model 26
	PIB1DV3	DPB5PIB1DV3	Model 27
	PIB2DV1	DPB5PIB2DV1	Model 28
	PIB2DV2	DPB5PIB2DV2	Model 29
	PIB2DV3	DPB5PIB2DV3	Model 30

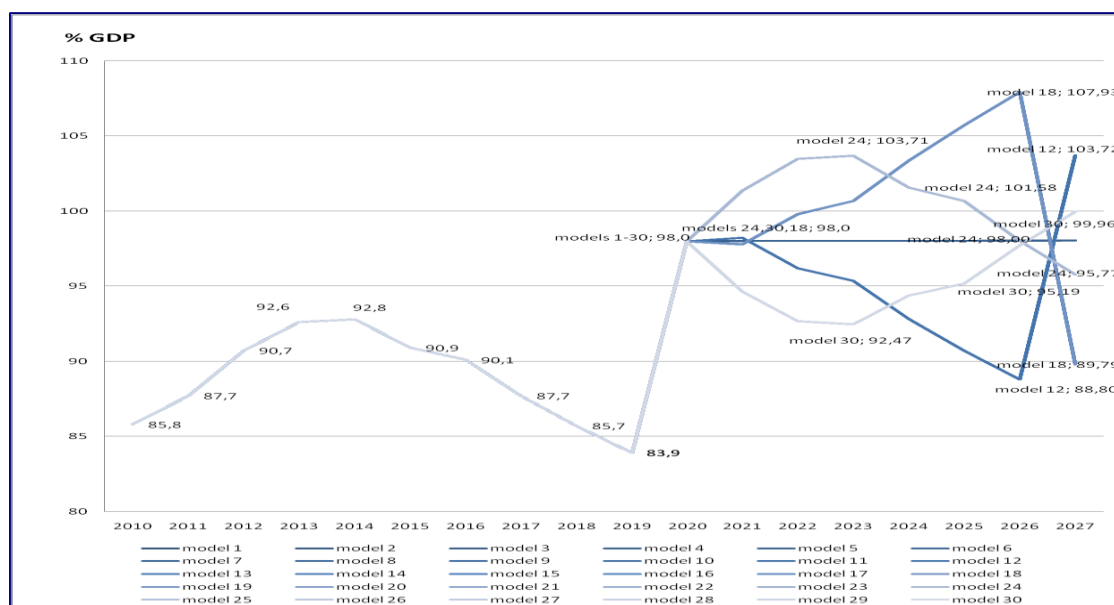
*Source: own conception; the notations have been clarified earlier in the text.*

If we refer to the euro area (EA19), we notice that model 18 offers a maximum limit of over 107.93% of GDP for 2026, and model 12 offers a minimum limit of 88.80% of GDP, because next year to reach relatively low values (see Figure 2). The range of variation calculated between the models used for the euro area is thus about 20pp., the threshold of 60% of GDP, considered the sustainability threshold, will continue to be violated. It should be noted that at EU27 level, in the event of additional shocks, internal or external, economic or non-economic, it is possible that the strongest shock will be recorded in the euro area and the public debt for the euro area to explode at 120% of GDP, and to remain high in the medium term.



**Figure 1: Forecasted evolution of public debt expressed as a percentage of GDP at EU level with 27 states**

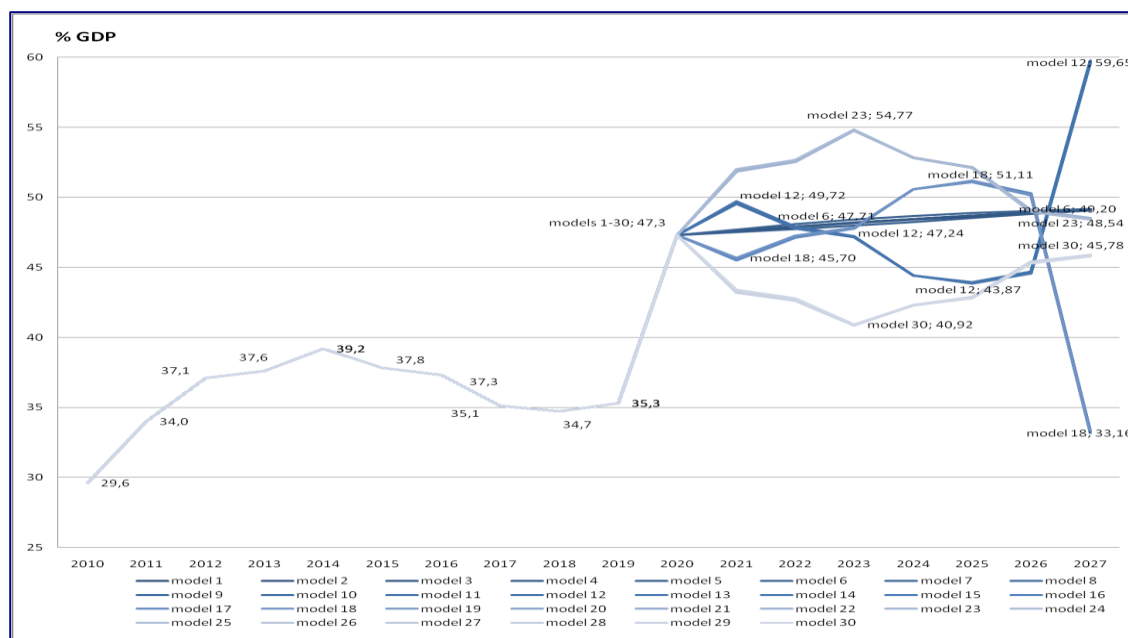
*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*



**Figure 2: Forecasted evolution of public debt expressed as a percentage of GDP in the Eurozone average of 19 states**

*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*

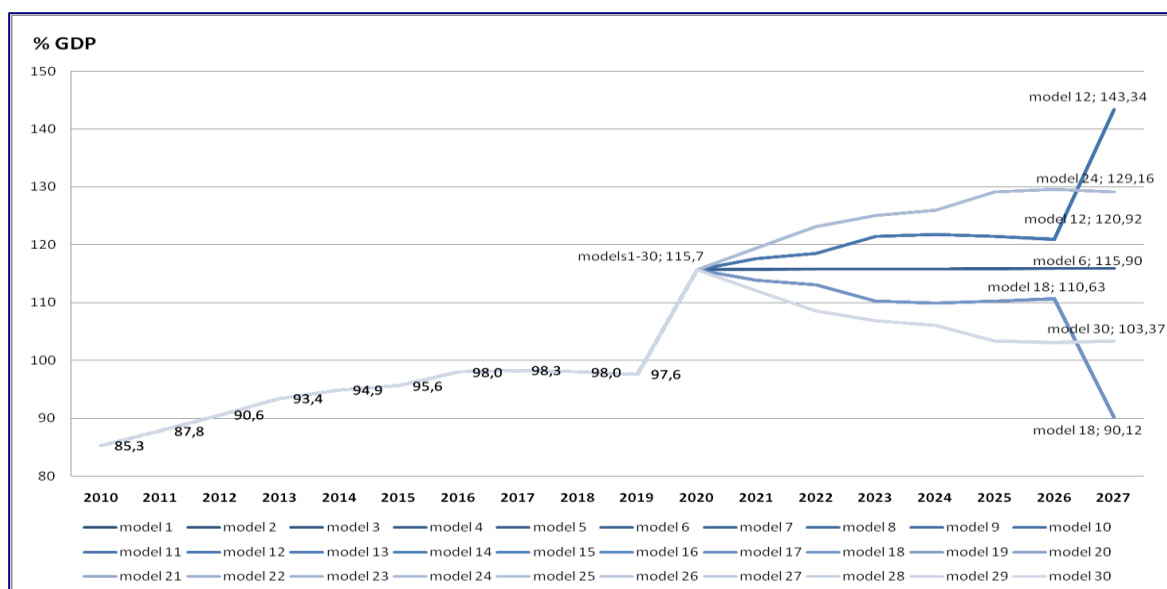
For Romania, if the public debt by 2010 stay below the level of 30% of GDP, it is possible that after 2021, according to the assumptions and implicitly the chosen models, DPB will explode at a level of and over 60% (see model 12), this in the absence of other additional shocks that could lead to constant exceedances of this level in the medium term. The optimistic trend could be a range of variation between around 46% and 50% of GDP (see models 30 and 6).



**Figure 3: The forecasted evolution of public debt expressed as a percentage of GDP for Romania**

*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*

If we refer to France, the maximum variation range of gross public debt is between about 90 and 145% of GDP according to the proposed models (see figure 4), but optimally we could consider values between approx. 100 and 130% of GDP. Compliance with the 60% threshold is practically impossible, as it has been violated by this country since 2002-2003.



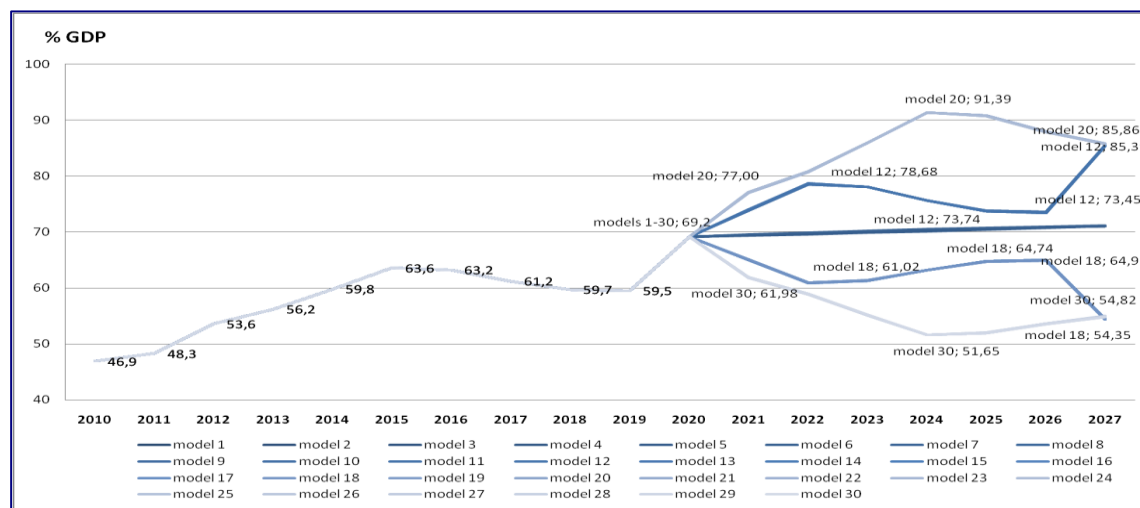
**Figure 4: Projected evolution of public debt expressed as a percentage of GDP for France**

*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*

Regarding the evolution of gross public debt expressed as % of GDP for Finland, we note that in the period 2010-2019 this country was able to broadly fall within the sustainability threshold of



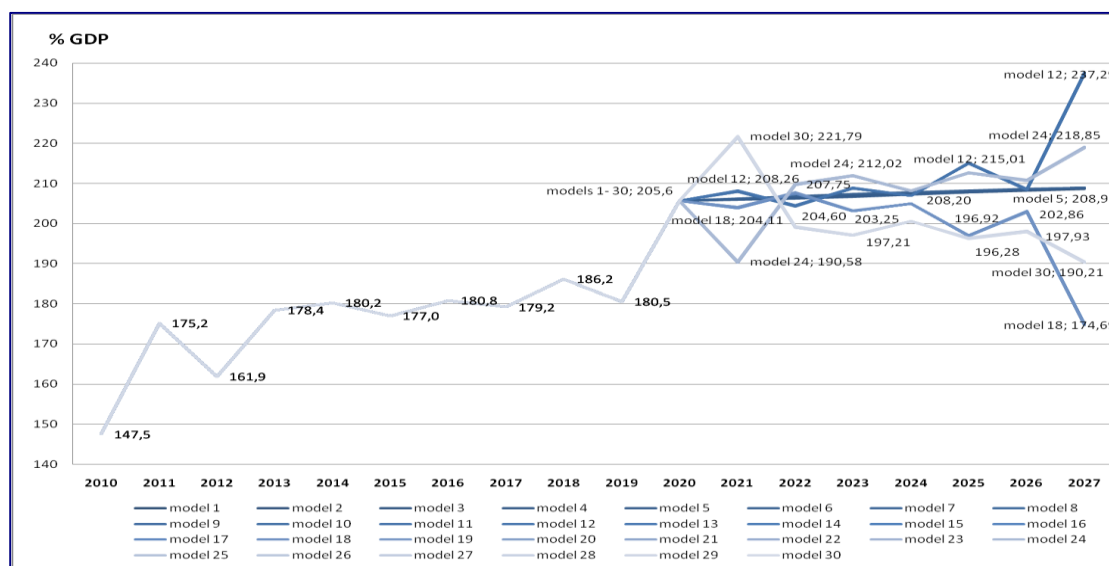
60% of GDP, but the year 2020 marked an explosion of public debt of approx. 10pp, this of course leading to projected future developments at levels in the range of about 50 - 90% (Fig 5).



**Figure 5: Projected evolution of public debt expressed as a percentage of GDP for Finland**

Source: own conception, according to the elaborated methodology; primary data - Eurostat.

If we refer to Greece (see figure 6), the country massively affected by the public debt crisis, although the variations on models or scenarios do not seem worrying, not as explosive as in previous situations, however, the extremely high level reached in 2020, outlines a future of public debt for the period 2021-2027 between the values of about 175% and 240%. For this country, the ideal scenario level would be within a maximum of 200%-210% in the medium term (in the case study, of 7 year).



**Figure 6: Projected evolution of public debt expressed as a percentage of GDP for Greece**

Source: own conception, according to the elaborated methodology; primary data - Eurostat.

## Conclusions

The sovereign debt crisis in Europe, which resulted as a side effect of the global financial crisis in the United States between 2007 and 2008, seems to have a much more aggressive copy in the COVID-19 crisis, which disrupted public finances around the world in 2020. This crisis indicates today that the world's problems are beyond the epidemiological, medical sphere, a crisis of ethics, balance, normality, public finances feeling fully, the inability to quickly bend to new realities.

Identified in the past as growing problems, but neglected by some experts and authorities, climate but also social problems, inequities of any kind, natural cataclysms and climate imbalances seem to have an echo in EU funding to address them, and to achieve an economy as green as possible and to implement sustainable development targets. This is in line with the need to control the pandemic, with financial funding being allocated at EU level in line with the response to these combined challenges. Basically, EU funds support the catalysis of a wide range of opportunities amid the rapid but wise transition to a green economy that can mean that the economy can restructure in favor of producing higher value-added products, can better contribute to attracting investment, which will to better achieve the goals of sustainable development, through massive investments in supporting the use of renewable energy and in supporting digitalization, especially at local and rural level.

Of the overall volume of funding at EU level, funding for the environment and the transition to the green economy occupies at least 30% of this financial envelope (of € 1824.3 billion), with green spending also being to be kept to at least of 37% minimum of the overall amount for each Member State. At the same time, if we refer strictly to loans and share the 360 billion, allocated to the EU for repayable financing, at 37%, as strictly green loans, we get a volume of 133.2 billion Euros which if we share evenly the 27 of EU countries we get about 5 (exactly 4.9) billion Euros on average per country over the entire allocation period 2021-2027, more exactly, an additional debt on average over 700 million Euros per year per country. Thus, based on this information, the article is constructed so as to identify a series of logical forecasting models for the period 2021-2027 on the evolution of public debt expressed as a percentage of GDP, taking into account strictly the possible variants of green financing. The results of the public debt forecasts are presented graphically for EU27, EA19, Romania, France, Finland and Greece, and in the annex, the values obtained for the models considered the most important are presented.

The overall conclusion is that environmental indebtedness at EU27 level can put pressure on public indebtedness, as well as, through the multiplier effect, this impact could be substantially reduced. For the sake of methodological simplification, this aspect of multiplier effect was not taken into account in the present study. It should be noted that environmental indebtedness may or may not occur at the forecast level, taking into account that the values offered are those proposed and not those that will actually be accessed by Member States for this purpose. At the same time, the article does not take into account the effects of other influences, factors or shocks on public debt at EU level. The evolution of public debt is mainly based on the evolution of past public debt and less on the evolution of environmental indebtedness. The 60% sustainability threshold is still clearly violated by EU member states, and the additional “green” debt has a chance to decongest this situation, rather than inflame it, as it may seem at first glance.

## Future Directions

The study presents a lot of conceptual and empirical limitations and these can be analyzed in turn and corrected by future analyzes. The analysis can also be improved by an econometric study such as Box Jenkins ARIMA.

## Bibliography

National Committee for Macroprudential Supervision (2021), Analysis of the CNSM Working Group to support green financing, BNR report, Online at: [http://www.cnsmro.ro/res/ups/Report-CNSM-for-supporting-green-financing\\_PUB .pdf](http://www.cnsmro.ro/res/ups/Report-CNSM-for-supporting-green-financing_PUB.pdf).

EU high-level Expert Group on Sustainable Finance (2018). Financing a Sustainable European Economy. Final Report 2018 by the High-Level Expert Group on Sustainable Finance, Secretariat provided by the European Commission. Online: [https://ec.europa.eu/info/sites/default/files/180131-sustainable-finance-final-report\\_en.pdf](https://ec.europa.eu/info/sites/default/files/180131-sustainable-finance-final-report_en.pdf).

Gaspar, V., Amaglobeli, D., GarciaEscribano, M., Prady, D. and Soto M. (2019). Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs, IMF, staff discussion note., Washington , D.C.

Kettunen, M., Bowyer, C., Vaculova, L. and Charveriat, C. (2018) Sustainable Development Goals and the EU: uncovering the nexus between external and internal policies, Think2030 discussion paper, IEEP Brussels, [www.think2030.eu](http://www.think2030.eu).

New Energy Outlook 2020, Economic Transition Scenario, BloombergNEF.

\*\*\*<https://mfe.gov.ro/stadiul-absorbtiei-fondurilor-ue/>

\*\*\*<https://www.fonduri-structurale.ro/stiri/26601/rata-de-absorbtie-a-fondurilor-europene-in-romania-a-ajuns-la-55>.

\*\*\* <https://www.bruegel.org/2020/09/will-european-union-countries-be-able-to-absorb-and-spend-well-the-blocs-recovery-funding/>.

\*\*\*<https://www.digi24.ro/stiri/externe/ue/cum-se-impart-cele-80-de-miliarde-de-euro-pe-care-le-primeste-romania-de-la-uniunea-europeana-1341220>.

\*\*\*<https://www.fonduri-structurale.ro/2021-2027>

\*\*\*<https://sustainabledevelopment.un.org/hlpf/2021>

Table 1

**Forecasted evolution of the PDB (% of GDP) according to model 6, the PDB is initially constant, but takes into account the previous debt, GDP evolves after scenario 2, green debt decreases**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>EU27</b>	80.5	81.9	84.8	86.4	86.6	84.8	84.0	81.5	79.5	77.5	90.7	90.71	90.71	90.72	90.72	90.73	90.73	90.73
<b>EU19</b>	85.8	87.7	90.7	92.6	92.8	90.9	90.1	87.7	85.7	83.9	98.0	98.01	98.02	98.02	98.03	98.03	98.04	98.04
<b>EU18</b>	86.0	87.9	90.9	92.8	93.0	91.1	90.3	87.9	85.9	84.1	98.2	98.21	98.22	98.22	98.23	98.23	98.24	98.24
<b>BE</b>	100.3	103.5	104.8	105.5	107.0	105.2	105.0	102.0	99.8	98.1	114.1	114.29	114.49	114.65	114.79	114.91	115.00	115.09
<b>BG</b>	15.4	15.2	16.7	17.1	27.1	26.0	29.3	25.3	22.3	20.2	25.0	26.46	27.92	29.19	30.23	31.07	31.72	32.33
<b>CZ</b>	37.1	39.7	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.3	38.1	38.52	38.96	39.35	39.66	39.92	40.12	40.30
<b>DK</b>	42.6	46.1	44.9	44.0	44.3	39.8	37.2	35.9	34.0	33.3	42.2	42.48	42.76	43.00	43.20	43.37	43.50	43.63
<b>DE</b>	82.5	79.9	81.2	78.8	75.7	72.3	69.3	65.1	61.8	59.7	69.8	69.83	69.85	69.87	69.89	69.91	69.92	69.93
<b>EE</b>	6.6	6.1	9.8	10.2	10.6	10.0	9.9	9.1	8.2	8.4	18.2	21.32	24.28	26.76	28.87	30.58	31.89	33.09
<b>IE</b>	86.0	111.0	119.9	119.9	104.2	76.7	74.1	67.0	63.0	57.4	59.5	59.74	59.97	60.16	60.28	60.38	60.46	60.53
<b>GR</b>	147.5	175.2	161.9	178.4	180.2	177.0	180.8	179.2	186.2	180.5	205.6	206.19	206.80	207.35	207.84	208.26	208.61	208.95
<b>ES</b>	60.5	69.9	86.3	95.8	100.7	99.3	99.2	98.6	97.4	95.5	120.0	120.08	120.17	120.24	120.30	120.35	120.39	120.43
<b>FR</b>	85.3	87.8	90.6	93.4	94.9	95.6	98.0	98.3	98.0	97.6	115.7	115.74	115.78	115.81	115.84	115.86	115.88	115.90
<b>HR</b>	57.7	64.3	70.1	81.2	84.8	84.3	80.8	77.6	74.3	72.8	88.7	90.56	92.44	94.12	95.55	96.72	97.65	98.52
<b>IT</b>	119.2	119.7	126.5	132.5	135.4	135.3	134.8	134.1	134.4	134.6	155.8	155.86	155.91	155.96	156.00	156.04	156.07	156.09
<b>CY</b>	56.4	65.9	80.3	104.0	109.1	107.2	103.1	93.5	99.2	94.0	118.2	122.60	127.35	131.71	135.43	138.44	140.80	143.02
<b>LV</b>	47.9	43.7	42.2	40.0	41.6	37.1	40.4	39.0	37.1	37.0	43.5	46.30	49.02	51.36	53.34	54.98	56.26	57.45
<b>LT</b>	36.2	37.1	39.7	38.7	40.5	42.5	39.7	39.1	33.7	35.9	47.3	49.02	50.67	52.07	53.27	54.25	55.01	55.72
<b>LU</b>	20.2	19.0	22.0	23.7	22.7	22.0	20.1	22.3	21.0	22.0	24.9	26.27	27.58	28.66	29.56	30.30	30.89	31.45
<b>HU</b>	80.2	80.4	78.4	77.4	76.7	75.8	74.9	72.2	69.1	65.5	80.4	81.08	81.74	82.30	82.77	83.16	83.45	83.73
<b>MT</b>	65.3	69.3	65.9	65.8	61.6	55.9	54.2	48.5	44.8	42.0	54.3	60.78	66.79	71.64	75.35	78.37	80.58	82.63
<b>NL</b>	59.3	61.7	66.3	67.7	67.9	64.7	61.9	56.9	52.4	48.7	54.5	54.61	54.72	54.82	54.90	54.97	55.03	55.08
<b>AT</b>	82.7	82.4	81.9	81.3	84.0	84.9	82.8	78.5	74.0	70.5	83.9	84.13	84.36	84.56	84.73	84.86	84.97	85.08
<b>PL</b>	53.5	54.7	54.4	56.5	51.1	51.3	54.2	50.6	48.8	45.6	57.5	57.67	57.84	57.98	58.10	58.20	58.27	58.35
<b>PT</b>	100.2	114.4	129.0	131.4	132.9	131.2	131.5	126.1	121.5	116.8	133.6	134.07	134.52	134.93	135.27	135.55	135.77	135.98
<b>RO</b>	29.6	34.0	37.1	37.6	39.2	37.8	37.3	35.1	34.7	35.3	47.3	47.71	48.09	48.41	48.67	48.89	49.05	49.20
<b>SL</b>	38.3	46.5	53.6	70.0	80.3	82.6	78.5	74.1	70.3	65.6	80.8	82.76	84.71	86.39	87.81	88.98	89.90	90.76
<b>SK</b>	41.0	43.4	51.8	54.7	53.6	51.9	52.4	51.5	49.6	48.2	60.6	61.55	62.49	63.31	63.99	64.57	65.03	65.47
<b>FI</b>	46.9	48.3	53.6	56.2	59.8	63.6	63.2	61.2	59.7	59.5	69.2	69.58	69.94	70.27	70.55	70.78	70.96	71.14
<b>SE</b>	38.1	37.2	37.5	40.2	45.0	43.7	42.3	40.7	38.9	35.0	39.9	40.08	40.26	40.42	40.55	40.66	40.75	40.85

*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*

Table 2

**Forecasted developments of the DPB according to model 12, DPB increases according to the rate similar to the period 2014-2020, GDP evolves according to scenario 2, green debt decreases**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>EU27</b>	80.5	81.9	84.8	86.4	86.6	84.8	84.0	81.5	79.5	77.5	90.7	90.92	89.03	88.19	85.56	83.46	81.36	95.22
<b>EU19</b>	85.8	87.7	90.7	92.6	92.8	90.9	90.1	87.7	85.7	83.9	98.0	98.22	96.21	95.36	92.82	90.70	88.80	103.72
<b>EU18</b>	86.0	87.9	90.9	92.8	93.0	91.1	90.3	87.9	85.9	84.1	98.2	98.42	96.41	95.56	93.02	90.90	89.00	103.92
<b>BE</b>	100.3	103.5	104.8	105.5	107.0	105.2	105.0	102.0	99.8	98.1	114.1	115.92	113.97	113.72	110.45	108.05	106.19	123.49
<b>BG</b>	15.4	15.2	16.7	17.1	27.1	26.0	29.3	25.3	22.3	20.2	25.0	41.08	39.47	44.11	38.03	33.44	30.18	37.16
<b>CZ</b>	37.1	39.7	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.3	38.1	36.38	34.50	31.80	29.66	27.80	26.20	32.88
<b>DK</b>	42.6	46.1	44.9	44.0	44.3	39.8	37.2	35.9	34.0	33.3	42.2	42.77	38.45	35.92	34.63	32.78	32.07	40.60
<b>DE</b>	82.5	79.9	81.2	78.8	75.7	72.3	69.3	65.1	61.8	59.7	69.8	67.08	64.07	61.41	57.68	54.76	52.89	61.84
<b>EE</b>	6.6	6.1	9.8	10.2	10.6	10.0	9.9	9.1	8.2	8.4	18.2	22.04	20.80	20.14	18.35	16.35	16.29	33.68
<b>IE</b>	86.0	111.0	119.9	119.9	104.2	76.7	74.1	67.0	63.0	57.4	59.5	51.95	38.29	36.96	33.37	31.37	28.56	29.60
<b>GR</b>	147.5	175.2	161.9	178.4	180.2	177.0	180.8	179.2	186.2	180.5	205.6	208.26	204.60	208.92	207.01	215.01	208.37	237.29
<b>ES</b>	60.5	69.9	86.3	95.8	100.7	99.3	99.2	98.6	97.4	95.5	120.0	126.22	124.47	124.33	123.57	122.06	119.67	150.35
<b>FR</b>	85.3	87.8	90.6	93.4	94.9	95.6	98.0	98.3	98.0	97.6	115.7	117.60	118.46	121.43	121.80	121.42	120.92	143.34
<b>HR</b>	57.7	64.3	70.1	81.2	84.8	84.3	80.8	77.6	74.3	72.8	88.7	94.50	93.96	89.94	86.20	82.34	80.45	97.77
<b>IT</b>	119.2	119.7	126.5	132.5	135.4	135.3	134.8	134.1	134.4	134.6	155.8	159.27	159.15	158.55	157.72	158.07	158.30	183.23
<b>CY</b>	56.4	65.9	80.3	104.0	109.1	107.2	103.1	93.5	99.2	94.0	118.2	128.40	126.59	121.54	109.99	115.76	109.20	136.56
<b>LV</b>	47.9	43.7	42.2	40.0	41.6	37.1	40.4	39.0	37.1	37.0	43.5	48.04	43.06	46.28	44.39	41.98	41.52	48.49
<b>LT</b>	36.2	37.1	39.7	38.7	40.5	42.5	39.7	39.1	33.7	35.9	47.3	51.22	53.59	49.92	48.99	42.18	44.63	58.51
<b>LU</b>	20.2	19.0	22.0	23.7	22.7	22.0	20.1	22.3	21.0	22.0	24.9	25.22	24.42	22.20	24.33	22.80	23.71	26.72
<b>HU</b>	80.2	80.4	78.4	77.4	76.7	75.8	74.9	72.2	69.1	65.5	80.4	80.35	79.40	78.37	75.46	72.17	68.33	83.79
<b>MT</b>	65.3	69.3	65.9	65.8	61.6	55.9	54.2	48.5	44.8	42.0	54.3	57.32	52.14	49.58	43.74	39.98	36.88	46.85
<b>NL</b>	59.3	61.7	66.3	67.7	67.9	64.7	61.9	56.9	52.4	48.7	54.5	54.77	52.20	49.93	45.89	42.25	39.26	43.93
<b>AT</b>	82.7	82.4	81.9	81.3	84.0	84.9	82.8	78.5	74.0	70.5	83.9	86.92	87.84	85.65	81.18	76.50	72.87	86.69
<b>PL</b>	53.5	54.7	54.4	56.5	51.1	51.3	54.2	50.6	48.8	45.6	57.5	52.17	52.37	55.30	51.61	49.77	46.48	58.59
<b>PT</b>	100.2	114.4	129.0	131.4	132.9	131.2	131.5	126.1	121.5	116.8	133.6	135.59	133.86	134.10	128.55	123.81	118.98	136.05
<b>RO</b>	29.6	34.0	37.1	37.6	39.2	37.8	37.3	35.1	34.7	35.3	47.3	49.72	47.93	47.24	44.42	43.87	44.57	59.65
<b>SL</b>	38.3	46.5	53.6	70.0	80.3	82.6	78.5	74.1	70.3	65.6	80.8	94.65	97.29	92.29	86.96	82.32	76.64	94.13
<b>SK</b>	41.0	43.4	51.8	54.7	53.6	51.9	52.4	51.5	49.6	48.2	60.6	60.33	58.44	58.87	57.74	55.53	53.86	67.57
<b>FI</b>	46.9	48.3	53.6	56.2	59.8	63.6	63.2	61.2	59.7	59.5	69.2	74.01	78.68	78.14	75.63	73.74	73.45	85.39
<b>SE</b>	38.1	37.2	37.5	40.2	45.0	43.7	42.3	40.7	38.9	35.0	39.9	44.85	43.55	42.14	40.53	38.72	34.83	39.69

*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*

Table 3

**Forecasted developments of the DPB according to model 18, DPB decreases according to the rate similar to the period 2014-2020, GDP evolves according to scenario 2, green debt decreases**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>EU27</b>	80.5	81.9	84.8	86.4	86.6	84.8	84.0	81.5	79.5	77.5	90.7	90.50	92.38	93.25	96.02	98.38	100.85	83.67
<b>EU19</b>	85.8	87.7	90.7	92.6	92.8	90.9	90.1	87.7	85.7	83.9	98.0	97.80	99.80	100.68	103.36	105.71	107.93	89.79
<b>EU18</b>	86.0	87.9	90.9	92.8	93.0	91.1	90.3	87.9	85.9	84.1	98.2	98.00	100.00	100.88	103.55	105.91	108.13	90.00
<b>BE</b>	100.3	103.5	104.8	105.5	107.0	105.2	105.0	102.0	99.8	98.1	114.1	112.67	114.56	114.75	118.00	120.52	122.55	102.57
<b>BG</b>	15.4	15.2	16.7	17.1	27.1	26.0	29.3	25.3	22.3	20.2	25.0	11.84	12.26	10.70	11.76	12.83	13.77	10.61
<b>CZ</b>	37.1	39.7	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.3	38.1	40.67	42.79	46.05	48.98	51.91	54.74	40.69
<b>DK</b>	42.6	46.1	44.9	44.0	44.3	39.8	37.2	35.9	34.0	33.3	42.2	42.19	46.45	49.42	51.11	53.77	54.84	40.21
<b>DE</b>	82.5	79.9	81.2	78.8	75.7	72.3	69.3	65.1	61.8	59.7	69.8	72.57	75.83	78.97	83.75	87.99	90.98	75.59
<b>EE</b>	6.6	6.1	9.8	10.2	10.6	10.0	9.9	9.1	8.2	8.4	18.2	20.61	21.43	21.14	22.28	23.88	22.93	-2.40
<b>IE</b>	86.0	111.0	119.9	119.9	104.2	76.7	74.1	67.0	63.0	57.4	59.5	67.53	85.28	88.12	96.48	102.21	111.27	107.19
<b>GR</b>	147.5	175.2	161.9	178.4	180.2	177.0	180.8	179.2	186.2	180.5	205.6	204.11	207.75	203.25	204.97	196.92	202.86	174.69
<b>ES</b>	60.5	69.9	86.3	95.8	100.7	99.3	99.2	98.6	97.4	95.5	120.0	113.94	115.53	115.63	116.32	117.73	120.01	89.23
<b>FR</b>	85.3	87.8	90.6	93.4	94.9	95.6	98.0	98.3	98.0	97.6	115.7	113.88	113.04	110.20	109.86	110.19	110.63	90.12
<b>HR</b>	57.7	64.3	70.1	81.2	84.8	84.3	80.8	77.6	74.3	72.8	88.7	86.63	87.14	90.49	93.75	97.42	99.12	77.63
<b>IT</b>	119.2	119.7	126.5	132.5	135.4	135.3	134.8	134.1	134.4	134.6	155.8	152.45	152.56	153.12	153.90	153.55	153.32	129.17
<b>CY</b>	56.4	65.9	80.3	104.0	109.1	107.2	103.1	93.5	99.2	94.0	118.2	116.80	119.11	123.10	133.51	124.89	130.63	97.46
<b>LV</b>	47.9	43.7	42.2	40.0	41.6	37.1	40.4	39.0	37.1	37.0	43.5	44.56	48.99	44.51	45.60	47.39	47.15	39.00
<b>LT</b>	36.2	37.1	39.7	38.7	40.5	42.5	39.7	39.1	33.7	35.9	47.3	46.82	44.52	47.10	47.59	53.78	50.11	34.38
<b>LU</b>	20.2	19.0	22.0	23.7	22.7	22.0	20.1	22.3	21.0	22.0	24.9	27.32	28.05	30.14	26.79	28.12	26.68	23.21
<b>HU</b>	80.2	80.4	78.4	77.4	76.7	75.8	74.9	72.2	69.1	65.5	80.4	81.80	82.74	83.62	86.51	90.13	94.71	73.22
<b>MT</b>	65.3	69.3	65.9	65.8	61.6	55.9	54.2	48.5	44.8	42.0	54.3	64.25	69.12	69.88	75.58	80.36	84.40	60.16
<b>NL</b>	59.3	61.7	66.3	67.7	67.9	64.7	61.9	56.9	52.4	48.7	54.5	54.45	57.01	59.46	64.24	69.30	74.17	65.34
<b>AT</b>	82.7	82.4	81.9	81.3	84.0	84.9	82.8	78.5	74.0	70.5	83.9	81.35	80.47	82.43	86.67	91.60	95.90	77.68
<b>PL</b>	53.5	54.7	54.4	56.5	51.1	51.3	54.2	50.6	48.8	45.6	57.5	63.16	62.92	59.34	63.25	65.48	69.74	51.56
<b>PT</b>	100.2	114.4	129.0	131.4	132.9	131.2	131.5	126.1	121.5	116.8	133.6	132.54	134.22	133.86	139.28	144.29	149.80	128.28
<b>RO</b>	29.6	34.0	37.1	37.6	39.2	37.8	37.3	35.1	34.7	35.3	47.3	45.70	47.28	47.85	50.59	51.11	50.18	33.16
<b>SL</b>	38.3	46.5	53.6	70.0	80.3	82.6	78.5	74.1	70.3	65.6	80.8	70.87	68.89	71.94	75.62	79.17	84.14	64.80
<b>SK</b>	41.0	43.4	51.8	54.7	53.6	51.9	52.4	51.5	49.6	48.2	60.6	62.77	64.72	63.98	64.93	67.20	68.96	51.31
<b>FI</b>	46.9	48.3	53.6	56.2	59.8	63.6	63.2	61.2	59.7	59.5	69.2	65.14	61.02	61.36	63.24	64.74	64.91	54.35
<b>SE</b>	38.1	37.2	37.5	40.2	45.0	43.7	42.3	40.7	38.9	35.0	39.9	35.32	36.33	37.47	38.85	40.54	44.58	38.35

*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*

Table 4

Forecasted developments in public debt according to model 24, GDP increases at a similar rate to the period 2012-2018, GDP evolves after scenario 2, green debt decreases

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>EU27</b>	80.5	81.9	84.8	86.4	86.6	84.8	84.0	81.5	79.5	77.5	90.7	93.92	95.69	95.91	93.92	93.03	90.26	88.05
<b>EU19</b>	85.8	87.7	90.7	92.6	92.8	90.9	90.1	87.7	85.7	83.9	98.0	101.36	103.48	103.71	101.58	100.69	98.00	95.77
<b>EU18</b>	86.0	87.9	90.9	92.8	93.0	91.1	90.3	87.9	85.9	84.1	98.2	101.56	103.68	103.90	101.78	100.89	98.20	95.97
<b>BE</b>	100.3	103.5	104.8	105.5	107.0	105.2	105.0	102.0	99.8	98.1	114.1	115.73	116.50	118.12	116.11	115.87	112.54	110.11
<b>BG</b>	15.4	15.2	16.7	17.1	27.1	26.0	29.3	25.3	22.3	20.2	25.0	28.92	29.59	45.84	43.81	49.03	42.26	37.28
<b>CZ</b>	37.1	39.7	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.3	38.1	42.84	43.04	40.60	38.42	35.38	33.02	30.99
<b>DK</b>	42.6	46.1	44.9	44.0	44.3	39.8	37.2	35.9	34.0	33.3	42.2	41.38	40.55	40.79	36.64	34.22	33.00	31.25
<b>DE</b>	82.5	79.9	81.2	78.8	75.7	72.3	69.3	65.1	61.8	59.7	69.8	70.96	68.86	66.15	63.18	60.56	56.88	54.00
<b>EE</b>	6.6	6.1	9.8	10.2	10.6	10.0	9.9	9.1	8.2	8.4	18.2	32.36	33.39	34.11	31.94	31.25	28.45	25.67
<b>IE</b>	86.0	111.0	119.9	119.9	104.2	76.7	74.1	67.0	63.0	57.4	59.5	64.51	64.50	56.04	41.24	39.82	35.99	33.84
<b>GR</b>	147.5	175.2	161.9	178.4	180.2	177.0	180.8	179.2	186.2	180.5	205.6	190.58	209.97	212.02	208.20	212.59	210.64	218.85
<b>ES</b>	60.5	69.9	86.3	95.8	100.7	99.3	99.2	98.6	97.4	95.5	120.0	148.24	164.55	172.95	170.53	170.35	169.31	167.25
<b>FR</b>	85.3	87.8	90.6	93.4	94.9	95.6	98.0	98.3	98.0	97.6	115.7	119.43	123.12	125.09	126.01	129.17	129.56	129.16
<b>HR</b>	57.7	64.3	70.1	81.2	84.8	84.3	80.8	77.6	74.3	72.8	88.7	98.57	113.89	118.66	117.72	112.63	107.97	103.37
<b>IT</b>	119.2	119.7	126.5	132.5	135.4	135.3	134.8	134.1	134.4	134.6	155.8	164.71	172.52	176.28	176.15	175.49	174.57	174.96
<b>CY</b>	56.4	65.9	80.3	104.0	109.1	107.2	103.1	93.5	99.2	94.0	118.2	148.43	191.29	200.05	196.00	187.93	170.07	180.14
<b>LV</b>	47.9	43.7	42.2	40.0	41.6	37.1	40.4	39.0	37.1	37.0	43.5	44.81	42.53	43.76	38.90	41.85	40.11	38.12
<b>LT</b>	36.2	37.1	39.7	38.7	40.5	42.5	39.7	39.1	33.7	35.9	47.3	52.34	50.98	53.03	55.38	51.60	50.61	43.67
<b>LU</b>	20.2	19.0	22.0	23.7	22.7	22.0	20.1	22.3	21.0	22.0	24.9	30.20	32.36	30.83	29.74	27.08	29.82	28.08
<b>HU</b>	80.2	80.4	78.4	77.4	76.7	75.8	74.9	72.2	69.1	65.5	80.4	79.08	78.06	77.27	76.27	75.29	72.50	69.38
<b>MT</b>	65.3	69.3	65.9	65.8	61.6	55.9	54.2	48.5	44.8	42.0	54.3	58.12	57.57	53.12	47.51	45.48	40.22	37.15
<b>NL</b>	59.3	61.7	66.3	67.7	67.9	64.7	61.9	56.9	52.4	48.7	54.5	58.68	59.91	60.07	57.23	54.75	50.32	46.34
<b>AT</b>	82.7	82.4	81.9	81.3	84.0	84.9	82.8	78.5	74.0	70.5	83.9	83.62	83.01	85.73	86.61	84.45	80.04	75.45
<b>PL</b>	53.5	54.7	54.4	56.5	51.1	51.3	54.2	50.6	48.8	45.6	57.5	57.35	59.56	53.86	54.04	57.08	53.27	51.37
<b>PT</b>	100.2	114.4	129.0	131.4	132.9	131.2	131.5	126.1	121.5	116.8	133.6	151.12	153.91	155.61	153.56	153.85	147.49	142.10
<b>RO</b>	29.6	34.0	37.1	37.6	39.2	37.8	37.3	35.1	34.7	35.3	47.3	52.02	52.69	54.85	52.85	52.10	48.99	48.42
<b>SL</b>	38.3	46.5	53.6	70.0	80.3	82.6	78.5	74.1	70.3	65.6	80.8	95.10	123.58	141.21	144.95	137.58	129.68	123.02
<b>SK</b>	41.0	43.4	51.8	54.7	53.6	51.9	52.4	51.5	49.6	48.2	60.6	73.28	77.32	75.66	73.15	73.74	72.37	69.69
<b>FI</b>	46.9	48.3	53.6	56.2	59.8	63.6	63.2	61.2	59.7	59.5	69.2	77.17	80.89	86.00	91.40	90.78	87.87	85.71
<b>SE</b>	38.1	37.2	37.5	40.2	45.0	43.7	42.3	40.7	38.9	35.0	39.9	40.40	43.29	48.42	47.01	45.48	43.74	41.82

Source: own conception, according to the elaborated methodology; primary data - Eurostat.

Table 5

**Forecasted evolutions of public debt according to model 30, PDB decreases according to the rate similar to the period 2012-2018, GDP evolves after scenario 2, green debt decreases**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>EU27</b>	80.5	81.9	84.8	86.4	86.6	84.8	84.0	81.5	79.5	77.5	90.7	87.50	85.84	85.64	87.42	88.25	90.87	93.10
<b>EU19</b>	85.8	87.7	90.7	92.6	92.8	90.9	90.1	87.7	85.7	83.9	98.0	94.66	92.67	92.47	94.36	95.19	97.73	99.96
<b>EU18</b>	86.0	87.9	90.9	92.8	93.0	91.1	90.3	87.9	85.9	84.1	98.2	94.86	92.87	92.67	94.56	95.39	97.93	100.16
<b>BE</b>	100.3	103.5	104.8	105.5	107.0	105.2	105.0	102.0	99.8	98.1	114.1	112.86	112.11	110.49	112.32	112.51	115.70	118.19
<b>BG</b>	15.4	15.2	16.7	17.1	27.1	26.0	29.3	25.3	22.3	20.2	25.0	23.99	23.45	10.40	10.54	9.14	10.08	11.15
<b>CZ</b>	37.1	39.7	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.3	38.1	34.21	34.06	35.91	37.70	40.57	43.15	45.77
<b>DK</b>	42.6	46.1	44.9	44.0	44.3	39.8	37.2	35.9	34.0	33.3	42.2	43.58	44.44	44.10	48.52	51.65	53.41	56.23
<b>DE</b>	82.5	79.9	81.2	78.8	75.7	72.3	69.3	65.1	61.8	59.7	69.8	68.69	70.72	73.50	76.79	79.98	84.82	89.12
<b>EE</b>	6.6	6.1	9.8	10.2	10.6	10.0	9.9	9.1	8.2	8.4	18.2	10.28	9.83	9.08	9.08	8.76	8.92	9.57
<b>IE</b>	86.0	111.0	119.9	119.9	104.2	76.7	74.1	67.0	63.0	57.4	59.5	54.97	54.96	62.08	78.35	80.99	88.71	93.99
<b>GR</b>	147.5	175.2	161.9	178.4	180.2	177.0	180.8	179.2	186.2	180.5	205.6	221.79	199.28	197.21	200.64	196.28	197.93	190.21
<b>ES</b>	60.5	69.9	86.3	95.8	100.7	99.3	99.2	98.6	97.4	95.5	120.0	91.93	81.82	77.63	78.69	78.76	79.23	80.19
<b>FR</b>	85.3	87.8	90.6	93.4	94.9	95.6	98.0	98.3	98.0	97.6	115.7	112.05	108.59	106.84	106.05	103.38	103.06	103.37
<b>HR</b>	57.7	64.3	70.1	81.2	84.8	84.3	80.8	77.6	74.3	72.8	88.7	82.56	69.79	66.59	66.72	69.18	71.62	74.58
<b>IT</b>	119.2	119.7	126.5	132.5	135.4	135.3	134.8	134.1	134.4	134.6	155.8	147.00	140.03	136.96	137.06	137.56	138.27	137.96
<b>CY</b>	56.4	65.9	80.3	104.0	109.1	107.2	103.1	93.5	99.2	94.0	118.2	96.77	69.86	66.28	66.71	68.42	73.85	69.35
<b>LV</b>	47.9	43.7	42.2	40.0	41.6	37.1	40.4	39.0	37.1	37.0	43.5	47.80	50.05	47.79	52.33	47.52	48.76	50.97
<b>LT</b>	36.2	37.1	39.7	38.7	40.5	42.5	39.7	39.1	33.7	35.9	47.3	45.71	46.74	44.40	42.07	44.55	44.98	51.03
<b>LU</b>	20.2	19.0	22.0	23.7	22.7	22.0	20.1	22.3	21.0	22.0	24.9	22.34	20.65	21.25	21.69	23.32	20.70	21.84
<b>HU</b>	80.2	80.4	78.4	77.4	76.7	75.8	74.9	72.2	69.1	65.5	80.4	83.08	84.11	84.77	85.66	86.59	89.61	93.42
<b>MT</b>	65.3	69.3	65.9	65.8	61.6	55.9	54.2	48.5	44.8	42.0	54.3	63.45	63.06	65.54	70.02	71.34	77.73	83.31
<b>NL</b>	59.3	61.7	66.3	67.7	67.9	64.7	61.9	56.9	52.4	48.7	54.5	50.55	49.48	49.32	51.63	53.85	58.18	62.77
<b>AT</b>	82.7	82.4	81.9	81.3	84.0	84.9	82.8	78.5	74.0	70.5	83.9	84.64	85.26	82.40	81.49	83.47	87.77	92.79
<b>PL</b>	53.5	54.7	54.4	56.5	51.1	51.3	54.2	50.6	48.8	45.6	57.5	57.98	55.75	61.04	60.78	57.33	61.11	63.27
<b>PT</b>	100.2	114.4	129.0	131.4	132.9	131.2	131.5	126.1	121.5	116.8	133.6	117.01	114.84	113.48	114.86	114.54	119.17	123.50
<b>RO</b>	29.6	34.0	37.1	37.6	39.2	37.8	37.3	35.1	34.7	35.3	47.3	43.40	42.79	40.92	42.32	42.82	45.28	45.78
<b>SL</b>	38.3	46.5	53.6	70.0	80.3	82.6	78.5	74.1	70.3	65.6	80.8	70.42	49.47	42.20	40.79	42.49	44.55	46.73
<b>SK</b>	41.0	43.4	51.8	54.7	53.6	51.9	52.4	51.5	49.6	48.2	60.6	49.82	47.08	47.88	49.24	48.66	49.37	51.15
<b>FI</b>	46.9	48.3	53.6	56.2	59.8	63.6	63.2	61.2	59.7	59.5	69.2	61.98	58.99	55.19	51.65	51.93	53.52	54.82
<b>SE</b>	38.1	37.2	37.5	40.2	45.0	43.7	42.3	40.7	38.9	35.0	39.9	39.76	36.91	32.50	33.41	34.46	35.73	37.31

*Source: own conception, according to the elaborated methodology; primary data - Eurostat.*



# FREE TRADE AREAS AND THE FISCAL HAVEN

*PhD Edith Mihaela Dobrescu<sup>2</sup>*

*Professor PhD Emilian M. Dobrescu<sup>3</sup>*

## **Abstract:**

*The paper summarizes the characteristics and evolution trends registered by the most significant free trade areas and tax havens in the period 2020-2021.*

*The paper highlights the special experiences of the free trade areas of Braila (Romania) and the free international port of Giurgiulesti (Republic of Moldova), as well as the creation of a free trade area by the GUAM group (Georgia, Ukraine, Republic of Azerbaijan and the Republic of Moldova).*

*Regarding the tax havens, the paper highlights the legislative effervescence of the European Commission, which in addition to the blacklist of tax havens has adopted a new legislative project that seeks to strengthen the rules against money laundering.*

**Keywords:** Free trade areas, Fiscal Havens, GUAM

**JEL classification:** E60, E62, E69, F38

## **Introduction**

The EU Parliament and Council reached a political agreement on 1 June 2021 on strengthening the fiscal transparency of multinationals. Thus, multinationals with an annual turnover of over EUR 750 million are required to declare their profits, number of employees and amount of taxes in each of the EU Member States in which they operate, as well as in the blacklisted jurisdictions EU tax havens. The new European directive has been proposed in response to a number of international tax scandals, such as the legendary Panama Papers. "Tax avoidance and aggressive tax planning by large multinationals are estimated to deprive EU countries of annual revenues of more than € 50 billion; such practices are facilitated by the absence of any obligation for large multinational companies to report, for each country, where they make their profits and where they pay their taxes in the EU "- said Pedro Siza Vieira, Portuguese Minister of Economy and Transition speaking on behalf of the Council, whose rotating presidency is held by Portugal.

## **Description of the Problem**

### **Brăila – fiscal haven through state aid**

The "Universal Liting" group received in 2017, from the Romanian state, a grant of 1.3 million euros for the factory opened in Brăila on the site of the former Armonia Shopping Center, specialized in the production of lamps, lamps and other electric lighting products housing, especially based on LED technology. The entire production line of the investment group targets both its partners in Romania and the rest of Europe, and currently, the factory has approximately 110 employees. Investors benefit from a number of facilities from local authorities: the start of

---

<sup>2</sup> Scientific Researcher grade III at Institute for World Academy, Romanian Academy, Calea 13 September no.13, Sector 5, Bucharest, Romania, e-mail: edithdobrescu@gmail.com

<sup>3</sup> Titular Member of the Academy of Scientists, Romania, e-mail: dobrescu@acad.ro

procedures for granting the status of industrial park (which involves a number of tax facilities including the payment of local taxes), rehabilitation of access roads, support for employee transport, support in relations with utility providers”.

Liting Universal Group is a Chinese company, with a turnover of 80 million dollars, and “Glorious Lighting” SRL from Brăila, established on March 17, 2017, has as sole partner the legal entity “Liting Universal” from Shanghai, China, “ Liting Universal ”invested 17 million euros in Brăila, where it inaugurated in mid-May 2019, a factory specialized in the production of lighting fixtures, transmitted on May 17, 2019, the Ministry for Business Environment, Trade and Entrepreneurship ( MMACA), through a press release. According to the ministry, the event took place in the presence of Secretary of State Paula Pîrvănescu, and the new production unit of the company "Glorious Lighting" SRL will employ, in a first phase, 200 people. The company "Glorious Lighting" plans to invest another 15 million Euros by 2024 and reach a number of 800 employees, MMACA also informed.

Paula Pîrvănescu stated at the event: “The decision of the Chinese group “Universal Liting ”to expand on the Romanian market is, in my opinion, a positive signal for the international business environment, a proof, by the power of example, that in Romania they can implement and develop viable projects, because we are a credible partner for the development of successful businesses ”.

With the completion of the factory, Brăila also becomes the location of the European Center for Production, but also the company's Hub for operations in other regions of Europe. In 2016, Invest Romania had the first discussions with the group's representatives, in order to analyze its expansion in Europe. “Following the visits that took place in Romania and in other European countries, our country was chosen for the implementation of this project. The Invest Romania team within MMACA provided technical assistance to the group throughout the decision-making process, organizing visits to the country and meetings with decision-makers at the local administration level ”, Ms. Pîrvănescu also stated.

## **Creating a free trade area in GUAM**

GUAM is a regional development initiative of four states: Georgia, Ukraine, the Republic of Azerbaijan and the Republic of Moldova. The organization promotes the development of cooperation between the four states to strengthen stability and security in Europe. The four GUAM member countries are looking for solutions to identify ways to simplify the movement of people and goods in the GUAM area. The topic was discussed at the plenary meeting of the Heads of Government of the GUAM member states, held in Chisinau on December 12, 2019, which was also attended by the Prime Minister of the Republic of Moldova, Ion Chicu.

"I welcome the pragmatic approach launched ... I think we need more concretely formulated objectives. We are ready to work and communicate intensely. The goal of creating a free trade area is one that is worth moving towards and we believe that all states will benefit, "said Ion Chicu. At the meeting, the customs administrations of the GUAM Member States signed two protocols of intent: one on the operation and mutual recognition of authorized economic operators; another on the authorization of block chain technologies in the process of verifying certificates of origin for goods crossing the borders of GUAM states.

## **Removal of the Belize Islands from the blacklist...**

The blacklist of fiscal havens, i.e. those that do not comply with the tax regime of double tax conventions, was created by the EU in late 2017 as part of the fight against tax evasion following revelations such as Panama Papers and Paradise Papers regarding the use of legal loopholes by companies and individuals to avoid paying taxes. European experts needed in the period 2016-2017, almost a year, to evaluate a number of 92 jurisdictions around the world so that in December 2017 the Ministers of Finance of the Member States of the European Union to announce that they have adopted a list tax havens, which then included 17 non-EU jurisdictions that do not cooperate on tax matters. Work on the EU list of non-cooperating jurisdictions is a dynamic process. The EU

Council will continue to regularly review and update the list during 2019 and has already called for a more stable process from 2020 (two updates per year).

In early November 2019, European Union finance ministers decided to remove Belize from the blacklist of tax havens. As a result of this decision, 9 jurisdictions still remain on the list of non-cooperating jurisdictions: Fiji, Guam, Oman, Samoa and American Samoa, Trinidad and Tobago, Vanuatu, the US Virgin Islands. The United Arab Emirates and the Marshall Islands also received - we failed to find out when - the status of cooperating tax havens...

## **Corporate fiscal taxes**

Although the small EU states welcomed the above agreement under the auspices of the G7 on June 5, 2021, several criticisms were expressed: "Any agreement will have to meet the needs of small and large countries," wrote Paschal Donohoe, Minister of Foreign Affairs. Finance of Ireland and president of the Eurogroup, on Twitter, showing that a wider international agreement should bring together "139 countries". The Netherlands also supports the G7 plans and has already taken steps to stop tax evasion, according to Hans Vijlbrief, the Netherlands' deputy finance minister.

"Europe's tax havens have no interest in giving in," said Sven Giegold, a member of Germany's Green Party, about countries such as Ireland and Cyprus. According to him, these states have developed by offering companies lower rates through the so-called "mailbox centers", where they can register profits without having a significant presence.

Ireland, Luxembourg and the Netherlands welcomed the changes, and Cyprus is reluctant: "Small EU member states should be recognized and taken into account," said Cyprus Finance Minister Constantinos Petrides. The Netherlands, Luxembourg, Ireland and Cyprus are among the world's most prominent tax havens, although France, Spain and Germany are also on this list.

Tensions at European level over this sector have deeper roots, after several documents were made public in 2015, which showed that Luxembourg helped more companies channel their profits while paying lower or lower taxes place. Since then, Margrethe Vestager, vice-president for the digital age of the European Commission, has launched a campaign to combat these practices and opened investigations into the Finnish company Huhtamaki, to pay taxes retroactively to Luxembourg and the Dutch tax treatment of Inter IKEA and Nike. The Netherlands and Luxembourg have denied any breach of EU rules. In January 2021, the Netherlands introduced a rule for taxing royalties and interest paid by Dutch companies to jurisdictions where corporate income tax is less than 9%.

## **The law of fiscal havens is unconstitutional**

On February 10, 2021, the Constitutional Court of Romania (CCR) unanimously admitted the votes of the President Klaus Johannes and the Government regarding the Law on the derogatory fiscal regime for the lands from islands and ridges. The regulation is unconstitutional as a whole, the CCR decided. The complaints of unconstitutionality formulated by the Government of Romania and, respectively, by the President of Romania, regarding the unconstitutionality of the Law on some measures of derogatory fiscal regime applicable to certain lands, constructions built on them and certain authorized economic activities. Deliberating its decision, the Court decided unanimously to admit the objections of unconstitutionality and found that the Law on certain measures of derogatory tax regime applicable to certain lands, buildings built on them and certain authorized economic activities is unconstitutional as a whole.

The law was initiated by former PSD senator Șerban Nicolae, who was accused by right-wing parliamentarians of drafting it with dedication for Belina Island, which came during the PSD-ALDE government under the administration of relatives of former Social Democrat leader Liviu Dragnea: the regulation provides, inter alia, for a 50% reduction in local taxes and duties on construction and economic activities on islands and ridges. In his notification, President Klaus Iohannis specified that the imposition of these derogations from the Fiscal Code is likely to lead to a reduction of

revenues to the state budget, which, according to the provisions of the Constitution, necessarily requires the indication of the source of funding; the president also mentioned that for this normative act only the point of view of the Government was requested, not the obligatory financial statement. The explanatory memorandum of the criticized law did not detail the budgetary impact of the expected legislative solutions, the head of state also explained.

In his opinion, the law creates both a violation of the principle of free competition in the market economy and a double discrimination: on the one hand, between those who own property or who operate on islands, ridges and other areas of dry land with an area of more than 35 hectares with potential for economic exploitation resulting from actions or natural changes of the territory or through hydro technical arrangement works and other persons, who carry out their activity in other areas; on the other hand, between the persons who carry out activities of renewable energy production, tourism, leisure, public alimentation, retail trade and related services and the persons who carry out other type of economic activities, on these lands.

## **List of uncooperative fiscal havens**

This list was created in December 2017 and was revised in March 2019, following an in-depth analysis of the implementation of the commitments made by the jurisdictions of third countries involved in this process. Then, the finance ministers of the member states of the European Union decided on May 17, 2019 to remove Aruba, Barbados and Bermuda from the black list of tax havens adopted by the EU.

Barbados has made high-level political commitments to address the EU's concerns about replacing harmful preferential arrangements on the island with a measure with equivalent effect, while Aruba and Bermuda have already implemented their commitments. For its part, Bermuda also announced that it remains committed to addressing the concerns expressed by the EU in the field of mutual funds.

As a result of the above decision, 12 jurisdictions remained on the list of uncooperative tax havens in May 2019: Belize, Dominica, Fiji, Guam, the Marshall Islands, Oman, Samoa and American Samoa, Trinidad and Tobago, Vanuatu and the US Virgin Islands.

## **Luxembourg fiscal haven**

Six years after the LuxLeaks scandal, a group of European media organizations, including the French from Le Monde and the Germans from the Süddeutsche Zeitung, published new revelations on February 8, 2021 showing that Luxembourg continues to play the role of a tax haven for approx. 55,000 phantom companies created by multinationals, billionaires, artists, sportsmen, but also by mafia groups: "Luxembourg rejects the statements made in these articles, as well as the completely unjustified portrayal of the country and its economy", the government said in this tax haven in a statement, which combats allegations about the quality of its anti-money laundering rules. The publication group also announced that it will publish the survey called "OpenLux" in the form of a series broadcast on the week of February 8-14, 2021.

Among those listed by Le Monde as enjoying serious tax benefits are American athlete Tiger Woods, Colombian singer Shakira, American actors Angelina Jolie and Brad Pitt, the Hermes family, the Crown Prince of Saudi Arabia and three-quarters of the companies listed by CAC-40, the main index of the Paris Stock Exchange. The list also includes leading French companies, such as Decathlon, JCDecaux or Yves Rocher: "Hundreds of multinationals (LVMH, Kering, KFC, Amazon) have opened financial subsidiaries in Luxembourg. Wealthy families use their real estate patrimony here ", writes Le Monde in its digital edition.

At the same time, the OpenLux investigation reveals the existence of funds of dubious origin, which could be related to criminal activities in which the Russian and Calabrian mafias are involved. Even the far-right Italian party, Liga, has an account in Luxembourg targeted by the authorities in Rome, as well as people close to the Venezuelan regime, who allegedly hid funds

from public contracts affected by corruption: "These investigations confirm that the Grand Duchy "Despite what the Luxembourg authorities say, it is a real offshore center, something between the City of London and the British Virgin Islands: about 90% of companies are controlled by non-Luxembourgers," writes Le Monde. The publications that took part in this survey said that the investigation was possible thanks to the European Union Directive of 2018 which required the creation of public registers of real property and companies in all Member States.

Luxembourg was also the subject of a similar press investigation in 2014 - LuxLeaks, through which 40 media outlets published documents which revealed, among other things, that 340 international companies had arranged with the Luxembourg authorities special corporate structures for preferential taxation; Following those revelations, Luxembourg - along with the Netherlands and Ireland - was involved in a controversy over the tax advantages granted to multinationals, and the European Commission launched several investigations into the tax facilities granted by Luxembourg to certain companies.

In June 2014, the European Commission initiated an infringement procedure against this country, requesting information about the taxation of Amazon in the Duchy. The Luxembourg authorities at that time refused to provide all the information requested. In 2016, the first lawsuit from LuxLeaks appeared - the people who provided the media with the financial documents from which the 2014 investigation started were sued!

## **Monaco fiscal haven**

On January 8, 1297, Francesco Grimaldi, a descendant of a Guelph from Genoa, a partisan of the Pope, ambassador to the court of Frederick I Barbarossa and the Emir of Morocco, landed on the rocky shore of the current Principality of Monaco.

Francesco (François) Grimaldi, nicknamed "the cunning", is the Genoese ancestor of the current ruling family who took over Monaco by a ruse: on January 8, 1297 Francesco Grimaldi, disguised as a Franciscan monk, asks for accommodation for a night inside the fortress. At night he opened the gates of the fortress to his small army waiting outside.

In 1997, 700 years of the Grimaldi dynasty were celebrated in Monaco: the Grimaldi family is one of the oldest dynasties in the world. Today the Principality of Monaco is a "tax haven", in which the income tax was abolished by a decree issued in 1969.

## **Giurgiulesti Free International Port**

In this free zone, on the territory of the Republic of Moldova, a factory for processing sunflower seeds will be built. The capacity of the complex will allow the processing of 700 tons of sunflower within 24 hours. For the realization of the project on November 25, 2019, the lease agreement for the port land was signed, for a period of 45 years, between Trans-Oil Group-Danube Oil Company and ICS Danube Logistics and, at the same time, the delivery agreement was concluded. of the press with the world leader HF GROUP.

Equipment suppliers for the new plant will be the world's top manufacturers using the latest technology. The factory will comply with all European quality standards as well as environmental standards and will produce refined pressed sunflower oil as well as granulated grated;

The resulting sunflower husks can be sold domestically in granular form. As a related production, the plant will produce phosphate (used extensively in the food industry) as well as ashes (used by farmers to improve soil characteristics). Trans-Oil Group President Vazha Jashi said he applies decisions to implement new technologies in all areas of his business.

The new plant operates integrated with the existing port infrastructure of the Trans-Oil Group, being the third plant of the Trans-Oil Group that produces sunflower oil in the Republic of Moldova; the largest factory of the three operates in Balti.



## **Royal Bank of Canada abandons operations in some fiscal havens...**

In early December 2019, the Royal Bank of Canada (RBC) signed an agreement to sell its banking operations in the Eastern Caribbean to a consortium of banks based in the region. The agreement includes branches in Antigua, Dominica, Montserrat, St. Lucia and St. Kitts & Nevis. The agreement also includes the regional operations of RBC Royal Bank Holdings (EC) Ltd. in Nevis, Grenada and St. Vincent & Grenadine.

The consortium that took over RBC's operations consists of five financial institutions: 1st National Bank of St. Lucia, Antigua Commercial Bank Ltd., National Bank of Dominica Ltd., Bank of Montserrat and Bank of Nevis Ltd.

## **EU - Strengthen anti-money laundering rules**

On July 20, 2021, the European Commission presented this new legislative project. The key is the establishment of a new EU authority that will transform the supervision of the fight against money laundering and terrorist financing into the EU and strengthen cooperation between Financial Intelligence Units (FIUs). This new anti-money laundering authority at EU level - AMLA - will be the central authority that will coordinate national authorities to ensure that the private sector applies EU rules correctly and consistently. AMLA will also help financial intelligence units improve their ability to analyze illicit flows and turn financial information into a key source for law enforcement agencies. The future anti-money laundering authority would become operational in 2024 and will start its direct supervision activity a little later, as soon as the directive is transposed and the new regulatory framework will start to apply.

The decision to set up AMLA was taken after Brussels found that the European Banking Authority (EBA), which had jurisdiction over it, had failed to prevent scandals involving financial institutions in Denmark, Estonia and Germany since 2018. Latvia, Malta, the Netherlands and Sweden, has demonstrating the inability of the EBA to combat this criminal phenomenon.

The legislative package contains four distinct proposals: a) a regulation establishing a new EU anti-money laundering and anti-terrorist financing authority; b) a regulation on AML / CFT (combating money laundering and terrorist financing), which includes directly applicable rules, including in the field of customer precautionary requirements and the requirements for real beneficiaries; c) the Sixth Anti-Money Laundering and Terrorist Financing Directive, which replaces the current Directive in force and contains provisions to be transposed into national law, such as the rules on national supervisory authorities and financial intelligence units in the Member States; d) the revision of the 2015 Regulation on transfers of funds, meant to allow the tracking of crypto currency transfers (Regulation 2015/847 / EU).

The Commission proposes a ceiling of € 10,000 at EU level for large cash payments. This ceiling at EU level is, the Commission says, high enough not to call the euro into question as a legal means of payment and recognizes the vital importance of cash payments. About two thirds of Member States already provide for such ceilings, but their amount varies from one state to another. National ceilings below 10,000 Euros may remain in force. Limiting large cash payments makes it difficult for criminals to launder dirty money. In addition, the provision of anonymous wallets for crypto currencies will be banned, and EU AML / CFT rules already prohibit anonymous bank accounts.

The single EU regulatory framework for combating money laundering and terrorist financing will harmonize AML / CFT rules across the EU, including, for example, more detailed rules on customer and beneficiary caution, as well as the powers and tasks of supervisors and financial intelligence units (FIUs).

Existing national bank account registers will be connected, giving FIU faster access to bank account information and safes. The Commission will also provide law enforcement with access to this system, accelerating financial investigations and recovering assets from cross-border crime.

Access to financial information will be subject to the strong guarantees provided for in Directive (EU) 2019/1153 on the exchange of financial information.

Currently, only certain categories of crypto active service providers are included in the scope of EU AML / CFT rules. The proposed reform will extend these rules to the entire crypto currency sector, forcing all service providers to apply precautions to their customers.

## Conclusions

The system of tax havens creates a series of disastrous consequences that undermine trust in democracy: it erodes collective morality on the duty to pay taxes, redirects trade and investment flows, creates unfair asymmetries between some companies and their competition, shifts capital to other territories, corrupts intermediaries and encourages a passive attitude by professional associations that engage in ethical relativism.

Tax havens have negative effects on both industrialized and developing countries, but the harmful impact is greatest in developing countries. This is due in part to the fact that these countries are poor and therefore have a greater need to protect their national tax base, and on the other hand, because they generally have weaker institutions and, through therefore, fewer opportunities to enforce the laws and regulations it adopts.

It is important for society to pay attention to corrupt practices, taxes and how multinational companies and government officials avoid paying taxes and hide the proceeds of corruption using "legal havens". Legislation to prevent corruption, tax evasion and avoidance or money laundering can be very good tools, but they do not matter if the law is interpreted or implemented in a way that allows illicit practices or is not enforced.

## Selected Bibliography

Cobham, A., & Garcia-Bernardo, J.(2020).Time for the EU to close its own tax havens. *Tax Justice Network*,4.

Dharmapala, D. (2020). Do Multinational Firms Use Tax Havens to the Detriment of Other Countries? *University of Chicago Coase Sandor Institute for Law & Economics Research Paper*, (910).

Fuest, C., Hugger, F., & Neumeier, F.(2021). Corporate Profit Shifting and the Role of Tax Havens: Evidence from German Country-By-Country Reporting Data.

Garcia-Bernardo, J., Janský, P., & Tørsløv, T (2021), Multinational corporations and tax havens: evidence from country-by-country reporting. *International Tax and Public Finance*, 1-43.

Jakinski, P. (2020), European banks and tax havens: evidence from country-by-country reporting Applied economics, Taylor&Francis

Lee, D. (2020). Corporate social responsibility of US-listed firms headquartered in tax havens. *Strategic Management Journal*,41(9), 1547-1571.

Unger, B., Rossel, L., & Ferwerda, J. (2021), *Combating Fiscal Fraud and Empowering Regulators: Bringing tax money back into the COFFERS* (p. 368), Oxford University Press.

Văsiescu, A.,(2019),The Royal Bank of Canada has sold its operations in the Caribbean, Bursa, 16 dec.2019

\*\*\*, (2021), Transilvania Reporter, EuroNewsletter, # 137

\*\*\*, (2019), the Chinese group "Universal Liting" invested 17 million euros in Brăila, in newspaper Bursa,

\*\*\*, (2021), Tensions between several European countries on the global agreement on corporate taxation, in Forbes Magazine

\*\*\*, (2019), Trans oil starts the construction of an oil factory on the territory of Giugulești port, in the newspaper Timpul

\*\*\*, (2021), the EU presents its new anti-money laundering legislation in the online newspaper Governance Course

# THE INCLUSION OF YOUNG NEETS IN THE LABOR MARKET CORRESPONDING TO NEW ASPECTS OF LABOR

Monica Florica Dutcaş<sup>4</sup>

Denisa-Gabriela Grosu<sup>5</sup>

**Abstract:** *The paper proposes the theme of integrating young NEETs into the labor market, conducting a qualitative and quantitative analysis of the main factors involved in the process, namely education, work and life skills and technology. The paper also aims to identify the main difficulties encountered by NEET youth in the labor market in Romania and the Member States of the European Union and to facilitate their access and integration into the labor market. In the context of the pandemic, the paper highlights some aspects of the labor market and the skills that young people need to acquire in order to overcome the critical moment of crisis. Finally, possible solutions will be identified to overcome the crisis created, to manage youth unemployment among NEETs, in line with the atypical aspects of the labor market.*

**Keywords:** *NEET youth, labor market, unemployment, employment, labor market policies*

**JEL classification:** E24, J64, J21

## Introduction

NEETs are a vulnerable group in the labor market, have no work experience and integration into the labor market can be a more difficult process. Analyzing the main factors involved in the integration of young people into the labor market, the paper can highlight aspects of the labor market and the necessary skills that young people must acquire. Young people with a lower level of education can benefit from information on some educational opportunities to which they can be directed, and young people with a higher level of education can be directed to vocational training centers and programs. Thus, young NEETs can have access to a job more easily and quickly, overcoming the difficult moments, amplified by the pandemic with the Covid-19 virus.

## Conceptual and contextual framework of research

The active population on the labor market is made up of people between the ages of 15 and 64. Young people represent an irreplaceable labor force on the labor market, they are agile and with multiple kind of skills, but at the same time they are even more at risk of not integrating in to the labor market than the other categories of active labor force.

NEET is an acronym for 'not employed, in education or training', used to refer to the situation of many young people between the ages of 15 and 29 in Europe. The aim of the NEET concept is to broaden the understanding of the vulnerable status of young people and to better monitor their problematic access to the labor market. " (Eurofound, 2021) Young NEETs may face difficulties in the labor market, especially if they do not have an educational background. Education can be one

---

<sup>4</sup> Scientific Researcher, PhD Student, Financial and Monetary Research Center of the Romanian Academy "Victor Slavesu", Bucharest, Romania, email: monica.dutcas@finders.ro

<sup>5</sup> Scientific Research Assistant, Financial and Monetary Research Center of the Romanian Academy "Victor Slavesu", Bucharest, Romania, email: denisagrosu@yahoo.com



of the first steps towards getting the first job, where young people can apply for first time, the theoretical knowledge learned in education years.

“Unemployment conventionally means only those people who do not study, want to work and actively look for a job, but cannot find one. These are the so-called active unemployed (ILO definition). ” (Artner, 2014, p. 121). Youth unemployment is a common problem in the Member States of the European Union.

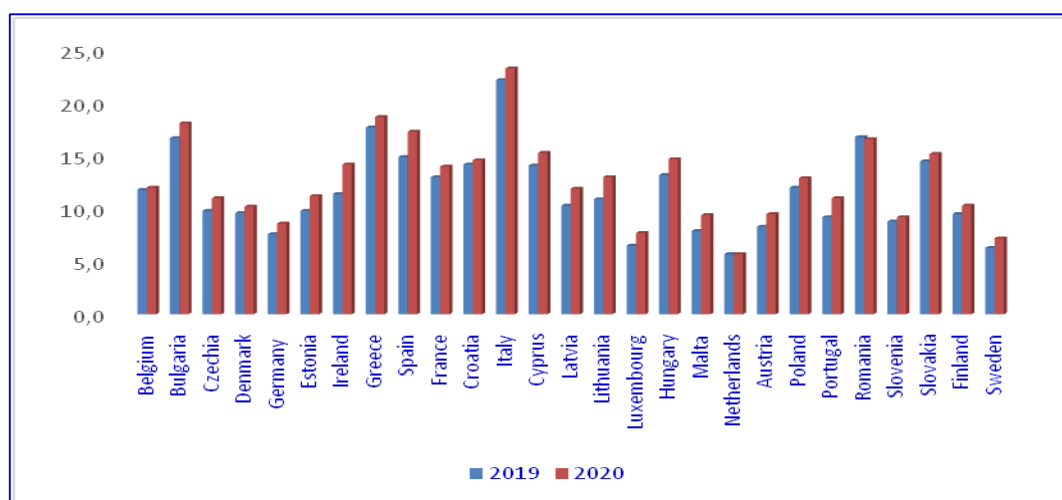
"Low unemployment reduces pressure on the government and taxpayers to support a large population of unemployed people. With more people working, the government has less of a burden to put money into welfare programs. Also, more people working allow the government to bring in more tax revenue. Higher incomes and lower benefit payments create a more financially responsible operation." (Christofides, 2018, p. 19)

The labor force, for some reason, cannot integrate into the labor market, and these discrepancies can be resolved through measures implemented in the states. There is also the possibility that the labor force will not keep up with the changes taking place in the labor market, technological transformations, digitalization. The European Union will always seek to improve the rights, working conditions of workers in Europe, from working hours, to health and safety at work.

The period of 2020 was decisive for some companies, resisting the difficulties of those who had the opportunity to move their business online. Online, people have been able to establish a different kind of working relationship, based on understanding and trust. Employers were able to communicate with their employees with the help of audio and video platforms, thus maintaining the level of productivity and motivation of workers. Also, under the required conditions, employees must be responsible and follow the measures to prevent infection with Covid-19.

## Qualitative and quantitative analysis of the main factors involved in the inclusion of young NEETs in the labor market in Romania and in the EU Member States

Young people who do not have experience can have high expectations from the first job, and then the risk of being disappointed and not integrating into an organization increases. The main factors involved in the inclusion of young NEETs in the labor market are the level of education completed, the development of technology, vocational training, the skills needed in the workplace. The following figure (Figure 1) provides information on the situation of young NEETs in 2019 and 2020 in EU Member States.



**Figure 1: Rate of young people not integrated in work, training or education (15-29 years)**

Source: Eurostat,

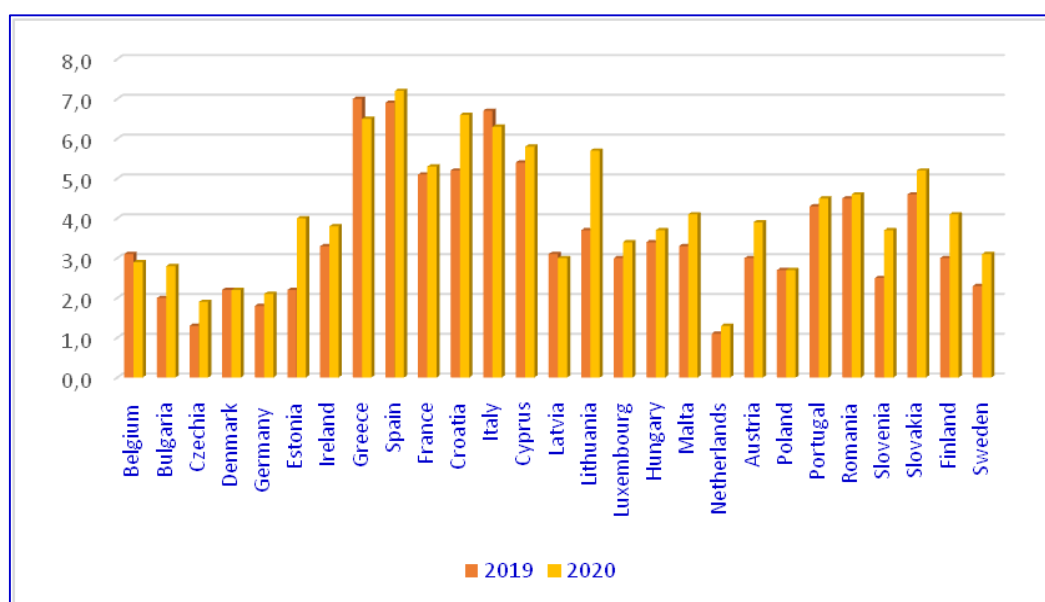
[https://ec.europa.eu/eurostat/databrowser/view/EDAT\\_LFSE\\_20\\_\\_custom\\_1367920/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/EDAT_LFSE_20__custom_1367920/default/table?lang=en), Access date 27/09/2021

In 2020, due to the pandemic created by Covid-19, most companies encountered various problems, of a financial nature, affecting both employees and employers.

In the EU countries, the figure shows how the situation of young NEETs has evolved from one year to the next, thus increasing this rate, while reducing the chances of a possible improvement in unfavorable labor market conditions. In Romania, the percentage of the NEET youth rate did not vary much, it increased from 14.7% to 14.8% in 2020. But in some countries, for example Germany, Estonia, Ireland, Spain, Italy, Lithuania, the NEET rate increased by 1-2 pp.

The Finnish school system is extremely good at providing students with a full high school education, however the rate of NEET youth in Finland is also increasing. This change may be caused by the pandemic period in which a different lifestyle, distance learning, distance work, social distancing was imposed. Most of the countries in the European Union have been affected by these measures, and young people have probably suffered the most.

For example, in a study conducted in Spain in 2015, focusing on youth unemployment, employment and their transition to the labor market, researchers highlighted the importance of education and policies to combat unemployment, the issue of youth employment. Employers also have a major role to play in integrating young people into the labor market. "The most important general policy innovations targeting young people have been educational reforms and activation policies. Other important innovations, such as changes in employment contracts and wage formation through collective bargaining, which do not specifically target young people, have also had an impact on the labor market for young people. " (González-Menéndez et al., 2015, p. 3) Figure 2 is the rate of NEET youth who are unemployed.



**Figure 2: Rate of unemployed young people in work, training or education (15-29 years old)**

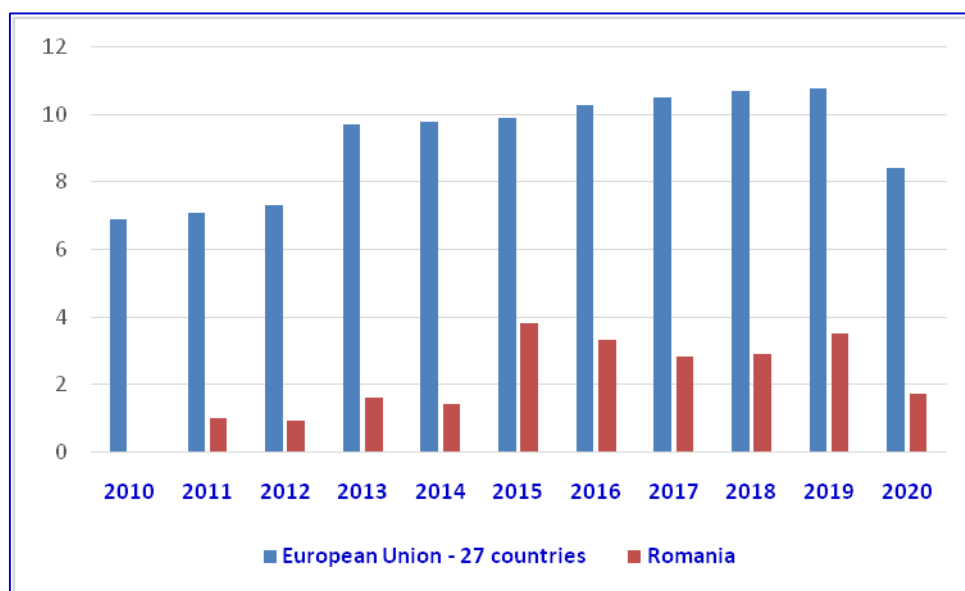
Source: Eurostat,

[https://ec.europa.eu/eurostat/databrowser/view/EDAT\\_LFSE\\_20\\_\\_custom\\_1367983/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/EDAT_LFSE_20__custom_1367983/default/table?lang=en) , Access date 27/09/2021

The NEET category, aged between 15 and 29, can feel the difficulties created by the pandemic at a higher level, with employment and unemployment being the main problems. In terms of unemployment, young people may face unpleasant situations in the employment process and will become insecure in pursuing a career, looking for a job. The main reasons that influence young people's motivation for work may be lack of information, lack of employment opportunities, skills needed in the labor market. Young people can be guided in choosing a career, they can receive advice from specialists in order to achieve a better life and a lifestyle that motivates them and gives them confidence. They can participate in various activities, seminars, conferences and training

programs where they can deepen the fields studied in schools. "The process of integrating young people into the labor market, if not accompanied by employment opportunities, even temporary, but professionally significant and, if not relatively fast, risks increasing job insecurity to which this group is already subject vulnerable." (Domenico Paparella et al., 2008, p. 160)

The flexible path of professional placement is acceptable for more educated young people, because they know that they will still be able to obtain good working conditions in the not-too-distant future. Figure 3 is a representation of the participation rate of young people in non-formal education and training.



**Figure 3: Participation rate of young people aged 15-29 in non-formal education and training**

Source: Eurostat,

[https://ec.europa.eu/eurostat/databrowser/view/YTH\\_EDUC\\_060\\_\\_custom\\_1365057/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/YTH_EDUC_060__custom_1365057/default/table?lang=en), Access date 20/09/2021

In Romania, the participation rate of young people, aged between 15 and 29, in the types of non-formal education and training varies greatly, and during the pandemic with the Covid-19 virus decreased, compared to 2019. In 2020, the participation rate was 1.7%, and in 2019 it was 3.5%. The level of education completed is an important factor in the employment decision, having well-trained workers, the chances of achieving the objectives at the organizational level increase. It is important that young people receive a foundation of theory, knowledge and skills in order to perform in their chosen career. The economy needs the employment of young people, because they represent the future and can cope with the changes that are taking place in the labor market.

Changes are taking place in the labor market, new industries are emerging, new trades are emerging. These changes may have implications for the workforce. New skills, abilities, an improved and developed education system will be needed to help young people in their transition to the labor market. The skills that young people should acquire are the ability to analyze, critical thinking, the ability to communicate in at least one foreign language, creativity, the ability to learn, the ability to work with technology. Education and training programs can be a solution for employees to keep up with changes in the labor market and to continuously improve their skills, to have qualified people in the workplace.

An example of measures for young NEETs is the financial benefits provided by the National Agency for Employment, through the implemented program "ACTIMOB NEETs - Activation and mobility of young NEETs", co-financed by the European Social Fund. The budget was proposed for EUR 40,866,506.91 The benefits were proposed for young people aged between 16 and 25 who meet the conditions for the NEET category.

The grants awarded are as follows:

- insertion premium in the amount of 1500 RON (Romanian national currency) offered to young people over 16 years of age with a completed level of education who obtain a job for more than 12 months,
- activation premium of 1000 RON for those who obtain a job for more than 3 months,
- employment bonus is offered to "persons registered as unemployed with the employment agencies and who are employed in a locality located more than 15 km from the locality where they have their domicile or residence, may benefit of a non-taxable employment premium. The amount of the premium is calculated at 0.5 RON / km, but not more than 55 RON / day, in proportion to the number of days in which the persons in question actually carry out the activity at the employer where the employment is performed. The employment premium is granted for a period of 12 months" (Romanian Youth Forum, 2020)
- installation allowance also for "persons registered as unemployed with employment agencies in another locality more than 50 km away from the place where they have their domicile or residence and, as a result, they change their domicile or establish their residence in the respective locality or in the neighboring localities, they may benefit from an installation premium, calculated in a differentiated amount" (Romanian Youth Forum, 2020)

The project had significant achievements in the period 2017-2019, "through the project, in the period 16 May 2017 - 15 May 2019, 1134 activation / employment / installation bonuses were granted to unemployed young NEETs who were employed and 7,471 subsidies for employers who have employed young unemployed NEETs". (ANOFM, 2019)

The Covid-19 pandemic has exacerbated the already existing difficulties in the labor market in education, created unfavorable conditions for workers, for most young people, especially for young people in the NEET category. The year 2020 probably included many important decisions.

In September 2021, the government approved the introduction of measures to support people with a guaranteed minimum income, but also for young people.

The approved government ordinance aims at amending and supplementing Law no. 416/2001:

- "Maintenance of social assistance for another 6 months from the time of employment, if the beneficiary is employed for a period of at least 24 months." (Government of Romania, 2021)
- The possibility for the beneficiaries of social assistance to take "Second Chance" type courses, at the recommendation of the county employment agency. The refusal to participate will lead to the termination of social assistance and the prohibition of applying for a new right for a period of 12 months, as in the case of refusal of employment. " (Government of Romania, 2021)
- "Introducing the obligation to present eligible social assistance workers to employment agencies, for the application of employment incentives, every 6 months or whenever required. Failure to report to the Employment Agency will amount to a refusal of employment and will result in termination of social assistance and the possibility of a new application after a period of 12 months. " (Government of Romania, 2021)
- "Settlement of transport for able-bodied persons from families receiving social assistance who follow the courses of the" Second Chance "program, at a distance of more than 5 km from the home. It is proposed to reimburse, to the local public administration authorities, the amount of 500 RON / person / school semester, from the budget of the Ministry of Labor and Social Protection, through the National Agency for Payments and Social Inspection and the territorial agencies." (Government of Romania, 2021)

The approved government ordinance aims at amending and supplementing Law no. 76/2002:

- "The age group for measures for young NEETs has been extended from 16-25 years old to the current 16-30 years." (Government of Romania, 2021)

## Conclusions

In most European Union countries, the percentage of young NEETs increased in 2020 compared to 2019. And their participation in non-formal training programs in Romania is lower than the EU average, which determines in the case of young people reduced opportunities, opportunities for development and development, and the chances of employment will thus decrease for this category. The pandemic period imposed a global crisis, requiring decisions and measures by employers and employees to maintain a work-life balance. NEET young people have experienced difficulties, being changes in the learning system, on the labor market, regarding the place and the way of work. They are a vulnerable category, but one that adapts to change.

The process of transitioning young people into the labor market in the post-pandemic context could be hampered by the negative effects of the crisis. During this period, the states of anxiety, stress, distrust are amplified, and the young people who will want to get a job will have states of insecurity and uncertainty in this regard. The integration of NEET young people into the labor market can be facilitated. Companies can positively influence the experience of future employees, with training and professional development programs that prepare young people to integrate quickly and easily into the workplace.

Education and training are important and can give young people the foundation from which to start a career. On-the-job training helps people to integrate faster in the new conditions, to accumulate the necessary information. They can also be supported in choosing a career, training programs and guided by the responsible authorities.

Creating jobs for young people could increase productivity in organizations, while providing support for unemployed young people. Hiring them from school can motivate them, trusting that they will achieve their ideals as soon as possible. Young people need experience and this can be accumulated over time at work. Overcoming the crisis period will be facilitated by stimulating employment, by supporting young NEETs by the competent and responsible authorities.

## Bibliography

- ANOFM. (2019). *ACTIMOB NEETs – Activation and mobility of young NEETs*, [https://www.anofm.ro/upload/6822/Brosura\\_ACTIMOB\\_NEETs.pdf](https://www.anofm.ro/upload/6822/Brosura_ACTIMOB_NEETs.pdf)
- Artner, A. (2014). *Youth Unemployment and NEETs – Reasons and Treatment in Europe with Special Regard to Hungary*. Sofia
- Blackwell, C. și alții. (2010). *Engaging Wales' disengaged youth*, Institute of Welsh Affairs
- Blidaru, M. (2017). *Belgium, Poland, Romania: post-crisis youth unemployment dynamics*
- Bruno, G. S. F., Marelli, E. and Signorelli, M. (2013). *The rise of NEET and Youth Unemployment in EU regions after the crisis*
- Bruno, G. S. F., Marelli, E. and Signorelli, M. (2013). *Young People in Crisis: NEETs and Unemployed in EU Regions*
- Brussewich, M., Dabla-Norris, E., Khalid, S. (2020). *Who will Bear the Brunt of Lockdown Policies? Evidence from Tele-workability Measures Across Countries*. IMF Working Paper. International Monetary Fund
- Christofides, K. E. (2018). *A Youth strategy for Europe's future*. Research Paper
- Dabla-Norris, E., Pizzinelli, C. și Rappaport, J. (2019). *Job Polarization and the Declining Fortunes of the Young: Evidence from the United Kingdom*. IMF Working Paper. International Monetary Fund
- Eurostat. (2021). *Participation rate in non-formal education and training (last 4 weeks) by sex and age*, [https://ec.europa.eu/eurostat/databrowser/view/YTH\\_EDUC\\_060\\_\\_custom\\_1365057/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/YTH_EDUC_060__custom_1365057/default/table?lang=en)
- Eurostat. (2021). *Young people neither in employment not in education and training by sex, age and labor status (NEET rates)*, [https://ec.europa.eu/eurostat/databrowser/view/EDAT\\_LFSE\\_20\\_\\_custom\\_1367920/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/EDAT_LFSE_20__custom_1367920/default/table?lang=en)

- Eurostat. (2021). *Young people neither in employment not in education and training by sex, age and labor status (NEET rates)*, [https://ec.europa.eu/eurostat/databrowser/view/EDAT\\_LFSE\\_20\\_\\_custom\\_1367983/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/EDAT_LFSE_20__custom_1367983/default/table?lang=en)
- Romanian Youth Forum. (2020). *Together for young NEETs!*. <https://forumul-tinerilor.ro/impreuna-pentru-tinerii-NEETs/>
- González-Menéndez, M. C. and others. (2015). *Policy Performance and Evaluation: Spain*. University of Oviedo
- The Government of Romania. (2021). *Press release*. <http://mmuncii.ro/j33/index.php/ro/comunicare/comunicate-de-presa/6406-venit-minim-garantat-tineri>
- ILO. (2010). *The impact of the economic and financial crisis on youth employment: Measures for labor market recovery in the European Union, Canada and the United States*
- ILO. (2015). *What does NEETs mean and why is the concept so easily misinterpreted?*
- Mosca, A. (2013/2014). *Who are NEET? Analysis of the Unproductive*. Università degli Studi di Urbino “Carlo Bo”
- O'Reilly, J. and others. (2015). *Five Characteristics of Youth Unemployment in Europe: Flexibility, Education, Migration, Family Legacies, and EU Policy*
- Paparella, D., Savino, L. (2008). *Pathways to Work: Current practices and future needs for the labor-market integration of young people, YOUTH: Young in Occupations and Unemployment: Thinking of their better integration in the labor market; FINAL REPORT*
- Schwandt, H., Von Wachter, T. (2020). *THE LONG SHADOW OF AN UNLUCKY START, Youth who graduate in a crisis will be profoundly affected and may never fully recover*
- Shin, M. (2014). *Last Hired, First Fired Youth Unemployment in the EU: Situation, Recommendations and Measures*. Ljubljana
- Vtyurina, S. (2020). *Effectiveness and Equity in Social Spending: The Case of Spain*. IMF Working Paper. International Monetary Fund



# THE EVOLUTION OF THE TAXATION SYSTEM IN ROMANIA AND THE IMPACT ON THE YOUNG LABOR FORCE

Monica Florica Dutcaș<sup>6</sup>

Denisa-Gabriela Grosu<sup>7</sup>

## **Abstract:**

*The research work is focused on the labor taxation system in Romania, analyzing its status quo, but also aspects of the adequacy to the structure and profile of the labor market with an emphasis on stimulating the young labor force. It is analyzed by comparison of the taxation system in Romania and other European countries based on normative information and official statistical information (EUROSTAT) on empirical issues in European Union member states. The aim of the paper is to identify a set of criteria relevant to boosting the labor supply of young people that a sustainable labor taxation system should contain. In conclusion, the paper provides a draft proposal that could be included in a broader reform of the tax system.*

**Keywords:** labor taxation, fiscal policy, labor force, labor market, employment

**JEL classification:** H20, E62, J20

## **Introduction**

This research paper is based on the own research chapter of the draft year "Assessment of the Romanian tax system - perspectives and possible reconfigurations in the context of European and global trends", which refers to the entire Romanian tax system for comparison with other systems analyzed by the research team. The aim of the research project is: evaluation, diagnosis and exploration of directions and opportunities for (re) setting the tax system in Romania, in relation to domestic economic and social needs and guidelines at European and global level.

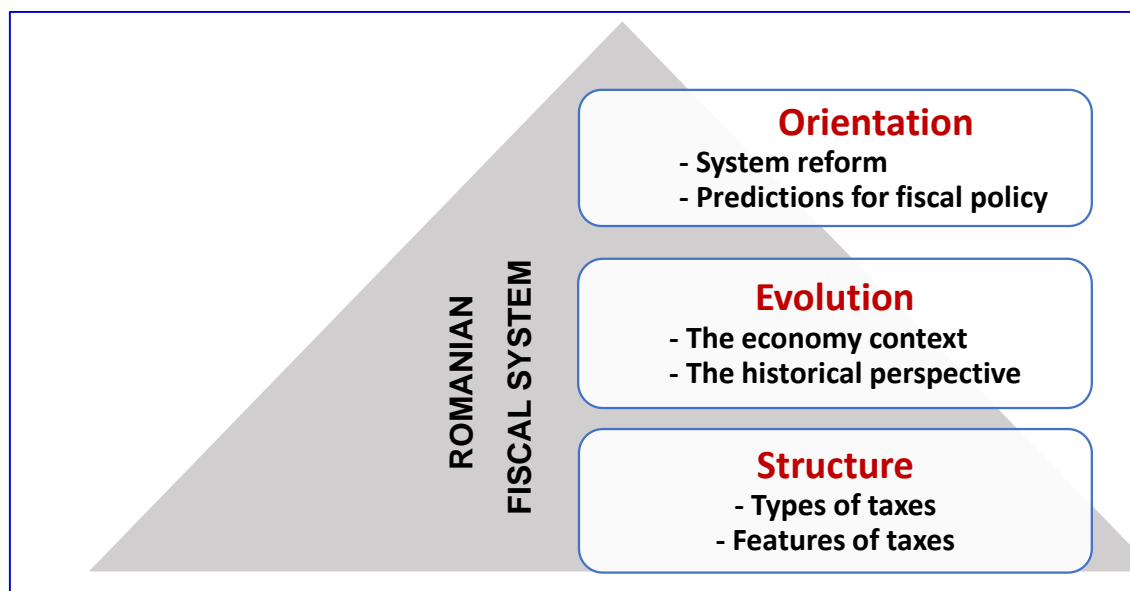
The entire chapter of the research starts from the meanings already stated, namely that through the tax system the state controls the economy, taxation being the main way to achieve its role. It also seems to be conclusive for the assessment of the level of taxation, the indicator that expresses the part of the gross domestic product that is levied at the disposal of the state through taxes. The tax structure, as a main element of the tax system will be approached from two perspectives: 1) the types of taxes and fees, and 2) the functions of the tax base.

We considered it useful to represent the research topic in the form of a conceptual map, as shown in Figure 1.

---

<sup>6</sup> Scientific Researcher, PhD Student, Financial and Monetary Research Center of the Romanian Academy "Victor Slavesco", Bucharest, Romania, email: monica.dutcas@finders.ro

<sup>7</sup>, Scientific Research Assistant, Financial and Monetary Research Center of the Romanian Academy "Victor Slavesco", Bucharest, Romania, email: denisagrosu@yahoo.com



**Figure 1: Conceptual map of topics in Romanian fiscal system**

*Source: authors*

As shown in figure no. 1 The research refers to the Romanian tax system following three major aspects: the structure, respectively the types of taxes (direct taxation, indirect taxation, taxation of wealth, income and consumption, social security contributions) and the characteristics of each. The second element is the evolution in the context of the economy and in the perspective of the history from the past towards the evaluation of the status quo, considering also their elasticity, and the last aspect the direction of reform and the future orientation of the fiscal policy.

For conference presentation, however, we focused on the analysis of the labor taxation system and some aspects related to the structure and profile of the labor market in Romania and in the Member States of the European Union.

The comparison of tax systems will highlight the main criteria that lead to stimulating the employment of young people. Young people are an advantage in the labor market, when they could be motivated and attracted in their companies, by employers, offering them numerous benefits. At the same time, young people may proved lack professional experience, may be less trained, requiring more attention to training programs when hiring.

## **A brief literature review**

Conceptually, the principles of taxation, the notion of tax system, tax regime, appropriate tax policy, tax and parafiscal levies, as well as tax behavior that determines tax compliance or tax evasion (including its illegal form, respectively tax fraud) are extracted and complied with. part of the established literature, through authors from both national and international literature such as Bistriceanu (2008), Brezeanu (2009), Cerna (2014), Caragata (2012), Dobrotă (2010), Georgescu (2019), Mitroi (2014 ), Socol and Feraru (2017 - analyzes of Romania's fiscal position); Cowboy (2007), Baldwin and Wyplosz (2015), Bergman and Hutchinson (2014), Beckman (2018, tax incentives) Cowen and Tabarrock (2010), Deskar-Škrbić and Šimović (2017, tax multipliers); Freedman (2009, fiscal position during crises, quantitative analysis of the influences of expansionary or contractionary fiscal policy), Klemm (2010), Koh et al. (2020, public debt), Mankiw (2006), Minsky (1995, 2011), Park ( 2018, fiscal deficit); Piketty, (2013), Sachs (2020), Samuelson (2001), Stiglitz (2002), Stupak (2019, Tax Multipliers), Taylor (2008), Wieland (2009).

Numerous researches and papers have been driven by the financial crisis of 2008, and most of the conclusions support the idea that fiscal policies were more expansionary before the crisis than after. Especially in EU economies, policies have been oriented towards saving and less towards investment. Beckman (2018) shows an interesting result that shows that the direction of fiscal



policies can be changed in response to a recession, this change of direction being closely linked to international influences and trade policies (import-export), an expansive policy tending to increase demand. of imports. There are also critics who consider austerity policies ineffective in times of crisis, especially as they can have consequences for low-income and vulnerable people. In the IMF reports we find different positions on the need for fiscal policies to stimulate growth.

At the same time, the literature shows that weak economic growth leads to an increase in budget deficits and debt, which is reflected in other economic indicators, including human resources, the quality of management in public institutions. Research shows that things are different in developed economies, as evidenced by the impact of the new economic crisis triggered by the COVID-19 pandemic. In fact, the current crisis has led to the expansion of research topics related to the influence of fiscal policy to other areas of the economy.

Corsetti, Meier and Muller (2012) using a panel of OECD countries conclude that the output and consumption multiplier are unexpectedly high in recession, but from historical experience, states tend to make fiscal consolidation on the expenditure side in times of crisis, given the sustainability of public debt and financing costs.

"The most important conclusion from the study of the literature on tax incidence is that the legal tax incidence is probably important. This requires a more detailed look at the composition of the labor tax burden. To this end, we include measures of the implicit tax burden, as well as legal tax measures for personal income tax, social security contributions of both employers and employees. In addition, the supply of labor is more receptive to the wide margin, especially for young people who face a trade-off between work and education and for mothers who face a trade-off between work and childcare and home production. " (European Commission, 2015, p. 11).

Labor market institutions like taxes, unions, employment protection legislation, unemployment benefits and active labor market policy interact with each other. The effect of one policy cannot be analysed in isolation, as it depends on the characteristics of other institutions. From theoretical considerations it is known that the impact of labor taxes on employment depends on their interaction with labor market institutions.

From an analytical perspective, it can be stated that there is a deficit of complete analysis in the case of Romania, perhaps determined by the transformations that the Romanian economy has undergone in the last 30 years, perhaps by some lack of correct information and / or deficient data, or even a climate of financial indiscipline and countless suspicions of evasion and illegality.

Thus, in the analyzed period, considering the orientation of the Romanian fiscal system towards ensuring the public revenues necessary to finance the Romanian economy (production and distribution covered by the state budget) is observed sometimes alternatively, sometimes in a mix, both growth measures of the collection of taxes (eg the declaration regarding the real beneficiary of the business profits), as well as through measures to stimulate the economic activity (tax deductions; tax exemptions for reinvested profits).

Most authors express views on the relationship between taxation (fiscal position) and the level of development of the state. The 4 categories / types of tax regimes that we analyze, referring to both direct and indirect taxes are: i) single rate taxation; ii) progressive / regressive taxation, iii) proportional taxation and iv) flat taxation.

Georgescu, F. claims that the space generating a stimulus of fiscal stimulus for the growth of the Romanian economy, as well as for the well-being of the population, is exhausted. and there is in the fiscal field "an impossible trinity" (refers to 3 objectives of fiscal policy, namely: simultaneous increase in purchasing power and infrastructure development; total budget deficit maintained at 3% of GDP at the same time as the reduction structural deficit; fulfillment of the function of redistribution on the basis of economic incentives, but also of fairness, social justice), so that political and economic decision-makers are obliged to sacrifice one of these three objectives, the decision to be adopted in relation to the state of the economy and social pressures ". Georgescu (2019, p.500) The author advocates the progressive taxation of global income and property, estimating positive influences on the social climate.

However, the President of the Romanian Fiscal Council stated that "giving up the single quota is

not the only measure that can be taken if Romania turns its back on the wall" because the pressures are high on the budget and an increase in fiscal space is needed. (Dăianu, 2019, conference "Upgrade Romania: Solutions for financing Romania's major investment projects").

Proponents of the single rate have as main arguments: i) simplification of the tax administration system, by giving up globalization and regularization of taxable revenues, reducing both the bureaucracy specific to tax institutions / authorities and the associated costs; ii) reduction of tax evasion, especially in the field of labor; iii) reducing the emigration of Romanian companies in an attempt to find optimal fiscal solutions.

The questions that remain at the heart of the debate are:

Generally: how effective are tax systems as instruments of fiscal stimulus in order to stabilize the economy? What set of fiscal incentives are effective as countercyclical instruments? How much is a standard theory overturned by economic reality? Is there an optimal tax regime in the current context?

Regarding labor taxation:

What are those fiscal policies that involve the modernization of tax systems in order to provide fiscal space to finance the recovery of the economy and, implicitly, of the labor force at the same time as the social protection granted to vulnerable groups?

Are young people a vulnerable category?

## **Methodology and Data**

The approach of the present research is a very simple one, based on an extensive theoretical and bibliographic documentation, in order to study the fiscal system as a whole, as well as on experiences and analyzes from the practical activity, specific in the field of labor taxation, at national microeconomic level. performed a content analysis of the Romanian system and a comparative analysis with labor taxation systems in EU member states and beyond.

Data from official statistics in Romania and EUROSTAT, mainly from the last decade, were used to identify major changes, noting the effects of different fiscal policy decisions through correlations and interpretations specific to those data.

Through a comparative analysis both in Europe and with other countries, we aimed to identify the integration of the Romanian tax system in certain typologies, implications of European integration, as well as the specific challenges of the labor market and especially the impact on the young labor force. The results of the comparative analysis provide a basis for presenting conclusions and proposals.

## **Elements of the Romanian labor tax system**

We saw the taxation of labor as an instrument of fiscal policy that has the role of ensuring resilience, recovery / stability or economic growth as appropriate.

We started from the 2 well-known premises, namely: Romania has one of the lowest shares of tax revenues in GDP in the EU and the second tax burden is high from the perspective of labor taxes. Starting from the issues regarding aspects of taxation of income obtained by individuals as a result of labor market disruptions under the influence of environmental technologies and policies can be observed atypical forms of work or different employment contracts, entrepreneurship and self employed manifestations, and problems of the social security system.

In order to capture the concepts underlying the macroeconomic analysis, we started from the definition and measurement provided by the relevant legislation, respectively the Fiscal Code mainly, as presented in table 1 and table 2.

Table 1

**Personal income taxation in the Romanian Fiscal Code**

Income categories	Tax Rate	Tax base (according tax legislation, Fiscal Code)	Social contributions
Wages	10%	Taxable income (VI) = gross income (VB) minus: - social contributions (CAS and CASS) - basic personal deduction - union dues - contributions to voluntary pension funds, according to the law	- 10% CASS - 25% CAS 2,25% employment insurance contribution
Pensions		VI= VB-2000	-
Independent activities		VI= VB - CD (deductible expenses), in so called taxation in real system VI – based on income rules	- 10% CASS 25% CAS
Sport activities		VI=VB	
Intellectual property rights		VI=VB-40%*VB VI=VB-CD	
Investments		At interest VI = VB On capital gains - VI = Net income (real value - nominal value)	- 10% CASS

*Source: authors' processing, according to the Romanian Fiscal Code*

The tax on income from salaries and assimilated to salaries is applied to the place where the basic function is, the quota of 10% is applied to the calculation base. The calculation basis is the difference between the net income from wages calculated by deducting from the gross income the mandatory social contributions for a month.

Table 2

**Personal income taxation in the Romanian Fiscal Code without social contributions**

Income categories	Tax Rate	Tax base (see tax legislation , Fiscal Code)
Income from the transfer of the use of the goods	10%	VI=VB- 40%*VB VI=VB-CD, in so called taxation in real system
Other sources	10%	VI= VB
Real estate sales	3%	VI= VB-450.000 lei
Dividends	5%	VI=VB
Gambling	Progressive tax rates apply: - 1% - VI = VB <66750 - 667,5 +16% * VB > 66750 lei until 445000 RON - 6118,75+25% VB > 445000	

*Source: authors' processing, according to the Romanian Fiscal Code*

Regarding the information summarized in the tables, it should be mentioned that there are a number of amounts that are not part of the gross income (per diems, certain allowances and certain tax deductible expenses). The basic personal deduction is 3600 RON and there are still regressive amounts for dependents according to the Fiscal Code.

Contributions to voluntary pension funds are deductible up to 400 euro / year / person, as well as voluntary insurance premiums or expenses with medical services in the form of subscriptions and we refer to those borne by employees.

Up to the level of 200 lei / month, pensions are not taxed.

Capital gains - The real value is given by the sale price and the nominal value is also the fiscal value of the capitals, Brokerage commissions can be deducted if they are justified.

Prizes with a value of less than 600 lei are non-taxable.

For other sources the calculation is made on the basis of the single income tax return and there are the situations described in the CF; 10% CASS may also be due.

Relevant in the calculation of the tax base are the fiscal facilities as provided in the Fiscal Code and presented in table 3.

**Table 3**

**Tax facilities for taxation of labor income in the Romanian Fiscal Code**

Tax facilities Description	Tax facilities Description	
Exemptions from the payment of income tax from salaries	<ul style="list-style-type: none"><li>- R&amp;D, and innovation activities</li><li>- Individual employment contract (CIM) -12 months for the employer who carries out seasonal activities</li><li>- Computer program creation activities</li><li>- Construction field (01.01.2019 - 31.12. 2028)</li><li>- Teleworking within the limit of 400 RON per month corresponding to the working time in this regime</li></ul>	
Social contributions	<ul style="list-style-type: none"><li>- construction field 0% CASS and 21.75% CAS</li><li>- teleworking</li><li>- meal vouchers, holiday vouchers, nursery vouchers and cultural vouchers</li></ul>	
Exemptions granted to employers for amounts for the benefit of employees	<ul style="list-style-type: none"><li>- epidemiological testing and vaccination of employees to prevent the spread of disease</li><li>- early education of employees' children (1500 RON / month / child)</li><li>- contributions to voluntary pension funds borne by the employer up to a limit of 400 euro / employee</li></ul>	
Other concepts regarding taxation; of interest through its influence on the labor market		
Taxation of micro-enterprises 1% of turnover for micro-enterprises with employees 3% of turnover for micro-enterprises without employees	Non-resident income tax 16% - standard income tax rate 10% for EU member states or with which Romania has agreements 5% for dividends 50% for artificial transactions	Minimum wages, guaranteed by law, the minimum gross monthly salary in payment

*Source: authors' processing, according to the Romanian Fiscal Code*

The taxation of micro-enterprises is specific to the activities of legal entities, but it is also a form often used to remunerate the work provided under the services of expertise or consultancy, a fact that needs to be deepened in any analysis underlying the reform of the tax system.

As in most countries of the world and in Romania, there is no agreement on the unequal taxation of individuals at different income levels. Some experts and policy makers are in favor of a flat, single-rate tax system that would apply equal tax rates to individuals in general, while others are in favor of a more progressive system that charges higher tax rates for the rich.

Labor market and the performance of work in Romania is constantly evolving, under different forms of contracts, more flexible. The forms of employment contracts can be: fixed-term, part-time, temporary work or from home, teleworking. The employee with an individual employment contract will carry out only the activity according with the contract.

The analysis of labor taxes and social contributions as a share of GDP may show a degree of preference of the fiscal policy of income or consumption taxation

The main role of taxes is to mobilize public financial resources to the state budget. The following table (table 4) shows the evolution of tax rates (marginal and single).

**Table 4**

**Personal income tax rates in Romania**

Year	1991-1993	1993-1997	1998-1999	2000-2004	2005-2017	2018 - present
<b>Rates</b>	0%; 6%; 10%; 18%; 22%; 23%; 24%; 25%; 26%; 28%; 31%; 35%; 40%; 45%	0%; 5%; 8%; 14%; 17%; 18%; 19%; 20%; 21%; 22%; 25%; 28%; 32%; 36%; 40%; 60%	21%; 30%; 38%; 45%	18%; 23%; 28%; 24%; 40%	16%	10%

*Source: Borbála Kovács, Wage Taxation in Post-December (1989) Romania*

The table shows that the Romanian tax system is structured, in the field of income taxation, in two stages: the stage of the fiscal regime with progressive tax rates and the stage of the fiscal regime with a single tax rate.

Regarding the income from work, January 2018 a very important moment, because:

- reduction of the total share of compulsory social contributions, by a total of 2 percentage points, from 39.25% to 37.25%;
- reducing the number of social contributions from 6 to 3, respectively the social insurance contribution (CAS), the social health insurance contribution (CASS) and the employment insurance contribution
- the transfer of the tax burden of the obligations regarding the obligatory social contributions due from the employer to the employee in the case of income from salaries and assimilated to salaries.

The government encouraged the social partners to re-negotiate salaries in the private sector, also increased the gross minimum wage and so that net wages would not decrease following the shift of social contributions to the employee side.

These changes followed the adopted in 2017 (Unified Wage Law, L153/2017), which significantly increased the wages in the public sector.

Another important element in the income from work , related with the taxation of labor in Romania, is the minimum wage guaranteed in payment, as shown in the following table.

**Table 5**

**Short analysis of the minimum gross nominal monthly salary guaranteed in payment**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Minimum salary - lei</b>	1013	1150	1350	1900	2080	2230
<b>Absolute variation - lei</b>	-	137	200	550	180	150
<b>Annual rate -%</b>	-	13.52	17.39	40.74	9.47	7.21
<b>Annual average - lei</b>	-					1890
<b>Average annual rate -%</b>	-					18.1
<b>Dispersion</b>	-					147800
<b>Standard deviation standard</b>	-					384.45
<b>Coefficient of variation</b>	-					0.203411

*Source: authors' processing, INS*

The table shows that the minimum wage has increased at very high rates (17% in 2018, and almost 41% in 2019) for annual rates to fall to 9.5% in 2019 and 7.21 in 2020. The volatility of the minimum wage was high: over 20% around the annual average. It must be said that in Romania this salary is established through negotiations within the tripartite Commission (Government, trade unions, employers), so that there is no specific anchored relationship, and only in the economic phenomenon for this evolution.

The minimum wage in Romania will be calculated from 2021 according to the " minimum basket for a decent living ". It is estimated by experts from the Ministry of Labor and the Ministry of Finance for a single person and amounts to 2600 RON. The law on approving the minimum monthly consumption basket came into force on August 17.2020, providing that for food and hygiene products, a family with two children spends about 1.700 RON per month, and for housing, housing, and other expenses , a family with two children would spend, on average, 2.500 RON per month. For a state of well-being, ie for education, culture and vacation, it is estimated that a family spends 800 RON every month, and clothing, footwear and health care would cost 780 RON.

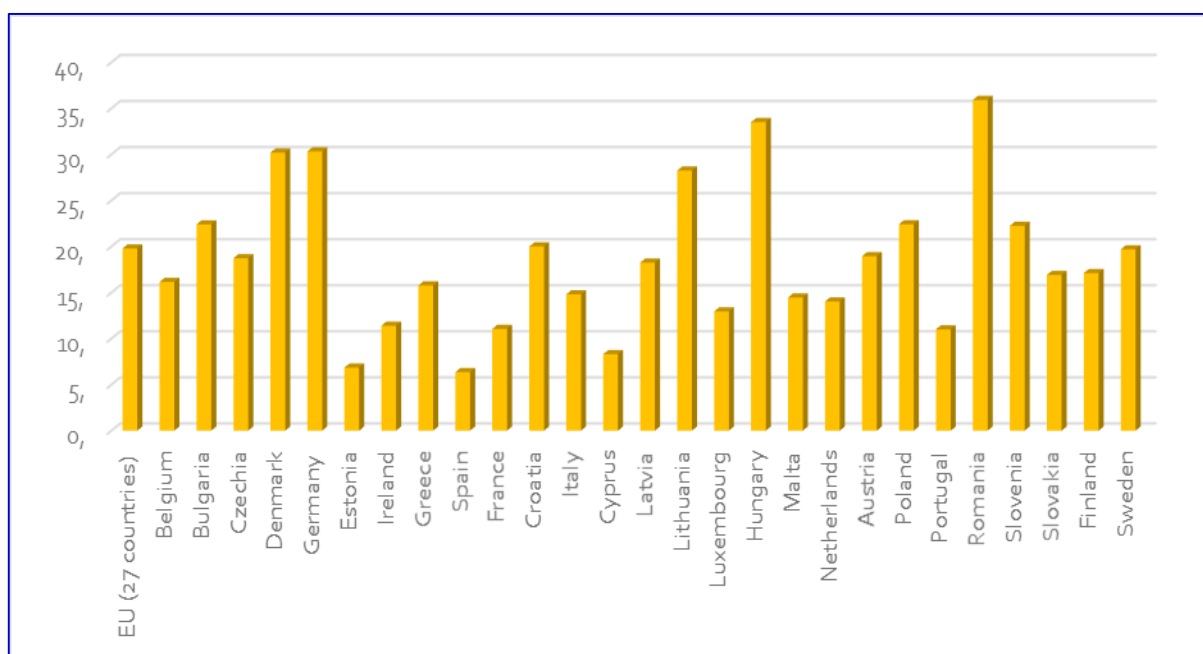
According to this scenario, a family with two children could live on 7,000 RON every month and would have 630 RON left for the savings fund. We can conclude that a European minimum wage policy at the moment does not refer to a single European minimum wage rate, nor to an institutional harmonization of the establishment of the national minimum wage, nor does it mean that every country in Europe must introduce statutory a minimum wage.

## **Labor tax comparisons Romania - EU countries**

The average tax rate of the EU-28 for low income earners was 25%. Seven EU MS had income tax rates above 30%: Romania (37%), Germany (34%), Hungary (34%), Lithuania (33%), Denmark (33%), Belgium (31%) and Slovenia (31%). In 2019, low wage earners in Ireland had the third lowest tax rate in the EU at 16%. Cyprus had the lowest tax rate for this income group at almost 8% in 2019. (Malone, P. Comparing Irish Income Taxation Rates with other EU Member States).

In order to be able to observe by comparison the labor tax system in Romania with that in other European Union countries, the figure below may be useful (Figure 2), which shows the percentage of the tax rate for a single person without children earning 50 % of average earnings in 2020





**Figure 2: Tax rate (%) for a single person without children earning 50% of the average earnings in 2020**

Source: Eurostat (Tax rate)

The survey published by KPMG in Romania, in 2019, covering minimum wage and registration requirements within the European Union, the European Economic Area and Switzerland reveals that out of the 26 countries under review, Romania has the highest tax cost for employees (40.85%<sup>\*</sup>). This is significantly higher than an employee's tax cost in other developing countries in Central and Eastern Europe: 17.86% (Slovakia), 22.40% (Bulgaria), 29.29% (Poland) and 33.5% (Hungary).

The evolution of labor taxation in relation to GDP shows a general upward trend in UE and Romania, as the table no 6 shows

**Table 6**

**Comparison of labor taxation in GDP and current income (CI), in the EU and Romania**

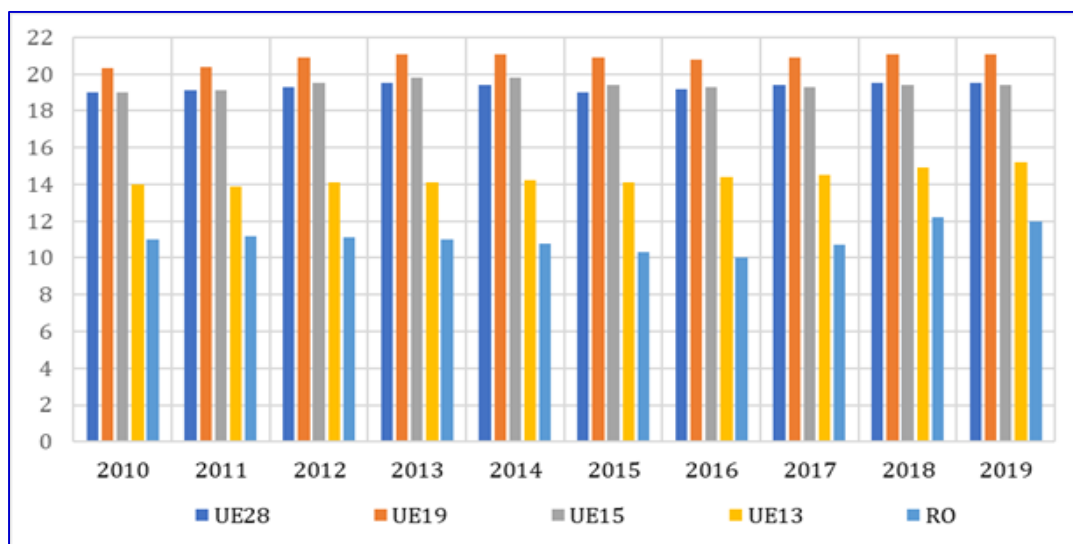
%

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Dynamics
UE28	PIB	19.0	19.1	19.3	19.5	19.4	19.0	19.2	19.4	19.5	19.5	2.6
	CI	51.0	50.6	50.4	50.4	50.1	49.5	49.5	49.7	49.9	50.0	-2.2
RO	PIB	11.0	11.2	11.1	11.0	10.8	10.3	10.0	10.7	12.2	120	9
	CI	41.7	39.4	39.9	40.2	39.1	36.7	38.8	43.0	46.9	46.2	10.8

Source: Eurostat ([http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics))

Table 6 shows the dynamics of labor taxation in Romania reflected in consistent increases in its share, both in GDP and in Vf, with a rate of 9%, respectively approx. 11%, in 2019, compared to 2010, being obvious the impact of the changes in 2018 regarding the transfer of social security contributions exclusively to the employee and, implicitly, to the increase of their collection.

If we deepen the analysis at EU level by groups of countries, we have the share of labor taxation in GDP, presented graphically in figure no. 1, it is between 19 - 19.5% in the EU28 and EU15, at 20 - 21% in the EU19 and between 14 - 15.2% in the new member countries.



**Figure 3: Comparison of labor taxation - share in GDP - Romania - groups of EU countries**

Source: Eurostat([http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics))

Figure 3 revealed that the evolution of labor taxation in relation to GDP shows a general upward trend in all groups analyzed.

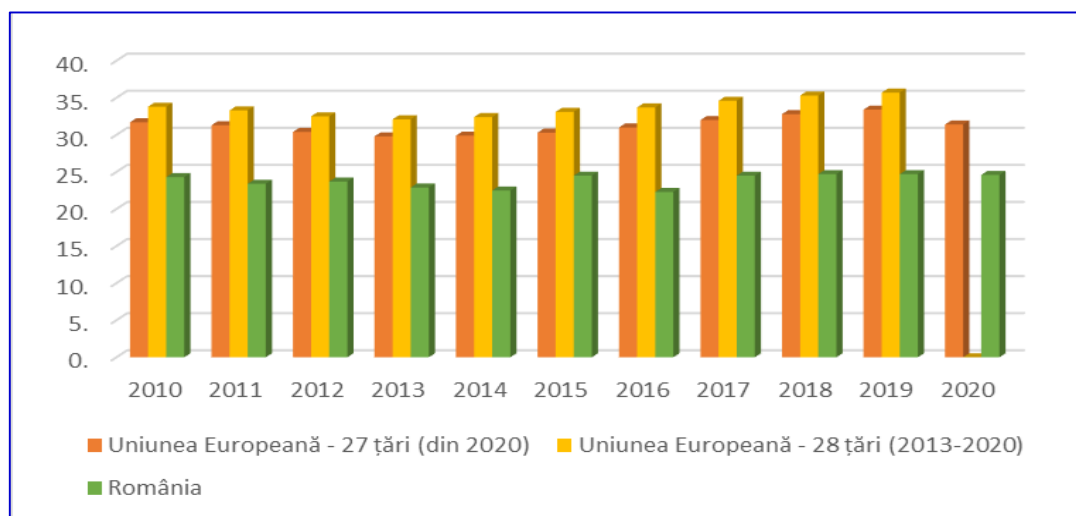
Regarding the share of labor taxation in tax revenues, in general there is a tendency to homogenize it, Romania has the largest increase in the share of income from labor taxation in tax revenues, over 4.5 pp.

Reducing the tax burden could lower labor costs and stimulate job creation, but would lead to losses in tax revenues.

## Relevant issues for a possible increase in the employment supply of young people

Studies show that reforms that reduce the tax burden on labor favor employment and help increase employment in the medium term by increasing labor demand and by increasing employment incentives participation in the labor market with legal forms.

So, In the same analysis period, Figure 4 shows the employment situation of young people.



**Figure 4: Employment by ages 15-24 in Romania and EU27**

Source: Eurostat ([http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics))

The situation presented could be a consequence of the disturbances that have appeared in all the economies as a result of the measures imposed by the state of emergency generated by the Covid-19 pandemic, cumulated with the changes previously triggered in the labor market.

The perception of young people as unstable employees who would leave an employer to gain more experience before settling into a permanent role contributes to this problem. In addition, they usually have temporary, flexible contracts that do not secure their employment. Due to lack of experience, they are also seen as less productive than the rest of the workforce. As a result, youth unemployment can be largely attributed to a labor demand problem. " (European Commission, 2015, p. 9)

The nature of jobs is constantly changing, with the technological progress, globalisation in the last 10 years. Also, migration of labor force ( including the brain - drain phenomenon) and ageing populations reshaping the labor markets. In order with the new organisational business models and worker preferences are contributing to the appearance of new forms of work, and moreover, the progress of the future of work is more rapid than everyone expected due to the pandemic COVID-19.

**Table 7**

**Changes on the labor market**

<b>Labor market characteristics</b>	<b>Prefigured changes in digitization and digitalization</b>	<b>Covid-19 Influence</b>
Type of work	Number of hours of work per day Number of weekly / monthly / annual working hours The number of full-time hours of 8 hours per day Reduced number of working hours 6/4/2 hours per day	Suspension of activities Gradual closure of activities
Work place	Distance work Alternatives workspaces Digital / virtual platforms	Work at home Physical distance Closing activities
Labor income	Significant increase	Immediate decrease
Employment contracts	Atypical, fixed-term employment contracts, per project, civil conventions	Underground, informal work

Teleworking - is a form of work organization, which involves the use of information and communication technology (ICT) and involves voluntarily fulfilling their work obligations in a space other than that provided by the employer. In Romania, the labor legislation requires since 2018, at least one working day of the monthly working time, in the manner described in order to be included in the telework regime.

The digitization of tax systems at the state level is a beneficial measure for both taxpayers and the tax authority. "For example, France has asked platforms to play a greater role by asking them to share revenue data with tax authorities and inform suppliers of their tax obligations." (European Commission, 2017, p. 10)

"However, Estonia has made the most significant reforms in this area, becoming the first country in Europe to fully digitize its tax system through its e-Estonia program, which the government has

now begun to apply to specific challenges of cooperation. economy. For example, the tax authority has partnered with local sharing platforms to share data to enable the automatic population of online tax returns for drivers. This digital architecture has allowed Estonia to test innovative new fiscal policies, such as "Individual Entrepreneurial Accounts", which involve a much simplified tax regime. " (European Commission, 2017, p. 10)

The idea of a European Year of Youth in 2022 was announced by the President of the Commission in his speech on the state of the Union in 2021. The purpose of this event is to put in the forefront of the generation that has suffered the most from the COVID-19 pandemic, to support the most vulnerable young people.

## Conclusions

Taxation is a system of collecting taxes, the set of laws that refer to it and the means that lead to it. From this, a number of conclusions can be drawn.

- Taxes affect both labor demand and supply.
- High taxes can lead to a decrease in the labor supply in the economy, by influencing the employment decision.
- Taxation of labor influences decisions regarding education, qualifications, vocational training or entrepreneurship
- High taxes on labor supply can influence the efficient use of human capital in different sectors of the economy
- In some cases, the payroll tax may increase the labor supply
- A recurring feature of tax systems is the lower level of social security contributions of self-employed people compared to employees.
- The general effect of this differentiated treatment is not clear in theory:
  - on the one hand, lower contributions increase disposable income, and this can be especially important when the entrepreneur has liquidity constraints;
  - on the other hand, lower contributions lower the prospect of future benefits and weaken the safety net in the event of a business failure, thus increasing the risks involved in self-employment.

Attention must be paid to the risks involved in self-employment as it aims at personal protection, personal income rather than job protection, labor income. It could be obtained a security for individuals and a flexibility in labor market through a mix of active labor market policies and a mix of fiscal and income policy.

The opportunities that the EU has offers young people have the goal to find inspiration in young people's ideas to strengthen the European project.

## Future Directions

In future research, we intend to approach as research topics:

- The economic impact of the tax reform in the EU
- The financing of the tax reform in Romania.

Methodological we will research, not only through an econometric modeling, but also identifying patterns and differences in individuals 'reactions for various categories of incomes and taxes, by conducting analysis of labor market transitions.

## Bibliography

Alesina, A., Ardagna, S. (2010). *Large Changes in Fiscal Policy: Taxes versus Spending*. Harvard University and NBER. National Bureau of Economic Research

Bastani, S., Waldenström, D. (2018). *How Should Capital Be Taxed? Theory and Evidence from Sweden*. IZA – Institute of Labor Economics

Blanchard, O., Dell'Ariccia, G. și Mauro, P. (2010). *Rethinking Macroeconomic Policy*. IMF STAFF POSITION NOTE

Borbala Kovacs, "ANALYSIS Taxation of salary income in post-December Romania", 2020, <https://www.contributors.ro/analiza-impozitarea-veniturilor-salariale-in-romania-post-decembrista/>

Callan, T., Bercholz, M. and Walsh, J.R. (2018) *Income Growth and Income Distribution: A Long-Run View of Irish Experience*. [online] available at: <https://www.esri.ie/system/files/media/file-uploads/2018-06/BP201903.pdf>

Department of Finance (2020) *Annual Taxation Report March 2020* [online] available at: <https://www.gov.ie/en/publication/2857fa-annual-taxation-report-2020/>

Diamond, Peter and Emmanuel Saez "The case for a progressive tax: from basic research to policy recommendations", *Journal of Economic Perspectives* 2011

Eurostat (2020) *Net Earnings and Tax Rates* [online] available at: <https://ec.europa.eu/eurostat/data/database>

European Commission. (2015). *Study on the effects and incidence of labor taxation; Final report*. Taxation and Customs Union

European Commission. (2017). *Literature review on taxation, entrepreneurship and collaborative economy*. Taxation and Customs Union

Eurostat, "Youth employment by sex, age and educational attainment level", 2021, [https://ec.europa.eu/eurostat/databrowser/view/YTH\\_EMPL\\_010\\_\\_custom\\_1374736/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/YTH_EMPL_010__custom_1374736/default/table?lang=en)

Eurostat, "Tax Rate", 2021, [https://ec.europa.eu/eurostat/databrowser/view/EARN\\_NT\\_TAXRATE\\_\\_custom\\_1374339/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/EARN_NT_TAXRATE__custom_1374339/default/table?lang=en)

Eurostat, "Youth unemployment by sex, age and educational attainment level", 2021, [https://ec.europa.eu/eurostat/databrowser/view/YTH\\_EMPL\\_090\\_\\_custom\\_1374866/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/YTH_EMPL_090__custom_1374866/default/table?lang=en)

Hope, D., Limberg, J. (2020). *The Economic Consequences of Major Tax Cuts for the Rich*. The London School of Economics and Political Science. London

OECD (2020) *OECD Economic Surveys: Ireland* [online] available at: [https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-ireland-2020\\_dec600f3-en](https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-ireland-2020_dec600f3-en)

OECD (2021), Personal income tax (indicator) (Accessed at 23 septembrie 2021), Total, % of GDP, 2010 – 2019, Revenue Statistics: Comparative tables, <https://data.oecd.org/tax/tax-on-personal-income.htm>

OECD, 2021, Global Revenue Statistics Database.

OECD, Taxing Wages 2021.

Mertens, K. and Montiel Olea, J. 2018. Marginal tax rates and income: new time series evidence. *Quarterly Journal of Economics* 133(4): 1803-1884.

Pissarides, C. A. "The Unemployment Volatility Puzzle: Is Wage Stickiness the Answer?," *Econometrica*, 77(5), 1339-69, 2009

Rünstler, G. 2021. The macroeconomic impact of euro area labor market reforms: evidence from a narrative panel VAR. European Central Bank working paper 2592.

Roantree, B. (2020) *Barrington Lecture 2020 Understanding income inequality in Ireland* [online] available at: [https://www.esri.ie/sites/default/files/media/file-uploads/2020-01/Slides\\_1.pdf](https://www.esri.ie/sites/default/files/media/file-uploads/2020-01/Slides_1.pdf)

Zai, P. V. (2014). *Modern Approaches to Fiscal Policy: Fiscal Policy and Public Expenditure Policy*, *Transylvanian Journal of Administrative Sciences*

World, IMF Working Paper no. 122 Piketty, Thomas and Emmanuel Saez "Optimal labor income taxation", *Handbook of Public Economics*, 2013 (web)

# EVOLUTIONS AND TRENDS IN THE STRUCTURE OF TAXATION IN THE EUROPEAN UNION AND ROMANIA

Ionel Leonida<sup>8</sup>

## **Abstract:**

*In this paper we analyze the evolution of the tax structure in the European Union, following the evolution and contribution of certain types of taxes (direct, indirect, social contributions) to the establishment of current revenues. At the same time, we try to capture and argue a link between the economic structure and the fiscal structure in groups of countries and in individual countries, but also between the fiscal structure and the level of current GDP revenues. The results of the global and individual analysis will be evaluated in relation to the fiscal structure in Romania, providing important benchmarks in terms of orientation and adaptation of the fiscal structure in relation to the economic structure.*

**Keywords:** tax structure, tax revenue, tax rates, tax competition

**JEL classification:** F65, H11, H20

## 1. Introduction

The analysis of the structure of taxation is a topic frequently present in debates, research and concerns of tax authorities, aiming to identify or improve tax elements / tools to make tax systems more efficient and effective, depending on global trends, the regional context and the specifics of the national economy and society in general. These concerns are also stimulated by the fact that there are no concrete and pragmatic “recipes” for success in fiscal policy, but there are theoretical approaches that outline possible recipes for success in certain economic and social conditions, aimed at discrete adjustments / adjustments on the economy. solutions to shocks not expected by the magnitude of those of the last two decades.

In the context of the formation and development of the European Union project, fiscal policy has been an extremely important element in shaping the single market, but in the context of the free movement of capital and labor, as the main tax bases of any tax system, have emerged. side effects, ie unfair tax competition between tax systems in neighboring countries or in a particular region, which in most cases leads to reduced tax rates, the granting of tax relief, the reduction of tax revenues and, consequently, to the chained negative effects on the size of budget expenditures, the budget deficit and indebtedness.

The literature on the structure of taxation is not very generous. Theoretical studies on this or its optimality have been developed by Atkinson and Stiglitz (1976), and later, various international institutions have analyzed the optimization of the tax structure, in terms of public finance efficiency and stability economic cycle (EC, OECD). As mentioned above, the literature does not provide quick or accurate recipes to follow regarding the optimal tax, the practical design of the fiscal proportions and typology, which are open to each economy, and the optimal fiscal mix can take different configurations (Martinez-Vazquez et al. 2010), depending on the specifics and particularities of each country. We subscribe to the latter opinion from the literature and conclude that the practical design of tax system reforms requires a balanced approach between efficiency, equity, simplicity and revenue levels, and the resulting / targeted tax structure is country-specific. and its optimality may differ from country to country, under the influence of particular circumstances and / or societal preferences.

---

<sup>8</sup> Centre for Financial and Monetary Research “Victor Slăvescu”, 13 Septembrie no. 13 street, B Body, et 5, , email: leonidaionel@yahoo.com



From a terminological point of view, the fiscal structure refers to two aspects, namely the comparison of the level of tax revenues (total or by types of taxes) with the level of GDP and the comparison of the level of revenues generated by certain categories of taxes with the level of current revenues. percentage. Changes in these weights are associated with changes in the tax structure (of the country, region, union) and indicate the relative distribution of the tax burden across different types of taxes and tax bases.

Structured by type, taxes are classified into: indirect, direct taxes and compulsory social security contributions. Indirect taxes include value added tax, excise duties and other consumption taxes. Direct taxes include personal, legal and property income tax. Social security contributions include compulsory payments to social security funds, made by both employees and employers.

Another classification of the tax structure is based on the economic nature of the tax base. There are four such tax bases: consumption, labor, capital and environment. In general, consumption taxes are represented by indirect taxes. Instead, the labor tax sums up the personal income tax and social security contributions. Capital gains tax includes income tax on income from holding assets. Environmental tax(s) are the additional costs added to the purchase or use price of a polluting product or service, in order to discourage their consumption and production. The characteristics of the tax base provide important information about the allocation of the tax burden on the economic activities of the company.

## 2. Presentation of the analysis

The focus of the analysis is on the analysis of structural trends in the EU and its subgroups, namely: the group of "old member" countries that joined by 1995, including (EU15) and the group of countries that have joined since 2004, including (EU13). The purpose of such a grouping is to identify possible significant tax differences between these groups of countries, in their tax structures, at European level, and subsequently to carry out comparative analyzes. The indicators are reported in GDP, and the changes between the limits of the period will be expressed in percentage points (pp), being interpreted as such - a subunit change means changes resulting from the natural evolution of the business cycle, and a supra-unit change means considerable changes resulting from impulses and fiscal measures. We will not include in the analysis the revenues from environmental taxes / fees, and the analyzed period is 2010-2020.

Over the last decade, the total tax burden of EU countries (Table 1), which includes social security contributions, has increased by approx. 4 pp, from 37.3% of GDP in 2010 to 41.4% of GDP in 2020. The highest fiscal burden is in the group of former member states, with few exceptions. around 42% of GDP, most of the time. Among the new member states, the tax burden maintains its general trend, but with significant differences from other groups of countries. Thus, at the beginning of the analyzed period, the difference between the tax burden registered at EU15 level and that at EU13 level was 9 pp, and at the end of the period, 8.1 pp.

**Table 1**

**The share of current income, including social security contributions, in GDP,%, in the period 2010-2020, at the level of groups of EU countries**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>EU28</b>	37.3	37.7	38.3	38.7	38.7	38.5	38.8	39.0	39.1	39.1	41.4
<b>EU15</b>	40.4	40.9	41.7	42.2	42.4	41.8	42.0	42.1	42.3	42.2	42.2
<b>EU13</b>	31.4	31.4	31.8	32.1	32.4	32.6	32.9	32.9	33.3	33.5	34.0

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics)

There are various reasons for the differences in the tax burden between groups of EU countries. The new Member States have focused less on social issues and more on economic, growth and

competitiveness issues, providing a tax environment with a lighter tax burden. Stronger harmonization in the area of indirect taxation has forced the maintenance of a certain level of consumption taxation, and direct taxation, where harmonization is delayed, has seen declining tax rates, which has also affected the overall level of tax revenue.

The level of tax burden is influenced by a number of other factors, beyond tax rates, such as: fiscal efficiency, respectively the ability to administer and collect taxes, the extent of the activities of the hidden economy, the level of income of the population, etc. All these factors contribute to the differences found in the tax burden. The old Member States are usually more administratively and institutionally capable of collecting taxes, which are more tax-efficient than the new Member States, most of which are post-socialist.

The fiscal burden is also correlated with the level of incomes, an aspect demonstrated by the differences in GDP per capita, by groups of countries and in Romania. From the data in table 2 it is observed that in the analyzed period the incomes in all the groups of countries and in Romania registered increases, the most consistent of these being registered by the EU15 countries. Even though the revenues from the EU13 countries have increased, the differences between the revenues have remained multiple, being even increasing, an aspect that translates, through taxation, also on the collected tax revenues.

**Table 2**

**GDP per capita in market prices, in the groups of countries EU28, EU15, EU13 and Romania, in the period 2010 - 2020 (thousand euros)**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>EU28</b>	24.9	25.6	25.7	26.0	26.6	27.5	28.2	29.3	30.2	31.2	29.7
<b>EU15</b>	34.8	35.7	36.1	36.5	37.5	39.5	40.2	41.4	42.6	44.0	42.6
<b>EU13</b>	11.9	12,5	12.7	12.9	13.3	14.0	14.6	15.7	16.8	17.7	16.9
<b>RO</b>	6.2	6,3	6.5	6.8	7.0	7.3	7.9	8.3	8.7	9.1	8.8

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/national\\_accounts/data](http://epp.eurostat.ec.europa.eu/portal/page/portal/national_accounts/data)

The level of income of the population is an important factor, which has an impact on the orientation of the fiscal structure. A higher level of income (eg personal income) allows countries in this situation to shift a higher tax burden on direct taxation, compared to lower-income countries that are forced to move to a tax structure where indirect taxation predominates.

## **2.1. The evolution of the share of revenues from direct, indirect taxation and those from social security contributions in GDP**

From this general situation at EU28, we follow certain fiscal changes on the three types of taxes, compared between the selected groups of countries. The general level of direct taxes shows an upward trend in all three groups, more pronounced in the EU15 than in the EU13. The most noticeable situation is the difference between the share of direct taxes in GDP in the EU15 and the EU13, confirming the inclination towards indirect taxation in the new member states, with a lower level of income, in a process of economic development, and the old member states. , developed, with a higher level of income.

Such a gap in which EU13 countries collect almost 7 pp (per year of GDP) less revenue than EU15, from direct taxes, suggests a shortage of fiscal resources among the new member states and implicit pressure on the budget deficit and the increase in indebtedness to cover it.

Table 3

**Share of revenues from direct taxation in GDP, in the period 2010 - 2020, in the groups of countries EU28, EU15, EU13 and Romania**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>EU28</b>	10.6	10.6	10.9	11.1	11.3	11.2	11.2	11.3	11.3	11.5	11.5
<b>EU15</b>	13.6	13.8	14.1	14.4	14.6	14.4	14.3	14.5	14.6	14.6	14.6
<b>EU13</b>	7.1	7.0	7.1	7.3	7.4	7.5	7.6	7.7	7.6	7.8	7.8
<b>RO</b>	5.8	6.1	5.8	5.9	6.2	6.6	6.4	6.1	4.9	4.8	4.7

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics)

There are other aspects that explain the lower direct taxation in the new member states, beyond the income level of the population. One of these relates to the fact that the new Member States have been forced to harmonize their indirect taxation and, explicitly, this has led to significant increases in VAT and other consumption taxes, and to offset the increase in the tax burden in the field of indirect taxation, personal income tax rates have been reduced. Another issue concerns the concern of the new Member States for increasing competitiveness by creating a more attractive business environment at the expense of reducing income tax rates (individuals and legal entities). Thus, there was an increase in indirect tax revenues (based on the implementation of the harmonization process) which allowed a reduction in income tax rates.

In table no.4. the dynamics of indirect taxation in selected groups of countries in the last decade are presented. A first general aspect to be observed is that the tax burden resulting from indirect taxation was almost static, the differences between the end and the beginning of the analysis period being insignificant (0.2pp). This balance also extends to the annual values recorded between the EU15 and EU13 country groups, the variation being sub-unitary, an aspect that highlights the results of the advanced process of fiscal harmonization in the field of indirect taxation.

Table 4

**Share of revenues from indirect taxation in GDP, in the period 2010 - 2020, in the groups of countries EU28, EU15, EU13 and Romania**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>EU28</b>	13.4	13.5	13.8	13.9	14.0	13.9	14.0	13.9	14.0	13.9	13.6
<b>EU15</b>	13.3	13.5	13.8	13.9	14.1	13.8	14.0	13.9	14.0	13.9	13.6
<b>EU13</b>	13.5	13.5	13.8	13.9	13.9	14.1	14.0	13.9	14.0	14.0	13.6
<b>RO</b>	11.9	13.1	13.2	12.7	12.7	13.3	11.3	10.3	10.4	10.6	10.4

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics)

During this period, the new Member States made more use of indirect taxation as the main source of tax revenue. Thus, the contribution of indirect tax revenues compared to the contribution of direct tax revenues is almost double, 6.4 pp higher in 2010, and approx. 6 pp in 2020, which shows that the strategic reduction in the contribution of direct taxes in these countries has been partially offset by the increase in the contribution of indirect taxes.

At the same time, the old Member States are relatively balanced in terms of the contribution of the two types of taxes to the creation of tax revenues, expressed as a share of GDP. In the first part of the period, the situation is balanced, with trends of increasing direct tax revenues of approx. 1 pp, towards the end of the period, against the background of the significant increase of the average level of incomes registered in this group of countries.

In table no. 5 shows the dynamics of the burden resulting from social security contributions, relative to GDP, in the last decade, in selected groups of countries. A first general finding is that this category of income shows an overall increase, being an important contributor to the tax revenues of EU countries, more significant being that of the EU13, with an increase at the end of the period of 1.4 pp. Member States, this category of revenue shows a balanced development compared to GDP, an increase of 0.5 pp at the end of the period.

**Table 5**

**Share of income from social security contributions in GDP, in the period 2010 - 2020, in the groups of countries EU28, EU15, EU13 and Romania**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>EU28</b>	11.3	11.3	11.4	11.4	11.4	11.4	11.5	11.5	11.6	11.6	12.2
<b>EU15</b>	11.5	11.6	11.8	11.8	11.7	11.6	11.6	11.5	11.5	11.5	12.0
<b>EU13</b>	11.0	10.9	11.0	11.0	11.1	11.1	11.3	11.4	11.8	11.8	12.4
<b>RO</b>	9.4	9.1	8.8	8.6	8.5	8.1	8.8	9.4	11.4	11.3	12

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics)

The situation of the evolution of income from social security contributions analyzed in relation to certain existing social programs among the countries in the two groups (EU15 and EU13) shows relatively different approaches between the two groups. In most new Member States, the provision of social programs is based more on individual contributions than on a general tax base, which makes income streams for social systems highly dependent on the contributions of employees and employers through the tax system. For this reason, this category of revenue is an important and growing part of public budgets to ensure the stability of the social security system. In some of the old Member States, the funding of social programs is not closely linked to social contributions, their level, but is largely financed by the general revenue of public budgets. We highlight, in particular, the case of Denmark, where the share of these revenues in GDP, during the analyzed period, decreased from 1.3% to 0.8%, instead the fiscal pressure on revenues increased through direct taxation by 2.3 pp. Relatively similar situations are found in Sweden and Ireland.

## **2.2.The evolution of the fiscal structure according to the economic nature of the tax base**

In the following we analyze the fiscal structural changes in the selected groups of countries, according to the economic nature of the tax base. Such a structure combines different types of taxes that are manifested / applied on some factors / activities of an economic nature, facilitating the identification and highlighting of the allocation of the tax burden on different types of economic activities.

Taxation of labor includes all taxes that are directly related to this activity, namely income tax (wages) and the amount of compulsory social security contributions. Taxes borne by this economic tax base are the main constituent of tax revenues, covering approx. 50% of the revenues mentioned in EU28 and EU15, respectively approx. 44% in the new member states. In terms of the share of labor taxation in GDP, it is in the range of 19-19.5% in the EU28 and EU15, respectively in the range of 14-15,2% in the new member countries.

The evolution of labor taxation in relation to GDP, presented in table no. 6 recorded increases in all groups of countries included in the analysis, the largest increase of 1,2 pp was recorded in the group of new member countries.

Table no. 6.

**The share of labor taxation in GDP in the EU28, in the selected groups of countries and in Romania in the period 2010 - 2019**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>EU28</b>	19.0	19.1	19.3	19.5	19.4	19.0	19.2	19.4	19.5	19.5
<b>EU15</b>	19.0	19.1	19.5	19.8	19.8	19.4	19.3	19.3	19.4	19.4
<b>EU13</b>	14.0	13.9	14.1	14.1	14.2	14.1	14.4	14.5	14.9	15.2
<b>RO</b>	11.0	11.2	11.1	11.0	10.8	10.3	10.0	10.7	12.2	12.0

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics)

The dynamics of labor taxation during this period were relatively different between groups of EU countries. EU28, EU15 and EU13 countries have maintained a high level of labor taxation compared to GDP. In the new member states, labor taxation has increased in relation to GDP, and within the EU13 group there have been changes in the legal rates of personal income taxation (declining Hungary, Romania, Estonia and increasing in Slovenia, Slovakia and Latvia).

Below we analyze the trends in consumption taxation. The consumption tax consists of taxes levied on transactions between final consumers and producers and includes mainly VAT and excise duties, being assimilated to indirect taxation.

Its general evolution, presented in table no. 7 indicates a slight increase in relation to GDP, a decrease in relation to current income and is lower than the taxation of labor in all groups of countries analyzed.

Table 7

**The share of consumption taxation in GDP in the EU, in the groups of selected countries and in Romania in the period 2010 - 2020**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>EU28</b>	13.4	13.5	13.8	13.9	14.0	13.9	14.0	13.9	14.0	13.9	13.6
<b>EU15</b>	13.3	13.5	13.8	13.9	14.1	13.8	14.0	13.9	14.0	13.9	13.6
<b>EU13</b>	13.5	13.5	13.8	13.9	13.9	14.1	14.0	13.9	14.0	14.0	13.6
<b>RO</b>	11.9	13.1	13.2	12.7	12.7	13.3	11.3	10.3	10.4	10.6	10.4

Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics)

Consumption taxation relative to GDP generates the most balanced situation among the groups of countries presented, registering consistency during the analyzed period, being a positive effect of the process of fiscal harmonization that countries have agreed in this area of taxation.

Capital taxation, which includes the tax on profits and dividends, is significantly lower compared to the taxation of labor and consumption. However, capital taxes are the most visible and sensitive in terms of competitiveness and investment attractiveness.

On average, capital taxes account for between 6 and 7% of GDP at EU level<sup>28</sup>. Over the decade, capital taxation has shown a significant upward trend at EU15 level. At the level of the new member states, there is a certain stagnation in the level of capital taxation with low fluctuations.

At the same time, there are significant differences between groups of countries in terms of capital taxation. Thus, the EU15 permanently collects more than 3 pp of GDP compared to the EU13 countries.

**Table 8**

**The average share of capital taxation in GDP, in the EU and the selected groups of countries, in the period 2010 - 2019**

Geo / times	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>EU28</b>	6.2	6.2	6.4	6.5	6.7	6.8	6.9	7.0	6.9	6.9
<b>EU15</b>	7.3	7.4	7.6	7.8	8.0	8.2	8.2	8.4	8.5	8.5
<b>EU13</b>	4.8	4.8	4.9	5.0	5.1	5.3	5.4	5.3	5.2	5.1
<b>RO</b>	4.1	4.6	4.1	4.2	4.8	5.1	5.1	4.3	3.7	3.9

*Source: [http://epp.eurostat.ec.europa.eu/portal/page/portal/government\\_finance\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics)*

Such a situation once again demonstrates the different approach to taxation and its allocation between tax bases. In addition, EU15 countries rely more on direct income taxation, and EU13 is more burdensome on consumer activities.

### 3. Some conclusions and findings

The fiscal structure analyzed by types of taxes (direct, indirect, social contributions), at the general level of the EU28 and maintained the hierarchy (indirect taxes, social contributions and direct taxes), and at the level of groups of countries reveals a certain diversity but in the same time, and a certain tax typology. Thus, direct taxation is predominant in the construction of current tax revenues, relative to GDP, in the old member countries (EU15), with over 14%, and indirect tax revenues are predominant in the formation of current revenues, relative to GDP, in new countries Member States (EU13), with approx. 14%.

The observed trends are of considerable increase in direct taxation (over 1% of GDP) in the EU15 countries, as well as of social contributions in the EU13 countries (over 1.5% of GDP) and of relative stagnation in the field of indirect taxation in all groups of countries. .

The fiscal structure in Romania is closer to the group to which it belongs (EU13), registering decreases in the weights in most of the analyzed categories, except for the share of social contributions (+ 2.6%, effect generated by the transfer of contributions to the employee, starting in 2018) .

The analysis of the structural changes in the selected groups of countries, according to the economic nature of the tax base, reveals a considerable dominance of labor taxation, while consumption taxation is in second place and capital taxation is more burdensome in EU15 countries, and more relaxed in EU13 countries. The observed trends are to increase the taxation of labor in the EU13 countries, to increase the taxation of capital in the EU15 countries and to be relatively stationary in terms of consumption taxation.

The share of taxation of the mentioned tax bases in Romania (% of GDP) reflects an increase of labor taxation by 1 pp, incidence coming from the contribution of social contributions, the share of consumption taxation is decreasing (amid the gradual reduction of the VAT rate from 24% in 2014, to 19% in 2020), and the share of capital taxation is also declining, lower than all groups.

From the analysis performed, two models are outlined from a fiscal point of view, namely the group of old member countries and the group of new member countries.

The fiscal model outlined in the group of old member countries is characterized by the following aspects:

-a relatively balanced structure between sources of tax revenue;



-a more pronounced trend of personal income taxation, supported by higher income levels, the availability of alternative factors that can replace or compensate for the high level of taxation (infrastructure, market, skilled labor, miscellaneous, lack of corruption, stability legislative, etc.), an inclination of investments towards the internal market;

-more substantial Community benefits, ie European funds have contributed to the practical perpetuation through the EU Budget of issues such as "dependency theory" - a situation in which the production and resources of certain countries are conditioned by the development and economic conditions of other dominant countries - and the model "center-periphery" which describes the relationship between the central economy (self-sufficient, prosperous) and the peripheral economies, isolated from each other, weak and uncompetitive. European funds are a means of promoting this model, making it easier for developed countries to attract higher rates from these funds, which translates into the possibility of maintaining high tax rates without significant risks to the loss of investment.

The model outlined at the level of the new member states is characterized by the following aspects:

-lower Community benefits and entry into the peripheral part of the mechanism - a number of countries (Hungary, Czech Republic, Bulgaria, Romania) seem to have entered this mechanism, acting as producers and exporters of raw materials, consumers of industrial products and technological, with large trade deficits;

-the limited tax resources collected and the reduced capacity to attract European funds have led to aggressive regional tax competition with negative effects on the size of current revenues, in particular by drastically reducing personal income tax rates (10-15%) and relatively similar in terms of corporate income taxation;

-Against this background, in most new Member States, indirect tax revenues are the main contributors to current revenue, and with a substantial contribution from social security contributions.

With regard to Romania, but also to a number of other countries in the region, it is found that the fiscal attractiveness created 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 are still important elements that limit the flow of foreign direct investment and anticipated fiscal multiplication by reducing tax rates. Moreover, this fiscal strategy affects the level of tax revenues, with immediate consequences on the level of expenditures available for investments (to improve alternative factors), for the provision of public goods and services at least a satisfactory level, in terms of quantity and quality. This shortfall in revenue is often reflected in the budget deficit, as budget expenditures are generally linear or increasing, and cannot be adjusted annually and in a more in-depth way, depending on the level of revenue, in turn, in loan commitments and in increasing the level of public debt, increasing the fiscal pressure in the medium term and with effects of limiting the fiscal resources available for investments and public goods, through the cost of the public debt service.

## **Bibliography**

Alesina, A., Ardagna, S., (2010). "Large Changes in Fiscal Policy: Taxes versus Spending", Tax Policy and the Economy 24, 35–68. <https://doi.org/10.1086/649828>;

Atkinson A., Stiglitz, J. (1976). 'The Design of tax Structure: Direct versus indirect Taxation', Journal of Public Economics 6;

Blanchard, O., Perotti, R., (2002). "An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output", Q J Econ 117, 1329–1368;

European Commission (2021). Taxation Trends in the European Union, Directorate-General for Taxation and Customs Union, European Commission, Publications Office of the European Union, June.

European Commission, (2010 – 2021). „Taxation Trends in the European Union”;

Monson, A., Scheidel, W., (2015). „Fiscal Regimes and the Political Economy of Premodern States”, Cambridge, New York: Cambridge University Press;

Martinez-Vazquez, J. & Vulovic, V. & Liu, Y. (2010). „Direct versus Indirect Taxation: trends, Theory and Economic Significance”, Working Paper, 10-14, May Andrew Young School of Policy Studies, Atlanta, USA.

# ANALYSIS OF SOME TAX SYSTEMS AT GLOBAL LEVEL. EVOLUTIONS AND DIRECTIONS

Nicoleta Mihăilă<sup>9</sup>

## **Abstract:**

*The aim of the paper is to make an analysis of some significant international tax systems and fiscal trends that are outlined in the next period, the objectives being the analysis of the structure and evolution of global tax systems, respectively their trends and orientations at international level. In order to achieve these objectives, we use the OECD reports on the evolution of tax revenues, and their structure, for the Asia-Pacific, Africa, Latin America and the Caribbean regions and for OECD (short presentation). The period considered is the interval 2010-2018, and for 2019 we make an analysis at the regional level.*

**Keywords:** tax structures, regions, tax policies, tax trends

**JEL Classification:** H20

## **1. The evolution of fiscal revenues at the level of regions in the period 2010-2018**

Tax revenues in GDP are influenced by a variety of domestic and international factors.

Internally, we have macroeconomic characteristics, such as the diversification of an economy, the importance of agriculture in the economy, the endowment of resources, openness to trade and the size of the informal economy, which can influence the share of taxes in GDP. The power of tax administrations, levels of corruption and tax compliance are also closely linked to the level of tax revenues.

Location is important: landlocked countries are less able to impose taxes on goods and services entering the country than island states. In addition, international factors, including other countries' tax policies, can have a significant impact.

In each of the four regions, in the period 2010-2019, we notice that a slightly upward trend / region is maintained, mentioning the fact that in the Africa region the growth rate is slower, compared to the other regions and the OECD region records the highest values of collected revenues, of about 33% of GDP (perhaps due to the fact that the OECD includes economically developed countries, and between GDP / capita and tax revenues is a directly proportional relationship).

As a structure, **in the LAC region (Latin America and the Caribbean)** predominates income from taxes on goods and services (consumption taxes), especially VAT, individual and corporate taxes, social security contributions, and a small share is represented by property taxation and those from consumption taxes, other than VAT. The decrease in consumption taxes, other than VAT (excise duties, customs duties and import duties) in many LAC countries is partly due to lower trade tax revenues. Trade liberalization throughout the region has led to a reduction in import tariffs, a narrower base of excise goods and services and the elimination of export taxes, reducing total trade tax revenues. The exception is Argentina, where export taxes were reinstated in 2002.

---

<sup>9</sup> Centre for Financial and Monetary Research "Victor Slăvescu", 13 Septembrie no. 13 street, B Body, et 5, nicoleta.mihaila@icfm.ro

However, the government abolished export taxes for almost all agricultural products in 2015 and reintroduced them in 2018.

**Table 1**

**Tax revenues, per region, in the period 2010- 2019, % GDP**

Average	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>LAC</b>	20.9	21.4	21.7	21.7	21.9	22.3	22.4	22.3	22.7	22.9
<b>Asia Pacific</b>	18.9	19.6	20.0	20.0	19.2	19.6	19.0	20.1	20.8	21.0
<b>Africa</b>	15.1	15.8	15.8	16.1	16.4	16.5	16.4	16.5	16.6	
<b>OECD</b>	31.9	32.2	32.7	33.0	33.2	33.3	34.0	33.7	33.9	33.8

*Source: OECD, Global Revenue Statistics Database,*

<https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm>

In **Africa**, between 2010 and 2018, the average tax revenue (% in GDP) increased by 1.5 pp, from 15.1% to 16.6%, mainly due to increases in value added tax (VAT) revenue and individual income taxes, while corporate income taxes have fallen.

In the **Asia Pacific**, in the last 10 years, tax revenues in GDP have increased in 14 of the 24 economies, with Korea, Japan, Samoa, Maldives and Nauru registering the largest increases. The largest decreases between 2010 and 2019 were in Vietnam, Papua New Guinea and Kazakhstan, in each case largely due to declines in revenues from corporate income tax (CIT) as a percentage of GDP.

On average, taxes on goods and services are the main source of tax revenue in the Asia-Pacific region (49,8%). In terms of income and profit taxes, Asian economies tend to be more dependent on CITs, while Pacific economies are more dependent on personal income taxes.

In **OECD**, during the analyzed period, the most notable change is a decrease in individual income taxes compared to the increase in social contributions and consumption taxes; the share of income tax revenues also increased compared to 2010 (despite declining corporate tax rates); the collection of income from property taxation remains relatively constant.

## **2. Analysis of the structure of fiscal revenues at global level, by regions, in 2019**

In 2019, OECD countries generated on average a third of their tax revenues through consumption taxes, such as value added tax (VAT), which are the most important source of income. Social security contributions and individual income taxes were the second and third most important source of tax revenue in the OECD, at around 25% each. On average, OECD countries collected little of the profit tax (9,6%) and the property tax (5,6%).

If we look at regions, Asia, Africa and South America rely more on consumption taxes and corporate income taxes and less on social security contributions, compared to the OECD average. North American countries rely more on corporate income taxes and "other taxes" than the OECD average and less on social security contributions and individual taxes. Oceania is not based on social security contributions at all, while consumption taxes are the region's most important source of income.

Developed countries collect tax revenues through a mix of individual income taxes, corporate taxes, social security contributions, taxes on goods and services, and property taxes. But income taxes can do more economic damage than consumption and property taxes. However, the extent to which a country relies on any of these taxes may differ substantially.

A country may decide to have a lower income tax to attract investment, which may reduce its dependence on income tax revenues and increase its dependence on other taxes, for example social security contributions or consumption taxes.

Countries can also be located close to natural resources that allow them to rely heavily on taxes on related economic activity (Saudi Arabia, South Africa). Taxes on consumption are the most important source of income for the region.

According to the latest OECD data (2019), two consumption taxes were the largest source of tax revenue for OECD countries (VAT and excise duties). On average, 3 countries earned 32.3% of their revenues from consumption taxes, perhaps due to the fact that all OECD countries (except the United States) charge value added taxes (VAT) at relatively high rates.

The next significant source of tax revenue is social security contributions, which brings in an average of 25.7% of income. Individual income taxes accounted for 24% of total OECD income. The lowest shares of income were those of corporate taxes (9.6%) and property taxes (5.6%).

#### Sources of tax revenue

##### *i) Taxes on consumption*

Consumption taxes are taxes on goods and services, respectively excise duties, VAT or retail taxes. Most OECD countries charge consumption taxes through VAT and excise duties. The United States is the only country in the OECD without VAT. Instead, most US states and many local authorities charge a retail tax on the final sale of products and excise duties on the production of goods such as cigarettes and alcohol.

In 2019, Chile relied mostly on taxes on goods and services, bringing in about 53.1% of its total tax revenue from these taxes. Chile was followed by Hungary (45.3%) and Latvia (45.1%). The United States collected the lowest amount of OECD tax revenue from consumption taxes, 17.6% in 2019. Japan collected slightly more, respectively 19.5%.

##### *ii) Social security contributions*

They are usually charged to finance specific programs, such as unemployment insurance, health insurance and old-age insurance. In most countries, they apply to both the employee and the employer.

Australia and New Zealand are the only countries that do not levy specific social security taxes for workers to fund government programs.

##### *iii) Individual income taxes - PIT*

Income taxes are levied directly on a person's income, starting with salary income. Many nations also levy their individual income tax on investment income, such as capital gains, dividends, interest, and business income. These taxes are usually levied progressively, which means that a person's average tax rate increases with increasing income.

The country with the highest dependence on individual income taxes in 2019 was Denmark (52.4%), followed by the United States (41.5%) and Australia (41.1%). Colombia (6.2%), Chile (7.2%) were the least reliant on individual income taxes.

##### *iv) Corporate income tax - CIT*

Corporate income tax is a direct tax on corporate profits. All OECD countries levy a corporate income tax. However, countries differ substantially in how they define taxable income and the rate at which they apply the tax. In general, corporate income tax brings in lower income compared to other sources.

Colombia relied mostly on corporate income tax, with 24.5% of total tax revenue. Chile (23.4%), Mexico (21.3%) and Australia (19.1%) also relied heavily on corporate income tax, compared to the OECD average of 9.6%. In 2019, Latvia (0.5%), Hungary (2%), the United States (3.9%) and Italy (4.6%) relied least on corporate tax.

##### *v) Property taxes*

A much lower source of tax revenue for most OECD countries is the property tax. It is levied on the value of the property of an individual or a company. Other types of property taxes include property taxes, gifts and inheritances and net wealth taxes.

The United Kingdom relied mainly on property taxes in the OECD (12.4%), followed by the United States (12.1%) and Canada (11.6%).

### Sources of tax revenue by region

When we analyze the sources of tax revenue by region, including non-OECD countries, there are a lot of variations, reflecting the economic and social differences between regions.

In 2018, consumption taxes were Africa's main source of revenue, accounting for 51.9% of its total tax revenue, above the OECD average of 32.3%. Africa also relied more on corporate income taxes and taxes than the OECD average. Social security contributions and individual taxes were well below the OECD average for these two sources of income.

The main sources of income in Asia in 2019 were consumption taxes and profit taxes. The share of these sources in the revenue mix is above the OECD average. On the other hand, Asia collected only 13.6% of its total income from individual income taxes and 12% of social security contributions, both below the OECD average. The share of property taxes in total tax revenue is similar to the OECD average.

In 2019, consumption taxes were the main source of revenue in North America, despite the low share of the United States. North American countries also rely more on corporate and other taxes than the OECD average. On the other hand, North America relied less on individual income taxes, social security contributions and property taxes than the OECD average.

Consumption taxes accounted for 56.1% of Oceania's tax revenue, compared to the OECD average of about a third, making consumption taxes the region's most important source of income. At the same time, Oceania relied more on corporate and non-OECD taxes. Also, individual income taxes are similar to the OECD average; there are no social security contributions collected in these countries.

The share of South American consumption taxes is also above the OECD average of 48.5%. At the same time, South American countries relied more on corporate and other taxes than the OECD average. On the other hand, South America relied less on individual income taxes (7.3%), compared to the OECD average of almost a quarter of total revenues. It also relied less on social security contributions than the OECD average.

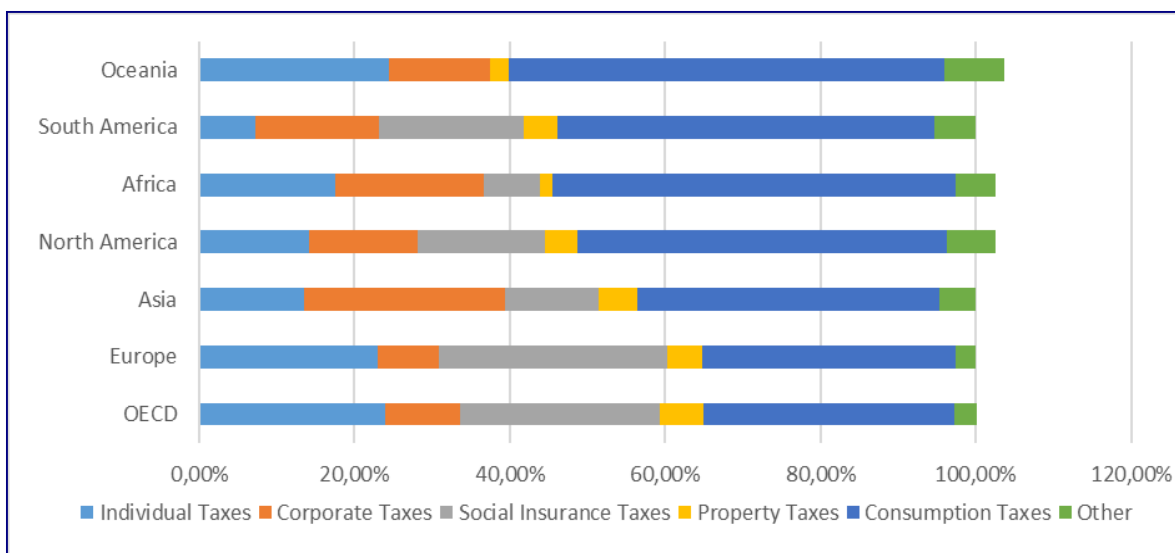
**Table 2**

#### Tax revenues by regions in 2019, % total taxation

Region	Individual Taxes	Corporate Taxes	Social Insurance Taxes	Property Taxes	Consumption Taxes	Other
OECD	24.00%	9.60%	25.70%	5.60%	32.30%	2.90%
Europe	23.00%	7.80%	29.50%	4.40%	32.70%	2.50%
Asia	13.60%	25.80%	12.00%	5.00%	38.90%	4.70%
North America	14.20%	13.90%	16.50%	4.10%	47.50%	6.40%
Africa	17.50%	19.20%	7.20%	1.60%	51.90%	5.20%
South America	7.30%	15.90%	18.60%	4.40%	48.50%	5.30%
Oceania	24.40%	13.00%	0.00%	2.40%	56.10%	7.80%

Source: OECD "Global Revenue Statistics Database," [https://stats.oecd.org/Index.aspx?DataSetCode=RS\\_GBL](https://stats.oecd.org/Index.aspx?DataSetCode=RS_GBL), and OECD, "Revenue Statistics - OECD countries: Comparative tables"





**Figure 1: Tax revenues by regions in 2019, % total taxation**

*Source: made after Table 2*

### 3. Trends in tax systems at global level

Globally, there are discussions regarding tax reforms in order to increase tax revenues and stimulate foreign investment, on the one hand, but also to reduce inequalities in the labor market, and especially to reduce the poverty, which in the last year and especially due to the pandemic, has increased significantly.

Therefore, at the international level, the main topics currently under discussion are:

- fair taxation, and implicitly the taxation of large corporations, in order to prevent the transfer of profit to tax havens.
- taxation of large fortunes/ wealth, but also of property (which has a low share globally).
- a transition / transfer from income / profit taxation to consumption taxation is desired, a corporate income tax being “the most harmful” to business activity and economic growth. A regime change towards a higher use of VAT / sales taxes would have a positive impact on the overall allocation of capital: companies should no longer pay attention to differences in the corporate tax rate, and the authorities could facilitate foreign trade and investment. , by implementing lower barriers or reducing existing ones.

#### ***a) Fair taxation, taxation of large corporations in order to reduce the transfer of profits and increase revenues worldwide, facilitate trade and investment that fuel the global economy***

The issue of fair taxation is back on the agenda, and an important step in this regard is being taken by the United States of America (USA), through the Made in America Tax Plan announced by the new presidential administration, which involves, among other things, increasing corporate income tax and elimination of facilities granted to multinational companies, in order to ensure the necessary financing of the plan, but also to limit the exodus of profits in tax havens.

According to the Plan, it is proposed to increase the income tax from 21% to 28% (after decreasing from 35% to 21% during the Trump administration) and a minimum tax of 21% for profits obtained in another country (GILTI - Global Intangibles Low Tax Income), which will cause the US to become the country with the highest corporate tax rate among the world's major economies.

The concern of the states of the world for a fair taxation system dates back several years, but the first concrete actions taken to limit the avoidance of tax payments by transferring profits to jurisdictions with favorable tax treatment were materialized by the BEPS plan (Base Erosion and profit Shifting), which largely involves the automatic exchange of information between countries to

determine where revenue has been generated and where it should be taxed. But as the economy grew in complexity, the efforts for fair taxation also intensified.

Thus, with the development of the digital economy, the OECD has decided to continue the initiative on two-way taxation (two pillars), the first focusing on taxing the digital economy (it aims to allocate a larger share of the global profits of a multinational technology to the countries from which it earns), and the second, following the anti-BEPS initiative, towards the establishment of a minimum global profit tax. But these two directions are still being debated.

OECD anti-BEPS initiatives have already been implemented in many jurisdictions, with visible beneficial effects. The European Union has taken over the recommendations in a set of directives (DAC), and the new rules have proved effective. DAC 6, which involves the reporting of risky transactions, is currently in force, and DAC 7, which aims to monitor operations in the digital economy and is a step towards taxing the digital economy, is in the draft stage.

According to the State of Tax Justice 2020 report, based on data from country-by-country reports published by the OECD, the world's states lose more than \$ 427 billion annually from moving profits and personal wealth into tax havens. The countries that lose the largest amounts are the USA (almost 90 billion dollars a year), Great Britain, Germany, France and Brazil. Of the \$ 427 billion, \$ 245 billion is lost directly due to tax evasion by companies, and the difference is in personal wealth taxes.

Although most of the losses are from rich countries, these tax practices affect lower-income countries more. The latter lose the equivalent of 5,8% of the total tax revenue they normally collect due to tax and tax avoidance practices, while the losses of high-income countries amount to only 2,5% of the total.

According to the report, rich countries are also responsible for these losses (98%), and the main favoring jurisdictions are the Cayman Islands (generating 16,5% of global tax losses - the equivalent of \$ 70 billion), the United Kingdom (10%), the Netherlands (8,5%), Luxembourg (6,5%) and the USA (5,53%).

Another significant step is taken in July this year, when an agreement is signed within the OECD, representing "a colossal step towards greater tax justice". But the deal only covers one of the two pillars of the OECD's international taxation initiative, the minimum profit tax. The pillar that provides for the imposition of a tax on digital companies has not met the consensus of the great powers, and risks causing misunderstandings between the EU and the US (due to the imposition of a digital tax on the revenues of large US IT corporations).

Specifically, it is *the global profit tax at a "minimum" rate of 15%*, which would bring additional revenue of over \$ 150 billion annually to governments around the world. The signatory states have agreed on a two-way tax reform for multinationals: one on an overall profit tax rate of at least 15%, and the other on a new distribution of multinational taxation rights between states. Thus, a state will be able to tax the profits obtained by a national company from abroad if the tax paid there is less than 15%, to compensate for the difference.

This rule applies to companies with a turnover of over EUR 750 million. Instead, the distribution of profit shares to the countries from which the revenues are obtained will be able to be requested, under certain conditions, only to the multinationals that generate over 20 billion euros in the global turnover and whose profitability is higher than 10%. Therefore, the benefits of the states from which the revenues are extracted will be limited.

Certain countries with profit tax rates below that stipulated in the agreement, including Ireland and Hungary (12,5% and 9% respectively), have refused to sign the convention, as it diminishes their competitive advantage from reduced taxation in attracting investors.

This initiative seeks to stop the reduction of global income tax rates ("race to the bottom") in the last 30 years (international tax competition), and will result in an alignment of national minimum rates to / above the level of 15 %.

With regard to the Digital Services Tax (DST), the EU is continuing its implementation, with different objectives from those established at the OECD meeting, and the scope is wider. In

addition, the DST would apply across the EU if no global agreement is reached. The application of a quota of 0.3% on the online sales of products and services of companies operating in the common market, with an annual turnover of over 50 million euros, is being discussed. Therefore, it is not only the technology giants that are targeted, but many more companies.

For Romania, which has a profit tax of 16%, the impact of the OECD agreement on the minimum quota is not very important (according to Deloitte and E&Y); possible effects could be on multinational companies operating on the local market, from potential internal reorganizations of multinational groups as a result of the introduction of the minimum tax, or on the state budget itself, which could benefit from the allocation of profits of large multinational companies selling in Romania, without having a physical presence in the country.

We believe that a minimum corporate tax rate would result in, among other things, more complex corporate tax laws, undermining the transparency and accountability of authorities, objective assessment of tax flows and tax justice inside and outside corporations being extremely difficult.

***b) Finding other sources for increasing global income: the taxation of large fortunes, property and taxation of consumption are taken into account.***

Corporate tax revenues account for a small share of total annual revenues in different regions of the world, excluding Asia and Africa.

Sales taxes and taxes on labor and capital income are already much more important sources of government revenue. Combined with the multitude of different national corporate tax laws and definitions of the global tax base, decision-makers need to reconsider whether corporate income taxes make sense and to what extent corporate taxation is contrary to social and economic policy objectives.

Replacing tax systems that include corporate income taxes with systems that rely exclusively on direct taxes on individual labor income, capital income and consumption (VAT / sales tax) would greatly increase transparency and clarity about the distributional effects of taxes. It would also improve the ability of governments to respond to citizens' preferences regarding fair taxation.

A regime change towards a greater use of destination-based sales taxes would also have a positive impact on the overall allocation of capital. Governments around the world would have greater incentives to accept economic openness, resulting in lower barriers to trade and investment, accelerated economic development and economic modernization.

Also, to help countries meet their pandemic funding needs while reducing inequalities, the International Monetary Fund (IMF) has launched a series of recommendations that focus on taxing high incomes or wealth. Political decision-makers are encouraged to choose from a range of tax reforms to increase additional income from taxes on income, property, society and consumption.

The IMF is also calling for increased maximum income tax rates, the introduction of a temporary surcharge and / or tightening regulations on inheritance and gift taxes.

Taxation of the rich was implemented during the COVID-19 crisis in many countries and especially in low-income ones. Argentina, Bolivia, Colombia, Chile, Peru and Mexico have proposed or applied taxes on net worth. However, Argentina collected only 2% of what is expected to be collected with its version of the single wealth tax.

Other measures recommended by the IMF include raising the property tax and "updating property values at current market prices". Examples of OECD countries such as the United Kingdom, the United States, Canada, Israel, France, New Zealand and Greece are already based on property taxes, which, when levied at current and accurate values on property, could increase revenues.

It should be mentioned that in the USA, in the new Made in America tax reform, it is proposed to tax wealth and reward work, respectively medium-sized households to stop paying income tax.

In order to reward work, several measures are proposed:

- A minimum hourly wage of 12 USD

- Fiscal credits for the first half of workers who receive the minimum wage, which aims at a compensation of payroll taxes
- Tax incentives for corporations to train their workers and share profits widely
- Adequate fiscal and monetary stimulation to create and maintain jobs / Employment.

It is proposed to eliminate the income tax by increasing the standard deduction for most middle-class families. In order to compensate for the lost income, it is proposed to tax carbon and consumption, but also a "harsher" taxation of capital.

Also, in addition to the taxation of wealth (which is difficult to manage), it is also proposed to increase the property tax, but also to increase the profit tax to 25%.

We believe that the taxation of consumption, but also of property, could lead to an increase in tax revenues at the state level, to the detriment of corporate and individual taxpayers. Fiscal reforms are needed to stimulate economic growth by supporting private investment and employment.

Regarding the level of wealth tax in Romania, we consider necessary to tax unjustifiable amounts, namely the introduction of an initial wealth declaration for all residents who have a net wealth above a certain level, and the amounts additionally set by ANAF in following tax audits are imposed at a certain rate.

In Romania, property taxation has an extremely low share in GDP. Our country has, according to Eurostat, the largest number of homeowners - 96% of the population live in personal property, which has made property taxes a sensitive element, spared so far by the authorities. Currently, local property taxes are differentiated according to who owns them, for example, a company pays more than an individual for the same building.

### ***c) Improving the collection, by complying through collaboration***

To stimulate compliance, tax authorities may use, as encouraged by the Organization for Economic Co-operation and Development (OECD), certain methods experienced in other countries that may help to strengthen collection. These methods are related to the education of taxpayers and a good communication of measures, efficient services for payers, corroborated with a good knowledge of the taxpayer's behavior and the reasons behind its decisions. Thus, we talk about the notion of "behavioral insights", respectively direct information about the taxpayer's behavior.

Thus, the British Tax Office (HMRC) has created a program to educate taxpayers, through animations distributed on social media, which present completed form templates, accompanied by an explanation of the headings and how to answer the questions in the income tax return if, for example, they change their home.

The French tax authorities, on the other hand, collaborated with the Ministry of Economy and the Ministry of Finance in creating a platform in which they explain how the taxes paid by taxpayers are used. The page can be accessed from the account of any taxpayer. Taxpayers also have at their disposal a simulator, on which they can calculate their payment amounts approximately.

Beyond the European space, for example, the Servicio de Impuestos Internos in Chile promotes the completion of tax forms through and with the support of business associations.

For better compliance, Romanian tax administrations could use new ways of interacting with taxpayers, a behavioral approach or "collaborative compliance". A good example of this is that of Norway, which, using the behavioral method, has increased its reporting level by 25%. What he did was just send classic letters, by mail, to individual taxpayers, around the time when they should have completed the declarations regarding real estate or investments owned abroad. The experiment showed that people were not malicious, but did not know how to do the reporting. Another conclusion drawn from the action of the Norwegian tax authorities was that no way should be considered to reach vulnerable groups - in this case the letter on paper, but also that the messages should not be complicated, but explained as clearly as possible.

In Romania, measures have begun to be implemented regarding the digitization of the ANAF institution and the improvement of the services made available to the citizen, respectively the

implementation of the SAF-T project, which together with connecting cash registers and e-invoices could provide real-time data to the state and it would really help in reducing evasion and strengthening collection.

Currently, in Romania it is necessary to increase the level of collection. A disadvantage in terms of tax legislation in Romania is the presence in the tax base of many and various exceptions and preferential treatments, granted on populist grounds or of sectoral political interest. It is therefore necessary to broaden the tax base by eliminating tax exemptions and reducing tax evasion.

Possible other sources in the budget can be obtained from:

- Behavioral taxes, new “entries” of taxes in the area of taxes on behavior change, better known as their generic name “vice taxes”, which apply in EU countries: the sugar tax, which Poland wants to implement this year, Italy has postponed it and Spain wants to increase it.
- New taxes, applied in other states - plastic tax and digital services tax.

## Conclusions

In this paper we analyzed the structure and evolution of global tax systems, more precisely, we analyzed the tax revenues collected in the four regions, in the period 2010-2019, respectively trends of global and European tax systems.

What must be kept in mind is that in the last decade, globally, tax revenues have come mainly from the taxation of goods and services (especially VAT) and social contributions, while revenues from the taxation of personal and corporate income have decreased, especially due to declining corporate tax rates (CITs).

Currently, there are discussions on tax reforms aimed at increasing tax revenues and stimulating investment, on the one hand, but also reforms to reduce inequalities in the labor market and especially reduce poverty. Pursuing these objectives globally, the main measures concerned are related to: fair taxation, and implicitly the taxation of large corporations, in order to prevent the transfer of profit to tax havens; taxation of large fortunes, but also of property (which globally has a low share); improving voluntary compliance (through collaboration).

## References

- EUTAX Observatory, 2021, Collecting the tax deficit of multinational companies: simulations for the European Union
- IMF, 2021, United States, IMF Country Report No. 21/162
- IFS, 2021, What does the global tax deal mean for lower income countries
- OECD, 2021, "Global Revenue Statistics Database
- OECD, 2021, Revenue Statistics in Latin America and the Caribbean
- OECD, 2020, *Revenue Statistics in Africa 2020*
- OECD, Revenue Statistics in Asia and the Pacific 2021
- The Tax Justice Network , The State of Tax Justice 2020: Tax Justice in the time of COVID-19.
- <https://taxsummaries.pwc.com/interactive-map>.
- <https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm>.



# ABOUT HOUSEHOLD WEALTH AND INEQUALITIES IN THE CONTEXT OF COVID 19 CRISIS AT GLOBAL LEVEL

Nicoleta Mihăilă<sup>10</sup>

## **Abstract:**

*The current health crisis has led to important changes in the global wealth of the population, respectively the rich have become richer, the poor poorer, and social inequalities have deepened. The purpose of this paper is to make an analysis of the wealth of the population at global level in 2020 and to propose some solutions of tax nature in order to help the vulnerable population and to limit the growth of very large fortunes. The methodology is a descriptive one, using the data provided by the OECD and Credit Suisse reports on global wealth.*

**Keywords:** *wealth, financial wealth/ adult, debt/ adult, inequalities, tax policy*

**JEL Classification:** *H31, I38*

## **Introduction**

According to the Oxfam report, the fortunes of the world's first 1.000 billionaires returned to pre-pandemic highs in just 9 months, while the fortunes of the world's poorest people could recover in even a decade. In terms of job distribution, in the world, women have the most severely affected jobs compared to men. The biggest concern is the millions of people, globally, with extremely low living standards and who have mostly had jobs severely affected by the pandemic, or the rise in global hunger, which is already affecting millions of people due to climate change or some other economic and logistical causes.

The present paper is structured as follows: the analysis of the wealth of population at global level in 2020, compared to the previous year, the situation in Romania, as well as some fiscal measures in order to help the vulnerable population.

## **Analysis of the wealth of the population at global level in 2020**

In general terms, in this paper, the term "wealth" implies the sum of financial wealth (money held in bank or cash accounts) and non-financial wealth (the value of real estate such as a house or apartment). Net worth is defined as the value of financial assets plus real assets (principally housing) owned by households, minus their debts. This corresponds to the balance sheet that a household might draw up, listing the items which are owned, and their net value if sold.

In 2020, the number of millionaires worldwide will increase by 5.2 million, despite the fact that the pandemic has caused a major disruption to the world economy. Rising house prices and stock markets, due to low interest rates and stimulus measures introduced by governments, have made the rich even richer and the poor poorer and wealth inequality has deepened.

The number of millionaires in dollars exceeded 1% of the world's adult population, reaching 56,1 million people (1,1% of the adult population) by the end of 2020, increasing by almost 10% compared to the end of 2019. In contrast, nearly 2.9 billion people (55 percent of all adults) have fortunes of less than \$ 10.000<sup>11</sup>. The United States was responsible for nearly a third of the 5.2

---

<sup>10</sup> Centre for Financial and Monetary Research "Victor Slăvescu", 13 Septembrie no. 13 street, B Body, et 5, [nicoleta.mihaila@icfm.ro](mailto:nicoleta.mihaila@icfm.ro)

<sup>11</sup> Credit Suisse, Global wealth Report 2021



new millionaires who appeared worldwide last year, as the number of American millionaires rose by 1.7 million, to 22 million. Next is Germany, which has won 633.000 new millionaires. The United Kingdom, the sixth largest country with the most millionaires, has acquired 258.000 millionaires and currently has 2,5 million people with assets worth over one million dollars.

Also, another 41.420 people joined in 2020 the group of the ultra-wealthy, those with assets worth over 50 million dollars. The number of the ultra-wealthy has increased by 24% compared to 2019, which is the fastest annual growth rate in the last 17 years, to a total of 215.030.

In total, world wealth rose by 7.4% in 2020, to \$ 418.3 trillion, mainly due to increases in the US, Europe and China, while total wealth fell in Latin America and India.

It is expecting a further 39% increase in world wealth in the next five years, to \$ 583.000 billion, while the number of millionaires would rise by almost 50%, to 84 million.

**Table 1**

**Changes in household wealth in 2019-2020, by region**

region	Total wealth 2020 (mld dolari)	Change in total wealth		wealth / adult 2020 (dollars)	change wealth / adult (%)	Change in financial wealth (%)	Change in non-financial wealth (%)	Change in debt (%)
		2019-2020 mld dolari	2020 - 2019 %					
Africa	4946	36	0.7	7317	-2.1	-1.0	0.9	-8.5
Asia Pacific	75277	4694	6.7	60790	5.0	7.4	6.4	8.9
China	74884	4246	6.0	67771	5.4	10.2	4.3	15.5
Europa	103213	9179	9.8	174836	9.8	14.0	6.6	10.3
India	12833	-594	-4.4	14252	-6.1	3.8	-6.8	-5.8
America Latina	10872	-1215	-10.1	24301	-11.4	-11.1	-10.5	-17.0
America Nord	136316	12370	10.0	486930	9.1	10.0	7.7	4.7
Global	418342	28716	7.4	79952	6.0	9.7	4.8	7.5

*Source: Credit Suisse, Global Wealth Databook 2021*

According to Table 1, total wealth rose by USD 12.4 trillion in North America and by USD 9.2 trillion in Europe. These two regions accounted for the bulk of the wealth gains in 2020, with China adding another USD 4.2 trillion and the Asia-Pacific region (excluding China and India) another USD 4.7 trillion. Total wealth scarcely changed in Africa, and exchange rate appreciation accounted for what little change there was. India and Latin America both recorded losses in 2020. Total wealth fell in India by USD 594 billion, or 4.4% in percentage terms. This loss was amplified by exchange rate depreciation: at fixed exchange rates, the loss would have been 2.1%. Latin America appears to have been the worst-performing region, with total wealth dropping by 11.4% or USD 1.2 trillion.

Nations with high wealth per adult (above USD 100.000) are located in North America, Western Europe, and among the richer parts of East Asia, the Pacific and the Middle East, with a sprinkling of outposts in the Caribbean. China and Russia are the core members of the “intermediate wealth” group of countries with mean wealth in the range of USD 25.000–100.000. This group also includes more recent members of the European Union and important emerging-market economies in Latin America and the Middle East.

One step below, the “frontier wealth” range of USD 5.000– 25.000 per adult is a heterogeneous group that covers heavily populated countries such as India, Indonesia, Iran and the Philippines, plus most of Latin America and leading sub-Saharan nations such as South Africa. Fast-developing Asian countries like Cambodia, Laos and Vietnam also fall within this category. Countries with average wealth below USD 5.000 comprise the final group, into which most of central Africa falls.

## Households wealth in Romania

According to Credit Suisse, in 2020, Romania produced over 15.000 new millionaires in dollars, a number almost triple compared to 2018, currently being 47.000 millionaires in dollars. Also, 1.431 million Romanians had a fortune of over 100.000 dollars in 2020, a strong increase compared to 1,11 million in 2019 and 385.000 people in 2018.

Regarding the millionaire Romanians in dollars, their number increased from 15.982 people in 2018, to 31.703 people in 2019 and to 47.000 people in 2020. Of the 47.000 Romanian millionaires in dollars, 43.200 have a fortune between 1 and \$ 5 million, 2.806 between \$ 5 million to \$ 10 million, 1.089 between \$ 10 million to \$ 50 million, 51 million between \$ 50 million and \$ 100 million, and 21 million between \$ 100 million to \$ 500 million. Only one Romanian has a fortune of over 500 million dollars, compared to the two Romanians in 2019.

Net wealth of households rose by 4.1%, from about \$ 730 billion in 2019, to \$ 761 billion. On average, net worth per adult increased 4,8%, to \$ 50.009, from \$ 47.721 in December 2019. Most of the wealth (\$ 40.702) is represented by non-financial assets. Debt per adult increased from \$ 2.995 to \$ 3.178.

Regarding the distribution of private wealth, over a third of adult Romanians (32,1%) have a fortune of less than \$ 10.000, 58,5% have an estimated fortune of between \$ 10.000 and \$ 100.000, 9.1% between \$ 100.000 and \$ 1 million, and 0.3% have assets of more than \$ 1 million. Globally, net worth increased by 7.4% (\$ 28.7 trillion) in 2020 to \$ 418.3 trillion, while the average wealth per adult rose by 6%, to \$ 79.952, a new record maximum.

In the table below we present the situation in several European countries, including Romania.

**Table 2**

### Estimated wealth in 2019-2020 in several EU member states

state	Adults (thousands)		wealth/ adult (dollars)		Financial wealth/ adult (dollars)		Non-financial wealth / adult (dollars)		Debt/ adult (dollars)		Total wealth (mld dollars)	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Bulgaria	5.586	5.639	36.443	35.154	18.076	17.540	22.215	21.165	3.848	3.550	204	198
Czech Republic	8.528	8.535	78.103	67.104	42.643	35.845	47.227	41.189	11.767	9.930	666	573
Hungary	7.769	7.791	53.664	52.095	28.484	26.847	30.131	29.811	4.951	4.563	417	406
Latvia	1.477	1.504	70.454	69.012	23.146	20.271	52.424	53.747	5.116	5.006	104	104
Poland	30.315	30.372	67.477	62.783	21.988	19.054	52.716	50.655	7.226	6.926	2046	1907
Romania	15.204	15.307	50.009	47.721	12.485	11.362	40.702	39.354	3.178	2.995	761	730
Slovakia	4.346	4.347	68.059	61.891	22.947	20.377	57.247	52.617	12.134	11.103	296	269

*Source: Credit Suisse, Global wealth databook 2021*

We note that in the period 2019-2020, although in the analyzed countries the number of adults decreases, their wealth increases, to a greater extent in the Czech Republic and Slovakia. It also draws attention to the more sustained increase in individual non-financial wealth / adult (in the Czech Republic, with \$ 6.038, Slovakia), but also its reduction in Latvia, as well as the financial wealth / adult (more significant in the Czech Republic and Romania, increase with \$ 1.123). Debts / adult also increase, but at a more modest pace compared to the assets (Latvia has a constant level).

Romania also has an upward trajectory in terms of individual wealth (increase of \$ 2.288), although the number of adults has decreased (to a small extent). Financial and non-financial wealth/ adult and debt/adult have increased.

In the territory, the net wealth of the population registered at the end of 2020 a historical maximum, increasing by 6.1 percent compared to the previous year. Real estate assets continue to have a majority share (75 percent) amid the high rate of real estate ownership (95.8 percent, according to Eurostat). The increased value of these assets was due to the increase in the real estate price index and the depreciation of the national currency, indicating the resilience of the real estate market. This is largely due to legislation that encourages the holding of real estate assets rather than (re) investing in productive activities.

Deepening, the net wealth of the population stands at a historical maximum level of 2.414 billion lei (over 490 billion euros), after an increase of 6,1% in the pandemic year 2020, compared to 2019, according to the NBR, Financial Stability Report. Financial assets represent about 24 percent of the total, compared to the Euro area, where they represent about 45 percent of the population's wealth, with a growth rate of 8,8 percent for the period under review. This gap highlights the low capacity to mobilize domestic capital and the dependence on attracting foreign capital.

In structure, among the financial assets, the population sector shows its predisposition to secure instruments, such as cash and deposits (representing about 39 percent of total financial assets of the sector), followed by investments, namely private pensions.

The total indebtedness of the population continued its upward trend, but the growth rate slowed down compared to the previous year. Also, due to the measures imposed to restrict the movement starting with March 2020, as well as the uncertainties related to the future evolutions of the population incomes, the consumer loans registered a decrease compared to 2019, but the mortgage ones increased slightly.

**Table 3**

**The evolution of household wealth in Romania in the period 2010-2020**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Active financiare nete	140	155	207	296	332	363	387	420	384	540	595
Active imobiliare	1.206	1.119	1.249	1.196	1.181	1.219	1.295	1.425	1.581	1.736	1.819
Datorii / Active nete (sc dr)	8,93	9,54	8,42	8,18	7,96	7,86	7,59	7,50	7,67	7,19	7,06

*Source: BNR, Financial Stability Report, june 2021*

According to the table, we notice the increase of real estate financial assets and net financial assets in the last 10 years, but also the slower growth rate of the population's debts (from 8,93 to 7,06).

## **Possible solutions of fiscal nature in order to help the vulnerable population and to limit the growth of very large wealth**

At the onset of the crisis, wealth was highly concentrated at the top while many households held little to no net wealth. Although there were social and economic measures to support households to cope with the labor market and income shocks triggered by the pandemic, it may often have

arrived late or been insufficient to replace lost income<sup>12</sup>, and many households had to draw on their savings to keep up their necessary expenditure. The situation was particularly challenging for indebted households, and those with little savings to draw on.

For example, before the pandemic hit, one in every two households across the OECD had some form of debt<sup>13</sup>. The burden and the form of debts vary greatly across the income distribution. While higher-income households tend to have higher debt loads, debt payments as a proportion of household disposable income are larger for lower-income households. High debt repayments hinder the ability of lower-income households to manage debt while meeting their basic costs of living. As the debt payment deferral plans put in place by many governments and financial institutions are gradually being lifted, debt service ratios are likely to rise, thus increasing the risk of insolvency for indebted lower-income households.

Lower-income households are also more likely to rely on more expensive borrowing, with a higher burden in the form of consumer debt, often used to finance essential and day-to-day expenses or to pay down existing mortgages. Almost 80% of indebted lower-income households owed consumer debt, while only 30% carried mortgage debt – the respective shares were 58% and 62% for indebted households in the top 10% of the income distribution. Interest rates on consumer loans are typically higher than those on mortgages; it is therefore a source for concern to see the proportion of lower-income households carrying consumer debt rising in many countries in recent years.

Household debt, even among lower-income households, is not a warning signal per se. It is, however, a threat to household financial resilience when households become over-indebted, e.g. when their debt-to-income ratio becomes larger than three, and more exposed to significant risks in the event of sudden falls of their income. Over-indebtedness concerns almost one in ten lower-income households in the OECD on average, ranging from around 2% in Austria, Poland, Germany and Estonia to 15% and above in Norway, Korea, the Netherlands and Denmark. Since around 2010, the share of over-indebted lower-income households has not considerably changed in most countries, except in Spain, Portugal and the United Kingdom, where it fell, and in Norway, where it increased.

As they geared up to face the second economic crisis in just over a decade, lower-income indebted households had often not recovered from the previous downturn. In the two decades leading up to the global financial crisis, most OECD countries experienced unprecedented levels of household indebtedness. As credit became more easily available for heavily indebted borrowers, lower-income households often took advantage of property debt to sustain their standard of living in response to stagnating incomes. Under booming housing markets, homeowners started borrowing against their increased collateral to fund spending on consumer goods and services. All in all, indebted lower-income households became overleveraged and extremely vulnerable to the risk of income shocks and drops in assets prices, risks that materialised with the financial crisis.

Beyond over-indebtedness, another threat to households' financial resilience is the absence of emergency savings and liquid assets (mostly deposits, bonds and stocks) to maintain their current living standards when confronting an unexpected fall in household income. Although there may be scope to reduce certain forms of expenditure, this is often more difficult for those at the bottom of the income distribution who already are on a shoestring budget.

In order to increase the financial resilience of vulnerable households, and to limit the increasing wealth concentration at the top end of the distribution, authorities can adopt some measures:

• ***Support vulnerable lower-income and lower-wealth households' capacity to save and accumulate wealth:***

---

<sup>12</sup> OECD (2020), Job retention schemes during the COVID-19 lockdown and beyond - OECD, OECD Publishing, Paris

<sup>13</sup> OECD, 2021, Inequalities in household wealth and financial insecurity of households

- o Develop attractive savings schemes for small savers. Where tax-preferred accounts are available to encourage household savings, ensure that these are targeted at lower-income lower-wealth households through deposit limits and/or capped contributions;
- o Enhance the neutrality and progressivity of taxes on household savings by reducing the differences in tax treatment applying to different types of capital assets (for example, by limiting tax exemptions on capital gains);
- o Limit or cap mortgage interest deductibility, as such deductibility tends to provide greater benefits to wealthier households in absolute terms;
- o Consider schemes of minimum capital endowments (“minimum inheritance”) for young adults, as a starting capital for funding education or starting a business;
- ***Strengthen financial literacy by helping individuals and households navigate the challenges and opportunities of financial markets and promoting good budgeting, planning and saving practices;***
- o Design equitable homeownership support programmes for younger and lower-income households.
- Strengthen the progressivity of tax and spending and ensure that all wealthy households contribute to the financing of public services:
- o Adequately tax personal capital income (dividends, interest, capital gains), which tends to be concentrated at the top of the income and wealth distribution and often benefits from preferential tax treatment;
- o Consider making recurrent taxes on immovable property progressive, and ensure that they are levied on regularly updated property values;
- o Consider making better use of well-designed inheritance and gift taxation, by scaling back regressive tax exemptions and reliefs, limiting opportunities for tax planning and avoidance, and taxing wealth transfers at progressive rates. This may require addressing political obstacles often associated with inheritance tax reforms by providing information on inherited wealth and inequality, the way inheritance taxes work and who they apply to;
- o Possibly consider ways to tax beneficiaries on wealth transfers they receive over their life through a tax on lifetime wealth transfers;
- o Where annual wealth taxes are levied, ensure that they are well-designed and effectively levied on the wealthiest households by having relatively high tax exemption thresholds, scaling back tax exemptions and reliefs that tend to be regressive, and addressing tax avoidance;
- o Ensure the integrity of tax systems by limiting opportunities for aggressive tax planning and avoidance, and strengthen efforts to combat tax evasion. In particular, continue to make progress on international tax transparency through the exchange of information between tax administrations to combat offshore tax evasion.

The system of taxation and social benefits is the essential political lever for combating income inequality. If policies addressing skills shortages are useful in the medium to long term, changes in the taxation and social benefits system can have an immediate effect. Some countries, as Ireland, Hungary and Denmark, use the system of taxation and social benefits to effectively reduce very high levels of market income inequality. In other Member States, such as Cyprus, Bulgaria, Latvia, Lithuania and Estonia, this effect is much lower.

The effect that social spending has on reducing inequality depends on the quality of the design of these expenditures. Limiting the abolition of social benefits for the employed and reducing the tax burden on low-income people are important policies that ensure that the unemployed and inactive people always have a positive economic incentive to engage in gainful employment.

It should be noted that the personal income taxation system has not become more progressive, with EU Member States (eg Latvia, Lithuania, Estonia, Bulgaria and Romania) using a single tax rate. Unequal distribution of wealth can be reduced by applying well-designed taxes. Taxation of



capital gains (including taxation of real estate and inheritances) can be a relevant tool for ensuring fair opportunities and a more equitable distribution of wealth, taken into account the efficiency issues.

The provision of quality social services is an essential tool in combating the growing inequality of opportunity. The essential levers for interrupting the transmission of disadvantages from one generation to another are:

- high quality and accessible childcare services,
- social housing,
- education,
- health care.

The availability of childcare and long-term care services is also essential to enable women to participate more in the labor market, which can help reduce gender inequality.

When inequality has a spatial dimension, reflected, among other things, by a significant gap between rural and urban areas, as is the case in Romania and Bulgaria, investment in transport and digital accessibility can also play an important role.

## Conclusions

Wealth creation in 2020 was largely immune to the challenges facing the world due to the actions taken by governments and central banks to mitigate the economic impact of COVID-19. Total global wealth grew by 7,4% and wealth per adult rose by 6% to reach another record high of 79.952 dollars.

We believe that what has caused this situation was that many governments and central banks in more advanced economies, have taken pre-emptive action in two primary ways: first, by organizing massive income transfer programs to support the individuals and businesses most adversely affected by the pandemic, and second, by lowering interest rates – often to levels close to zero – and making it clear that interest rates will stay low for some time.

However, the Covid 19 crisis determined the gap between rich and poor to widen, with a massive increase in wealth at the top, while the total wealth held by those at the bottom is declining. Since 2015, the richest 1% have more wealth than the rest of the world combined. Such extreme economic inequality is fueled by an epidemic of tax evasion and avoidance that has reached an unprecedented scale. While millions of people around the world live in poverty, wealthy individuals and companies, exploiting the secret provided by tax havens, continue to avoid taxes, depriving the poorest countries of the ability to provide vital services.

Through a complex and poorly regulated tax system, multinational companies and wealthy people are actively seeking to increase their profits by storing them offshore and avoiding paying taxes in their countries. In order to reduce the wealth inequalities, it is necessary that advanced economies increase progressivity of income taxation and boost reliance on inheritance/gift taxes and property taxation, and emerging market and developing economies should focus on strengthening tax capacity to fund more social spending.

Also, some other measures refer to making the personal income tax (PIT) more progressive and reducing tax exemptions for private education, health and pensions; increasing the 'productivity' of income taxes; raising the capital gains tax (CGT) rates to match income taxes; introducing a wealth tax. More precisely, states could:

- Make their income taxes more effective at reducing inequality through steps such as levying higher rates on high-income taxpayers or capping itemized deductions.
- Establish or expand taxes on inherited wealth, such as estate taxes.



- Strengthen taxes on corporations, such as by eliminating costly tax breaks — which enable many profitable corporations to pay zero state income taxes in some states where they do business — and establishing strong minimum taxes or adopting “combined reporting” (a reform that nullifies three of the most common state corporate tax shelters).
- Broaden the sales tax base to include more services purchased by wealthy individuals.
- Boost incomes among low- and moderate-wage working families by enacting state earned income tax credits.
- Maintain an overall tax system that raises sufficient revenue to pay for the building blocks of shared prosperity, such as education and access to health care.

## References

- BNR, Financial Stability Report, June 2021
- Credit Suisse, Global wealth databook 2021
- Credit Suisse, Global wealth report 2021
- Economy Policy Institute, 2016, How State Tax Policies Can Stop Increasing Inequality and Start Reducing It
- European semester, 2017, Addressing Inequalities Thematic Factsheet
- Oxfam, 2021, The Inequality Virus -Bringing together a world torn apart by coronavirus through a fair, just and sustainable economy
- OECD (2020), Job retention schemes during the COVID-19 lockdown and beyond - OECD, OECD Publishing, Paris
- OECD, 2021, Inequalities in household wealth and financial insecurity of households
- \*\*\*<https://www.oxfam.org/en/5-shocking-facts-about-extreme-global-inequality-and-how-even-it>

## **SECTION II. FINANCIAL AND MONETARY CHALLENGES**

---

# APPROACHES TO ASSESSING THE EFFECTIVENESS OF THE MACRO-PRUDENTIAL POLICY OF THE BANKING SECTOR IN THE REPUBLIC OF MOLDOVA

Victoria Cociug<sup>14</sup>

Victoria Postolache<sup>15</sup>

## **Abstract:**

*Determination of the effectiveness of measures in relation to the instruments of macroprudential policy for regulating the credit market is associated with the need to assess the countercyclical nature of macroprudential policy, timely revision of measures in relation to its instruments and determine the side effects of its implementation. Currently, in the world practice, the effectiveness of measures in relation to instruments affecting bank assets is mainly assessed, and the study of the effectiveness of measures in relation to instruments that affect the capital and liquidity of banks is limited to a small number of studies.*

**Keywords:** macroprudential policy, instruments of macroprudential policy, banking effectiveness

**JEL Classification:** G21

## **Introduction**

According to BIS experts, the macro-prudential policy aims to limit systemic risks and would be countercyclical, namely designed to counteract the underestimation of risks by participants from the banking sector during the period of economic expansion and, consequently, their overestimation in times of economic recession.

Macroprudential policy can be defined as a policy which aims to eliminate financial instability, in other words, preventing the accumulation and spread of systemic banking risks. The most controversial issue in the field of macroprudential policy is the evaluation of the effectiveness of the measures in relation to the implemented instruments. Efficiency in the broadest sense refers to the financial implications of activating or deactivating instruments for the banking sector. In the international practice of macroprudential policy, there are two main criteria for assessing effectiveness:

- contribution to preventing the increase of systemic banking risks;
- contribution to consolidation the financial stability of the banking sector by creating an additional capital buffer by banks [4, pp. 477-503, 2017].

In addition to these criteria, the banking regulator also classifies the criteria for the effectiveness of the measures in relation to the implemented macro-prudential policy instruments:

- the balance of benefits and costs after the implementation of the measures related to the instruments of the macroprudential policy;
- the timeliness of the application of the measures by the banking regulatory authority.

As a result of the adoption of macroprudential policy measures, both positive and negative financial implications on the results of the banking system can be identified. The positive results are:

---

<sup>14</sup> PhD, Associate Professor, Academy of Economic Studies, Chişinău, Republica Moldova

<sup>15</sup> PhD, Associate Professor, Affiliation Balti State University "Alecu Russo", Faculty for Exact, Economic and Natural Science, Bălţi, Republica Moldova

- increasing the financial stability of banks;
- countercyclical regulation of the credit market;
- reducing the procyclical behavior of the participants in the banking sector;

The negative ones include:

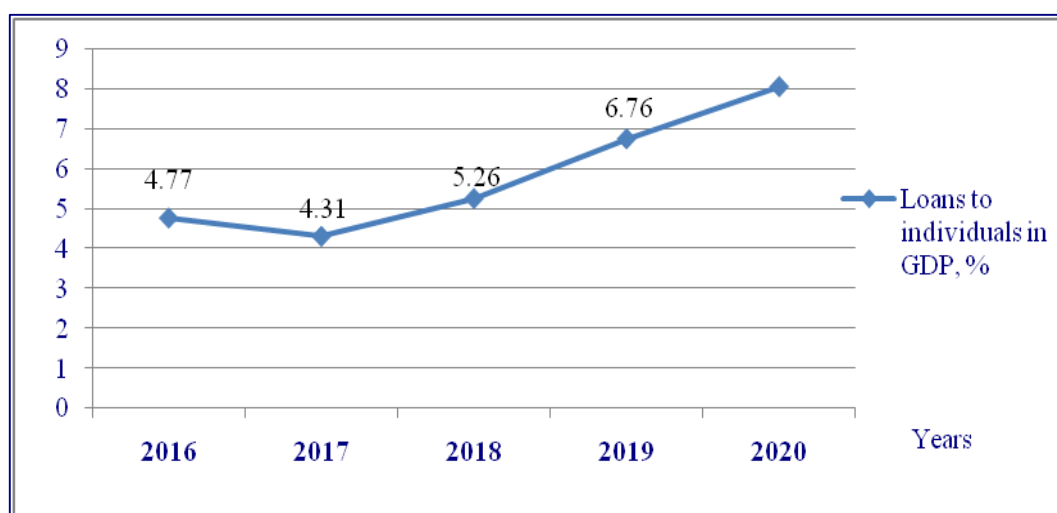
- loss of debtors by banks;
- migration of credit activity (so-called transfers to non-bank financial institutions, etc.);
- slowing economic growth by reducing the credit cycle;
- narrowing the financial services market;
- additional expenses of banks.

## Results and discussion

The indicators of the efficiency of the macroprudential policy, distinguished in the external banking practice, include indicators of the state of the financial cycles as a result of the application of certain macroprudential policy measures, namely:

- changing the growth rate of loans;
- changes in loan growth rates to the corporate and retail sectors;
- changing the growth rate of mortgage loans;
- the share of foreign currency loans in the total loan portfolio;
- the share of corporate loans (retail) in the total loan portfolio;
- the share of outstanding loans in the total retail loan portfolio;
- the share of loans to non-financial organizations from quality categories IV-V;
- the growth rate of prices for residential buildings;
- the growth rate of prices for commercial buildings;
- the ratio between the prices of residential buildings and the disposable income of the population [5].

The key indicator, when reaching a certain trigger by which the regulators decide to activate macroprudential policy measures, is the ratio between the total loan portfolio and the GDP.



**Figure 1: Changing the ratio between the loan portfolio and GDP**

Source: elaborated by the author based on data from <https://www.bnm.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro>

Loans to individuals relative to GDP reflect a declining trend in 2016-2017 due to excessive interest rates on bank loans and only for 2018-2020 the situation improves due to the "First Home" program implemented at the country level and subsidy interest payments on some categories of loans, as can be seen from the data in Figure 1.

In addition to the analyzed indicator, we come up with the suggestion to consider other indicators that describe the credit cycle:

- performance indicators of the banking sector;
- credit risk indicators;
- the conditions for granting loans.

However, there is no single approach to the composition of macro-prudential policy performance indicators, as it is necessary to construct macroprudential policy indices (as well as cumulative indices), which are used as an explanatory variable to assess the impact of macroprudential policy measures on increase the rate of volume of loans (including mortgages) and the rate of increase of property prices. Macroprudential policy indices can be constructed cumulatively for each instrument separately, for each country, to identify their general nature (mitigating or restrictive) in the selected period. For each period, the index can take three values:

- a) 1: the measure using this instrument is of a restrictive nature;
- b) -1: the measure using this instrument is mitigating;
- c) 0: the instrument was not used during this period t or there is no information about its use during this period t.

The national banking system does not calculate the macroprudential policy index, therefore in order to assess the efficiency of the macroprudential policy of the banking sector in the Republic of Moldova we consider appropriate the analysis of banking performance indicators in the post-billion theft period and including the Covid 19 pandemic. in Table 1.

**Table 1**

**The evolution of banking performance indicators in the period 2016 – 2020, %**

Financial indicators	Analyzed period				
	2016	2017	2018	2019	2020
Return on assets	1.83	1.91	1.90	2.47	1.66
Return on capital	11.12	11.42	11.60	14.63	9.60
Net profit rate	15.85	21.01	20.95	30.29	21.15

*Source: elaborated by the author based on data from  
<https://www.bnm.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro>*

Analyzing the rate of economic profitability of the banking system in the Republic of Moldova we identify a decrease in this indicator in 2016-2018 and 2020. The highest value was recorded in 2019, of 2.47%, which is 0.57% more than in 2018, which indicates that the banks in the system use efficiently the means at their disposal, which subsequently generate a higher profit. The declining values are generated by the problems that the banking sector faced after the theft of the billion and the Covid pandemic 19.

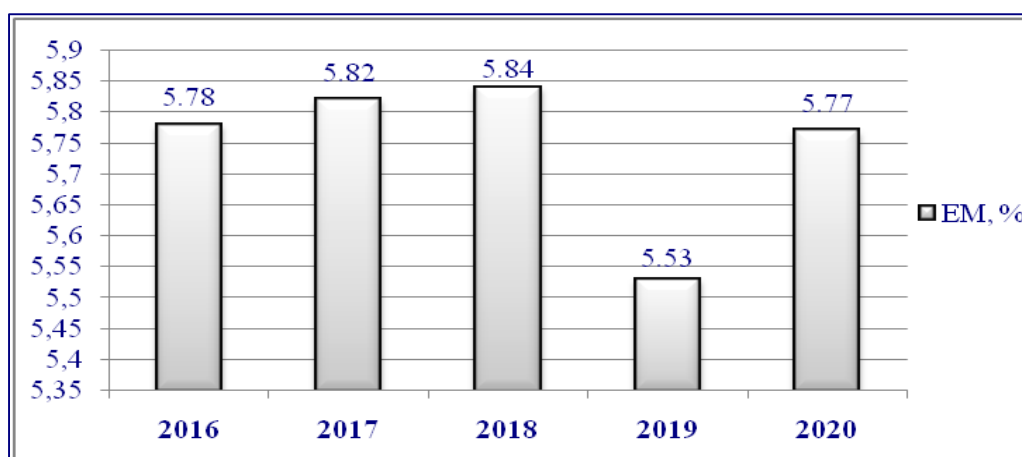
We also identify a positive change in the rate of financial profitability, where the indicator increases from 11.12% in 2016 to 14.63% in 2019, which invokes a maximum capacity use of own funds

available to banks. Such a change is due to the efficient use of both own and attracted resources. We observe the lowest value of the indicator in 2020, when the indicator registers only 9.60%, which is even lower than at the beginning of the analyzed period.

Based on the data in Table 1, we conclude that during the years 2016 - 2017 the net profit rate shows an increase of 5.16 pp, in the following year it shows an insignificant decrease of 0.06 pp. The year 2019 is characterized by an increase sudden up to 30.29 pp, which is 9.34% more compared to the previous year. This fact shows us how efficient the total activity of the banking system is. A sharp decrease is observed in 2020, with 9.14 pp. compared to the previous year, but does not fall below the indicator of 2018. So, the banking sector of the Republic of Moldova improves its situation every year, becoming more stable in terms of profitability.

The net profit obtained in the banking system of the Republic of Moldova in the last three years increases from 1,144.23 million lei in 2015 to 1,480.73 million lei in 2017. The increase by 2.02% in 2016 indicates the efficiency of the efforts of bank staff.

While the net profit of the banking system is not stable, the best moment is the constant increase of interest income and also of net income. It should be noted that the profit does not provide enough information about the level of performance of the banking system, as well as about the capacity of the instruments that have been passed or invested by it in order to generate profit.



**Figure 2: Modification of the capital multiplier of the banking sector of the Republic of Moldova**

Source: elaborated by the author based on data from <https://www.bnm.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro>

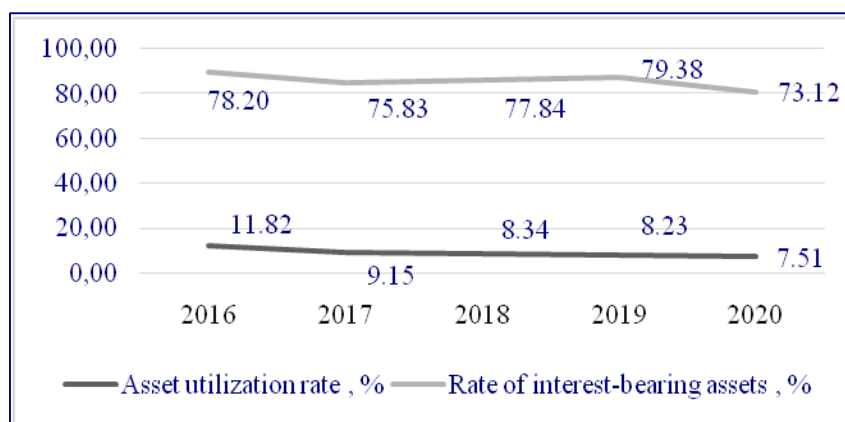
According to the data presented in Figure 2, we identify that in the banking sector of the Republic of Moldova the attraction and use of new resources is constantly in motion. The changes are not so significant, respectively, we notice an increase of only 0.04 percentage points in 2017 compared to 2016 and 0.02 percentage points in the following year compared to 2017. A sharp decrease is recorded in the banking system for the year 2019, where the indicator reaches the value of 5.53%, which is 0.31% less than in the previous year, but in the following year EM returns to the value of 5.77%.

Therefore, the capital multiplier is the one that refers to the value of the units of assets to be provided by each unit of the share capital. This, in turn, should cover losses on bank assets. Thus, the higher the level of multiplication, the higher the risk of bankruptcy, but at the same time, the higher the potential of the bank to pay more to its shareholders.

In order to establish how efficiently are available the available assets of the banking system of the Republic of Moldova we use the indicator “degree of use of assets”, which represents the ratio between revenues and the total annual amount of banking assets.



Thus, analyzing the results from Figure 3, we conclude that in the period 2016 - 2020 the asset utilization rate supports a permanent decrease reaching from 11.82% to 7.51%, which is due to the rapid increase of assets from 72830.42 million lei in 2016 to 103923.79 million lei in 2020, compared to the decrease of revenues from 16426.16 million lei in 2016 to 11165.04 million lei in 2020.

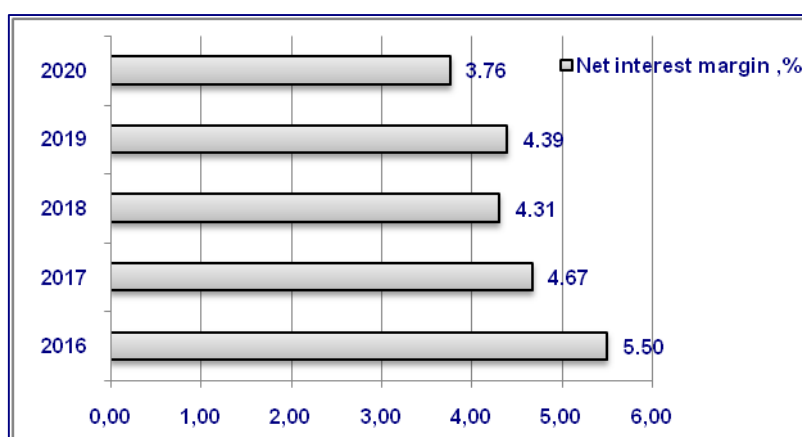


**Figure 3: Evolution of the asset utilization rate of the banking system of the Republic of Moldova**

Source: elaborated by the author based on data from <https://www.bnm.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro>

During the analyzed period, the rate of interest bearing assets changes from year to year. Thus, at the beginning of the analyzed period, the indicator registers the value of 78.20%, which indicates that the banking sector has the ability to generate income in the future. The following year this indicator decreases insignificantly by 2.37%, but in 2018 the indicator starts to increase again, reaching a value of 77.84%, which is 2.81% higher than in the previous year. We find the highest value of RA<sub>gd</sub> in 2019 when it reaches the value of 79.38%. The year 2020 is characterized by the lowest value of the indicator, which is 73.12%, which is 6.26% less compared to the previous year.

Another indicator that reveals performance in the banking sector is the net interest margin, which reflects how efficiently the management fulfills the main function of the financial intermediation bank, the data being included in Figure 4.

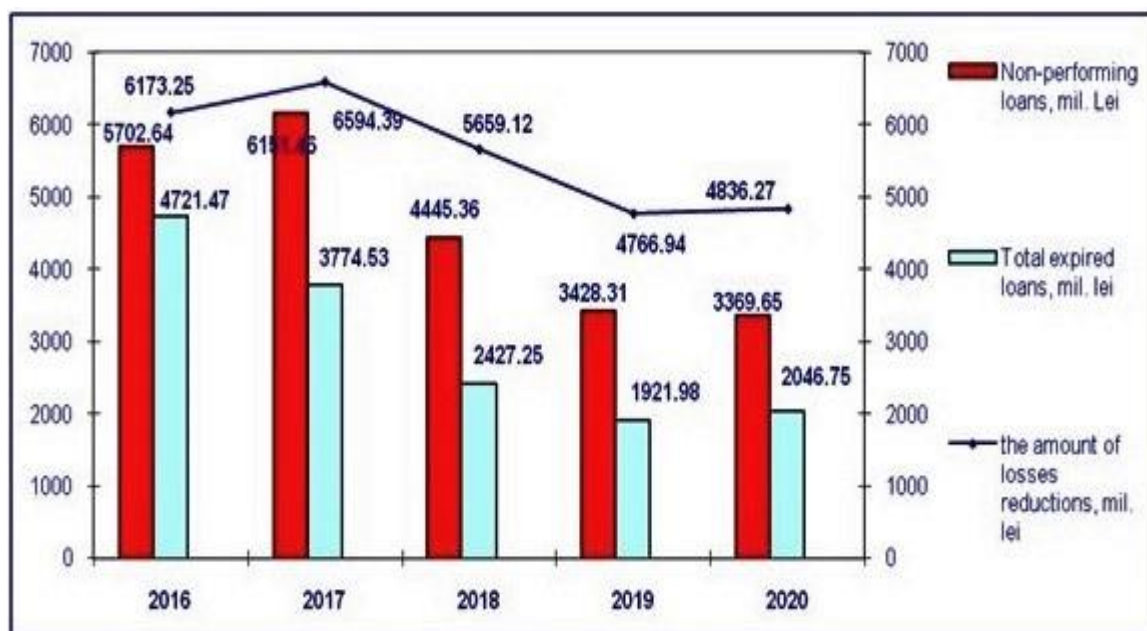


**Figure 4: Evolution of the net interest margin**

Source: elaborated by the author based on data from <https://www.bnm.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro>

The banking system of the Republic of Moldova every year shows a negative trend of the net interest rate, except for 2019, when it suffered an increase of 0.08 percentage points compared to the previous year. The decrease of this indicator shows us that the banking activity for the past year is becoming less and less profitable. In the period 2017 - 2020 this indicator, in general, is below the standard level of this indicator of 5-7%. Respectively, we can see that the assets, depending on the value of the resources raised by the bank, are not used so efficiently.

At the next stage of analysis we will evaluate the dynamics of the indicators attributed to credit risk, the reference data being included in Figure 5.



**Figure 5: Dynamics of non-performing loans**

Source: elaborated by the author based on data from <https://www.bnm.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro>

According to the data presented in Figure 5, we notice that the amount of non-performing loans increases in 2017 compared to 2016 by 448.82 million lei, ie from 5702.64 million lei to a maximum of 6151.46 million lei. For the rest of the period, the amount of non-performing loans is decreasing, which highlights the successes of the bank's management in terms of remedying the quality of the loan portfolio. Thus, in 2018, their volume decreases by 1706.1 million lei (up to 4445.36 million lei), and in 2019 it decreases by another 1017.05 million lei (up to 3428.31 million lei). For 2020, the reduction has a smaller volume, amounting to only 58.66 million lei.

Expired loans have a positive decreasing trend throughout the analyzed period, except for 2020. They decrease in 2017 from 4721.47 million lei to 3774.53 million lei, by 946.94 million lei. In 2018, the reduction is the most pronounced, amounting to 1347.28 million lei (up to 2427.25 million lei). In 2019, they already reach the minimum of 1921.98 million lei, following the decrease by another 505.27 million lei, but in the following year they increase by 124.77 million lei, up to 2046.75 million lei.

For 2016, the amount of discounts calculated for losses on assets and contingent liabilities represents 6173.25 million lei, in order to increase in 2017 to 6594.39 million lei (by 421.14 million lei). The increase is caused by the increase in the volume of the debt balance for non-performing loans, because the amount of reductions for losses is directly dependent on the volume of non-performing assets, being meant to cover possible losses. Thus, the reduction of non-performing loans for the following years also leads to a decrease in the amount of reductions for losses. It decreases in 2018 by 935.27 million lei (up to 5659.12 million lei), and in 2019 by 892.19 million lei (up to 4766.94 million lei). In 2020, the indicator increases by 69.34 million lei due to the increase of other categories of non-performing assets.

Table 2

## Analysis of credit risk indicators

Credit risk indicators	Analyzed period				
	2016	2017	2018	2019	2020
Debt balance on non-performing loans / Own funds (CNT), %	59.08	58.11	41.06	29.81	24.85
Debt balance on non-performing loans / Debt balance on loans, %	16.41	18.38	12.54	8.49	7.38
Amount of reductions calculated for credit debt balance (basic amount) / Credit debt balance (basic amount)	13.42	14.81	10.86	7.96	7.46
Amount of "large" exposures / Own funds ( $\leq 5$ )	0.43	0.33	0.22	0.00	0.00

Source: elaborated by the author based on data from  
<https://www.bnm.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro>

Analyzing the data in Table 2, we attest the following:

1. The balance of debt on non-performing loans relative to own funds during the analyzed period is progressively decreasing. The indicator reduces in total practically more than twice (from 59.08% in 2016 to 2.85% in 2020). The indicator has a positive trend, with a favorable impact for the bank, and its dynamics are generated by the decrease in the volume of non-performing loans.
2. Unlike the previous indicator, the balance of debt on non-performing loans compared to the balance of debt on loans shows an increase of 1.97 pp in the period 2016 - 2017 (from 16.41% to 18.38%). For the rest of the analyzed period, the indicator decreases initially to 12.54%, then to 8.49%, reaching 2020. The reduction in this period has a positive signal, attested against the background of the decrease of non-performing loans.
3. The ratio between the amount of reductions calculated for the credit debt balance and the credit debt balance attests a similar evolution to the previously analyzed indicator. The increase from 13.42% to 14.81% in 2017 is due both to the increase in the amount of reductions following the increase in non-performing loans this year, and to the reduction in the total volume of loans. Furthermore, the value of the indicator decreases, initially by 3.95 pp in 2018, then by 2.9 pp in 2019 and by 0.5 pp in 2020.
4. The total amount of "large" exposures to own funds shows a positive decreasing trend throughout the analyzed period, generated both by the increase of own funds and by the progressive decrease of the amount of "large" exposures. The value of the indicator decreases from 0.43 to 0.33 in 2017, then to 0.22 in 2018, so that in the end it becomes zero for the years 2019 and 2020. As we mentioned before, the dynamics of this indicator shows a positive trend, contributing to improving the quality of the loan portfolio.

During the analysis of the concentration of the banking sector of the Republic of Moldova, conducted by the NBM, the Herfindahl-Hirschmann index was calculated, based on the share of banks' assets in total assets in the banking sector. This indicator is calculated as the sum of the squares of the market shares of all banks in the sector. The Herfindahl-Hirschmann index is used as a possible indicator for assessing market power or competition between economic entities.

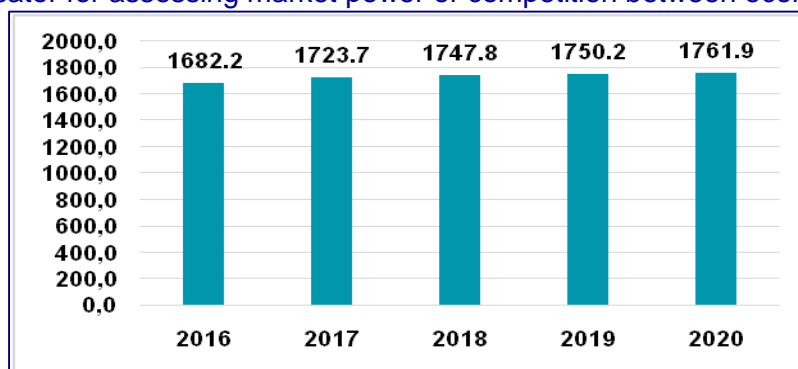


Figure 3: Dynamics of the Herfindahl-Hirschmann indicator

Source: elaborated by the author

In international practice the results of this indicator are divided into four categories:

- The HH indicator below 100 suggests the existence of a market with perfect competition;
- The HH indicator between 100 and 1500 means a non-concentrated market;
- The HH indicator between 1500 and 2500 shows a moderate market concentration;
- The HH indicator above 2500 indicates a high concentration.

Thus, following the calculations performed, that the Herfindahl-Hirschmann index is constantly increasing throughout the analyzed period. Thus, for 2020 it is equal to 1761.9 points, so we conclude that the banking sector of the Republic of Moldova is characterized by moderate concentration.

Based on international research, several problems can be identified that prevent the implementation of an effective macroprudential policy. Thus, H. Bengui and H. Bianchi [1] notes as the main threats regulatory arbitrage, which involves either the withdrawal of banks' activities in the dark zone or in other jurisdictions. In his paper, M. Obstfeld notes that financial globalization also negatively affects the effectiveness of macroprudential policy. K.M. Bukh and L. Goldberg [3] identifies areas for further analysis of the effectiveness of macro-prudential policy instruments:

- what is the difference between the reactions of banks operating on the national financial market and on the external financial markets after the application of macroprudential policy measures;
- if the reaction of the banks is different depending on their type, geographical coverage and financing model;
- if banks react in the same way to the introduction of alternative macroprudential policies;
- whether the banks' response to the introduction of instruments differs depending on the phase of the financial cycle;
- what influences the chosen strategy of the banks after the application of the macroprudential policy instruments on them.

Despite the fact that the instruments of macroprudential policy serve to minimize the level of systemic banking risk and eliminate financial instability, the use of some of them can, on the contrary, aggravate the crisis phenomena. Moreover, their effectiveness depends on the phase of the economic cycle to which certain measures are applied and on the simultaneity of their implementation with the monetary policy measures [6]. Thus, K. Kuttner and I. Shim [8] note in their study that maximum restrictions on instruments affecting debtors (LTV, DTI, DSTI) are more effective than raising the upper limit in times of recession. B. Gadanets and K. Khayram [7] notes that it is preferable to use the tools of different influence groups rather sequentially than simultaneously. Experts also point to the consequences of a premature reaction or, on the contrary, a late reaction of regulators to tighten / relax the instruments of macroprudential policy, which determine their effectiveness (Table 3).

**Table 3**

**Consequences of late activation / deactivation of macroprudential policy instruments**

	<b>Prematurely</b>	<b>Late</b>
Deactivating the instrument	A false signal for the banking sector	Promoting pro-cyclical activity of banks
Tool activation	Over-regulation of the market, leading to a weakening of the effectiveness of the instrument	Contributing to the build-up of imbalances

*Source: elaborated by the author*

Efficiency assessment is especially relevant due to the lack of uniform rules for choosing a particular measure for each situation and for each phase of the economic cycle. Studies by foreign experts in the field of assessing the effectiveness of macroprudential policy measures are limited, which is explained by the relatively modest experience of using macroprudential policy instruments

with a growing number of them. The overwhelming majority of the few studies are devoted to assessing measures aimed at regulating banking assets.

## Conclusions

A study by IMF experts in the field of international experience in the application of macroprudential policy instruments showed that most countries use instruments (except for restrictions on an open foreign exchange position and restrictions on gaps in the duration of assets and liabilities) together with other restrictions, and also use them in a targeted manner (mainly instruments aimed at restraining the growth of lending rates) with the establishment of flexible parameters for their revision over time (except for restrictions on profit distribution, restrictions on LTV / DTI and restrictions regulating systemic liquidity risk and systemic currency risk). It is also important to note that most countries are implementing tools based not on the calculation of their values for each period, but on expert judgment. A different approach is appropriate in the context of a rapid build-up of systemic risk, when it is important to avoid regulatory uncertainty [2].

At present, the macroprudential policy toolkit implemented by the NBM consists of capital buffers introduced on the basis of the Regulation on Capital Buffers adopted by the decision of the NBM Executive Committee no. 110 dated May 24, 2018 [9]. They are intended to increase additional reserves in order to reduce and prevent excessive accumulation of systemic risks of a cyclical or structural nature, which could lead to significant disruptions in the functioning of the banking sector.

The historical and economic analysis of the concept of macroprudential policy shows that the roots of the phenomena that have now led to the global crisis were described in economic science 50 years ago. However, the practice of macroeconomic regulation, which has not yet responded to the challenges formulated half a century ago, reflects those institutional conflicts and contradictions that impede the effective prevention of systemic risks. In this regard, despite the steps taken, one of the most acute international problems of financial regulation remains the problem of the correct institutional support for the development and implementation of macroprudential policy.

## Bibliography

- Bengui, J., Bianchi, J. Capital Flow Management when Capital Controls Leak// Manuscript, 2014
- Borio C., Shim I. What Can MacroPrudential Policy Do to Support Monetary Policy? // BIS Working Papers № 242, 2007
- Buch, C. M., Goldberg, L. Cross-Border Regulatory Spillovers: How Much? How Important? A Project of the International Banking Research Network, 2015
- Cerutti, E., R. Correa, E. Fiorentino, and E. Segalla Changes in Prudential Policy Instruments: A New Cross-Country Database // International Journal of Central Banking, vol. 13 (1), pp. 477-503, 2017
- Cerutti E., Claessens S., Laeven L. The increasing faith in macroprudential policies, 18 September 2018. <https://voxeu.org/article/increasing-faith-macroprudential-policies>
- Claessens, S., Ghosh, S. R. and Mihet, R. Macro-Prudential Policies to Mitigate Financial System Vulnerabilities//IMF Working paper, №155, 2014. <http://www.imf.org/external/pubs/ft/wp/2014/wp14155.pdf>
- Gadanecz, B., Jayaram, K. Macroprudential policy frameworks, instruments and indicators: a review. – Warsaw, 2015
- Kuttner, K.N. and Shim, I. Can non-interest rate policies stabilize housing markets? Evidence from a panel of 57 economies //BIS Working Papers, №433, November 2013
- Regulation on capital buffers of banks, approved by the DCA of the NBM no. 110 from May 24, 2018. Official Monitor of the Republic of Moldova No 183-194, Article 900 of 08.06.2018 <https://www.bnm.md/en/content/regulation-capital-buffers-banks-approved-dca-nbm-no-110-may-24-2018>.



# BANKING POLICIES IN 2020 - 2021

*PhD Edith Mihaela Dobrescu<sup>16</sup>*

*Professor PhD Emilian M. Dobrescu<sup>17</sup>*

## **Abstract:**

*The paper analyzes the evolutions registered in the period 2020 - 2021 of the policies of the main European, American and Chinese banks. We analyze the effects generated by the introduction of a digital euro, the integration of climate risks by banking systems, the evolution of the profits of some central banks, as well as the increase of savings in Yuan.*

**Keywords:** banking policies, BCE, BEI, FED, FDIC

**JEL classification:** G20, G24, G28, G38

## **Introduction**

In the response of the Covid-19 pandemic, supervisory, macroprudential authorities and governments have taken large-scale action in order to mitigate the effects of the COVID-19 pandemic on real economies and banking systems. These policies include capital relief measures put forward by ECB Banking Supervision, the loosening of macroprudential policies by national authorities, public moratoria and guarantees, and supervisory flexibility which allows banks to benefit from the two latter measures. In March 2021, the European Central Bank (ECB) maintained the monetary policy interest rate at 0% for the Euro Zone and the interest rate on the deposit facility at -0.5%.

## **Description of the Problem**

### **Increasing the saving rate in Yuan**

Approximately a third of the world's central banks plan to include the Yuan, China's national currency, in their reserves, confirming the strength of the world's second-largest economy, its currency. The 30% of central banks plan to increase their Yuan holdings in the next 12-24 months, compared to just 10% in 2020, according to the annual Global Public Investor survey published by the OMFIF research institute in London. On the other hand, 20% of central banks intend to reduce their dollar holdings in the next 12-24 months, and 18% want to reduce those in euros. The share of the dollar in international reserves fell at the end of 2020 to its lowest level since 1995. At the same time, about 14% of central banks want to reduce their holdings of sovereign debt in the Eurozone, an intention attributed mainly to the negative interest rates of the European Central Bank. Only 59% of central banks would use more than 30% of their reserves in the event of a severe currency shock, while 45% of pension funds invest in gold, well above the 30% of the 2020 survey.

The growing trend of the yuan's influence is certain, despite the clashes between Western governments and China. The influence could be strong, especially in Africa, where nearly half of central banks plan to increase their yuan reserves.

On the other hand, 75% of central banks believe that monetary policies have an excessive influence on financial markets. However, only 40% of central banks believe that these policies

---

<sup>16</sup> Scientific Researcher grade III at Institute for World Academy, Romanian Academy, Calea 13 September no.13, Sector 5, Bucharest, Romania, e-mail: [edithdobrescu@gmail.com](mailto:edithdobrescu@gmail.com)

<sup>17</sup> Titular Member of the Academy of Scientists, Romania, e-mail: [dobrescu@acad.ro](mailto:dobrescu@acad.ro)



need to be actively rethought. Central banks, sovereign wealth funds and public pension funds control a record 42.7 trillion dollars in assets. The Central bank reserves have increased by 1.3 trillion dollars in 2020 to a new high of 15.3 trillion dollars.

## **Digital euro**

The European Central Bank (ECB) has launched its most important project since the introduction of the European currency: the digital euro. The project started with an evaluation phase, followed by tests. If evaluation and testing go well, the digital euro could hit the market in 2025, giving people a new means of payment.

"A sovereign Europe needs innovative and competitive payment solutions," said German Finance Minister Olaf Scholz. The digital euro will allow households and companies to deposit this currency directly into an account opened with the central bank - an action that until now was reserved only for commercial banks. The money will be protected against any risk of loss.

Central banks want to bring stability to the highly speculative world of digital currencies, whose prices have fluctuated significantly in the last year. "One euro today must be worth one euro tomorrow, in cash or digitally," the ECB said.

## **Integration of climate risks**

Central banks and financial supervisors must find the right analytical tools, methods and data to integrate climate risks into their work, in accordance with their responsibilities, according to Governor Mugur Isărescu, at a conference organized on February 25, 2021 by the National Bank of Romania (BNR) and the European Investment Bank (EIB).

The NBR Governor named three of the ways in which climate risks can be integrated: 1. assessing the financial sector's exposure to climate risks, including climate-related criteria in stress tests; 2. ensuring that banks build appropriate business strategies and credit risk management frameworks to address climate risks; and 3. increasing awareness of the risks and opportunities for the economy and the financial sector arising from the evolution of climate change.

"At the level of the European Union, there is a consensus that the recovery from the current Covid -19 crisis must be sustainable. The European Green Pact and Next Generation funds offer a unique opportunity to allocate and transform resources for the greener and digital economy. We must take advantage of this opportunity ", the NBR Governor mentioned on this occasion.

## **Monte dei Paschi di Siena**

The government in Rome saved Monte Paschi from bankruptcy in 2017, but must sell its stake in 2021 according to EU rules. Several options are now being analyzed, including the division of the bank and its sale into pieces, as well as the extension of the deadline by which it must leave the shareholding of Monte Paschi, sources who wished to remain anonymous have revealed.

Discussions about a possible takeover by UniCredit were frozen in early 2021 amid a change of government and the appointment of a new CEO at UniCredit. At the same time, Monte Paschi has a capital shortfall of 2.5 billion euros and warned that it may have to postpone fundraising plans.

A last option could be to request an extension of the deadline, set by the EU for 2021, by which the Rome authorities must leave the Monte dei Paschi shareholding.

Tensions at European level over this sector have deeper roots, after several documents were made public in 2015, which showed that Luxembourg helped more companies channel their profits while paying lower or lower taxes place. Since then, Margrethe Vestager, vice-president for the digital age of the European Commission, has launched a campaign to combat these practices and opened investigations into the Finnish company Huhtamaki, to pay taxes retroactively to

Luxembourg and the Dutch tax treatment of Inter IKEA and Nike. The Netherlands and Luxembourg have denied any breach of EU rules. In January 2021, the Netherlands introduced a rule for taxing royalties and interest paid by Dutch companies to jurisdictions where corporate income tax is less than 9%.

## **European Central Bank profit in 2020**

The European Central Bank (ECB) announced on February 18, 2021, that in 2020 it registered a profit of 1.643 billion euros, down 33% compared to the record profit of 2.366 billion euros reached in 2019: the decline can be justified by the reduction in revenues net of interest on foreign reserve assets and on securities held for monetary policy purposes.

In 2020, net interest income totaled 2.017 billion euros, compared to 2.686 billion euros in 2019. Also, net interest income on foreign reserve assets decreased to 474 million euros, and net interest income from securities of value held for monetary policy purposes decreased to 1.337 billion euros, compared to 1.447 billion euros recorded in 2019, the institution said in a press release. However, earnings from financial operations amounted to 342 million euros, compared to 197 million euros in 2019. The increase is justified by sales of securities in US dollars.

The profit of the European Central Bank is distributed to the national central banks of the Eurozone. On January 29, 2021, the Board of Governors provisionally distributed the profit of 1.260 billion euros, and the remaining profit, amounting to 383 million euros, was distributed on February 19, 2021.

## **Profits of American banks**

The US banks' profits have strike down 36.5% in 2020 from 2019 due to massive provisions, but the banking industry showed signs of strengthening in the fourth quarter of 2020 as the US economy began to recover from the pandemic.

The US banking industry posted profits of 147.9 billion dollars in 2020, down from record profits in 2019, according to the US Bank Deposit Guarantee Fund (FDIC). FDIC's profits rose 9.1% in the fourth quarter of 2020 to 59.9 billion dollars after lowering provisions for non-performing loans. FDIC President Jelena McWilliams said the new data showed that despite declining profits, banks had shown resilience amid the COVID-19 pandemic.

Also, the chairman of the US Federal Reserve (Fed), Jerome Powell, said that the central bank (Fed) is still debating whether to restore the stricter capital requirements of banks. The increase in profit recorded by banks in the fourth quarter of 2020 was mainly due to the reduction in reserves against potential losses; The FDIC said so-called provisioning losses fell by 76.5% at the end of 2020 compared to the end of 2019 to 3.5 billion dollars, the lowest level since 1995.

The FDIC noted that an imminent challenge for banks was the persistent environment with low rates. Banks saw their interest income fall for five consecutive quarters, and the average net interest margin remained at a record low in the fourth quarter.

## **Conclusions**

Employment, inflation, and long-term interest rates fluctuate over time in response to economic and financial disturbances and also at the pandemic influences. Monetary policy plays an important role in stabilizing the economy in response to these disturbances. While some financial vulnerabilities have increased the institutions at the core of the financial system remain resilient. The consequences of climate change might impair the transmission of central banks' monetary policy measures to the financing conditions faced by households and firms, and hence to consumption and investment. In the same time, climate change could further diminish the space for conventional monetary policy by lowering the equilibrium real rate of interest, which balances

savings and investment. Also, both climate change and policies to mitigate its effects can have a direct impact on inflation dynamics.

## Selected Bibliography

Acharya, V., Eisert, T., Eunger, T., C. Hirsch, 2019. Whatever it takes: The real effects of unconventional monetary policy. *Review of Financial Studies* 32, 3366-3411.

Caby, J., Ziane, Y., & Lamarque, E. 2020. The determinants of voluntary climate change disclosure commitment and quality in the banking industry. *Technological Forecasting and Social Change*, 161(120282). <https://doi.org/10.1016/j.techfore.2020.120282>.

Demirguc-Kunt, A., Pedraza, A., & Ruiz-Ortega, C. 2020. Banking Sector Performance During the COVID-19 Crisis. *Policy Research Working Paper*, 9363, 1-49

International Monetary Fund (IMF), 2020. Mitigating climate change – growth- and distribution friendly strategies, *World Economic Outlook*, Chapter 3, Washington, DC, October.

McKinsey & Company, 2018,. A decade after the global financial crisis: What has and (hasn't changed)? <https://www.mckinsey.com/industries/financial-services/our-insights/a-decade-after-the-global-financial-crisis-what-has-and-hasnt-changed>

McKinsey&Company,2020a. Banking system resilience in the time of COVID-19. <https://www.mckinsey.com/industries/financial-services/our-insights/banking-system-resilience-in-the-time-of-COVID-19>

McKinsey&Company,2020b. McKinsey's Global Banking Annual Review. <https://www.mckinsey.com/industries/financial-services/our-insights/global-banking-annual-review>

National Bank of Romania, 2020 NBR measures in the context of the COVID-19 epidemic. <https://www.bnr.ro/NBR-measures-in-the-context-of-the-COVID-19-epidemic--21313.aspx>

\*\*\*, (2021), Central banks increase yuan reserves in the online newspaper *Governance Course*

\*\*\*, (2021), ECB launches digital euro project to hit the market in 2025, in *Forbes Romania*

\*\*\*, (2021), Mugur Isărescu: Central Banks - 3 ways to integrate climate risks, in the online newspaper *Curs de Guvernare*

\*\*\*, (2021), The takeover of Monte dei Paschi di Siena by UniCredit seems increasingly unlikely, in *Forbes Romania*

\*\*\*, (2021), European Central Bank profit decreased by a third in 2020, in *Forbes Romania*

# CHARACTERISTICS AND COSTS OF PUBLIC DEBT IN EUROPEAN UNION COUNTRIES

Cătălin Drăgoi <sup>18</sup>

## **Abstract:**

*Prudent and efficient management of government public debt by setting its characteristics in terms of maturity, repayment schedule, currency allocation or exposure to interest rate risk is important both in terms of ensuring budgetary stability and sustainability due to government, and for ensuring a stable macroeconomic framework.*

*The paper aims to analyze the structure of public debt in European Union countries to create a profile of them but also the analysis of external borrowing costs in order to formulate favorable recommendations for the management of public debt of our country.*

**Keywords:** public debt, external debt

**JEL Classification:** H62, E62

## **Introduction**

External and domestic government loans give the beneficiary country the opportunity to finance a larger volume of investment than would be possible only with budgetary resources, help to supplement domestic credit and keep demand within certain convenient limits, and to increase standard of living.

External financing provides access to several borrowing instruments, which allows for efficient management of the risk and cost of external borrowing, so that it can sometimes be cheaper than internal financing.

Sovereign debt management has repercussions in many areas of economic policy. But also foreign exchange, trade, monetary and budgetary policies directly influence the volume of external and internal loans that can be contracted.

Those who manage the public debt must know the forecast regarding the evolution of the macroeconomic situation, correlated with the volume of the necessary loan and the level of the debt service.

The difficulties generated by public debt can be avoided if governments accompany their public investment programs with effective measures to capture budgetary resources and mobilize domestic economies.

Debt policy involves the development of debt and macroeconomic policies and strategies, ensuring a sustainable level of sovereign debt. This level is affected by the financial flows that the country can absorb effectively and by the way in which they can generate, through the financed projects, foreign exchange earnings necessary for the payments of the sovereign debt service, without risking difficulties in making payments.

The public debt management policy aims at obtaining maximum benefits from the loans made, avoiding the occurrence of problems regarding macroeconomic stability, the state budget and the balance of external payments. The aim is to determine the most appropriate ways to use loans to achieve high and stable growth rates, to ensure that the use of borrowed funds, coupled with the

---

<sup>18</sup> Scientific researcher, C.C.F.M Victor Slăvescu, Calea 13 Septembrie Nr 13, e-mail: hipercub@gmail.com

application of appropriate economic policies, will create future flows of sufficient resources to enable timely payment of the sovereign debt service of that country.

In order to achieve the objective of the long-term sovereign debt management policy, its administrators must monitor the debt already contracted, the maturities and the debt service that the country pays at the time of the analysis.

The analysis of the public debt portfolio, carried out in order to establish the impact of the debt service on the economic and financial performance of the country, must take into account the macroeconomic context and the forecasts regarding the evolutions of certain key indicators.

## **Methodology and Data**

In order to come to conduct research on the problem of public debt, the paper analyzes data using comparative, analytical, descriptive method and the use of a set of information sources, collecting financial data in databases, based on annual reports, consolidated statistical data provided by the Eurostat and the International Monetary Fund. The study was completed by formulating conclusions related to this financial phenomenon.

## **Description of the Problem**

In order to observe the public debt profile of the countries of the European Union and implicitly of Romania, we will study comparatively the public debt as a share in GDP, the structure of public debt on financial instruments, debt structure according to debt holders, public debt structure according to maturity, the average cost of public debt, and we will make comparisons between European Union countries in terms of the cost of borrowing, analyzed in terms of macroeconomic indicators and country rating.

In 2020 the pandemic hit the economies of all countries profoundly affected economic sectors negatively in particular tourism and air transport but also in a positive sense (production of IT components and online trade), public spending grew rapidly and focused on the field health to combat the pandemic, social protection, but also to support the economy and get out of the crisis. In order to avoid the major turbulences generated by the pandemic crisis, the data before its onset were used.

### **1. Public debt as a share of GDP**

Between the end of 2018 and the end of 2019, the ratio of public debt to GDP in the European Union decreased from 79.6% of GDP at the end of 2018 to 77.8% of GDP at the end of 2019 (-1.8 percentage points), the public debt / GDP ratio decreasing in 21 of the European Union states.

The largest decreases were in Cyprus (5.1 pp.), Ireland (4.8 pp.), Greece (4.6 pp.), Slovenia and Portugal (4.3 pp.), Hungary (3.9 pp.). In five EU Member States, the debt-to-GDP ratio increased between the end of 2018 and the end of 2019: Lithuania (2.3 pp.), Luxembourg (1.1 pp.), Romania (0.5 pp.), Estonia and France (0.1 pp.).

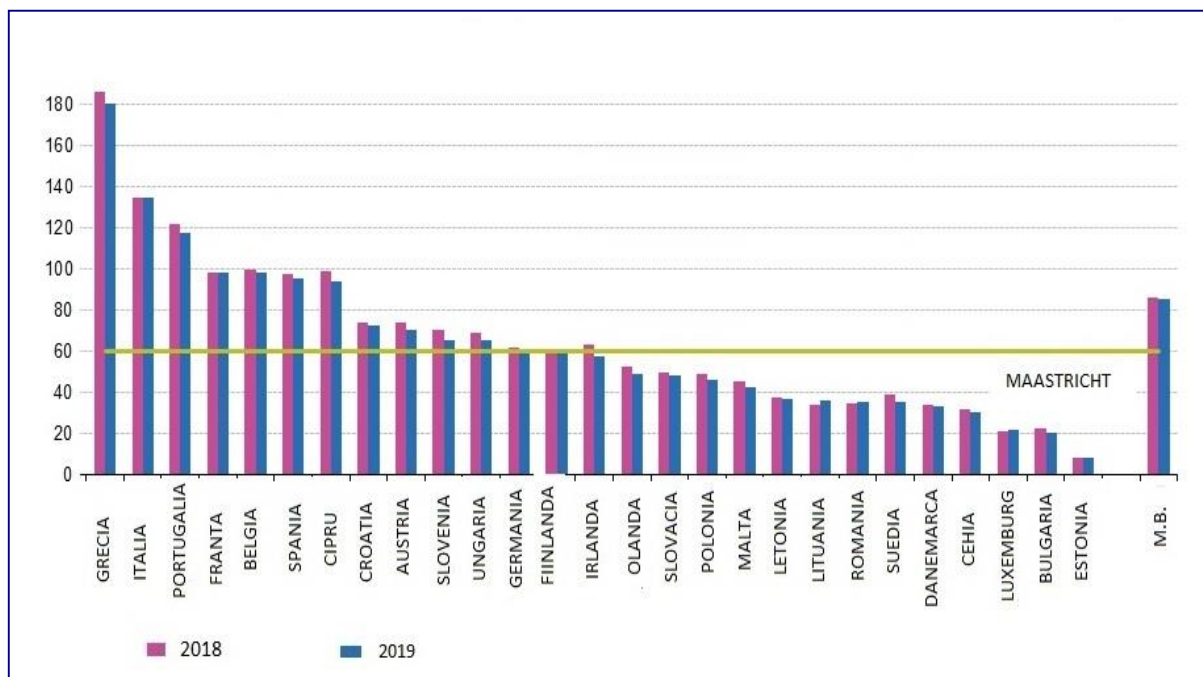
It is noted at the level of European countries that there is a downward trend in public debt relative to GDP, with the exception of a few countries that have a small share of public debt in GDP have allowed a higher public debt growth than GDP growth.

At the end of 2019, 11 of the 27 EU Member States reported debt / GDP above the 60% benchmark under the Maastricht Treaty; Greece recorded the highest debt rate at 176.6%, followed by Italy (134.8%) and Portugal (117.7%).

Germany and Ireland have reduced debt below the 60% threshold in 2019.



The lowest debt-to-GDP ratio was recorded by Estonia at 8.4% of GDP at the end of 2019, followed by Bulgaria (20.4%), Luxembourg (22.1%), the Czech Republic (30.8%), Denmark (33.2%), Sweden and Romania (35.2%), Lithuania (36.2%), and Latvia (36.9%).



**Figure 1: Public debt as a share in GDP, 2018-2019 (%)**

Source: <https://ec.europa.eu/eurostat/>

## 2. The structure of public debt on financial instruments

Debt structure analysis helps us determine if there are risks to its sustainability.

At the level of the European Union, 80.6% of the general public debt consisted of securities, 16.0% of loans and 3.5% of foreign currency and deposits.

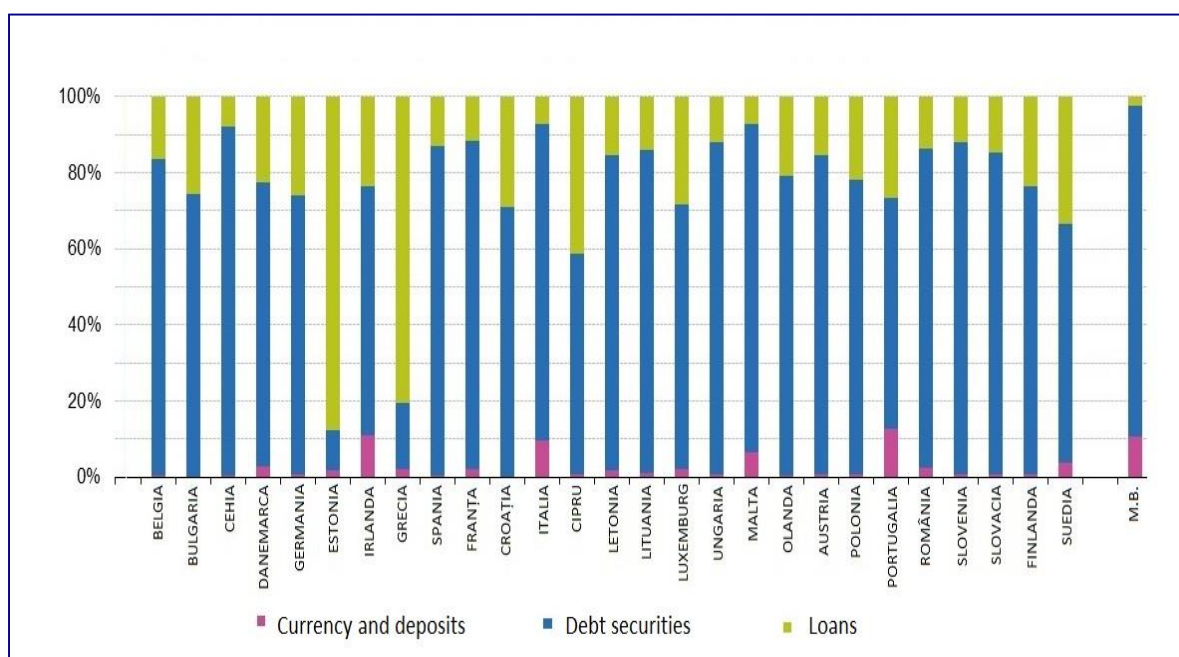
For 25 of the 27 EU Member States, the most widely used instrument remained debt securities at the end of 2019, ranging from a share of 10.5% of Estonia's public debt to 91.8% of government debt in Czech Republic.

In Estonia, Greece and Norway, loans account for 87.8%, 80.6% and 59.1% respectively. There are also large loan shares in relation to total debt for Cyprus (41.4%), Luxembourg (28.2%) and Croatia (29.2%). Countries with a higher share of public debt loans are generally those with a relatively low level of gross general government debt (eg Estonia).

At the end of 2019, currency and deposits accounted for less than 5% of total debt for 24 countries. In contrast, currency and deposits accounted for 12.7% of total gross public debt in Portugal (due to savings certificates), 10.9% in Ireland and 9.4% in Italy.

The fact that securities have the largest share (with the exception of Estonia and Greece, Greece being a special case, benefiting from assistance funds received from the EU through the ECB see Annex 1), proves that securities as a financial instrument benefit from certain advantages - the timing of the launch and implicitly of the collection of the funds thus attracted is decided by the government according to the current needs, also the maturity is chosen so as not to overlap with the maturity of other loans, and are not accompanied by different conditions for granting, as are often the case with loans.



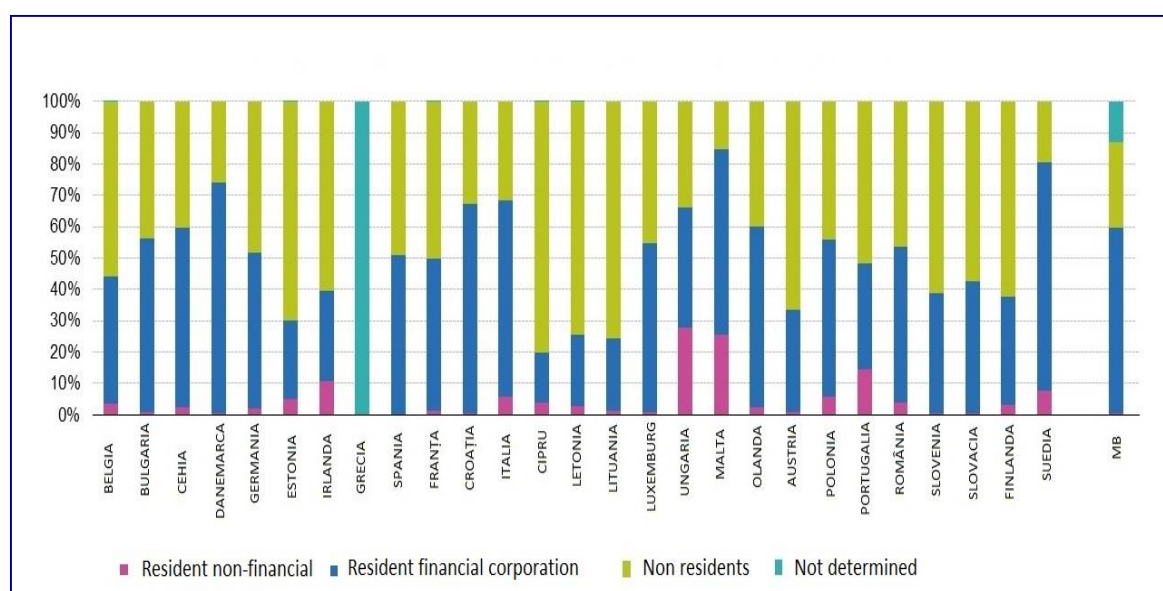


**Figure 2: General gross public debt on financial instruments in 2019 (%)**

Source: <https://ec.europa.eu/eurostat/>

### 3. Debt structure according to debt holders

Debt holders' public debt by sector has as sources of loans non-financial residents (non-financial corporations, households and institutions), financial residents (financial corporations) and non-residents.



**Figure 3: General gross government debt by category of debt holders (%)**

Source: <https://ec.europa.eu/eurostat/>

At the end of 2019, public debt was mainly held by the sector of resident financial corporations in fourteen EU Member States. The highest share was in Denmark (73.7%), Sweden (73.1%), Croatia (66.8%) and Italy (62.7%).

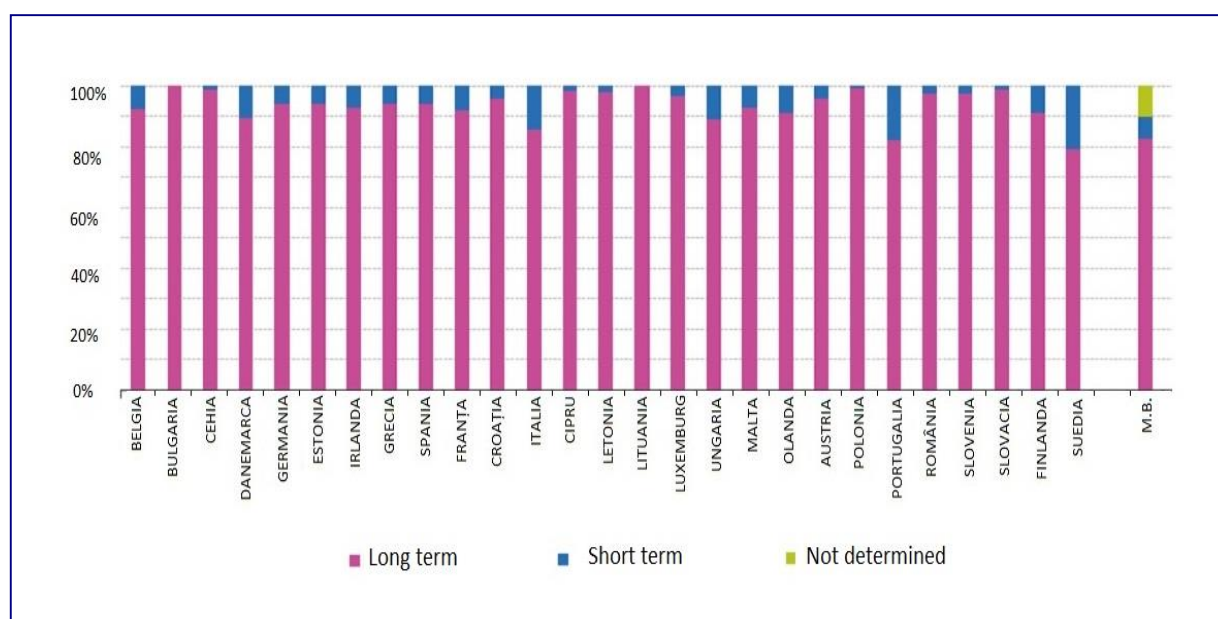
At the other end of the scale, the lowest proportion of debt held by resident financial corporations was recorded in Cyprus (16.2%), Latvia (22.8%), Lithuania (23.3%), Estonia (25.2 %) and Ireland (29.1%).

Non-resident companies were the largest debt group in twelve EU countries, as follows: Cyprus (80.1%), Lithuania (75.6%), Latvia (74.3%), Austria (66.5%) , Finland (62.3%), Slovenia (61.1%), Ireland (60.2%), Slovakia (57.5%), Belgium (55.7%), Portugal (51.7%) and France (50.2%). In contrast, this proportion was only 15.2% in Malta and 19.3% in Sweden.

Resident non-financial sectors (non-financial corporations, households and non-profit institutions) have a significant share of debt holders in Hungary (27.7%), Malta (25.6%), Portugal (14.7%) and Ireland (10 , 6%).

#### 4. The structure of public debt according to maturity

Only two types of categories are used: short-term debt with a maturity of less than one year and long-term debt with a maturity of more than one year.



**Figure 4: Gross public debt by maturity (%)**

Source: <https://ec.europa.eu/eurostat/>

Norway and Sweden had a significant short-term debt ratio (24.6% and 20.7%, respectively), while the share of short-term debt exceeded 10% in Denmark, Italy, Hungary and Portugal.

Short-term debt levels less than or equal to 1% were recorded in Lithuania (0.0%) and Bulgaria (0.1%), with the other countries having short-term debt in the range of 1-10% of total public debt.

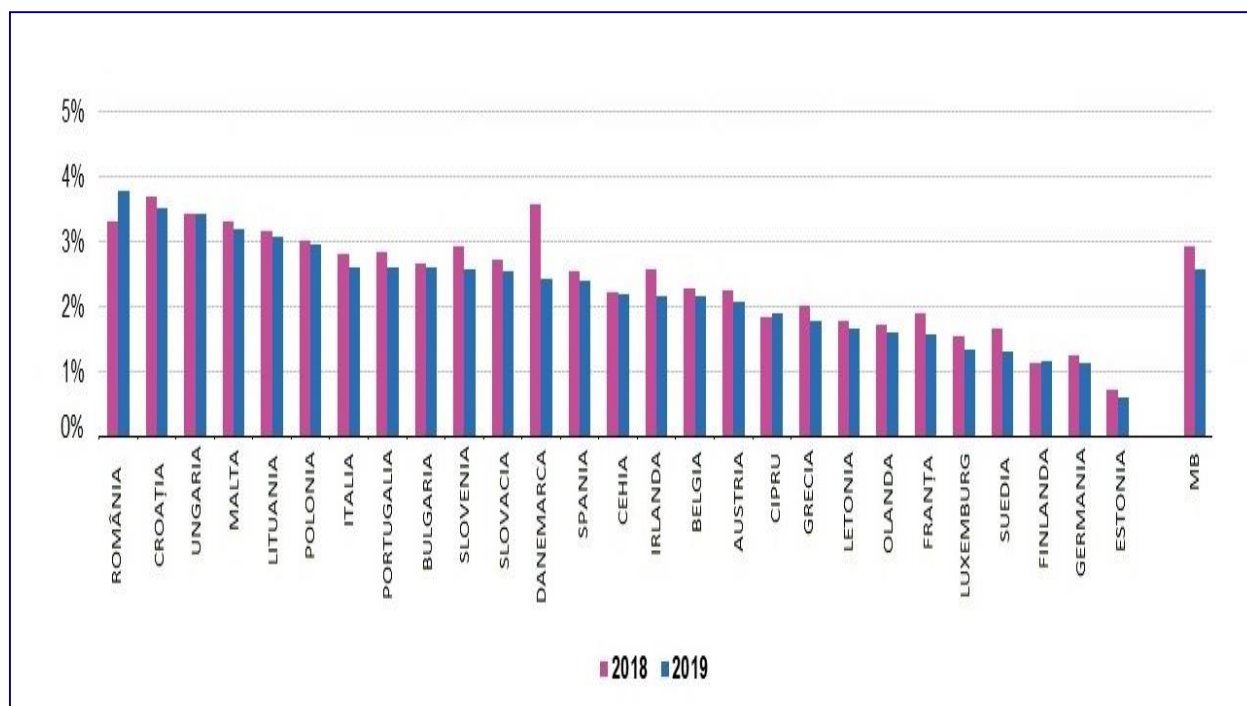
#### 5. The average cost of public debt

The average cost of gross government debt ranged from 0.6% in Estonia, 1.1% in Germany, 1.2% in Finland and 3.5% in Croatia and 3.8% in Romania (in 2019).

Comparing the data from 2019 to 2018, there are decreases for all reporting countries, except Romania, where there is an increase of about 0.5 pp.

The largest decreases were observed for Denmark (3.6% in 2018 compared to 2.4% in 2019), as well as for Ireland (2.6% in 2018 compared to 2.2% in 2019), Sweden (1 , 7% in 2018 and 1.3% in 2019), Slovenia (2.9% in 2018 and 2.6% in 2019) and France (1.9% in 2018 and 1.6% in 2019).

In general, the cost of debt depends on the interest rates set at the time of signing the agreement for that loan, and less on current market trends, especially for long-term loans.



**Figure 6: Average cost of gross debt of central government (%)**

Source: <https://ec.europa.eu/eurostat/>

## 6. Comparisons between European Union countries regarding the cost of borrowing

How much of the public debt consists of external loans is important to establish and how the cost of these loans internationally is influenced by the country rating given by major rating agencies (Fitch, Moody's and Standard & Poors). The rating is the risk of non-payment of a loan and obviously the higher this risk, the harder it is to obtain the loan and the higher the cost of the loan represented by the interest.

We will try to see to what extent the variation of the gross domestic product, the external debt, the public debt and the current account balance are found in the quotations granted by the rating agencies to the European states.

The link between the country rating and the external debt relative to GDP: The "AAA" rating ("prime" - the best country rating, minimum *default* risks) is surprisingly received by countries with very high external debts such as Luxembourg, the Netherlands, Switzerland, but also by a group of countries with average values of external debt in GDP: Denmark, Sweden, Germany. At the same time, countries with a low share of external debt in GDP have BBB or "BBB-" quotations (ie medium risk, the lowest area of acceptable risk for investors, from this level below they are "junk" - ie not recommended investors) Bulgaria 57.4%, Croatia 75.7%, Romania 49.2%. It is not possible to make a direct correlation between the country rating and the external debt indicator in GDP, instead it is easy to notice that the higher the GDP of a country and especially the higher the GDP per capita. the country rating is better, and vice versa, the lower the GDP and GDP per capita and the lower the country rating.

It is known that when granting a country rating other factors are taken into account such as: the degree of political, social and economic stability, the fence of democratization of society, access to material, human and financial resources, openness and relations economic and political relations with other countries, etc., which may thus explain the differences between the ratings given to different countries.

Table 1

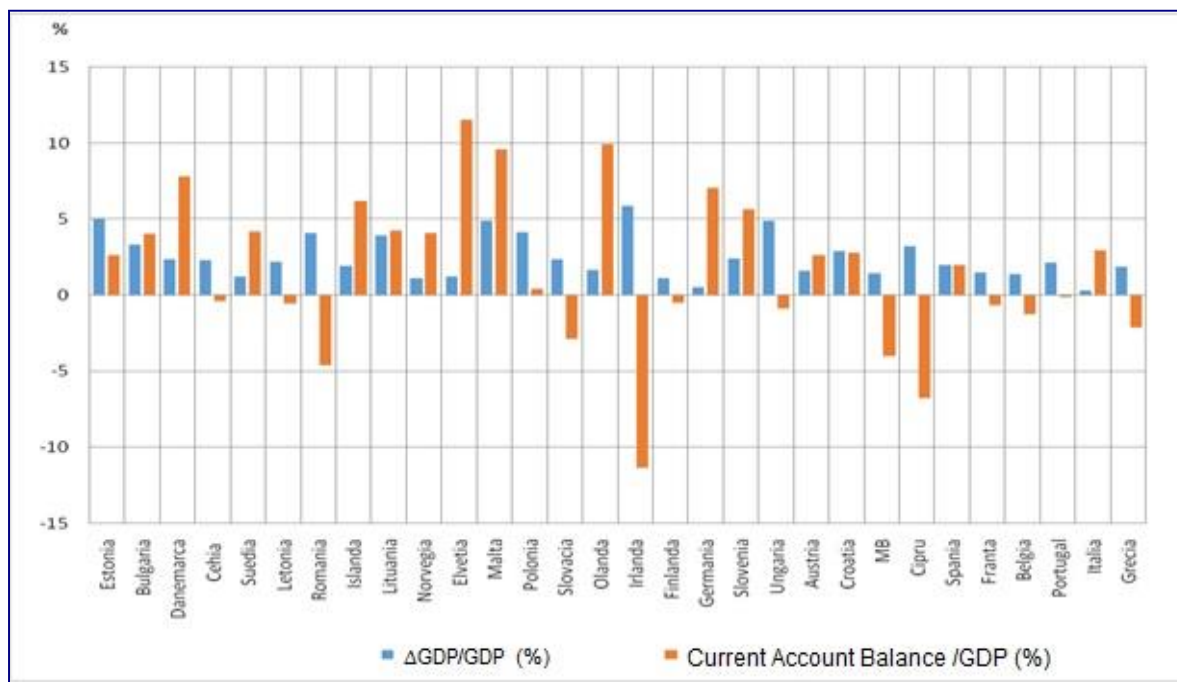
## Country ratings and economic indicators on indebtedness for EU countries in 2019

COUNTRY	Pub D./GDP	Ext. Pub. D. /GDP	$\Delta$ GDP/GD P ( %)	Current Account Balance /GDP (%)	S&P	Moody' s	Fitch
Estonia	8.4	73.8	5.00	2.64	AA-	A1	AA-
Bulgaria	18.6	57.4	3.37	4.04	BBB	Baa1	BBB
Luxembourg	22.1	5,633.2	2.30	4.48	AAA	Aaa	AAA
Denmark	29.4	143.4	2.35	7.81	AAA	Aaa	AAA
Czech Republic	30.2	76.2	2.34	-0.37	AA-	Aa3	AA-
Sweden	34.8	164.3	1.26	4.20	AAA	Aaa	AAA
Latvia	36.8	122.6	2.20	-0.54	A+	A3	A-
Romania	36.8	49.2	4.08	-4.56	BBB-	Baa3	BBB-
Iceland	37	78.1	1.94	6.18	A	A2	A
Lithuania	37.7	67.7	3.93	4.27	A+	A3	A
Norway	41.3	162.9	1.16	4.10	AAA	Aaa	AAA
Switzerland	42.1	259.2	1.25	11.52	AAA	Aaa	AAA
Malta	42.6	654.2	4.92	9.61	A-	A2	A+
Poland	46	58.8	4.15	0.41	A-	A2	A-
Slovakia	48	112.4	2.40	-2.87	A+	A2	A
Netherlands	48.4	473.6	1.68	9.95	AAA	Aaa	AAA
Ireland	57.3	724.8	5.88	-11.35	AA-	A2	A+
Finland	59	222.5	1.15	-0.46	AA+	Aa1	AA+
Germany	59.5	144.2	0.56	7.07	AAA	Aaa	AAA
Slovenia	66.1	90.5	2.44	5.67	AA-	A3	A
Hungary	66.3	91.4	4.93	-0.85	BBB	Baa3	BBB
Austria	70.3	153.7	1.60	2.62	AA+	Aa1	AA+
Croatia	73.2	75.7	2.94	2.78	BBB-	Ba1	BBB-
MB	85.4	301.8	1.46	-4.01	AA	Aa3	AA-
Cyprus	95.5	849.0	3.23	-6.72	BBB-	Ba2	BBB-
Spain	95.5	169.6	1.98	1.97	A	Baa1	A-
France	98.1	230.0	1.51	-0.67	AA	Aa2	AA
Belgium	98.7	242.7	1.40	-1.23	AA	Aa3	AA-
Portugal	117.7	192.1	2.17	-0.09	BBB	Baa3	BBB
Italy	134.8	124.6	0.30	2.96	BBB	Baa3	BBB-
Greece	180.9	242.8	1.87	-2.10	BB-	Ba3	BB

Source: <https://www.imf.org> and <https://countryeconomy.com/ratings>

In terms of GDP growth compared to the previous year, Romania is in the leading group with an increase of 4.08% along with Ireland 5.88%, Hungary 4.93%, Malta 4.92%, Poland 4.15%, Lithuania 3.93% high values compared to those of developed EU countries: Germany 0.56%,

France 1.51%, Italy 0.30%, Austria 1.6%, Netherlands 1.7%, MB 1.46 %. There are countries with high GDP growth and high debt relative to GDP (Ireland, Malta), but also countries with high GDP growth and low debt relative to GDP (Romania, Hungary, Poland), so there is no link between the pace of GDP growth and the degree of external indebtedness of countries.



**Figure 7: GDP growth rate and current account balance in GDP for EU countries (2019) (%)**

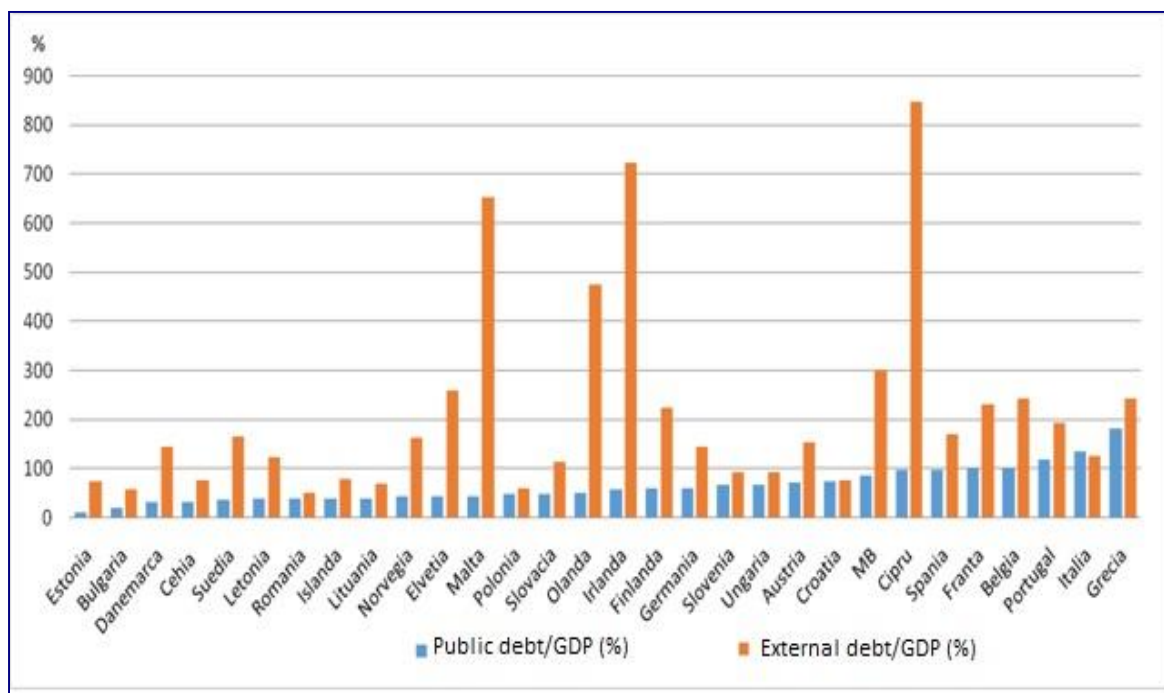
Source: <https://www.imf.org> and <https://countrypeconomy.com/ratings>

Romania has a large current account deficit as a share of GDP of -4.56%, the third in the EU after Ireland -11.35% and Cyprus -6.72, while many other countries have recorded current account surpluses: The Netherlands 9.95%, Malta 9.61%, Denmark 7.81%, Germany 7.07%. There are countries with a high degree of indebtedness that have a current account surplus (ex Netherlands, Malta) but also countries with a current account deficit with a high degree of indebtedness (Ireland, Cyprus). current (Bulgaria, Croatia, Iceland, Lithuania), but also countries with a low degree of indebtedness and current account deficit (Romania, Czech Republic).

Romania's public debt to GDP ratio in 2019 is one of the lowest in Europe (36.8%) being next to other Eastern European countries (Bulgaria, Czech Republic, Estonia, Latvia, Lithuania) or a group of Nordic countries (Iceland, Sweden, Denmark, Norway).

For 2019, Romania's total gross external debt as a share of GDP is the lowest of the EU countries of only 49.3%. In general, Eastern European countries have low levels of indebtedness compared to Western European ones. Thus the same indicator is for Bulgaria 57.4%, Czech Republic 76.2%, Poland 58.8%, Hungary 91.4%, Estonia 73.8%, while Western European countries have a high degree of external debt Luxembourg 5600%, Malta 654.2%, Ireland 724.8%, Cyprus 849%, the Netherlands 473%, MB 301.8%.





**Figure 8: Public debt in GDP and External public debt in GDP for EU countries in 2019 (%)**

Source: <https://www.imf.org> and <https://countryeconomy.com/ratings>

If we divide the analyzed states according to the level of the public debt-to-GDP ratio in three groups: low values of the indicator, medium values, and high values, we can observe some interesting correlations:

- For the low value group of the Dat indicator. publ / GDP (top 10 countries in table 1) correspond to lower values of the external debt-to-GDP ratio than the high-value group (last 10 countries in the table) which correspond to higher values of external debt to GDP. The proportionality relationship is obvious, when the external public debt relative to GDP is high, the total public debt (which includes external debt) relative to GDP is high.

- For the group with low values of the Dat.publ / PIB indicator, there are higher percentage increases (from year to year) of the GDP compared to the last group, which corresponds to lower percentage increases.

- The countries in the first group (the first 10 countries in table 1) correspond to current account surpluses compared to the group with high public debt in GDP, (the last 10 countries in the table), which correspond to current account deficits or current account surpluses with values small relative to GDP.

- In the first group (the first 10 countries in table 1) only Romania and Bulgaria have a “BBB” country rating ( *lower grade investment* ), compared to the group with a high ratio of public debt to GDP where they have a “BBB” country rating, Portugal , Italy, Greece, Cyprus and Croatia.

It is easy to notice that out of a number of 32 countries in table 2, only 7 countries register an increase in public debt in GDP, including Romania, 23 countries decrease the value of this indicator and in the case of two countries (France and Italy) is kept constant. Between the EU countries only Romania, Luxembourg and the Baltic countries register an increase of this indicator. It should be noted that 7 countries that have an increase in public debt in GDP are at the top of the table, ie among the countries with a low share of public debt in GDP. Among the countries with high values of this indicator are notable only the performances of Italy and France that managed to keep at the same value for the given in public debt in GDP.

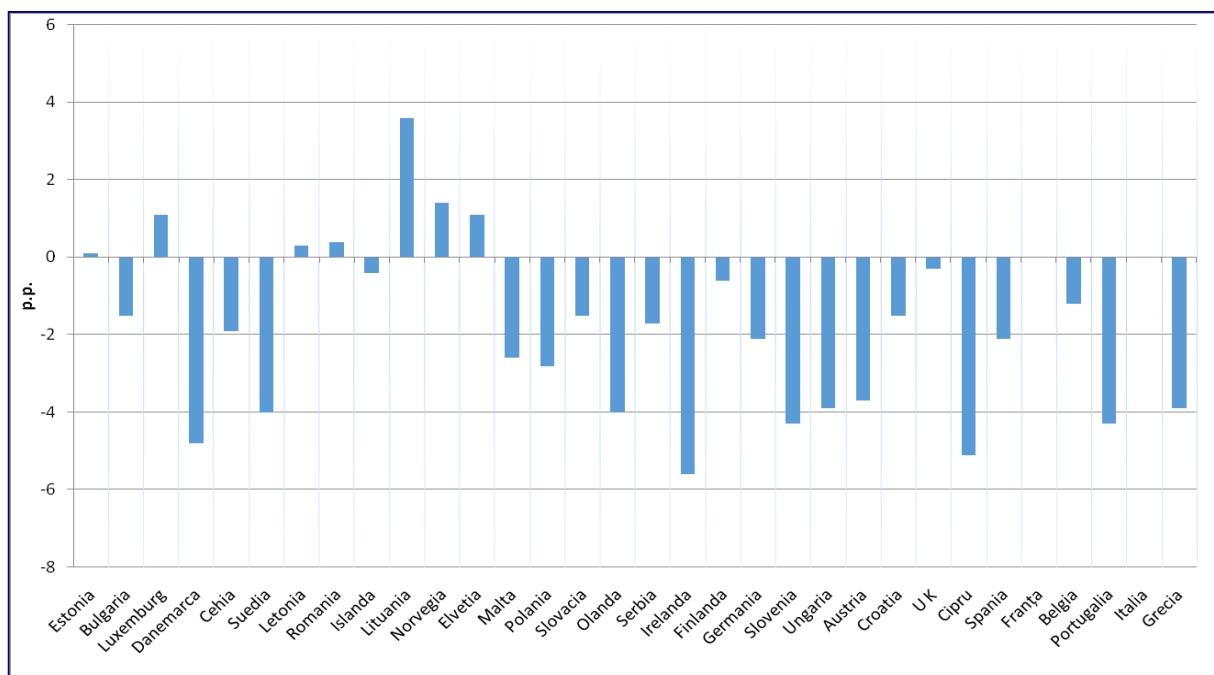


Table 2

## Dynamics of public debt at the level of European countries in 2018-2019 (%)

COUNTRY	Pub D/GDP 2018	Pub D/GDP 2019	$\Delta$ ( Pub D/GDP)
Estonia	8.3	8.4	0.1
Bulgaria	20.1	18.6	-1.5
Luxembourg	21	22.1	1.1
Denmark	34.2	29.4	-4.8
Czech Republic	32.1	30.2	-1.9
Sweden	38.8	34.8	-4
Latvia	36.5	36.8	0.3
Romania	36.4	36.8	0.4
Iceland	37.4	37	-0.4
Lithuania	34.1	37.7	3.6
Norway	39.9	41.3	1.4
Switzerland	41	42.1	1.1
Malta	45.2	42.6	-2.6
Poland	48.8	46	-2.8
Slovakia	49.5	48	-1.5
Netherlands	52.4	48.4	-4
bondage	54.5	52.8	-1.7
Ireland	62.9	57.3	-5.6
Finland	59.6	59	-0.6
Germany	61.6	59.5	-2.1
Slovenia	70.4	66.1	-4.3
Hungary	70.2	66.3	-3.9
Austria	74	70.3	-3.7
Croatia	74.7	73.2	-1.5
UK	85.7	85.4	-0.3
Cyprus	100.6	95.5	-5.1
Spain	97.6	95.5	-2.1
France	98.1	98.1	0
Belgium	99.9	98.7	-1.2
Portugal	122	117.7	-4.3
Italy	134.8	134.8	0
Greece	184.8	180.9	-3.9

Source: <https://tradingeconomics.com/>



**Figure 9 - Evolution of public debt to GDP in EU countries (2018-2019) (pp)**

Source: <https://tradingeconomics.com/>

## Conclusion

The characteristics of Romania's public debt in 2019 compared to the public debts of the other countries of the European Union:

- The public debt as a share in GDP, in 2018-2019 registered a slight increase, unlike the European trend of decreasing public debts. However, Romania is among the countries with a low public debt to GDP ratio, 35.3%, well below the 60% of GDP threshold imposed by the Maastricht Treaty,
- The public debt broken down by financial instruments in the case of Romania has as specific small shares of loans (13.5%) and cash and deposits (2.5%), most of the debts being made up of securities (84%).
- Romania's creditors are equally financial and non-financial residents and non-residents, at European level the other countries having as main creditors financial residents.
- Regarding the public debt according to maturity, the largest share of Romania's debts are long-term (97%), very few European countries having more than 10% of short-term public debt.
- Romania's government debt depending on the issuance currency is characterized by the approximately equal ratio between the national currency and foreign currencies, unlike most European states that have debts (total or almost total) in euro. So, Romania is subject to more foreign exchange risk compared to other countries in the European Union.
- The average cost of Romania's public loans in 2019 (3.8%) is the highest in the European Union, increasing compared to 2018 when Romania's loan interest rates were still lower than those of Hungary or Croatia and Denmark.

Although it is sustainable (high share of long-term debt, share of debt in GDP well below the 60% threshold of EMU), we can say that our country's sovereign debt has less favorable conditions for the sustainable development of the economy compared to other Member States. of the European Union.

## Bibliography

Ghosh, A., Kim, J., Mendoza, E., Ostry, J & Qureshi, M. Fiscal Fatigue, Fiscal Space and Debt Sustainability in Advanced Economies. *The Economic Journal* 123, February 2011. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/eco.12010> [Accessed 02.10.2021]

Reinhart, C., & Rogoff, K. (2011). A Decade of Debt. NBER Working Paper No.16827, February 2011. <https://www.nber.org/papers/w16827.pdf> [Accessed 02.10.2021]

Vacarel, I. and the team (2007), Public Finance, EDP, Bucharest

<https://ec.europa.eu/eurostat/> [Accessed on 02.10.2021]

<https://www.imf.org> [Accessed on 02.10.2021]

<https://countryeconomy.com/ratings> [Accessed 02.10.2021]

<https://tradingeconomics.com/> [Accessed on 02.10.2021]

# GLOBAL TRENDS IN FOREIGN DIRECT INVESTMENT

Ivan Luchian<sup>19</sup>

Angela Filip<sup>20</sup>

## **Abstract:**

*For the second year in a row, the global community has been affected by the pandemic crisis. The hopes for overcoming it have not yet been realized due to contradictory processes with different shapes. Against the background of this crisis, as well as the cyclical economic crisis triggered previously, a new type of global economic crisis is unfolding, which together with the other factors has affected all aspects of human activity, including economic and financial. One of the main forms of manifestation of this crisis is the maintenance during the last four years of the general trend of decreasing the volume of foreign direct investments. Important changes have also taken place in their structure. All this confirms the hypothesis of the sensitivity of foreign direct investments to the onset of economic crises, which determines a certain skepticism for the realization of the optimistic scenarios for the recovery of the situation.*

**Keywords:** foreign direct investment, pandemic crisis, decline

**JEL classification:** G01, F21

## **Introduction**

Foreign direct investment (FDI) is a form of capital investment in the territory of a country by non-resident investors.

They are a form of international investment and form an important segment of the international investment market. Likewise, they are an element of the process of economic and financial internationalization, being the foundation of economic and financial globalization. Some specialists also highlight them as part of investment globalization.

OECD experts expressed the following opinion: "Foreign direct investment is an integral part of an open and effective international economic system and a major catalyst to development. Yet, the benefits of FDI do not accrue automatically and evenly across countries, sectors and local communities. National policies and the international investment architecture matter for attracting FDI to a larger number of developing countries and for reaping the full benefits of FDI for development. The challenges primarily address host countries, which need to establish a transparent, broad and effective enabling policy environment for investment and to build the human and institutional capacities to implement them". (OECD, 2002)

The pandemic crisis has affected much of the global community's economic and financial activities, including foreign direct investment.

According Joseph E. Stiglitz, "Covid-19 is the largest shock to hit the global economy in living memory—certainly since the Great Depression. It is a complex shock. It affects demand and supply. It affects different sectors, different technologies, and different people differently. It has come on with the suddenness associated with crises, but with few of the warnings associated with an impending crisis." (Stiglitz, 2020)

In 2020, the volume of FDI collapsed under the pressure of multiple determinants. However, this impact was not uniform. The geographical distribution of the influence of the COVID-19 crisis was very diverse from one region to another, and manifested itself differently in countries around the world.

---

<sup>19</sup> International Institute of Management IMI-NOVA, luchian\_ivan@mail.ru.

<sup>20</sup> Moldova State University, filip77@mail.ru.

The main influence was exercised in the first half of 2020. In the second half of 2020, cross-border M&A and international project financing transactions largely recovered. However, Greenfield investment continued its negative trend throughout 2020 and in the first quarter of 2021. (UNCTAD, 2021)

In more detail, the research results will be presented in this article.

## Description of the Problem

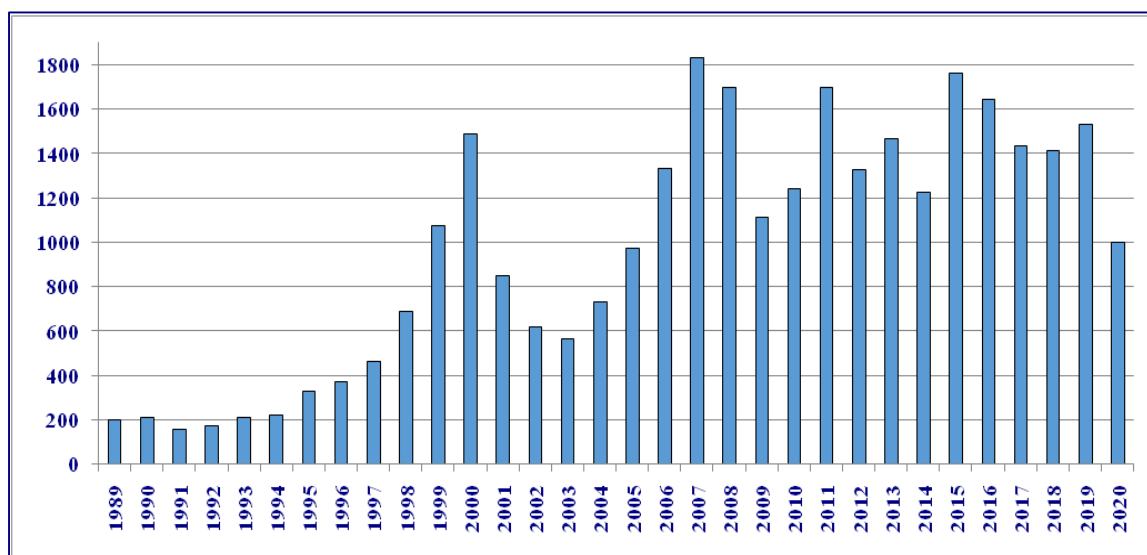
The present research follows studies of the dysfunctions of financial globalization, which can generate problems of different nature, including financial crises. The global oscillations generate certain important imbalances, which have a propagated effect over time. In turn, IDFs are dependent on a number of factors. Following the examination of the FDI issue, the hypothesis of the sensitivity of foreign direct investments to the onset of economic and financial crises was put forward. This study is complicated by the overlapping effect of two global economic crises - the fundamental pro-cyclical crisis and pandemic crisis. The findings of study intend to increase the level of predictability of FDI dynamics.

## Methodology and Data

In order to carry out the study, first, data on foreign direct investments of UNCTAD were examined and analyzed starting with the 1990s and until now. Then the publications of different experts in this field were researched. Following the accumulation of the necessary data, their synthesis was performed and related conclusions were formulated.

## Results

To begin with, let us examine the dynamics of FDI over 31 years, which is shown in Figure 1.



**Figure 1: Dynamics of global FDI flows (billion USD)**

Source: (Birca et al., 2020), (UNCTC, 1991), (UNCTAD, 2021)

The volume of FDI in 2020 amounted to 999 billion USD, decreasing compared to the previous year by USD 531 billion or 34.7%.

Thus, the UNCTAD forecasted for 2020 that the global volume of FDI will decrease by 42%, ie to fall to level of USD 858 billion, did not come true. (Global, n.d.)

But during the years 2016-2020 a downward trend was formed, which resulted in a general

decrease compared to 2015 by USD 763 billion or 43.3%.

For the initial formation of the downward trend, in the opinion of some experts there were certain reasons (Birca, 2020):

- FDI loses its role as a means of circumventing customs barriers. With the substantial development of product supply possibilities in any part of the world, FDI is gradually ceasing to be used as a tool to occupy local markets by organizing the production of goods instead of distribution to consumers. Many transnational companies have given up their intentions to produce goods or provide services as part of domestic economic circuits in order to accept different outsourcing solutions.

- Take action in many countries to set barriers to FDI from offshore areas, especially from jurisdictions with a low level of transparency.

- More and more international investors prefer liquid investment objects due to maintaining a high level of financial (and other) instability at regional and global level. Moreover, FDI is related to investments in relatively low liquidity instruments.

Other experts (Fetiniuc et al., 2020), in turn, draw attention to the global cyclical economic crisis in the mentioned period, which manifested itself in the following:

- In 2015–2016, the Chinese stock market turbulence brought significant losses.
- In the years 2016-2018, there have been serious liquidity disruptions on the international financial market, which destabilizes some important ones. (Malin, 2018)
- During 2018, there was a significant decrease in some stock indices: Dow Jones - by 5.6%, S&P 500 - by 6.2%, Nasdaq - by 4%. And in December 2018, a real international stock market crisis broke out, which was manifested by the fall of the Dow Jones Index by 8.7%, S&P 500 - by 9%, NASDAQ - by 8%. (Isidore, 2018) In February-March 2020, the first signs of the low liquidity crisis COVID-19 began to appear in some segments of international financial market, which led to a global stock market crisis, which was directly manifested by the fall of certain stock indices.
- In mid-2018, the US-China trade war began and lasted more than a year.
- Substantial uncertainties for the economies of European states have been linked to the withdrawal of the United Kingdom from the European Union (Brexit). British and EU growth stagnated in 2019 until Brexit. The UK experienced a severe recession in 2019, which weakened the British economy in early 2020. Many companies left the UK to move to the EU, leading to trade losses and economic recession for both EU members, and for the United Kingdom.
- In March 2020, Saudi Arabia launched a price war with Russia, causing a 65% drop in oil prices. US oil prices fell 34%, crude oil prices fell 26%, and Brent oil fell 24%. (2020..., n.d.)

Therefore, the pandemic crisis was only a catalyst for the decline in global volume of FDI.

According Congressional Research Service, "The pandemic has disrupted lives across all countries and communities and negatively affected global economic growth in 2020 beyond anything experienced in nearly a century. Estimates indicate the virus reduced global economic growth in 2020 to an annualized rate of -3.4% to -7.6%, with a recovery of 4.2% to 5.6% projected for 2021. Global trade is estimated to have fallen by 5.3% in 2020, but is projected to grow by 8.0% in 2021". (Congressional Research Service, 2021)

The pandemic cataclysm also has certain propagated effects.

The pandemic crisis has contributed to the increase of Fiscal Deficits Relative to GDP to the level of 10.8% in 2020, which is to be reduced in 2021 and 2022, respectively, to 9.2% and 5.4%. (Congressional Research Service, 2021)

The desire of central authorities in different countries to mitigate the impact of the pandemic crisis and the strengthening of the economic enforcement during the post-crisis period through massive financial injects has contributed to the formation of inflationary processes. In particular, prices in raw materials and consumer demand have increased.

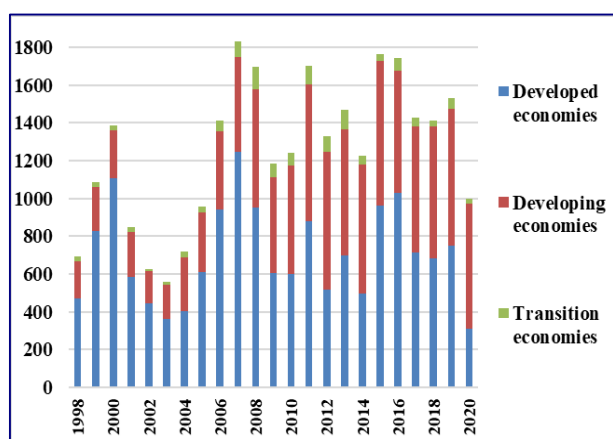


For example, monthly inflation in the euro area between January-July 2021 gradually increased from 0.9% to 2.2%. (*Euro*, n.d.) In the same period, US inflation increased from 1.4% to 5.4%. (*Monthly*, n.d.)

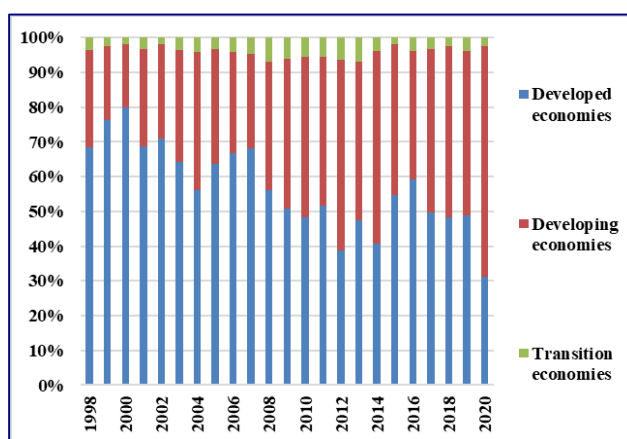
The analysis of FDI dynamics also denotes other cases of sensitivity of foreign direct investments to economic-financial shocks:

- The recession of the early 1990s led to a reduction in FDI by USD 53 billion or 25.1%;
- The bursting of the Dot-com Bubble in 2002 combined with economic and financial crises in a number of countries during 2001-2002 led to a decrease in the global volume of FDI of USD 288 billion or by 33.8%;
- The international economic and financial crisis of 2007-2009 caused the volume of FDI to decrease by USD 719 billion or by 39.2%.

It is important to change FDI's proportions between countries - developed, developing and transition. (Figures 2 and 3).



**Figure 2: Global FDI flows divided by group of countries (billion USD)**



**Figure 3: Dynamics of structural changes of global FDI flows divided by groups of countries (%)**

Source: (Birca et al., 2020), (UNCTAD, 2004), (UNCTAD, 2021)

In 2020 developed industrial countries, attracted FDI in volume of USD 437 billion, decreasing compared to the previous year by 58.3%. At the same time, their share in the total volume of FDI also decreased - from 79.8% in 2000 to 31.2% in 2020.

FDI attracted by developing countries have been affected the least, accounting for USD 663 billion, with a decrease of USD 60 billion or 8.3%. In addition, their share in the total volume increased from 18.2% to 66.4% in 2020.

FDI of transition countries amounted to USD 24 billion with a reduction of USD 34 billion or 58.6%. And their weight changed insignificant, respectively, from 2.0% to 2.4%.

Presents interest the impact of the Pandemic Covid-19 crisis on the FDI geographic distribution (Figure 4).

The main share in the global volume of FDI is held by Asia - 53.6%. Foreign direct investment in this region amounted to USD 535 billion, increasing by USD 19 billion compared to 2019 or by 3.6%.

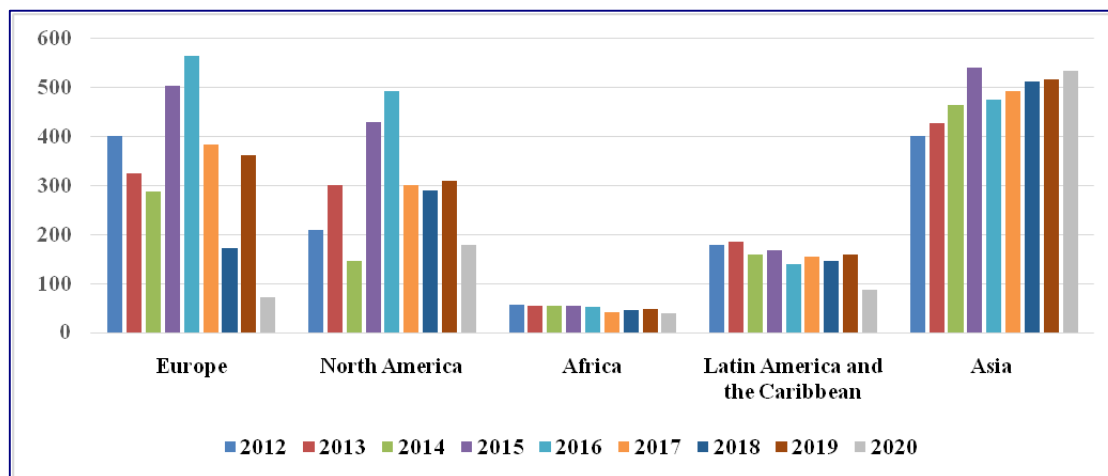
North America attracted FDI in 2020 in the amount of USD 180 billion (with a share of 18,0%), reducing compared to 2019 by USD 129 billion or 44.3%.

In Europe, the FDI reduction was a disastrous one of USD 290 billion or 168.6%, falling in 2020 to the level of USD 73 billion (with a share of 7,3%).

Latin America and the Caribbean attracted USD 88 billion in foreign direct investment in 2020 (with a share of 8.8%), with a decrease compared to 2019 of USD 72 billion or 49.0%.

Africa traditionally remains the region with the lowest level of FDI, which in 2020 amounted to USD 40 billion (with a share of 4%), down from the previous year by USD 7 billion or 15.2%.

The geographical distribution of FDI can also be presented in the light of the following groups of countries:

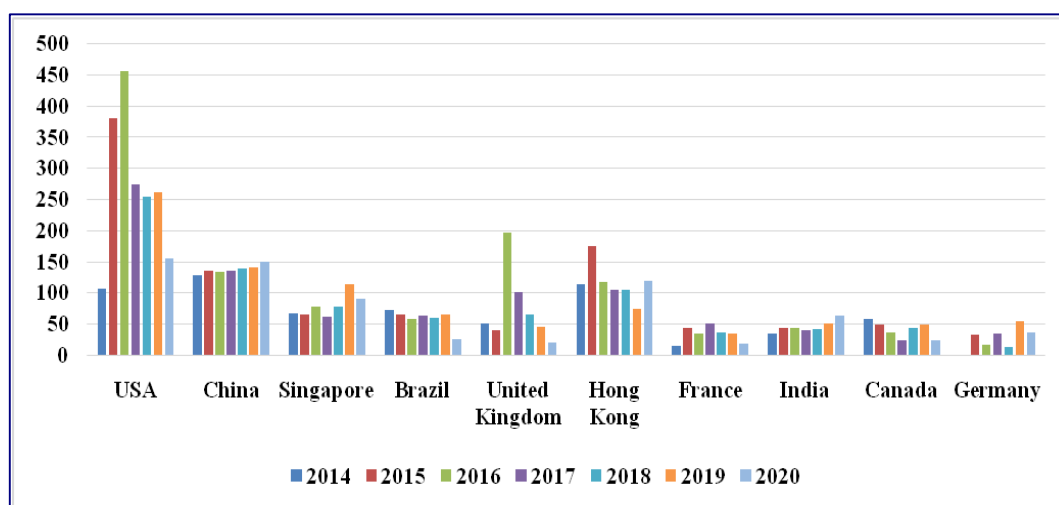


**Figure 4: Global geographical distribution of FDI (billion USD)**

Source: (Birca et al., 2020), (UNCTAD, 2021)

- G20 - in 2020 the volume of FDI amounted to USD 624 billion, decreasing compared to the previous year by 31.6%;
- RCEP (Regional Comprehensive Economic Partnership) - FDI was attracted in the amount of USD 344 billion, with a reduction of 15.1%;
- BRICS (Brazil, Russian Federation, India, China and South Africa) - USD 263 billion (-13.7%);
- USMCA (United States – Mexico – Canada Agreement) - USD 209 billion (-39.1%);
- CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership) - USD 207 billion (-30.7%);
- AfCFTA (African Continental Free Trade Area) - USD 38 billion (-15.4%).

Also, the impact of the pandemic crisis on the attraction of FDI by some countries is remarkable (Figure 5).



**Figure 5: FDI distribution by main host countries (billion USD)**

Source: (Birca et al., 2020), (UNCTAD, 2021)

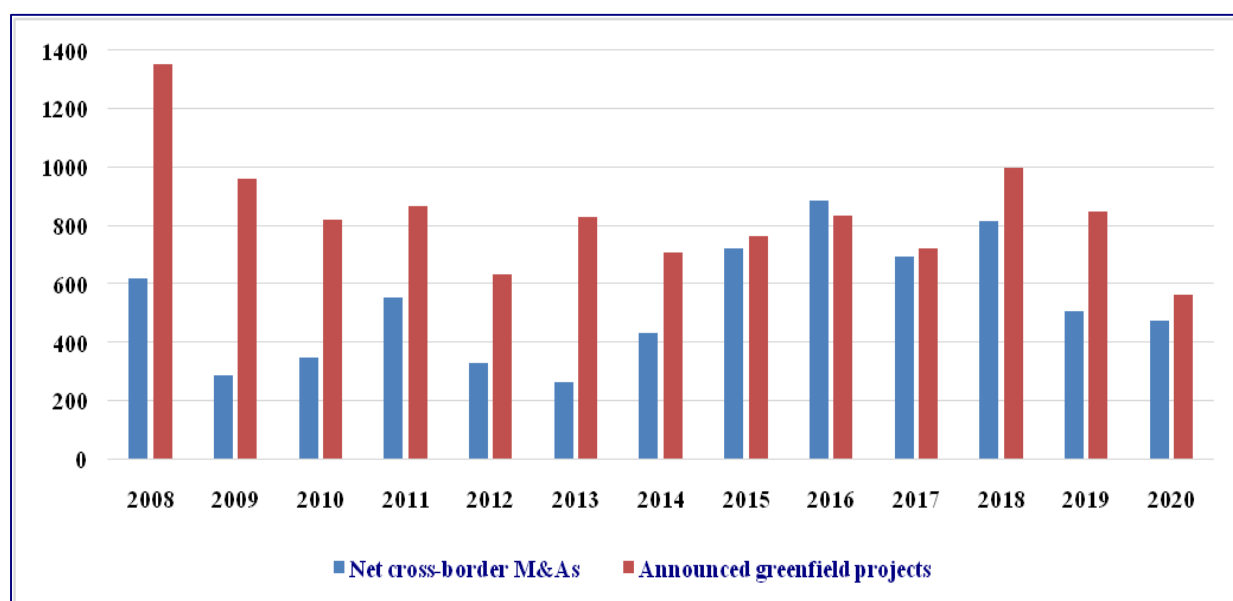
China has an important share in the global volume of foreign direct investment (14.9%) and has managed to maintain the upward trend of FDI over the past 4 years. FDI in this country in 2020 amounted to USD 149 billion and increased by USD 8 billion (or 5.7%) compared to the previous year.

Foreign direct investment in Hong Kong in 2020 amounted to USD 119 billion (with a share of 11.9%), increasing by USD 45 billion (or 60.8%) compared to 2019.

The USA has the largest share in global FDI (15.6%), but the dynamics of their attraction is very unstable. In 2020, FDI was attracted in the amount of USD 156 billion, decreasing by USD 105 billion or by 40.2% compared to the previous year.

Singapore, too, is among the leaders in attracting FDI, with a volume of USD 91 billion in 2020 (with a share of 9.1%), with a reduction of USD 23 billion (or 20.1%) compared to 2019 .

In addition to those mentioned, changes in FDI types should be noted (Figure 6).



**Figure 6: Dynamics of cross-border M&As and announced greenfield projects (billion USD)**

*Source: (Birca et al., 2020), (UNCTAD, 2021)*

In 2020, the net value of mergers and acquisitions was USD 475 billion, down USD 32 billion (or 6.3%) from 20219. Of this volume, USD 379 billion is from industrially developed countries, USD 84 billion - from developing countries and 12 billion USD - from transition countries.

The total amount of announced Greenfield projects in 2020 amounted to USD 564 billion, decreasing compared to 2019 by USD 282 billion (or 33.3%). Of this volume, USD 175 billion belongs to industrially developed countries, USD 255 billion - to developing countries and USD 20 billion - to countries in transition.

The value of international project finance in 2020 was USD 366 billion, down USD 268 billion (or 42.3%) from 20219. Of this volume, USD 379 billion is from industrially developed countries, USD 170 billion - from developing countries and USD 21 billion - from transition countries.

After the analysis, it is natural to draw certain perspectives on the evolution of FDI globally in the post-crisis period.

According to many experts, the effects of the pandemic on SDI flows will be long-lasting. In the process of long-term recovery of global FDI flows, peak levels in 2016 are unlikely to be exceeded by 2028. (*The 2021*, n.d.)

In line with UNCTAD forecasts, global FDI flows are expected to increase in the range of 10-15%.

and in 2022 to reach the level of 2019 of USD 1.5 trillion. (UNCTAD, 2020)

The relatively modest pace of global FDI growth forecast for 2021 reflects the uncertainty surrounding the vaccination process, the emergence of new pandemic mutations and the slowdown in the resumption of activities in many economic sectors. However, if FDI tends to follow other macroeconomic indicators after the pandemic shock, a full recovery of FDI flows to pre-pandemic levels should be expected.

However, it is remarkable that FDI growth rates will be uneven in structural sections. Industrially developed countries will stimulate FDI growth both through important cross-border M&As and by promoting public investment. FDI inflows into Asia will maintain their growth rates as a region that has stood out as an attractive destination for FDI throughout the pandemic.

Author Basu Sharma affirms: “When countries slowly emerge from their lockdowns as the Covid-19 pandemic begins to recede, one crucial problem for governments everywhere will be to figure out ways to mitigate its negative effect on economic growth. And foreign direct investment (FDI) becomes an important factor to support economic recovery in the face of depleted internal resources”. (Sharma, 2021)

Other experts are of the opinion that “this crisis may offer a window of opportunity for governments to re-examine their approaches to investment attraction and retention, with a view towards increasing the embeddedness of FDI within their local economies”. (*Foreign*, n.d.)

At the same time, it is predictable that competition between countries will intensify in order to attract FDI. In this context, it should be noted that developing countries have significant budgetary constraints and can be largely limited to implementing policies based on investment facilitation measures for the simple reason that they do not have the necessary financial means to support private sector companies. (*Foreign*, n.d.)

During the pandemic, a significant number of FDI projects were postponed for the post-pandemic period, which will require a readjustment to new conditions. Some experts consider it likely to change of foreign investors’ preferences and behavior. (*COVID*, n.d.)

By generalizing the opinions of the experts regarding the relaunch of the process of attracting FDI by the interested countries, the following recommendations can be formulated:

- It is necessary to develop and implement programs to support economic activity at the local level, which would be interesting to foreign investors.
- Because of the pandemic crisis, certain important transformations are taking place in the world economy, which must be taken into account in readjusting the landmarks of FDI attraction policies.
- It is necessary to review the role of free economic zones in all their forms in attracting FDI, based on the permanent changes in the world economy.
- A review of the possibilities for applying fiscal instruments to attract FDI is needed, as their impact is sensitive to quality of economic policy, objectives and tasks set by the State. It is also necessary to keep in mind that each instrument has its advantages and disadvantages in the process of tax regulation of investment activity.

## Conclusions

Foreign investment is a part of financial globalization, being to some extent a factor in the economic development of host countries. However, their form, based on the specifics of the performance and the behavior of investors, determines this impact. The pandemic crisis has contributed to the significant contraction of the global volume of FDI, which is in line with the dominant trend of reducing the volume of foreign direct investment worldwide. The collapse of the global volume of FDI, in essence, is the result of the synergistic effect of the general downward trend in FDI and replacement with other forms of international economic and financial cooperation, the previous development of the cyclical global economic crisis and the onset of the pandemic crisis. FDI's sensitivity to economic and financial crises largely depends on the level of damage to

major countries, which attract foreign direct investment. At present, the intensification of global competition between countries for attracting foreign direct investment as a factor of economic recovery becomes predictable. In this sense, it is possible to use the entire arsenal of economic and financial levers to stimulate the inflow of FDI on the territory of the interested countries. But for this a very careful readjustment of the investment policies of the respective states is necessary.

## Future Directions

The results of the study will be integrated into general research on global financial imbalances. Also, once the pandemic has not ceased to vaccinate the global population, it is time to continue observations on the evolution of the global pandemic crisis. Therefore, when the pandemic crisis ends, it will be necessary to return to the analysis performed in a renewed regime.

## Bibliography

2020\_Russia–Saudi Arabia oil price war, [https://en.wikipedia.org/wiki/2020\\_Russia–Saudi\\_Arabia\\_oil\\_price\\_war](https://en.wikipedia.org/wiki/2020_Russia–Saudi_Arabia_oil_price_war), [Accessed August 23<sup>h</sup> 2020]

Bîrcă Iulita, Luchian Ivan, Țîrlea Mariana Rodica (2020) International trends in the field of foreign investment, In: Revista „Economica” no. 2 (112) 2020, p. 84-97

Congressional Research Service (2021) Global Economic Effects of COVID-19, <https://sgp.fas.org/crs/row/R46270.pdf>, [Accessed August 24<sup>h</sup> 2020]

COVID i investitsii = COVID and investments, <https://www.vedomosti.ru/finance/articles/2020/07/05/834008-covid-investitsii>, [Accessed August 27<sup>h</sup> 2020]

Euro Area Inflation Rate, <https://tradingeconomics.com/euro-area/inflation-cpi>, [Accessed August 22<sup>h</sup> 2020]

Fetiniuc Valentina, Luchian Ivan, Țîrcun Alexandra, (2020) *The financial aspects of the global pandemic crisis. In: Materials of the International Scientific Conference "Performance in a Competitive Economy", 7th edition, September 24-25, 2020, International Institute of Management, Chisinau, Imi-Nova, 2020, (Printing "Impressum")*, p. 82-89

Foreign direct investments could contract by 40% this year, hitting developing countries hardest, <https://www.weforum.org/agenda/2020/06/coronavirus-covid19-economics-fdi-investment-united-nations/>, [Accessed August 24<sup>h</sup> 2020]

Global foreign direct investment fell by 42% in 2020, outlook remains weak, <https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak>, [Accessed August 22<sup>h</sup> 2020]

Isidore Chris (2018) 2018 was the worst for stocks in 10 years, <https://edition.cnn.com/2018/12/31/investing/dow-stock-market-today/index.html>, [Accessed August 25<sup>h</sup> 2020]

Malin Steven (2018) *Liquidity Shock: The Hidden Risk in Modern Markets*, <https://www.allianzgi.com>, , [Accessed August 25<sup>h</sup> 2020]

Monthly 12-month inflation rate in the United States from July 2020 to July 2021, <https://www.statista.com/statistics/273418/unadjusted-monthly-inflation-rate-in-the-us/>, [Accessed August 22<sup>h</sup> 2020]

OECD (2002) *Foreign direct investment for development. Maximising benefits, minimising costs*, <https://www.oecd.org/investment/investmentfordevelopment/1959815.pdf>, [Accessed August 23<sup>h</sup> 2020]

Seric Adnan, Hauge Jostein (2020) COVID-19 and the global contraction in FDI, <https://iap.unido.org/articles/covid-19-and-global-contraction-fdi>, [Accessed August 26<sup>h</sup> 2020]

Sharma Basu (2021) *Covid-19 and recalibration of FDI regimes: convergence or divergence?*, <https://www.tandfonline.com/doi/full/10.1080/19186444.2021.1890433>, [Accessed August 23<sup>h</sup> 2020]

Stiglitz Joseph E. (2020) *The Pandemic Economic Crisis, Precautionary Behavior, and Mobility Constraints: An Application of the Dynamic Disequilibrium Model with Randomness*, [https://www.nber.org/system/files/working\\_papers/w27992/w27992.pdf](https://www.nber.org/system/files/working_papers/w27992/w27992.pdf), [Accessed August 25<sup>h</sup> 2020]

The 2021 Foreign Direct Investment (FDI) Confidence Index, <https://www.kearney.com/foreign-direct>

investment-confidence-index/2021-full-report, [Accessed August 26<sup>h</sup> 2020]

UNCTC (1991) *World Investment Report 1991*, [https://unctad.org/system/files/official-document/wir1991overview\\_en.pdf](https://unctad.org/system/files/official-document/wir1991overview_en.pdf), [Accessed August 23<sup>h</sup> 2020]

UNCTAD (2004) *World Investment Report 2004*, <https://worldinvestmentreport.unctad.org/wir2004/overview/#still-declining-in-2003-FDI-flows-show-signs-of-recovery>, [Accessed August 22<sup>h</sup> 2020]

UNCTAD (2021) *World Investment Report 2021*, [https://unctad.org/system/files/official-document/wir2021\\_en.pdf](https://unctad.org/system/files/official-document/wir2021_en.pdf), [Accessed August 22<sup>h</sup> 2020]



# ROMANIA'S FOREIGN DEFICIT IN THE PERSPECTIVE OF JOINING THE EURO AREA

Camelia Milea<sup>21</sup>

## **Abstract :**

*The article<sup>22</sup> analyzes Romania's trade relations with the countries of the European Union. The study shows that the degree of trade integration of our country with the European Union is at a high level, and the trade relationship with the countries of the European Union is the main cause of the trade deficit of our country. There is an increase (although discontinuous) of Romania's trade relations with the countries of the European Union, after our country's joining the European Union. In addition, we note that Romania is one of the few member states of the European Union in which the current account deficit is worsening after 2015.*

**Keywords:** *trade, deficit, relations*

**JEL Classification:** *F14, F15*

## **Introduction**

The external deficit represents a macroeconomic imbalance caused by the relations of an economy with the rest of the world, generated by the way the resources for economic development and consolidation are used.

The external deficit refers to the deficit of the balance of payments, and is determined, from a behavioral point of view, by the state and structure of the national economy, by the external conditions and by the evolution of the currencies in which foreign trade takes place.

Thus, the analysis of the external deficit is a useful and necessary step both for understanding the realities of the economy, and especially for drawing up proposals for the improvement of the resources allocation.

The entry into the euro area, and initially into the ERM II, must be correlated with the state of the national economy, with the level of production potential development and with the resistance to asymmetric shocks, so that joining the euro area should bring our country more advantages than disadvantages.

The adoption of the single currency may create problems when there are some imbalances of the Romanian economy. Thus, Romania's exports may suffer a shock induced by the loss of the exchange rate instrument and its support to maintain the competitiveness of Romanian products, differentiated, however, for the trade with the European monetary area, for the trade with non-euro area member countries and also for the trade with countries outside the European Union. The

---

<sup>21</sup> PhD., Centre for Financial and Monetary Research of the Romanian Academy "Victor Slăvescu", 13 Septembrie 13, Academy House building, wing B, floor 5, cami.g.milea@gmail.com

<sup>22</sup> The article is based on the research project "*Foreign deficit and foreign direct investments in Romania. Trends and challenges in the perspective of Euro adoption*" („Deficitul extern și investițiile străine directe în România. Tendințe și provocări în perspectiva aderării la zona euro”), elaborated in CFMR "Victor Slăvescu" in 2019, under the coordination of Camelia Milea.

magnitude of the shock depends on the degree of improvement of exports structure in terms of increasing the share of goods with a high degree of processing and high added value.

The intensification of Romania's trade relations with the euro area should entail increased investment and improved productivity associated with an inflow of new technologies.

In the paper, it will be analyzed the period 2006-2020, in order to compare the situation from 2020 with that of the year before the integration of our country in the European Union.

### **Romania's trade relations with the countries of the European Union; effects on the external equilibrium**

Since 2007, the year of our country's joining the European Union, we have seen an intensification of Romania's trade relations with the countries of the European Union. As a result, Romania's degree of trade integration with the European Union is at a high level (see table below). Thus, the share of Romania's exports towards the European Union in the total exports of our country increases from 70.5% in 2006 to 76.7% in 2018, then decreases to 73.6% in 2020, due to the diminishment of Romania's exports to the European Union, as a result of the slowdown in the economic activity, at the national and international level, amid the measures taken by the authorities in order to prevent the spread of covid-19. The share of Romanian imports from the European Union in the total imports of our country increases from 68.7% in 2006 to 74.7% in 2018, reaching 73.5% in 2020.

Romania's trade balance with the European Union (the deficit) (see table no. 1) has increased sharply in 2006-2008, then decreased in 2009, in the context of the economic and financial crisis, increased between 2010 and 2012, diminished in 2013 and 2014, and has augmented between 2015 and 2020.

Analyzing the share of Romania's trade balance with the European Union in the total trade balance of our country, we find that the main cause of our country's trade deficit is the trade relationship with European Union countries. Between 2009 and 2012 there was an increase in the importance of the trade deficit with the EU in the total trade deficit of our country (128.7% in 2013). Since 2014, this indicator has been on a downward slope, representing 65.4% in 2018. In 2019 and 2020, the share of trade deficit with EU countries has increased to 73.2%, the significant increase taking place in 2020, as a result of the crisis caused by the measures taken to combat covid-19.

The countries in the European Union with which Romania has the largest trade deficits in 2020 are Hungary (2797 million euros), Poland (2642 million euros), Germany (2583 million euros), the Netherlands (1500 million euros), and Austria (1092 million euros).

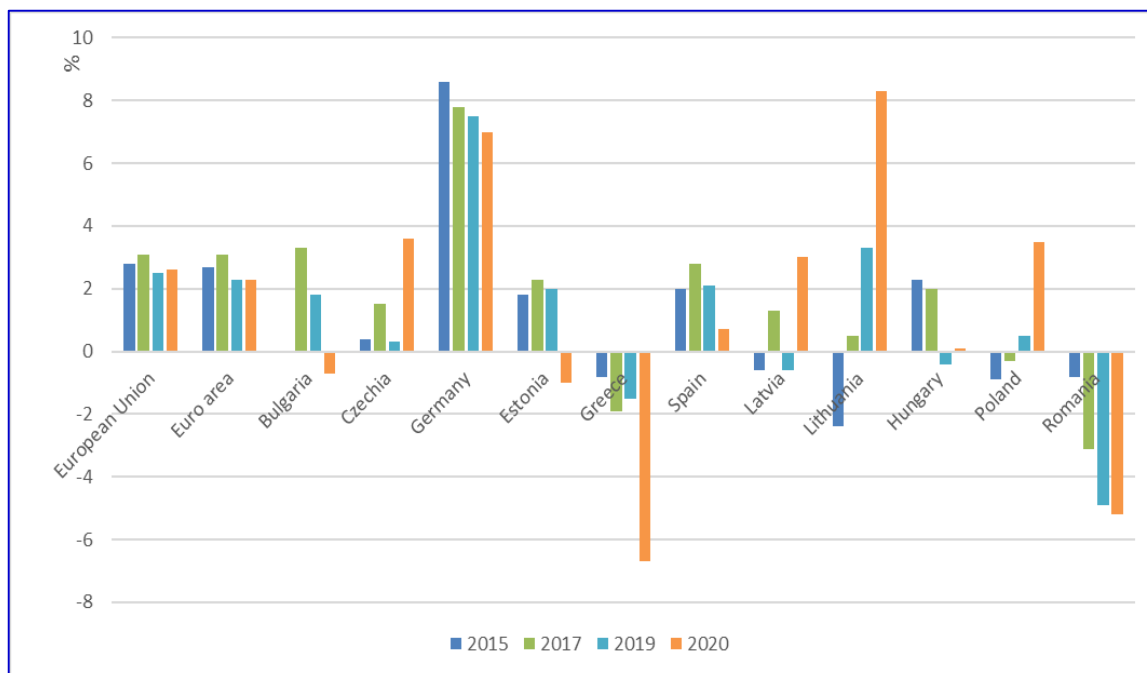
Table 1

## Romania's trade relation with the countries of the European Union

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Share of exports (%)	70.5	72.0	70.8	74.6	72.6	71.3	70.4	69.6	71.1	73.7	75.1	75.8	76.7	76.6	73.6
Share of imports (%)	68.7	71.3	69.7	73.2	72.6	72.8	73.6	75.8	75.4	77.2	77.1	75.8	74.7	74.6	73.5
Romania- EU trade balance (mil. euro)	-9767	-15318	-16037	-6849	-6918	-7736	-8540	-7408	-6809	-8341	-8871	-9797	-9894	-11566	-13466
Share of Romania-EU trade balance in the total trade balance of Romania (%)	65.6	70.4	68.2	69.4	72.8	80.1	88.6	128.7	112.4	99.8	89.0	75.6	65.4	66.9	73.2

Source: own calculations based on NIS data.

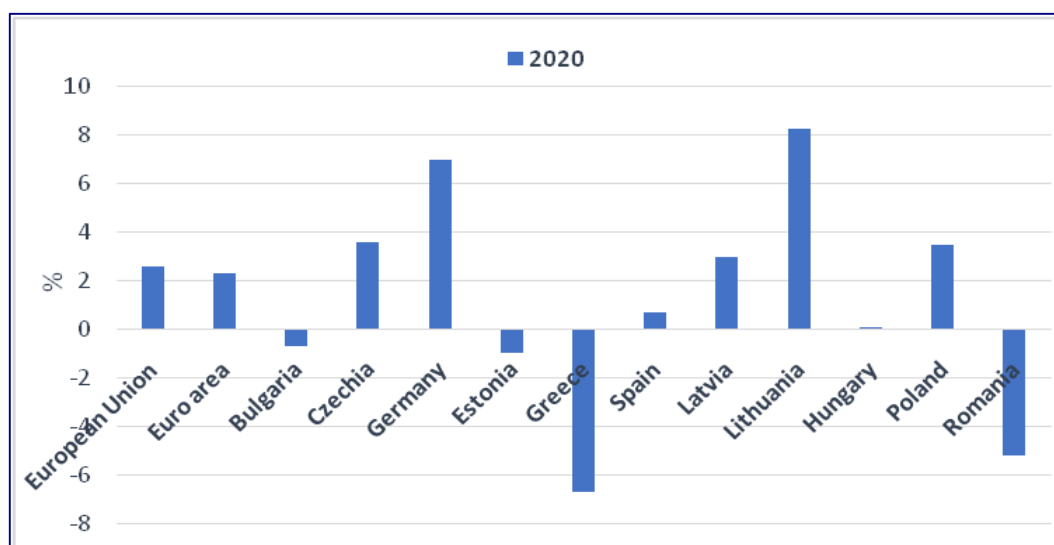
When we compare the situation of our country in terms of current account balance with the situation from the other EU countries, we notice that Romania is one of the few Member States of the European Union in which the current account deficit worsens from 2015 to 2020 (see chart no.1). We encounter this situation only in the case of Greece and Bulgaria.



**Figure 1: Current account balance in the European Union, the euro area and some Member States of the European Union in the period 2015-2020 (% of GDP)**

Source: AMECO data

Moreover, it can be noticed that in the last year of the analyzed period (2020), Romania is in the most unfavorable position among the European Union countries, after Greece, in terms of the share of the current account deficit in GDP, registering the second most high value (see chart no. 2). This situation raises questions about the economic policies implemented in the country, the consumption pattern, and the stage of structural reforms.

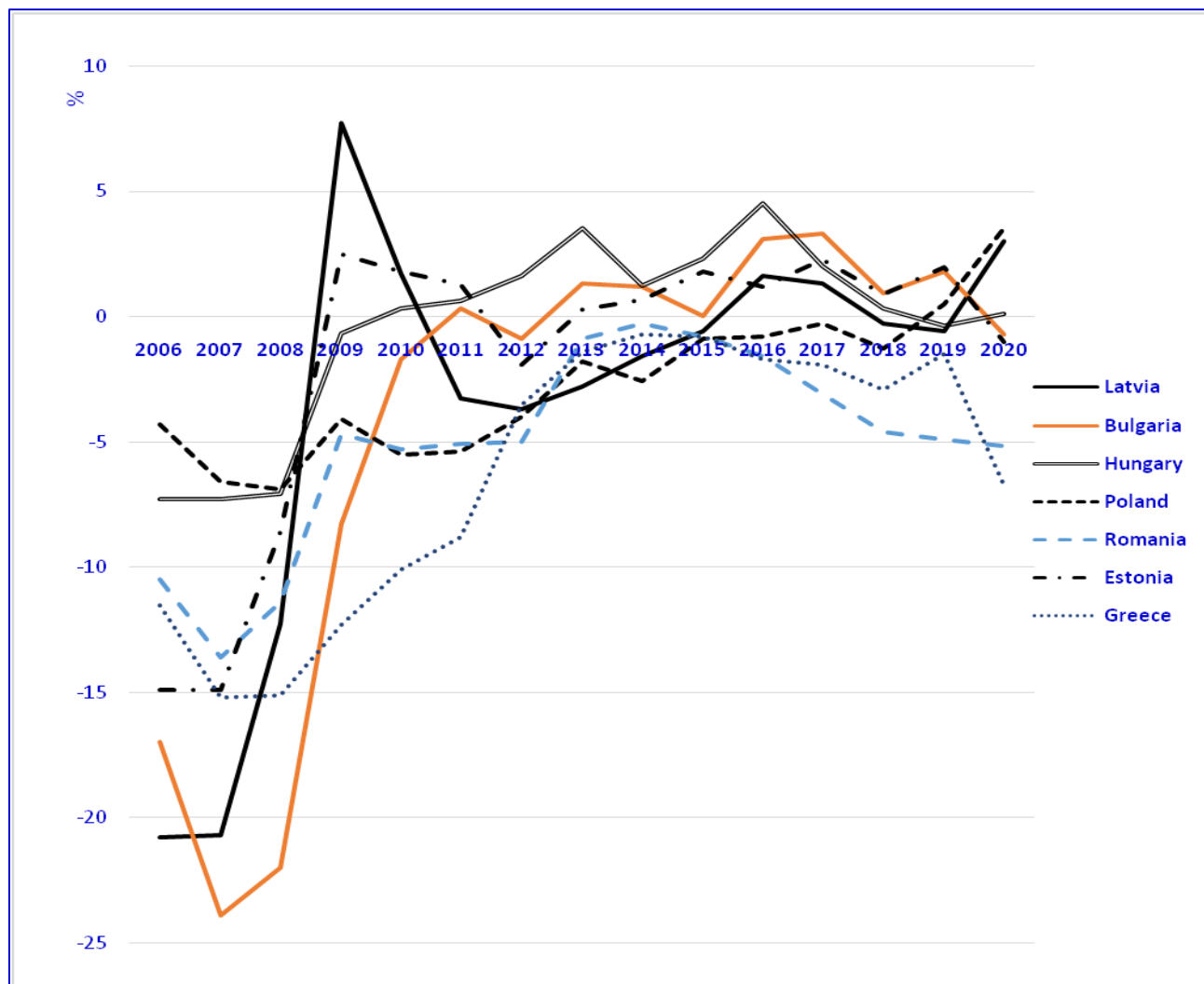


**Figure 2: Current account balance in the European Union, the euro area and some Member States of the European Union in 2020 (% of GDP)**

Source: AMECO data

Although Romania's current account deficit in 2006 was high according to international standards (see chart below), our country was on an average position compared to other new Member States

of the European Union. In the following years, Romania followed a trend similar to the other analyzed states, registering a decrease of the current account deficit. This evolution continued until 2014. Since 2015, the current account deficit of our country (as a share in GDP) has been constantly increasing, reaching the value of -5.2% of GDP in 2020, when most of the other European Union countries have been recorded current account surpluses. We can conclude that Romania has failed to solve its economic problems, to restructure its economy in a way that should ensure sustainable economic development.



**Figure 3: Current account balance in Romania and in some Member States of the European Union in the period 2006-2020 (% of GDP)**

*Source: AMECO data*

If we analyze the average current account deficit in GDP over the last 3 years analyzed (indicator in the scoreboard of the macroeconomic imbalances procedure under the alert mechanism of the European Commission), we find that in 2020 only Germany exceeds the upper threshold allowed, with a value of 7.47% of GDP. Romania has been the only country that has had a value of the indicator below the lower limit allowed (-4.9% of GDP<sup>23</sup>) (see table 2).

<sup>23</sup> According to the procedure on macroeconomic imbalances under the European Commission's alert mechanism (2021), it is estimated that an imbalance between - 4% and 6% of GDP is acceptable, provided it does not become permanent.

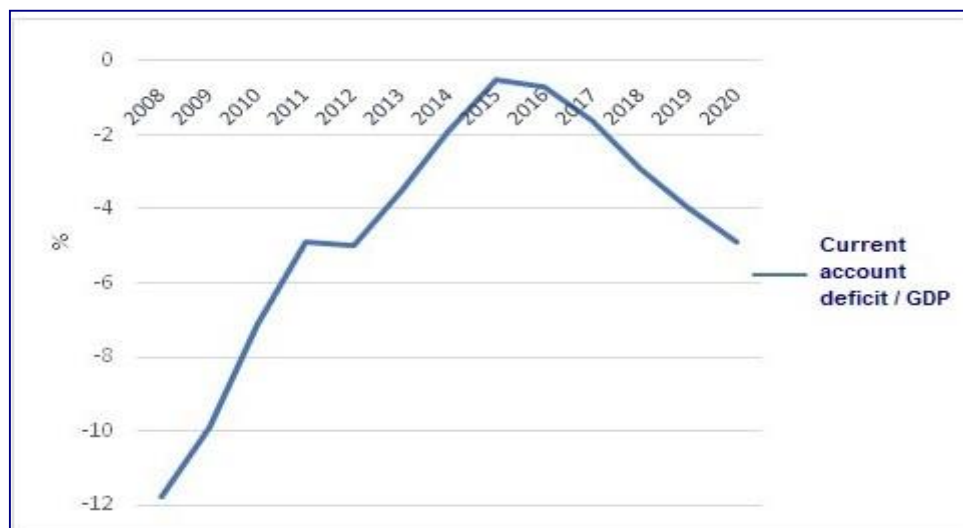
Table 2

**The evolution of the current account balance in Romania and in other Member States of the European Union in the period 2006-2020 (% in GDP)**

	2006	2008	2009	2012	2013	2014	2015	2018	2019	2020	3-year average (2018-2020)
<b>European Union</b>	-1.25	-2.23	-0.64	0.52	0.96	0.83	0.87	1.34	2.5	2.6	2.63
<b>Euro area</b>	-0.17	-1.84	-0.47	0.95	2.11	2.33	2.64	3.10	2.3	2.3	2.50
<b>Bulgaria</b>	-17.04	-21.97	-8.30	-0.85	1.28	1.24	0.12	5.35	1.8	-0.7	0.67
<b>Czechia</b>	-2.47	-1.87	-2.27	-1.56	-0.53	0.18	0.25	0.29	0.3	3.6	1.43
<b>Germany</b>	5.77	5.69	5.84	7.13	6.55	7.20	8.58	7.33	7.5	7	7.47
<b>Estonia</b>	-14.94	-8.64	2.54	-1.88	0.29	0.71	1.76	1.98	2	-1	0.63
<b>Greece</b>	-11.49	-15.11	-12.34	-3.49	-1.43	-0.74	-0.81	-2.83	-1.5	-6.7	-3.70
<b>Spain</b>	-8.85	-8.90	-4.09	0.09	2.04	1.70	2.03	1.94	2.1	0.7	1.57
<b>Latvia</b>	-20.90	-12.33	7.70	-3.64	-2.75	-2.27	-0.88	-0.68	-0.6	3	0.70
<b>Lithuania</b>	-10.62	-13.19	2.11	-1.57	1.69	3.47	-2.44	0.29	3.3	8.3	3.97
<b>Hungary</b>	-7.28	-7.07	-0.73	1.58	3.45	1.17	2.33	-0.51	-0.4	0.1	0.00
<b>Poland</b>	-4.00	-6.67	-3.95	-3.71	-1.26	-2.07	-0.56	-1.03	0.5	3.5	0.90
<b>Romania</b>	-10.46	-11.44	-4.66	-4.80	-1.08	-0.66	-1.23	-4.60	-4.9	-5.2	-4.90

Source: AMECO data

From chart no. 4, it is found that Romania exceeds the lower threshold (-4% of GDP) of the indicator Current account balance, % of GDP (3-year average) in the scoreboard of the procedure on macroeconomic imbalances within the alert mechanism of the European Commission in the period 2008-2012. Between 2013 and 2018, the indicator is within the allowed limits, in 2019 and 2020 being again below the lower limit set by the European Commission.



**Figure 4 - Current account balance, % of GDP (3-year average) within the scoreboard of the procedure on macroeconomic imbalances within the alert mechanism of the European Commission in Romania in the period 2008-2020**

Source: European Commission and own calculations

We can say that Romania is not in a favorable situation for economic convergence with the countries of the European Union in terms of current account deficit.

## Conclusions



*In Romania, the external deficit is determined by the negative balance of the current account, and within it, it is mainly generated by the goods balance.*

*It can be seen that the main cause of our country's trade deficit is the trade relationship with the members of the European Union, and the degree of trade integration of our country with the European Union is at a high level. There is an intensification (although discontinuous) of Romania's trade relations with the states of the European Union, after our country's joining the European Union.*

*When we compare the situation of our country, in terms of current account balance, with that of the other European Union states we notice that Romania is one of the few Member States of the European Union in which the current account deficit has worsened from 2015 to 2020. In addition, our country has the second largest current account deficit as a share of GDP of all European Union members, after Greece, in 2020. This situation raises questions about the economic policies implemented in the country, the consumption pattern, and the stage of structural reforms.*

*Romania has exceeded the lower threshold (-4% of GDP) of the Current Account Balance indicator, as a percentage of GDP (3-year average) in the scoreboard of the macroeconomic imbalances procedure under the European Commission's alert mechanism in 2008-2012 . Between 2013 and 2018, the indicator has been within the allowed limits, but in 2019 and 2020, the values of the indicator have increased, again violating the lower limit set by the European Commission. We can say that Romania is not in a favorable situation for economic convergence with the European Union countries in terms of current account deficit.*

*In addition, the persistence of these trends may reduce the ability of the economy to adapt to shocks (domestical or external) and may affect the growing external financing needs of the economy, caused by the high and widening external deficit, by worsening borrowing conditions, and even reducing the credits obtained and long-term investment.*

*We can say that the trend in the evolution of our country's current account deficit since 2015 represents a source of vulnerabilities for the sustainable development of the economy (a growing external deficit requires additional sources of financing), but also for the prospect of joining the euro area (the limits allowed under the macroeconomic imbalances procedure of the European Commission's alert mechanism being exceeded).*

## Bibliography

Coutinho, Turrini și Zeugner (2018), *Methodologies for the Assessment of Current Account Benchmarks*, European Commission, Directorate-General for Economic and Financial Affairs, Luxembourg: Publications Office of the European Union, DISCUSSION PAPER 086| SEPTEMBER 2018, PDF ISBN 978-92-79-77423-2 ISSN 2443-8022,

European Commission (2016), *Romania Country Report*  
[http://ec.europa.eu/europe2020/pdf/csr2016/cr2016\\_romania\\_en.pdf](http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_romania_en.pdf), 2016

European Commission (2019), *2019 Country Report on Romania*, European Semester 2019: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth assessments carried out under Regulation (EU) no. 1176/2011, Brussels, 27.2.2019 SWD (2019) 1022 final

European Commission (2020), *2020 Country Report on Romania*, European Semester 2020: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth assessments carried out under Regulation (EU) no. 1176/2011, Brussels, 26.2.2020 SWD (2020) 522 final

European Commission (2018), *Statistical Annex of Alert Mechanism Report 2019* , Brussels, 21.11.2018 SWD(2018) 466 final

European Commission (2019), *Statistical Annex of Alert Mechanism Report 2020* , Strasbourg, 17.12.2019 SWD(2019) 630 final

European Commission (2020), *Statistical Annex of Alert Mechanism Report 2021* , Strasbourg, 18.11.2020 SWD(2020) 275 final

European Commission (2018), *Convergence Report Economic and Financial Affairs*, ISSN 2443-8014 (online), 2018, INSTITUTIONAL PAPER 078 | MAY 2018

European Commission (2020), *Convergence Report*, ISSN 2443-8014 (online), 2018, INSTITUTIONAL PAPER 129 | June 2020, [https://ec.europa.eu/info/sites/default/files/economy-finance/ip129\\_en.pdf](https://ec.europa.eu/info/sites/default/files/economy-finance/ip129_en.pdf)

Milea Camelia (2019), External deficit and foreign direct investment in Romania. Trends and challenges in the perspective of joining the euro area, Center for Financial and Monetary Research - Victor Slavesco, Bucharest;

National Bank of Romania (2008-2021), *Monthly Bulletin: December 2007, December 2008, December 2010, January 2012, July 2012, January 2013, January 2014, June 2014, January 2016, December 2016, December 2017, January 2018, May 2019, August 2019, July 2021*, Bucharest

National Bank of Romania (2020, 2018), *Balance of payments and the international investment position of Romania, Annual Report 2017, Annual Report 2019*, Bucharest;

National Bank of Romania (2006-2021), *Annual Report 2005-2020*, Bucharest;

Național Institute of Statistics (2019), *Statistic Bulletin of Foreign Trade no.12/2018*, ISSN 1843-049X, ISSN-L 1843-049X

Național Institute of Statistics (2020), *Statistic Bulletin of Foreign Trade no.12/2019*, ISSN 2065-6610, ISSN-L 1843-049X

Național Institute of Statistics (2021), *Statistic Bulletin of Foreign Trade no.12/2020*, ISSN 2065-6610, ISSN-L 1843-049X

\*\*\* [https://ec.europa.eu/economy\\_finance/ameco/user/serie/ResultSerie.cfm](https://ec.europa.eu/economy_finance/ameco/user/serie/ResultSerie.cfm)

# VULNERABILITIES AND RISKS ASSOCIATED WITH THE EVOLUTION OF THE CURRENT ACCOUNT DEFICIT IN ROMANIA. RECOMMENDATIONS FOR JOINING THE EURO AREA

Ph.D. Camelia Milea<sup>24</sup>

## **Abstract:**

*The article<sup>25</sup> highlights some of the causes of Romania's external deficit, as well as some economic consequences of the trend of our country's current account deficit. The persistence of risk factors and vulnerabilities for Romania's external deficit can diminish the economy's ability to adapt to internal and external shocks. The trend in the evolution of the current account deficit of our country since 2015 is a source of vulnerabilities for the sustainable development of the economy, but also for the prospect of joining the euro area. The article also presents some recommendations for overcoming the challenges caused by the evolution of Romania's foreign deficit in the perspective of joining the euro area, including improving the research and innovation capacity of the economy, and developing activities with higher added value.*

**Keywords** (3 – 5 words): foreign deficit, risks, vulnerabilities, consequences

**JEL Classification** (maximum 3 codes): F10, F15

## **INTRODUCTION**

The external deficit represents a macroeconomic imbalance caused by the relations of an economy with the rest of the world and it refers to the deficit of the balance of payments. It is determined, from a behavioral point of view, by the situation and structure of the national economy, by the external conditions and by the evolution of the currencies in which foreign trade takes place.

In our country, the external deficit is mainly caused by the negative balance of the current account.

For Romania, a country dependent on imports, but also concerned with development, consolidating the convergence is imperative in order to avoid the deterioration of the macroeconomic balances in the perspective of joining the single currency area.

Strengthening the tendency to improve the structure of goods' exports is dependent on supporting efficient activities, by attracting investments in high value-added sectors, respectively by increasing the capacity of Romanian companies to adapt to foreign market standards and cope with possible adverse developments. The large share of the involvement of multinational companies in Romania's foreign trade imposes policies that should concur to the improvement of value chains and the equilibration of imports in the fields dominated by them (e.g. trade in consumer goods).

---

<sup>24</sup> Centre for Financial and Monetary Research of the Romanian Academy "Victor Slăvescu", 13 Septembrie 13, Academy House building, wing B, floor 5, cami.g.milea@gmail.com

<sup>25</sup> The article is based on the research project "Foreign deficit and foreign direct investments in Romania. Trends and challenges in the perspective of Euro adoption", elaborated in CFMR "Victor Slăvescu" in 2019, under the coordination of Camelia Milea, Ph.D.

In the paper, it will be analyzed the period 2006-2020, in order to compare the situation from 2020 with that of the year before the integration of our country in the European Union.

## **Vulnerabilities and risks associated with the evolution of the current account deficit in Romania**

The increase in the budget deficit in recent years, in the context of an expansionary fiscal-budgetary policy, the deterioration of the current account balance, the slow pace of structural reforms, the unpredictability of public policy decisions and legislation, the migration of population, the low rate of population with high professional training, the low level of labor productivity in Romania compared to European Union countries, the high energy intensity, the increasing unit labor costs, the poor innovation capacity of the economy and the low technological achievements, the underdeveloped infrastructure and the cumbersome business environment are vulnerabilities of the Romanian economy which in the medium and long term will affect negatively the sustainable development of the Romanian economy, by maintaining and accentuating the imbalances, including the external disequilibria.

The current account deficit has widened since 2015, mainly due to a growing deficit in trade of consumer goods. The imports of consumer goods have been a major factor in the deterioration of the current account. Thus, since 2016, the imports of consumer goods have grown faster compared to the imports of other goods. In addition, despite significant external demand and an increase in the market share of exports since 2012 (excluding 2020), the growth of imports has consistently outpaced that of exports.

*The evolution of our country's current account deficit since 2015 represents a source of vulnerabilities for the sustainable development of the economy, but also for the prospect of joining the euro area.* Thus, on the one hand, a growing external deficit requires sources of financing, and in the absence of domestic capital, external financing will be used, including loans, which will increase our country's external debt. On the other hand, our country's current account deficit is at risk of exceeding the limits allowed under the procedure for macroeconomic imbalances in the European Commission's alert mechanism, in other words, Romania may become noneligible for the adoption of the euro.

Public policy measures have concurred to the accumulation of vulnerabilities in the Romanian economy in several respects. Thus, the expansionary fiscal-budgetary policy stimulated private consumption, leading to an increase in the current account deficit, by encouraging imports.

The increase in the minimum wage and in public sector wages has put growing pressure on unit labor costs. Until 2018, the impact of wage policies on cost competitiveness has been partially mitigated by a number of factors such as: increasing productivity, a slow transfer to the commercial sector of rising unit labor costs across the economy and the depreciation of the national currency. However, after a period in which the price of goods exported in national currency (measured by the deflator of goods exports) decreased (2013-2016), in 2017 the growth has resumed (by 3.5%), a trend that has continued in 2018 (4.5%).

On the other hand, the appreciation of the real exchange rate in 2017 and 2018 may have had consequences as loss of competitiveness in terms of costs and prices. But in 2019 and 2020, the real leu / euro exchange rate has depreciated, the effects being reversed.

In this context, there are concerns about the possibility of declining Romania's price competitiveness, making our country vulnerable to external shocks.

Also, the way public policy and legislative decisions have been taken in recent years have brought to the prevailing perception according to which the environment of policies' making and adoption is unpredictable and the legislation is unstable, creating new risks to the functioning of the financial sector, to international capital flows and private investment, by eroding investors' confidence.

The unfavorable demographic developments, namely the high level of labor emigration, especially of those with tertiary education and highly qualified, until 2019, as well as the lack of

relevant skills have led to a tightening of the labor market, with effects of increasing the labor cost and slowing down the production of high quality goods and services, with high added value, which can be exported at high prices, helping to improve the current account imbalance of our country.

In addition, the developments in 2020 and 2021, as a result of measures taken by the authorities at national and international level, with the stated aim of preventing the spread of covid-19, have had the effect of reducing production, and have diminished trade flows. as a result of the decrease in economic activity, leading to the worsening of the current account situation of our country.

The measures taken in the context of covid-19 could lead to the build-up of quasi-independent regional production chains, leading to shortening of supply chains, favoring the strategic use of stocks and a new approach to risks (due to insecurity in the global economy), with effects on costs, and implicitly on prices, but also on the logistics process (Milea, 2020).

In this context, the Romanian current account balance is expected to continue to deteriorate over the medium term.

According to the theory, the current account deficit influences the level of external debt. Thus, Dornbusch (1987) quantifies a relationship between the change in net external debt, the current account deficit and net capital inflows, which can be written as:

$$\Delta FD_N = CA - (K_{TL} + K_{TS}), \text{ unde}$$

$\Delta FD_N$  represents the change in net foreign debt;

CA is the current account deficit;

$K_{TL}$  are the net inflows of long-term capital (direct and portfolio investments);

$K_{TS}$  are the net inflows of short-term capital

The above relationship shows that net inflows of private capital cover partly the current account deficit. Long-term net capital inflows (direct and portfolio investments) are preponderant, followed by foreign capital inflows in the form of external loans.

In Romania, the sharp increase in the trade deficit, respectively in the current account deficit since 2014 and 2015, respectively, requires additional sources of financing. Given that the balance of foreign direct investments, net remains relatively constant in recent years (2016-2019), at a level of 4500-4900 million euros, the coverage of the external deficit will be done either through external loans or through portfolio investments<sup>26</sup>. The situation worsens significantly in 2020, when the net inflows of foreign direct investment fall to 1850 million euros, amid risk aversion of investors, in the context of the panic created by the spread of covid-19, but also due to the measures taken by the authorities to prevent people getting sick with the new coronavirus. Both forms of financing (external borrowing and portfolio investment) carry costs (interest, and dividends, respectively) and risks to economic sustainability. Although medium and long-term external debt has been declining in Romania since 2013, there has been an increase in short-term external debt since 2015. Short-term external debt is more risky than long-term external debt in terms of volatility, and affects negatively budgetary decisions of the government and its development projects. In 2019 and 2020, the total external debt has increased more compared to the previous period (2011-2018) (by 10% and 14% respectively), as a result of the larger growth in long-term external debt (25% in 2020). Short-term external debt has declined in 2020 (6.7%), after rising slightly more than the medium and long-term external debt in 2019.

On the other hand, portfolio investments involve risks: the uncertain term of supplementing financial capital resources (without guaranteeing their mobilization for productive purposes), with possible sudden and destabilizing movements - repatriations of capital -, given that they represent a financial investment and therefore they are more sensitive to changes in financial factors.

---

<sup>26</sup> Portfolio investments include equity securities (participatory securities) and debt securities (bonds and money market instruments).



Foreign direct investments also involve risks. Although capital inflows as foreign direct investments may determine the appreciation of the real exchange rate of the national currency of the host country, it is considered that foreign direct investment inflows may be partially offset by imports of equipment and components required for production by foreign direct investment firms, which reduces the impact on exchange rates. On the other hand, exits in the form of repatriated profits and transfer pricing can put considerable pressure on the balance of payments, in the sense of exacerbating the external deficit, and loans by foreign direct investment firms obtained locally give rise to the risk of removing local firms from the capital market of the host country. At the same time, foreign direct investments may have a significant impact at the microeconomic level, being in the position to change the productive structure of the host country.

Among the main **external risks** to Romania's economic outlook, there are a sharp shift in global risk appetite in the context of a continued normalization of monetary policy in the European Union, as well as the occurrence of trade tensions that could lead to lower external demand. If these developments materialize, it would affect negatively foreign investments and exports, in the sense of reducing foreign investment inflows and export demand.

Another important risk for the sustainable evolution of the Romanian economy is the occurrence and implications of the new coronavirus, the way the national authorities and those in Romania's partner countries have considered necessary to act in order to prevent the spread of this disease. Thus, the measures taken by the authorities have significantly slowed down the national and global economies by shrinking production levels, household spending, investments and international trade. Trade flows have diminished as a result of declining economic activity, affecting adversely the access to essential food and medical supplies, as well as jobs, living standards, and economic activity. (Milea, 2020)

An additional stress factor on international trade in 2020 has been the (temporary) export bans and restrictions that some countries and customs territories have introduced in order to alleviate critical deficiencies in medical supplies, pharmaceuticals, medical equipment. food and toilet paper at the national level. (Milea, 2020)

The main determinant of trade contraction was the severity of business collapse, and was not necessarily correlated with the hardness of the disease, but rather with the way in which the authorities implemented quarantine measures and closure of activities. Variations in imports and exports in an economy depend not only on the severity of covid-19 in that country, but also on the evolution of the disease in most partner countries, in the context of complex interdependencies between countries. (Milea, 2020)

The authorities need to keep in mind that economic imbalances are transmitted to trading partners through trade and global value chains.

The duration and the extent of the downward trend in international trade as a result of covid-19 are still unknown.

### **Recommendations for overcoming the challenges posed by the evolution of Romania's external deficit in the perspective of joining the euro area**

Romania has an economy dependent on imports. In order to reduce the current account deficit, we consider necessary to promote the consumption of domestic products both by supporting the domestic supply of quality products with a high degree of processing and by a campaign to motivate the population and focus on Romanian goods.

To this end, we consider as useful to improve the research and innovation capacity of the economy, inclusively by increasing the expenditure for research-development-innovation, in order to support the growth of the production of high value-added goods, and which should incorporate high technology, thus favoring the qualitative and quantitative improvement of the Romanian goods in order to satisfy both the internal and the external demand. In recent years, Romania's trade balance of high-technology products has been negative.



**Table no. 1. Research and innovation performance indicators (%)**

Indicator	2013	2014	2015	2016	2017	2018
The trade balance of high-tech products as % of GDP	-1.96	-1.66	-1.75	-1.6	-1.88	-1.78

*Source: European Commission, 2020*

The transition to higher value-added activities can be stimulated by developing a coherent plan of action. Existing policies (National Competitiveness Strategy, National Research, Development and Innovation Strategy and Government Strategy for Small and Medium Enterprises Development of 2014) are poorly coordinated and do not consist of adequate measures for the progress of companies in the value chain. Non-financial measures for start-ups remain underdeveloped and existing systems (mainly financing measures) are not customer-oriented (European Commission, 2018). The combination of grants from European Union funds and financial instruments is largely unexplored.

We also consider as necessary to intensify cooperation between science and business, including through investments, in order to improve the skills acquisition process, to guide vocational education and training and higher education towards the training of skills required in the labor market. The decrease in the number of higher education graduates in science, technology, engineering and mathematics (European Commission, 2018) further limits the transfer of knowledge.

In 2018, the percentage of people with a university degree was 16%, slightly increasing compared to the previous years, and the rate of people aged 30-34 who had a university degree was 26.3%, much lower than the EU average, of 40%.

**Table no. 2. Performance indicators in education and training**

Indicator	2013	2014	2015	2016	2017	2018
Early leavers from education and training (% of population aged 18-24)	17.3	18.1	19.1	18.5	18.1	16.4

*Source: European Commission, 2020*

Romania is also facing a significant migration of specialists. Our country has one of the largest scientific diasporas of European Union countries (European Commission, 2018).

In addition, in order to support the improvement of our country's current account, it is necessary to reduce the Romanian economy's energy dependency on imports, and to mitigate energy consumption throughout the economy, in order to diminish the energy trade balance deficit, but also to obtain high quality goods with high added value that can be capitalized on export at high prices.

**Table no. 3. Green growth performance indicators**

<b>Green growth performance</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Energy intensity (at macroeconomic level) <sup>27</sup> (Kgoe/euro)	0.27	0.24	0.23	0.22	0.21	0.21	0.2
Industry energy intensity <sup>28</sup> (Kgoe/euro)	0.16	0.15	0.14	0,14	0.13	0.12	0.12
Energy trade balance <sup>29</sup> (% of GDP)	-3	-1.9	-1.4	-0,9	-0.94	-1.3	-1.6
Share of energy-intensive industries in the economy <sup>30</sup> (% of GDP)	11.6	11.4	12	12,3	12.4	12.4	12.33
Transport energy intensity <sup>31</sup> (Kgoe/euro)	0.6	0.54	0.53	0,48	0.43	0.42	0.41
Energy import dependency <sup>32</sup> (%)	22.3	18.1	16.4	16,4	21.6	23.1	-
Aggregated supplier concentration index <sup>33</sup> (HHI)	12.4	18	16.2	21,8	29.2	26.1	-

*Source: European Commission, Eurostat, 2020*

Measures should also be taken in order to reduce and eliminate persistent legislative instability, to talk to relevant stakeholders for policy making and to evaluate ex-ante impact, with the purpose to attract investments.

Also, in order to stimulate investments, but also competitiveness, measures must be taken to improve the infrastructure both in terms of quality and quantity.

## CONCLUSIONS

A country's external deficit must be assessed not only in terms of its immediate economic effects, but also in terms of the amount borrowed in order to balance it. Thus, in the long run, it is advisable to have a tendency for equilibrium of the balance of payments. The chronicity of the external imbalance may influence negatively the domestic equilibrium of the national economy.

It is preferable that certain ways of achieving external balance should be avoided or used thriftily and cautiously. Thus, there is a limit to the volume of short-term capital that a country should import, due to the volatility of these funds, generated by their speculative nature.

In order to achieve the external balance, a mix of domestic economic policies must be adopted. Although, in theory, the equilibrium of the balance of payments can be achieved, in practice, this may be difficult due to not using the right mix of economic policies.

---

<sup>27</sup> Energy intensity (at macro level) represents the ratio of a physical quantity to GDP (in 2010 prices), thus gross inland energy consumption (Europe 2020-2030) (in kgoe) divided by GDP (in EUR)

<sup>28</sup> Industry energy intensity represents the final energy consumption in industry (in kgoe) divided by gross value added of industry, including constructions (in 2010 EUR).

<sup>29</sup> Energy trade balance is the balance of exports and imports of energy, expressed as % of GDP.

<sup>30</sup> The share of energy-intensive industries in the economy is the share of gross added value of the energy-intensive industries in GDP.

<sup>31</sup> Transport energy intensity is final energy consumption of transport activity including international aviation (kgoe) divided by gross added value in transportation and storage sector (in 2010 EUR).

<sup>32</sup> The dependency on energy imports is net energy imports divided by gross domestic energy consumption inclusive the consumption of international bunker fuels.

<sup>33</sup> The aggregated supplier concentration index is Herfindahl-Hirschmann index for net imports of oil, gas and coal. Smaller values show larger diversification and hence lower risk.

In Romania, the external deficit is generated by the negative balance of the current account.

The widening of the budget deficit in recent years, in the context of an expansionary fiscal-budgetary policy, the slow pace of structural reforms, the legislative instability, the unpredictability of decision-making process, the population migration, the low rate of high-skilled population, the low level of labor productivity in Romania compared to other European Union countries, the high energy intensity, the increase in unit labor costs, the poor economic innovation capacity and the low technological achievements, the underdeveloped infrastructure and the cumbersome business environment are factors that influence negatively Romania's foreign trade, with consequences in exacerbating the current account deficit. These elements also generate risks to the functioning of the financial sector, to international capital flows, as they undermine investors' confidence. Also, the legislation of the financial sector, the privately managed pensions and the energy and telecommunications sectors could also hinder future investment opportunities and increase uncertainty, making the economy less attractive to domestic and international investors.

In addition, the persistence of these trends may reduce the economy's ability to adapt to shocks that may occur domestically or come from abroad and may affect the growing external financing needs of the economy, caused by the high and widening external deficit, by worsening borrowing conditions, and even reducing loans obtained and long-term investments.

*The trend of our country's current account deficit since 2015 is a source of vulnerabilities for the sustainable development of the economy, but also for the prospect of joining the euro area.* On the one hand, a growing external deficit requires sources of financing, and in the absence of domestic capital, external financing will be used, especially loans, which will increase Romania's external debt. The growth of the external debt makes it more difficult to obtain new loans, generates risks at the microeconomic level (especially in the banking system), as well as macroeconomic implications for the sustainability of external debt.

On the other hand, our country's current account deficit risks exceeding the limits allowed under the procedure for macroeconomic imbalances in the European Commission's alert mechanism, in other words, we are not eligible for the adoption of the euro.

The improvement of the current account balance as well as Romania's long-term economic outlook depend on the economy's ability to move from the production of relatively low-tech goods to higher value-added products and services, which requires a significant increase in financing research and innovation activities.

In addition, in order to put the economic growth on a sustainable path, we believe that it is necessary to invest in infrastructure as well. The poor quality of transportation infrastructure also undermines companies' investment decisions. Investments in energy infrastructure are also needed in order to ensure better integration into regional energy markets, as well as to support the country's energy supply.

Romania's economic growth model, based on consumer spending, affects the country's ability to achieve in a sustainable manner the standard of living in the European Union. The need to put the economy on a sustainable path towards convergence with the standard of living in the European Union requires ensuring the continuity of reforms and moving to a growth model based on investments.

The duration and the extent of the downward trend in international trade, and therefore the worsening of our country's external deficit, as well as the diminishment of financing sources of the external deficit, especially foreign direct investments, as a result of covid-19, are still unknown, but they depend on how the authorities implement quarantine measures designed to prevent the transmission of the disease.

For a speedy and vigorous recovery, fiscal, monetary and trade policies measures must converge. The adoption of protectionist measures would introduce new shocks. Keeping markets open for international trade and investments would help.

## BIBLIOGRAPHY

Azevêdo Roberto (2020), *Trade forecast press conference*, available [https://www.wto.org/english/news\\_e/spra\\_e/spra303\\_e.htm](https://www.wto.org/english/news_e/spra_e/spra303_e.htm)

Coutinho, Turrini și Zeugner (2018), *Methodologies for the Assessment of Current Account Benchmarks*, European Commission, Directorate-General for Economic and Financial Affairs, Luxembourg: Publications Office of the European Union, DISCUSSION PAPER 086| SEPTEMBER 2018, PDF ISBN 978-92-79-77423-2 ISSN 2443-8022,

Dornbusch, R. (1987) *Exchange Rates and Prices*. American Economic Review, vol. 77, issue 1, 93-106.

European Commission (2016), *Romania's country report* [http://ec.europa.eu/europe2020/pdf/csr2016/cr2016\\_romania\\_ro.pdf](http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_romania_ro.pdf), 2016

European Commission (2019), *Country Report on Romania, European Semester 2019: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth assessments carried out under Regulation (EU) nr. 1176/2011*, Bruxelles, 27.2.2019 SWD(2019) 1022 final

European Commission (2020), *Country Report on Romania, European Semester 2020: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth assessments carried out under Regulation (EU) nr. 1176/2011*, Bruxelles, 26.2.2020 SWD(2020) 522 final

European Commission (2021), *Education and Training Monitor 2020 - Country Analysis, Romania*, available at: <https://op.europa.eu/webpub/eac/education-and-training-monitor-2020/countries/romania.html>

European Commission (2018), *Research and Innovation Observatory Country Report 2017: România*, disponibil la: <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/rio-country-report-2017-romania>

European Commission (2018), *Statistical Annex of Alert Mechanism Report 2019*, Brussels, 21.11.2018 SWD(2018) 466 final

European Commission (2018), *Convergence Report Economic and Financial Affairs*, ISSN 2443-8014 (online), 2018, INSTITUTIONAL PAPER 078 | MAY 2018

European Commission (2020), *Convergence Report*, ISSN 2443-8014 (online), INSTITUTIONAL PAPER 129 | June 2020, [https://ec.europa.eu/info/sites/default/files/economy-finance/ip129\\_en.pdf](https://ec.europa.eu/info/sites/default/files/economy-finance/ip129_en.pdf)

Milea Camelia (2019), *External deficit and foreign direct investment in Romania. Trends and challenges in the run-up to the euro area*, Centrul de Cercetări Financiare și Monetare – Victor Slăvescu, București;

Milea Camelia (2020), *Some aspects regarding the impact of Covid-19 at the macroeconomic level and at the level of multinational companies*, Journal of Financial and Monetary Economics, no. 8/2020, ISSN 2537 – 3269, ISSN-L 2392-9685

Milea Camelia (2020), *Consequences of COVID-19 on the International Trade in Goods and Services: Forecasts, Developments, Restrictions*, Financial Studies no. 4/2020

National Bank of Romania (2008-2021), *Monthly Bulletin: December 2007, December 2008, December 2010, January 2012, July 2012, January 2013, January 2014, June 2014, January 2016, December 2016, December 2017, January 2018, May 2019, August 2019, July 2021*, Bucharest

National Bank of Romania (2018), *Balance of payments and the international investment position of Romania, Annual Report 2017, Annual Report 2019*, Bucharest;

National Bank of Romania (2006-2021), *Annual Report, 2005-2020*,

Național Institute of Statistics (2019), *Statistic Bulletin of Foreign Trade no.12/2018*, ISSN 1843-049X, ISSN-L 1843-049X

\*\*\* [https://ec.europa.eu/economy\\_finance/ameco/user/serie/ResultSerie.cfm](https://ec.europa.eu/economy_finance/ameco/user/serie/ResultSerie.cfm)

# GLIMPSES AT A NEW GOLD STANDARD

Iulian Oneașcă<sup>34</sup>

## **Abstract:**

*The digital revolution and the explosion of a wide variety of currencies challenge the knowledge, understanding, and regulation of the phenomenon. The article synthesizes the evolution of money in the world, seeking to deepen the approach of its study. In particular, the analysis aims at identifying standards and values as reflected by the evolution of money. The approach goes beyond current practices in highlighting the evolution of society, considering the expenditures and harvesting of socio-human energy, as approximated by prices and the corresponding circuits of money. The analysis emphasizes influences of the market, authority, and technology. The results suggest a spiral evolution in currency production, initially oriented by the principle of self-organization, and then by market forces, social needs, and efficiency. Knowledge, technology and trust mark the new gold standard of future money. Trust has yet to confirm.*

**Keywords:** Money, Cryptocurrency, Socio-human energy

**JEL classification:** F60, O10

Society is a complex system of relationships characterized by self-organization (Thelen and Smith, 2006, p. 259; Mathiesen et al., 2011). The system functions like a firm. “By forming an organisation and allowing some authority (an ‘entrepreneur’) to direct the resources, certain (...) costs are saved” (Coase 1937, p. 393). These are transaction costs (Arrow 1970, p. 60), including, amongst others information costs (North, 1992). Minimising them through legislation, justice and economic-administrative measures, leads to an increase in efficiency (Coase, 1960).

The main resources in society are people’s energies. People, communities, and societies lead their lives expending and harvesting (socio-human) energy. This is the common denominator of all their communications (sociology), actions (exchange of energy, in economics), rules (law), decisions (politics), thoughts (psychology), and so on, according to the aspects covered by international standards (social sciences—Ford and disciplines—ISCED-F); they bring together the knowledge about society and approximate reality.

In pursuing goals and fulfilling lives, people create and assign values. Such values are found in all sciences and disciplines of the known existence of societies (e.g., sociology—equality; economy—goods and services; justice—rule of law; politics—reputation, number of supporters and votes).

In economy, values are expressed through prices, coordinating the economic system. Money is the modern metric of prices; it approximates the socio-human effort. Thus, the flows of money reveal the circuit of socio-human energy, inside and across borders.

## **The Money**

The primary functions of money are to store, serve as a unit of account and a medium of exchange for values (Vaz et al., 2021). Traditions of reciprocity and barter (Elliott, 2018), as the oldest forms of exchange, could not store or measure values, while their possibilities to serve as a medium of exchange were narrow.

From time immemorial, people have practiced the exchange of goods to meet their needs as best they could. They created the first forms of money—primitive money—as early as the Neolithic and Bronze Ages. The means of exchange have evolved from prehistoric symbolic currencies (e.g., miniatures of utensils, tools, and weapons, or ornaments), to more valuable and practical ones,

---

<sup>34</sup> European Institute of Romania, Regina Elisabeta 7-9, Bucharest, e-mail: iulian.oneasca@gmail.com



cattle (ancient Germans) and livestock currencies (standard in ancient Persia) (Einzig, 1949; Hudson, 2020). The process favoured a downward trend in money production costs: from manufactured symbolic products, to natural, and more valuable and abundant ones. In the beginning, money only served as a means of payment. This is the case with the Babylonians monetizing grain and silver; the process had administrative and fiscal motivations. Thus, the intervention of the authority led to the emergence of a system of exchange, based on weights, measures, and purity standards (Hudson, 2020; Innes 1913, p. 386).

In a disconnected world, a wide variety of would-be currencies co-existed with early monetary systems, such as the ones founded on base metal currency in ancient Greece, crude bronze in ancient Italy and Rome, and copper unit of account in ancient Egypt (Einzig, 1949).

A common and ageless problem of all sovereigns and societies has been the need for more money. To address the issue, the monetary system functions as a public good. It allows governments to provide national money. The system “permeates people’s everyday lives and underpins the economy” (BIS 2021, p.66). Its authority relies on trust in currency (BIS 2021, p.70).

Throughout most of Europe’s history, the governments usually paid their credits by “raising a tally” (Innes 1913, p. 398). Another method—manufacturing money—was limited by the value and availability of the commodity of which money was made. Therefore, the increase in the money supply was obtained by cutting the production costs of coins, reducing the quantity or quality of that particular commodity making the money (Fox, 2018). A cheaper solution involved the issuing of paper money; thus, governments would set its value and finance the deficits (Velde, 2018).

Paper money was first introduced in China at the end of the tenth century to substitute the Chinese coins, also used in Japan and Korea (Wray, 2012). From the middle of the twelfth century, for almost three hundred years, paper bills circulated throughout the empire (Pickering, 1844; Pfaff, 2010). Europe experienced their first paper money two centuries later (Wray, 2012). By the 18<sup>th</sup> century, precious metals (silver and gold) served as the main commodity money (Samuelson and Nordhaus, 2009). A century later, paper money coexisting with precious metal coins, were dominant (Velde, 2018).

As soon as governments have learnt to secure cheap money, its over-supply emerged. It happened with the issuance of paper money in 15<sup>th</sup> century China (Pickering, 1844; Wray, 2012), and with the influx of precious metals from the New World in Western Europe, between 15<sup>th</sup> century and the first half of the 17<sup>th</sup> century (Moosa, 2014). Monetary inflation has also been triggered by larger variations in the supply of money caused by fiat currencies adopted by many countries, from the 18<sup>th</sup> century onwards (Ögren, 2019). Therefore, stable money and fixed exchange rates have become major concerns for domestic and foreign trade.

## **Gold Standard and Currency Unions**

History highlights three major foreign exchange systems: the gold exchange standard, the Bretton Woods system, and the current flexible exchange rate system (Samuelson and Nordhaus 2009, p. 661).

The gold standard was used intermittently from 1717 to 1936 (Samuelson and Nordhaus, 2009, pp. 554-555). The classical gold standard had become the predominant national and international monetary system in the world until the beginning of the First World War (Officer, 2018). The novelty is not the gold as a standard—Europe used the pound as a unit of account since Roman times—but the establishment of the international gold standard to support commodity money in countries (Wray 1993, p. 31). The Gold as money or medium of exchange unified domestic and foreign trade; the only difference was that countries had different units for their gold coins (Samuelson and Nordhaus 2009, p. 555; Wray 1993, p. 32). It exhibited rudiments of automatic and policy-induced money supply, which promoted either stability or fostered instability (Officer, 2018).

Currency unification is an important way to reduce the transaction costs of monetary systems. In addition to the unification of domestic currencies (Germany and the USA), there are two failed currency unions in Western Europe that are worth mentioning (Ögren, 2019); they precede the



current Economic Monetary Union decided in Maastricht in December 1991. The Latin Monetary Union (1865–1926) consisted of France, Belgium, Italy, Switzerland and later Greece; it was more a coinage union, rather than a full monetary one (Einaudi, 2018). Denmark, Sweden and Norway formed the Scandinavian Currency Union (1873-1924); the gold standard restrained their monetary policies in the absence of a common central bank (Krim, 2004). The absence of common trade and fiscal policies, as well as political union, has led to the disintegration of these monetary unions.

The Bretton Woods system (1945-1971) has marked the emergence of a first international monetary system. It entailed the cooperation of central banks, supervised by the newly created International Monetary Fund (IMF) that continues to operate as a central bank for central banks (Samuelson and Nordhaus 2009, p. 557). The Bretton Woods system went beyond previous experiences of currency unions, introducing fixed but adjustable exchange rates (Samuelson and Nordhaus 2009, p. 558). The system collapsed in 1971 because of two fundamental drawbacks. The difficulty of maintaining fixed exchange rates while reducing international imbalances by demand-driven policies, created an adjustment problem; as the dollar became the world reserve currency and the system turned into a gold dollar standard, an ample US balance of payment deficit raised a confidence problem in terms of dollar stability (Kugler and Straumann, 2018).

The gold standard has strengthened the economy's freedom from government intervention. With its collapse, governments turned to economic policies to stabilize production and employment (for details of the process, see Croitoru, 2018).

## **Digital Money and Cryptocurrencies**

Historically, monetary plurality prevails (Amato and Fantacci, 2018). The development of digital economy and the emergence of digital money continue the tradition, offering alternative media of exchange. The current digital revolution revolutionizes money and payments systems; it has the potential to generate a departure from the traditional model of monetary exchange (Brunnermeier, 2021). Central banks issue digital currencies (CBDCs); they offer the advantages of central bank money: settlement finality, liquidity and integrity (BIS 2021, p. 65). Private provision of digital money is growing rapidly; it dominates the payment system in China (WeChat's and Alipay's digital wallets); provides successful money transfer services in Africa (Safaricom's M-Pesa) and others announce plans for social media networks ("stable coin" Libra of Facebook).

Market-led forces have created digital money and the cryptocurrencies. These are digital assets, with no backing or intrinsic value. Thus, they are immaterial and have no nationality. Their usage require no card or even bank account; for transaction purposes an electronic 'wallet' and a private key or a third-party custodian is required to access the funds (BIS, 2021). Cryptocurrencies can hide the wealth and its sources; most blockchains enable pseudonymity, others offer fully private transactions (WEF, 2021). A general definition refers to a "type of digital asset that uses distributed ledger, or blockchain technology to enable a secure transaction" (Härdle et al. 2019, p.1). A common trait is the network of peers with equal standing. Each participant has an active role, poses a copy of the ledger and consents algorithmically on the correct ledger (Härdle et al. 2019).

Cryptocurrencies reached a certain maturity, after more than a decade of market evolution. They display utility (WEF, 2021), have a potential for "cheap, secure, and near-instant transactions" (Härdle et al. 2019), are practical and convenient, as well as efficient in transaction time, offer faster payment, and simplicity of the payment process (Titov et al., 2021). Thus, their use is significant. Currently, the aggregate of cryptocurrencies is valued at around \$2 trillion in market capitalization (Coin Market Cap, 5<sup>th</sup> September 2021). Lending applications relying on cryptocurrencies and decentralized trading venues command roughly \$65 billion in on-boarded assets (WEF, 2021). Currently, there are over 6300 cryptocurrencies (Coin Market Cap, 5<sup>th</sup> September 2021); the most widespread and used ones are Bitcoin, Ethereum, Cardano, Binance Coin, Tether and XRP (Coin Market Cap, 5<sup>th</sup> September 2021).

The blockchain technology has a considerable potential to contribute to sustainable development; so far, the focus is on financial applications and speculative gains in cryptoassets (United Nations, ESC, 2021).

## Discussion and Conclusions

The standard in manufacturing (issuing) money spirally evolved. It started from traditions of reciprocity and barter with the primitive money, went to livestock, commodity money and fiat money, arriving to modern fiduciary currency. Thus, in a bottom-up fashion, the transitory standards expanded from individuals, to collectivities, and then to societies. The market required an international monetary system to encompass the whole world and address its corresponding transactions costs. The international monetary system--in a top-down approach--has introduced new monetary standards and provided adequate means for trans-border payments. The progress relied on market structuring and regulations. Globalisation and growing market forces also contributed. Favourable market conditions and unmet social needs generated bottom-up initiatives; entrepreneurs have capitalized on information, technology and communications, and created advanced (crypto)currencies. Thus, they overtook market regulations and bypassed global governance.

The money standard, old and new, has always followed the market need; what the market required, the authorities and the entrepreneurs provided. Technology accompanied the evolution of money, from coin minting to the issuance of paper money and digital money.

For many centuries, domestic and international exchanges of goods relied on possessions and precious metals. The intrinsic value of money laid initially in its commodities, then in trust, and gold standard, arriving at modern fiduciary money and digital currencies. Anticipating the evolution of society, knowledge becomes the most precious possession in society, its new gold. Trust has yet to confirm.

The cryptocurrencies and their future--relying on knowledge, market and trust--foreshadow the new gold standard of monetary systems. These reproduce the advantages of gold: limited supply and industrial uses, relatively indestructible. The production embraces however the entire world; cryptocurrencies know no boundaries. At the same time, the measure of knowledge is no longer rooted in power, but in the energy of the people, world market and trust.

The evolution of money display a constant reduction in transaction costs and improvement in system's efficiency. At the same time, short-lived experiences show that all monetary governmental arrangements eventually fail. The progress can be robust and lasting, provided that it be in line with the self-organisation principle. It is a matter of rules quality or governing competences, as it is one of mobility and adaptation. Entrepreneurship and the growing world market exhibit such traits. Fragmented world society and its market wild forces would always prevail over any socio-human administrative arrangements. Their energies and flows would be overwhelming.

## References

- Amato M., Fantacci L. (2018), Complementary Currencies. In: Battilossi S., Cassis Y., Yago K. (eds) *Handbook of the History of Money and Currency*. Springer, Singapore. [https://doi.org/10.1007/978-981-10-0622-7\\_50-1](https://doi.org/10.1007/978-981-10-0622-7_50-1)
- Arrow, Kenneth J. (1974), *The Limits of Organization* (New York: Norton).
- Brunnermeier, M.K.; James, H.; Landau, J.P. (2021), The digitalization of money. *BIS Working Papers No 941*, online at <https://www.bis.org/publ/work941.pdf>
- Bank for International Settlements (BIS). (2021), Annual Economic Report, June 2021. Online at <https://www.bis.org/publ/arpdf/ar2021e.pdf>
- Coase, R. H. (1937), The Nature of the Firm, *Economica*, New Series, Nov., 1937, Vol. 4, No. 16, p. 386-405, <https://doi.org/10.1111/j.1468-0335.1937.tb00002.x>
- Coase, R., H. (1960). 'The Problem of Social Cost', *Journal of Law and Economics*, 3, The University of Chicago Press, 1-44, online at <http://www2.econ.iastate.edu/classes/tsc220/hallam/Coase.pdf>.
- Croitoru, L. (2018, Cum pot atitudinile diferite față de inflație să zădărnicească visul European (How can different attitudes towards inflation defeat the European dream). Online at <http://luciancroitoru.ro/2018/05/07/cum-pot-atitudinile-diferite-fata-de-inflatie-sa-zadarniceasca-visul-european/> [Accessed August 6<sup>th</sup>2021].

- Einaudi, Luca (2018), A Historical Perspective on the Euro: the Latin Monetary Union (1865–1926), ifo DICE Report, ISSN 2511-7823, ifo Institut – Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 16, Iss. 3, pp. 17-20
- Einzig, Paul. (1949), *Primitive Money*. EYRE & SPOTTISWOODE, London. Online at <https://archive.org/details/in.ernet.dli.2015.190322>, [Accessed August 30<sup>th</sup> 2021].
- Fox D. (2018), Money, Law, and Institutions. In: Battilossi S., Cassis Y., Yago K. (eds.) *Handbook of the History of Money and Currency*. Springer, Singapore. [https://doi.org/10.1007/978-981-10-0622-7\\_52-1](https://doi.org/10.1007/978-981-10-0622-7_52-1)
- Härdle, W.C.; R. Harvey, C.R.; Reule, R.C.G. (2019), Understanding Cryptocurrencies. IRTG 1792 Discussion Paper 2018-44, <http://irtg1792.hu-berlin.de> ISSN 2568-5619
- Hudson M. (2020), Origins of Money and Interest: Palatial Credit, Not Barter. In: Battilossi S., Cassis Y., Yago K. (eds.) *Handbook of the History of Money and Currency*. Springer, Singapore. [https://doi.org/10.1007/978-981-13-0596-2\\_1](https://doi.org/10.1007/978-981-13-0596-2_1)
- Innes, A. M. (1913), "What is money?" *Banking Law Journal*, May: 377–408. Online at <https://cupdf.com/document/innes-what-is-money.html>
- Krim, Talia. (2004), The Scandinavian Currency Union 1873-1924. *Studies in Monetary Integration and Disintegration*. Dissertation for the Degree of Doctor of Philosophy, Stockholm School of Economics, online at <https://ex.hhs.se/dissertations/594631-FULLTEXT01.pdf>
- Mathiesen, J., Mitarai, N., Sneppen, K., and Trusina, A. (2011), Ecosystems with Mutually Exclusive Interactions Self-Organize to a State of High Diversity, *Phys. Rev. Lett.*, 107/8, DOI:<https://doi.org/10.1103/PhysRevLett.107.188101>
- Moosa, I.A. (2014), *Quantitative Easing as a Highway to Hyperinflation*, World Scientific Publishing. Singapore.
- North, Douglass C. (1992), Transaction costs, Institutions and Economic Performance, International Center for Economic Growth, online at [http://pdf.usaid.gov/pdf\\_docs/PNABM255.pdf](http://pdf.usaid.gov/pdf_docs/PNABM255.pdf) .
- Officer L.H. (2018), International Monetary Regimes: The Gold Standard. In: Battilossi S., Cassis Y., Yago K. (eds.) *Handbook of the History of Money and Currency*. Springer, Singapore. [https://doi.org/10.1007/978-981-10-0622-7\\_23-1](https://doi.org/10.1007/978-981-10-0622-7_23-1)
- Pfaff, P. (2010), Paper Money in Early China. *The BRC Journal of Advances in Business*, pp. 55-68, online at <https://www.cambriainstitute.com/journals/cambria-institute-journals-paper-detail.cfm?pid=19>
- Pickering, J. (1844), The History of Paper Money in China, *Journal of the American Oriental Society*, Vol. 1, No. 2, pp. 136-142. American Oriental Society Stable. Online at <https://www.jstor.org/stable/3217743>
- Samuelson, P.A., Nordhaus, W.D. (2009), *ECONOMICS*, Nineteenth ed., McGraw-Hill International Edition, online at <http://pombo.free.fr/samunord19.pdf>, extracted 02.09.2021
- Thelen, E., & Smith, L. (2006). Dynamic Systems Theories, in *Handbook of Child Psychology, Theoretical Models of Human Development*, 6th Edition, eds. William Damon, Richard M. Lerner, (pg. 258-312).
- Titov, V.; Uandykova, M.; Litvishko, O.; Kalmykova, T.; Prosekov, S.; Senjyu, T. (2021), Cryptocurrency Open Innovation Payment System: Comparative Analysis of Existing Cryptocurrencies. *J. Open Innov. Technol. Mark. Complex.* 2021, 7, 102. <https://doi.org/10.3390/joitmc7010102>
- Vaz, John; Milne, Alistair; Brown, Kym. (2021), The Forms and Functions of Money. Online at [https://www.researchgate.net/publication/340828115\\_The\\_Forms\\_and\\_Functions\\_of\\_Money](https://www.researchgate.net/publication/340828115_The_Forms_and_Functions_of_Money), [Accessed August 12<sup>th</sup> 2021].
- Velde F.R. (2018), Experiments with Paper Money. In: Battilossi S., Cassis Y., Yago K. (eds.) *Handbook of the History of Money and Currency*. Springer, Singapore. [https://doi.org/10.1007/978-981-10-0622-7\\_17-1](https://doi.org/10.1007/978-981-10-0622-7_17-1)
- Wray, L. (1993), The Origins of Money and the Development of the Modern Financial System. Levy Economics Institute. The Economics Working Paper Archive. 10.2139/ssrn.150948.
- \*\*\* (2021), Today's Cryptocurrency Prices by Market Cap, Coin Market Cap, 5<sup>th</sup> September 2021, <https://coinmarketcap.com>
- \*\*\* (2021), Harnessing blockchain for sustainable development: prospects and challenges, Report of the Secretary-General. United Nations, Economic and Social Council, E/CN.16/2021/3

# DIRECTIONS FOR IMPROVING BUDGETING WITHIN THE COMMERCIAL BANK

Victoria Postolache<sup>35</sup>

Natalia Branașco<sup>36</sup>

## **Abstract:**

*The article is dedicated to the issues of training, development and improvement of the budgeting system of commercial banks in modern conditions. The paper examines the main trends in the development of the banking sector in the Republic of Moldova, analyzes the external and internal factors that hinder the development of commercial banks. The authors of the article reveal the essence and role of the budgeting system in the development of commercial banks in the Republic of Moldova, investigate the content of the bank's budgeting system, analyze the elements of the budgeting system, which allow considering this system as a continuous active process of solving problems. commercial banks.*

*The study of these issues is of practical importance, because the efficient management of commercial banks requires an efficient budgeting system, which will allow commercial banks to achieve higher financial results.*

**Keywords:** *budgeting system; financial responsibility center; financial planning in banks; the efficiency of the bank's functioning.*

**JEL Classification:** G21

## **Introduction**

Currently, the banking system of the Republic of Moldova can be considered as developing and is characterized by intensified competition, an expansion of the range of banking products and services, an increase in the volume of transactions and the expansion of bank branch networks. The effectiveness of banking operations in such conditions depends largely on the banking management system.

Meanwhile, existing modern problems of domestic banks, expressed in the form of instability of Moldovan banking and its weak activity compared to Western countries, lack of funds, etc., are often associated with misunderstanding or neglect of the most important component of banking management - financial planning. The low level of financial planning of the activities of commercial banks is one of the factors that prevent the development of banking activities.

Recently, the managers of commercial banks have faced problems in planning the activities of the bank as a whole and its subdivisions, determining the cost of banking services and identifying internal survival reserves. In this sense, the role of intra-bank financial planning is growing, involving the introduction of a system for evaluating the performance of different departments of the bank and the individual areas of its activities.

The topicality of the problem and the insufficient degree of research on the processes of formation and improvement of the bank's budgetary system and the implementation of appropriate instruments require a more in-depth study, which led to the elaboration of this article.

Budgeting is a process of planning, accounting and controlling a bank's interest-free expenses. The budgeting system includes the processes of budget planning, budget management and financial control.

---

<sup>35</sup> PhD, Associate Professor, Affiliation Balti State University "Alec Russo", Faculty for Exact, Economic and Natural Science, Bălți, Republica Moldova

<sup>36</sup> PhD, Associate Professor, Affiliation Balti State University "Alec Russo", Faculty for Exact, Economic and Natural Science, Bălți, Republica Moldova



Budgeting is very essential regulating the day to day operations of any business [3]. It is a framework for ensuring achievement of programmes concerned with business goal and objectives, under a given time period, by use of specific available resources.

Budgeting is a management tool designed to solve the existing variety of tasks of commercial banks by increasing the efficiency of financial planning and management in general. In addition, budgeting is currently a tool for strengthening control over resource spending, balancing cash flow, organizing an efficient assessment of a commercial bank's activities and the prospects of certain areas of activity, etc.

The objectives and tasks of budgeting are based on its functions as a whole. The financial crisis, with the consequences of which domestic banks have been struggling for a long time, has shown that those banking structures that used budgeting in the administration process quickly and easily solved their financial problems, restructured financial flows more efficiently and with minimal losses compared to banks that did not use budgeting technology. In this regard, issues related to budget execution are relevant.

At the same time, the development potential of the banking sector has not been exhausted, the Government of the Republic of Moldova and the NBM are of the opinion that the banking sector can and should play a more important role in the economy. It should be noted that the development of commercial banks is constrained by a number of circumstances, both external and internal.

External factors of restriction include increased lending risks, instability of international financial markets, limited opportunities for banking resources, insufficient credit in the medium and long term, a low level of public confidence in banks.

Internal barriers include underdeveloped management systems, poor financial planning, poor financial management, inefficient risk management, inefficient use of technology and poor quality management information.

Along with the listed factors, there are methodological issues such as the need to further develop and improve the commercial bank's budgeting system as part of its development strategy.

## **Results and discussion**

Budgeting facilitates the primary function of banks, in their capacity as agents that facilitates financial intermediation and the performance of core banking roles [2]. Budgeting together with performance administration are important financial activities in the banking sector. The issue of improving the budgeting system of a commercial bank becomes relevant in cases where:

- the growth rate of administrative expenses exceeds the growth rate of the operational revenues of a commercial bank, ie the activity of a commercial bank is unprofitable;
- the reduction of the bank's administrative expenses (travel, hospitality, etc.) does not lead to the expected effect of saving funds, as there is an increase in costs for other elements of management accounting;
- a decrease in administrative expenses in favor of other elements of management accounting unexpectedly leads to the opposite effect - the resulting savings are several times lower than the indirect losses in other areas of activity of the commercial bank;
- the acquired material resources are used inefficiently and are accumulated periodically in the commercial bank's deposit;
- the payment of rent and utilities is uneconomical and constantly tends to increase;
- there is no clear and adequate assessment of the activities of the structural subdivisions of a commercial bank. As a result, competition between financial responsibility centers (CRFs) is provoked;

- the heads of departments are constantly confronted with the problem of evaluating the perspectives of the business areas and do not clearly understand the possible consequences as a result of their termination or reorganization;

- as a result of carrying out a large volume of operational work, the heads of departments practically do not participate in the process of financial planning and forecasting.

In our opinion, the formation and improvement of the budgeting system of a commercial bank depends on a number of fundamental conditions:

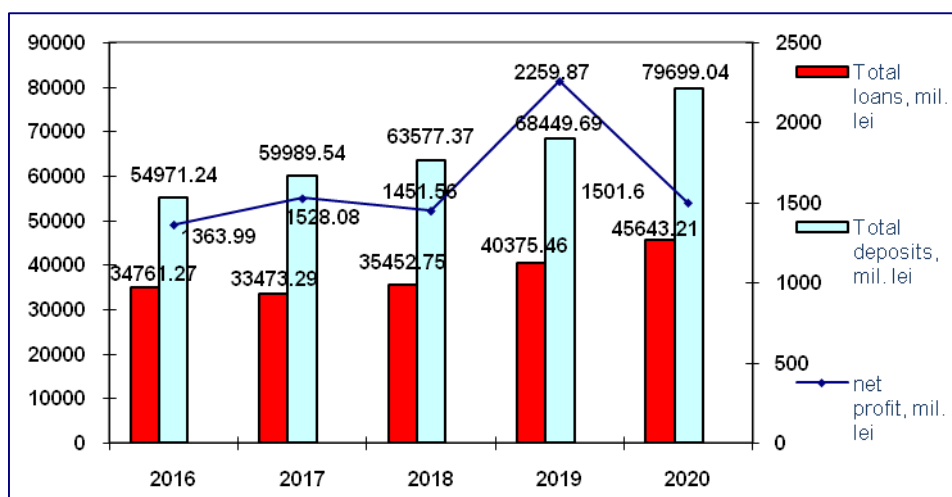
a) the development of a solid concept for the improvement of the banking system as a whole;

b) the presence of its own development strategy for the commercial bank.

The strategy, as a set of interdependent actions aimed at maintaining competitive advantages, should reflect the quantitative objectives of the bank's development, the ways and means of achieving them, as well as the qualitative internal changes in the bank that would be implemented to improve efficiency.

The dynamics of the basic indicators that characterize the state of the banking sector, reflected in Figure 1, in the period 2016-2020 demonstrate the maintenance of its development trends in easy local conditions for the economy.

During the evaluated period, we notice that the volume of loans granted in 2016-2020 is increasing by 31.28% and that of deposits by 44.98%

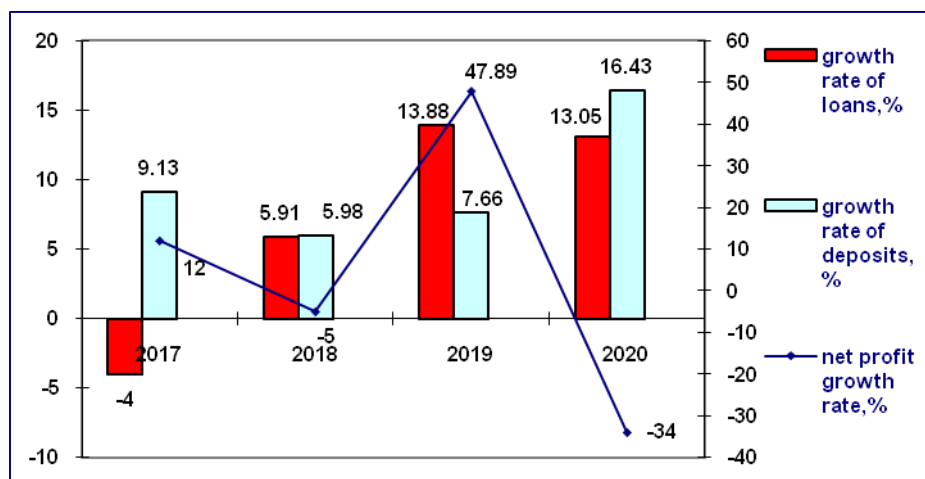


**Figure 1: Dynamics of loans, deposits and net profit**

Source: elaborated by the author based on data from <https://www.bnm.md>

However, we note based on the data in Figure 2 that net profit also decreases by 5% in 2018 compared to 2017 and in 2020 by 34% compared to 2019, the causes being the change of owners of systemic banks and the Covid 19 crisis, which substantially reduced by bank income.





**Figure 2: Evolution of growth rate of loans, deposits and net profit**

*Source: elaborated by the author based on data from <https://www.bnm.md>*

The reference values reported per banking sector indicate a 10% decrease in net profit in 2020 compared to 2016, due to the reduction of total revenues by 10%, from 8607 million lei to 7802.4 million lei and 15% of bank expenses. The situation in 2020 was a positive one due to a 4.55% increase in revenue volume even in pandemic conditions.

In the initial stage of budget implementation, it is advisable to select only revenue centers and cost centers. At the same time, subdivisions can receive both real and conditional profits, but they will still be centers of income and costs. Their division is made according to the criterion of obtaining external income, which will form the financial result of the bank (income centers) and subdivisions that ensure the activities of the bank and attract resources (cost centers).

Thus, the revenue center will include the subdivisions that form the bank's income as a result of their activities, and the cost center - the subdivisions that collect funds, as well as accounting, control, technical and similar support for operations performed by the bank.

In modern conditions, with an uncertain situation on the world financial markets, a decrease in profitability in all major segments of the banking market, a decrease in interest margins, an increase in risks, the budgeting system of a commercial bank needs a development concept and improvement. Moreover, all parameters and elements of the existing budgeting system need to be improved, including the system of financial responsibility centers, various mechanisms, budgeting methods, analysis of budget execution, types and forms of budgets.

Improving the budgeting system of a commercial bank eliminates the spontaneity of this process and requires its conscious and systematic implementation. A decisive role in ensuring positive changes in the budget system, in maintaining its adequacy to changing conditions, is played by the common, well-thought-out actions of all participants in the budget process.

The strategy followed by a commercial bank should contribute to the implementation of priority areas for improving the bank's budgeting system. The reform of the bank's budgeting system must be carried out using a set of measures constantly implemented by the Economic and Financial Department and other stakeholders to form the most developed and efficient budgeting system focused on meeting customer needs.

Currently, the bank's budgeting system remains undeveloped and is not used as a strategic planning tool. The costs of implementing a budgeting system in a commercial bank remain high, and the tasks of improving the elements of the budgeting system have not been fully implemented.

The main purpose of improving the budgeting system of a commercial bank is to increase the efficiency of the functioning of structural subdivisions and the bank as a whole, to create the best financial plan for the bank's operation, focused on implementing the development strategy and achieving the main strategic objectives.

The priority tasks of improving the budgeting system of a commercial bank are set out in Figure 3.



**Figure 3: The priority tasks of improving the budgeting system of a commercial bank**

*Source: elaborated by the author*

Analyzing the experience of foreign banks, it can be noted that the basic condition for the successful development and improvement of the budgeting system is the development of a balanced and coherent policy in this area by a commercial bank. The objectives of this policy in relation to the budgeting system are to ensure systemic stability and create the necessary conditions for the development of the bank's budgeting system.

In addition, the effectiveness of the process of developing and improving the bank's budgetary system depends largely on the degree of stability of the national banking system as a whole.

The provision by a commercial bank of the conditions for the development and improvement of the budgeting system should be carried out in the following areas:

- improving the system of financial responsibility centers of the bank (improving the budgetary structure of the bank);
- improving the efficiency rating system of the Central Office and the bank;
- improving the regulations of the bank's budgetary process;
- improving the control system over the execution of budgets by the structural subdivisions of the bank;
- improving the management system of administrative expenses of the structural subdivisions of the bank;
- improving the bank's management reporting.

#### *Improving the system of financial responsibility centers*

A prerequisite for introducing a budgeting system in a bank is the formation of a budgetary structure based on the allocation of financial responsibility centers. It should be noted that in the implementation of budgeting processes and the allocation of financial responsibility centers in a commercial bank, there are a number of characteristic features. As A.A. Kitaev remarks: "... unlike the entire bank, some departments, subdivisions, sectors, groups have very limited operational and economic independence, do not have the rights of a legal entity and do not always enter into direct relations with other banks" [1]. In these structural units, it is mainly a question of comparing the real costs with the planned ones.

Table 1 summarizes the data on the departments that are directly involved in organizing the budgeting process in a commercial bank and their functions.

Table 1

**The functions of the different departments of a commercial bank in organizing the budget process**

Departaments	The functions in organizing the budgeting process
Financial and analytical department	consolidating the budgets of the financial responsibility centers and drawing up the general consolidated budget of the bank control over budget execution and deviations from financial data providing information on budget execution for higher levels of bank management compilation of forecast data on bank revenues and expenditures
Management of active and passive operations	processing and analysis of information related to the placement and actual condition of the bank's assets and liabilities providing information to the bank's management and control over the structure of assets and liabilities analysis, control and forecast of economic standards set by the NBM, the board of directors and the bank's board liquidity analysis and control, structure of terms and conditions of maturity of assets and liabilities, interest rates and the required reserve ratio of the bank foreign exchange position control analysis of the possible impact of transactions on the bank's performance indicators
Risk management department	risk analysis, control, calculation, identification and supervision developing a system of limits and control over the execution of limits; preparation and development of a methodological basis for a bank (policies, processes, guidelines) for supervision, identification and execution basic standards set for the risks associated with the bank's activities ensuring the observance of the banking development strategy and of the developed risk policies, their adjustment
Methodological department	developing a methodology for managing the budget process development of a system of coefficients participation in the elaboration of regulatory documents and analysis of the conformity of the information contained in them with the requirements of the legislative acts providing all the structural links of the bank with regulatory documents and internal instructions of the bank and timely correction of these documents
Accounting department	participation in the development of the financial system of a commercial bank elaboration of a unified chart of accounts ensuring the accounting of banking operations and controlling their execution preparation of bank statements (balance sheet, profit or loss account, annexes) and their observance with the requirements of the standards set by the NBM and the internal regulations of the bank

*Source: adapted by the author after 1*

In our opinion, when organizing the budgeting process, it is advisable: first of all, to form the budget structure of the bank based on the organizational and personnel structure; second, to select only the profit and cost centers. The implementation of the proposed measures will make it possible to assess the economic efficiency of the functioning of the structural subdivisions of the commercial bank.

### *Improving the efficiency rating system of the Central Office and the bank*

In order to improve the performance appraisal system of the structural subdivisions and of the bank as a whole, it is necessary to draw up a list of optimal performance indicators. The list of performance indicators is individual for each bank and is formed according to the needs of the bank's management, financial management and development of the budgeting system.

In our opinion, in order to evaluate the efficiency of the structural subdivisions and of the bank as a whole, it is advisable to analyze the following performance indicators:

- Cost Income Ratio (CIR), which characterizes the ratio between operational and administrative expenses and operating income;
- Operational Performance Coefficient (OPC), which characterizes the ratio between operating and administrative expenses and the operating income of the current year with the ratio between operating and administrative expenses and the operating income of the base year.

The operational efficiency ratio is calculated using the formula:

$$OPC = \frac{CIR_i}{CIR_j}, \quad (1)$$

where  $CIR_i$  - the ratio between the operational and administrative costs and the operating income of the current year;  $CIR_j$  - the ratio between operational and administrative expenses and operating income for the base year [1].

If the bank's operational efficiency indicator has a value of less than 1, then the growth rate of the bank's operating income exceeds the growth rate of the bank's administrative expenses. Consequently, the bank conducts its activities profitably, otherwise the activity of the structural unit is unprofitable.

The analysis of these indicators allows:

- comparing the real value of the indicator with its standard level;
- comparing the bank's indicator with the coefficients of the competing banks;
- evaluation of the dynamics of the indicators.

The application of these indicators in practice will make it possible to assess the economic efficiency of the functioning of the structural subdivisions and of a commercial bank as a whole.

**Table 2**

#### **Evaluation of economic efficiency of the banking sector of the Republic of Moldova**

<b>Indicators</b>	<b>Analyzed period</b>				
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Operational and administrative expenses	1617.34	1778.46	2116.79	2264.08	2383.56
Net operating income	4259.84	3945.94	4536.17	4986.23	5292.75
Cost Income Ratio	0.38	0.45	0.47	0.45	0.45
Operational Performance Coefficient		1.18	1.04	0.96	1

*Source: elaborated by the author based on data from <https://www.bnm.md>*

The results presented in table 2 indicate an increasing trend of the ratio between operational and administrative expenses and operating income from 0.38 points in 2016 to 0.47 points in 2018, after which the value of this indicator is set at 0.45 points and does not change in the years 2019-2020. This evolution is due to a stable trend of increasing operational and administrative expenses in the conditions of a different evolution of the volume of operating income. Operational

Performance Coefficient takes superunitary values in the years 2017-2018, which indicates the existence of some banks in the banking sector of the Republic of Moldova that register losses in these years, their activity not being profitable. For 2019 we attest a subunit value of the Operational Performance Coefficient, proving that in the banking sector there are no unprofitable banks, all with good results at the end of the year. A similar conclusion is outlined for 2020, when the Operational Performance Coefficient is equal to 1 in difficult conditions for all participants in the banking ecosystem.

#### *Improving the regulations of the banking budgeting process*

In our opinion, improving the regulations of the budgeting process is associated with the following activities:

- determining the optimal time period for budgeting. The budgeting period (horizon) is the time interval for which the budget is drawn up. The best budget period is considered to be one year with a quarterly breakdown. The budgeting period depends on internal and external factors;
- determining the timing of possible adjustments to the bank's budgets (monthly, quarterly, half-yearly adjustments). The best is the quarterly adjustment of the bank's budget;
- optimization of workflow schemes for the preparation of specific budgets.

#### *Improving the control over the budget execution by the financial responsibility centers and the bank*

Control over the execution of a commercial bank's budgets is an important step in the budgeting process in a bank. Comparing the actual results of the activity of the centers of financial responsibility (CRF) with the planned ones allows the bank's management to evaluate the situation in due time and to take measures to ensure the execution of the budgets of the structural subdivisions.

The control can start with summary budget elements, gradually going down to the constituent elements to identify the causes of the discrepancies. In order to facilitate the adoption of managerial decisions in the automated system of maintaining the bank's budget, it should be possible to effectively analyze the causes of deviations by detailing the deviations identified in the primary documents.

The formation of the most efficient control system on the execution of the bank's budgets is associated with the following activities:

- elaboration and establishment of standards (norms), precise definition of the objectives to be achieved in a specified time interval;
- measuring the actual results for a certain period;
- comparison of the obtained results with the planned values;
- correcting deviations from plans.

The implementation of these measures will allow the bank's management to have information about the existing advantages, problems, their sources. At the current stage, the system of control over the execution of budgets becomes the basis for the sustainable functioning of a commercial bank, contributes to the fulfilment of the bank's goals and objectives, to the achievement of long-term profitability targets and to the maintenance of reliable financial statements

#### *Improving the bank's administrative expenditure management system*

In the context of the global financial crisis and the reduction of profitability in traditional banking operations, it is of particular importance to use the internal sources of growth of a commercial bank. In this context, the management of administrative expenditure becomes of vital importance. This is because cost-effective management affects the financial performance of a commercial bank. An important aspect of ensuring the efficient functioning of the bank's administrative expenditure management system is the delegation of powers to the heads of the financial responsibility centers when spending the bank's funds.

It should be noted that this approach is implemented in the practice of commercial banks. A prerequisite for implementing the approach is the formation of a budgetary structure based on the allocation of financial responsibility centers with a standard classification of revenues, expenditures



and profits and the empowerment of decision-makers. This means that each head of the CRF plans the financial result of the activity of his department, taking into account his powers. Each bank independently sets the decision limit. Management reports on administrative and economic expenditure are drawn up on a regular basis. This approach allows to reduce the growth rate of administrative expenses by about 15 - 20%.

#### *Improving managerial reporting*

As banking practice shows, the relevant and complete information provided by the operational management is used to assess the risks and profitability of investments, which allows the control of operations, financial condition and deviations from the bank's activities in real time.

The form and structure of managerial reporting are largely determined by the individual commercial bank, because management reporting is directly related to the specifics of banking, organizational structures, personnel and the organization of budgeting, accounting, control and, in general, the characteristics of management and a mechanism for regulating the activities within a commercial bank.

In our opinion, the formation of the most complete and reliable management report of the bank is associated with the following activities:

- determining the objectives for generating the information used in the management reporting and the methods for evaluating the results;
- determining the information necessary for accounting and management reporting;
- distribution of management and reporting accounting objects by type of activity (process), CRF, territory, banking products, customer groups;
- ensuring the accuracy of calculations and accounting of reporting indicators;
- determining the forms of managerial reporting for the analysis and evaluation of the CRF activity;
- determining the forms of managerial reporting for the analysis of territories, banking products and bank customers.

Thus, the implementation of these measures will allow the formation of the best budgeting system and increase the efficiency of the operation of commercial banks.

In addition to the mentioned improvement measures, it is necessary to characterize the personnel involved in the elaboration and monitoring of the budgeting system within the commercial bank according to those presented in Table 3.



Table 3

### The participants at the budgeting process and their basic functions

The participants at the budgeting process	Main functions
Board of Directors (Supervisory Board)	Overview of the bank's development, strategic guidelines for the bank's activities, the planned rate of return on invested capital
Chairman of the bank's board of directors	Approval of the bank's annual (quarterly) financial plan and budgets of the financial responsibility centers, as well as their adjustments Approval of priority development areas, bank positioning on the market, capital flow forecast, as well as internal standards, including non-operating costs, forecast of macroeconomic indicators Dispute resolution Approval of the report on the execution of the financial plan Approval of intra-banking regulations governing the budgeting process in the bank
Budget Committee	Approval of priority development areas, bank positioning on the market, elaboration of a capital flow forecast Taking into account the composition and rates of internal standards, including non-operating costs, and the forecast of macroeconomic indicators Adoption of the bank's annual (quarterly) financial plan and budgets of the financial responsibility center
Department of strategic development	The bank's strategic development plan (up to 5 years)
Banking subdivisions (CRF)	Preparation of planned budgets, quarterly adjustments, monthly forecasts, provision of data for the formation of a financial plan for the bank and a performance report
Structural unit of the bank, which ensures the organization of the financial and budgetary planning process	Aggregation of CRF data in the bank's financial plan, linking the budgets of departments and subdivisions, distribution of allocation costs based on the approved distribution Elaboration of proposals for adjusting the financial plan of the bank and the budgets of the Central Office Formation of budget execution taking into account non-systemic adjustments, including transfer revenues / expenditures, allocation expenditures, etc. Monitoring the execution of approved budgets Development of internal standards, including for non-operational costs, and forecasting of macroeconomic indicators
Assets and Liabilities Management Committee (or credit committee)	Approval of transfer rates to making decisions on the operations of the "internal bank"

Source: adapted by the author after 1

The need for effective and stable development of banks, increasing their capitalization, improving the efficiency of financial and economic activities requires the creation of an adequate planning

and budgeting system, allowing the bank to manage as an integral organizational economic system, including its vertical and horizontal sections individual retail and by fields of activity.

## **Conclusions**

Summarizing the above, we can say that budgeting is a planning process aimed at managing the bank's expenditures and revenues, in order to establish the necessary balance between supply and demand for the bank's financial resources and ensure the necessary level of profitability.

The organization of budgeting in a bank requires the unambiguous definition of a number of conditions (including regulatory ones) under which the bank's financial resources are managed.

First, the bank's financial resources are subject to structuring according to the possibility of generating income and the level of training costs. According to the profitability criterion, financial resources can be divided into assets subject to placement in income-generating assets; stored in liquid form in a corresponding account and, under certain conditions, subject to placement in highly liquid assets; kept in liquid form in the accounts of the required reserve fund and not subject to placement in income-generating assets; held in the bank's funds in the form of previously reserved income. Depending on the degree of payment, financial resources can be divided into groups with a certain level of costs.

Second, the bank's financial resources are formed under the influence of supply and demand, which at times may not coincide in amounts, maturity and profitability, which makes it necessary to take into account unforeseen expenses (lack of financial resources) and unforeseen income (with excess financial resources), opportunities to transform financing sources according to the terms and conditions of refinancing.

Third, the structure of the bank's financial resources and the sources of their formation to a certain extent are regulated (limited) by the regulatory requirements of the NBM.

## **Bibliography**

1. Kitaev A.A. Building budgeting models in a commercial bank // Finance and Credit. 2006. № 23. p. 15.
2. Koech G. M. (2015). Effects of budgetary control on the financial performance of selected manufacturing companies in Kenya (Unpublished MBA Project). University of Nairobi, Kenya.
3. Pimpong S. & Laryea H. (2016). Budgeting and its Impact on Financial Performance: The Case of Non-Bank Financial Institutions in Ghana. International Journal of Academic Research and Reflection, 4 (5); pp.12

# CURRENT ASPECTS OF THE EUROPEAN MONETARY INTEGRATION STEMMING FROM THE THEORY OF OPTIMAL MONETARY AREAS AND SUBSEQUENT ASSOCIATED AMENDMENTS. PERSPECTIVES FOR THE CASE OF ROMANIA

Silviu-Marius Șeitan<sup>37</sup>

## **Abstract:**

*The main feature of the difference between Eurozone and non-euro area membership is the preservation of monetary independence and monetary policy flexibility. The difference between the two types of status can also be revealed in terms of the complexity of the criteria needed to address international economic relations in a way that ensures risk management and reduces the impact of shock reception. At present, from the point of view of the economic situation, Romania is facing the following challenges: the management of current macroeconomic risks; assessment of prospects and preparation for accession to the Eurozone. The economic outlook, which is still insufficiently predictable, is likely to deepen existing macroeconomic imbalances, which could lead to a reduction in the capacity to respond to possible economic shocks.*

**Keywords:** financial, integration, sustainability, correlation, risks

**JEL Classification:** F 45

## **Introduction**

At present, from the point of view of the economic situation, Romania is facing the following challenges: management of current macroeconomic risks; assessing the prospects and preparing for accession to the Eurozone. The international economic characteristics of the current period are burdened by unpredictable developments under the impact of the pandemic. Last but not least, Romania has entered this conjuncture with a low degree of readiness, marked by vulnerabilities that generate an increased exposure to risks and a reduced capacity to manage negative developments.

## **Description of the Problem**

From the perspective of the Theory of the Optimal Monetary Areas, the monetary integration can only take place against the background of wider economic integration.

**The criterion of labor circulation** - the first criterion of the Theory of Optimal Monetary Areas, refers to labor circulation, respectively can be explained by the fact that unemployment in the deficit country is exported to the other country (the rest of the monetary area), this without any intervention of politics but spontaneously based on the decisions of individuals. This theory, which could be described as an impermissible extension from the idea of a rational consumer to the idea of a rational inhabitant, has been seriously criticized from the beginning, mainly due to the fact that the mobility of individuals is reduced, it has not only motivations. economic but also family, in addition there are serious barriers related to language, culture and even reactions of social exclusion in the destination areas. Even going beyond these aspects, the idea of a short-term migration is possibly unrealistic, possibly followed by one in the opposite direction if the situation changes. There are other criticisms of inter-industry labor mobility. Without representing a direct challenge to the theory, it can be mentioned that in the current monetary union this compensation channel does not work (according to Backé, Wójcik, 2002). Although in Romania external migration for work, especially to EU member countries, has become a life strategy, its level is far from a decisive factor. From a social perspective, it is both impractical and undesirable for a country to rely on labor mobility to adjust for temporary shocks. It is much more natural for this compensation to be met by capital, as is already the case (Szapáry, 2002). It remains an enigma

---

<sup>37</sup> Ph. D., National Institute of Economic Researches Center for Financial and Monetary Researches Romanian Academy, email: seitansilviu@gmail.com.

that, within the Theory of Optimal Monetary Areas, after the mobility of the factors of production in general was discussed at the beginning, the labor factor was accentuated until capital was ignored.

**Table 1**

**The degree of openness of the Romanian economy from the perspective of trade**

The year	2014	2015	2016	2017	2018	2019
<b>Current account (% of GDP)</b>	-0.2	-0.6	-1.4	-2.8	-4.4	-4.6
<b>Balance of goods (% of GDP)</b>	-4.3	-4.9	-5.5	-6.5	-7.2	-7.8
<b>Balance of services (% of GDP)</b>	4.0	4.3	4.6	4.4	4.1	3.9
<b>(Exports + Imports of goods and services) / 2 GDP (%)</b>	45.3	45.2	45.3	46.4	46.5	44.9

*Source: Convergence Report 2020*

Romania was not among the countries with a very open economy in 2000, mainly due to the large size of the country. Moreover, in the case of Romania, exports being highly dependent on imports, a policy of depreciation of the national currency would lead to higher prices of imported raw materials, so an increase in prices of exported products. The greater the degree of openness of an economy, the less effect the foreign exchange policy will have. An additional element, proposed from the perspective of this analysis, to this criterion is **the balance of trade and payments** with a direct impact on the general economic position in the medium and long term, especially on budgetary issues (revenues), fiscal (possible relaxations). - as an instrument of economic stimulation), with implications for monetary policy (foreign exchange).

**Table 2**

**The situation of trade deficits in Romania's trade relations with partner countries in the region for 2019**

Country / deficit	Export	Import	Balance	Degree of coverage	%
Hungary	3327.38	6079.47	-2752.09	54.7%	15.9%
Poland	2434.14	5160.66	-2726.52	47.2%	15.8%
Turkey	2223.49	3849.28	-1625.79	57.8%	9.4%
Slovakia	1457.70	1939.89	-482.19	75.1%	2.8%
Czech Republic	2165.40	2618.43	-453.03	82.7%	2.6%
Bulgaria	2427.60	2542.30	-114.70	95.4%	0.7%

*Source: INS data*

However, the consideration of a trade deficit as a risk element must take into account the analysis of that deficit in the long term; in the short term, the diagnosis of a trade deficit as risky is neither relevant nor realistic, with the possibility that the deficit is only short-term or only as an effect of observation at a certain time without the possibility of taking it into account the remediation of the deficit. For example, for the period 2011-2020, the evolution of the trade deficit in the first month of the year, for Romania, is as follows:

Table 3

**The evolution of the trade deficit in the first month of the year in the period 2011-2020**

The year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Trade deficit in the first month of the year	0.3	0.5	0.3	0.2	0.2	0.4	0.6	0.8	1.2	1.3

Source: INS data

Several factors are responsible for this evolution, the main ones being: aspects of competitiveness, lack / inefficiency of a trade policy within the mix of macroeconomic policies, the actions of a financial-banking system in an overwhelming percentage with foreign participation - aspects that, as consequence, they lead to a deepening of macroeconomic imbalances and gaps with other economic partner countries, as can be seen comparatively, analyzing the foreign trade environment of non-euro area countries in the region, as well as the evolution of the current account of the balance of payments in the EU member states in the region.

Table 4

**Evolution of foreign trade of non-euro states in the region in 2019 (% compared to 2018 for export and import respectively) billion euros for balance and evolution**

COUNTRY	EXPORT	IMPORT	2019 Balance	2018 Balance	Evolution
Poland	+6%	+3%	+1,8	-4.6	+6.2
Czech Republic	+4%	+1%	+19.5	+14.8	+4.7
Bulgaria	+5%	-3%	-1,8	-4.0	+2.2
Hungary	+4%	+4%	+3.5	+3.4	+0.1
Croatia	+5%	+5%	-9.5	-9.1	-0.4
România	+2%	+4%	-17.6	-15.4	-2.2

Source: Eurostat data

Table 5

**Evolution of the current account of the balance of payments in the EU countries in the region (EUR million)**

The quarter	T2 2019	T3 2019	T4 2019	T1 2020	T2 2020
România	-3272.5	-3589.8	-2529.9	-932.6	-2975.1
Bulgaria	+ 216.0	+1777.0	-248.3	+408.7	+250.1
Hungary	+446.1	-333.5	-477.8	+283.1	-841.8
Poland	+194.8	-680.6	+1495.6	+4623.6	+6581.8
Czech Republic	+1095.8	-2396.8	-932.6	+3102.7	+275.2
Croatia	-350.3	+4547.7	-641.5	-1424.1	-668.5

Source: Eurostat data

The deepening of these economic gaps and imbalances is likely to contribute to reducing the economy's ability to respond to shocks and to reducing its ability to withstand the possible adoption of the single currency.

**The criterion of production diversification** - Kenen (1969) considers that diversifying a country's production reduces the risk of asymmetric shock. His conclusions are thus opposed to McKinnon's, the reason for this difference being that McKinnon based his analysis on the idea that the foreign

economy is stable and therefore that prices remain constant, while Kenen assumed that the foreign economy is stable.

**Similarity of economic structures** - his criterion theoretically derives from the one related to the degree of openness of the economy. This can be estimated by weighting the various branches when creating value added or employment structure. This is important because it is reflected in the structure of relative prices. As long as the economic structures, both on the supply and consumption side, are close, a shock will spread similarly in inflation or in the real economy, being similarly weighted. The main condition for avoiding asymmetric shocks, or the asymmetric effects of common shocks, is therefore a certain similarity of the economic structure. This also implies a certain synchronization of business cycles, although for the latter some additional conditions need to be met, as will be seen below. If these conditions of similarity and synchronization are met, a common foreign exchange and monetary policy is more likely to benefit the interests of the group of countries, compared to maintaining the independence of monetary policy for each country. Szapary (2002) shows that for at least three Central and Eastern European countries, namely Hungary, the Czech Republic and Poland, the economic structures are close to the average ones at the level of the monetary union member countries. Of course, the degree of sectoral disaggregation is important, the disaggregation used by Szapary (2002) being only on the three major sectors - agriculture, industry and services. Thus, it is shown that, although in general the share of industry is higher than the EU average and of services lower, the Central and Eastern European countries have structures that fall within the EU limits. Romania is an exception in this respect, with a high share of agriculture in Value Added and very high in employment.

**Table 6**

**Romania's GDP structure by economic sectors**

The economic field	% of GDP
Agriculture	12.52%
Extractive industry	0.46%
Manufacturing industry	11.35%
Energy	1.98%
Building	3.39%
Hotels and restaurants	1.20%
Transports and communications	10.13%
Financial activities	4.47%
Real estate transactions and service rentals	8.76%
Public administration	3.75%
Education	6.05%
Health	4.19%
Other activities	1.12%
Resources	16.76%
Trade	13.86%

*Source: Ministry of Public Finance*

To a lesser extent, this is also the case in Poland. This situation can be an important risk of asymmetric shock: either due to dysfunctions of the economic system, or hiding the effects of the underground economy. It is expected that the release of the brakes on monetary policy in the conditions of liberalizing the circulation of factors will lead to very high adjustment costs.

**Inflation level correlation** - this criterion was proposed by Haberler (1970) and Fleming (1971) starting from the idea that divergent inflation rates produce changes in purchasing power parity, which is also partially corrected by the exchange rate. The main objection that was brought to the



imperative of correlating the level of inflation refers to the fact that inflation is rather an economic result, the factors that determine it can change after integration. It should finally be noted that this criterion of optimum cannot work alone, as it does not cover the entire risk of asymmetric shock.

**Trade integration** - one of the criteria for joining a monetary area most often referred to, trade integration, can be measured by the share of exports to the target area. Romania is among the countries with a share of exports to the EU of over 60%, which is considered by specialists (Szapáry (2002)) as a clear proof of a successful reorientation of foreign trade. Of course, in turn, trade integration can be explained and determined by several factors, the most important of which are: the size of the economy, the smaller countries having a more pronounced tendency to integrate with the adjacent areas; the degree of specialization of the economic structure, which is reflected in the dynamics of relative prices; foreign exchange regime. However, the analysis of the degree of trade integration must follow a more complex framework in order to prove relevant as a criterion for participation in the Theory of Optimal Monetary Areas; a comprehensive analysis of economic and trade integration would include at least the following indicators: revealed comparative advantage: the revealed comparative advantage is the classic indicator of trade integration analysis which is based on the theory of competitive advantages; this indicator will capture that dimension of foreign trade that is the subject of specialization based on the competitiveness of national industries; the export specialization index directly expresses the specialization tendencies; it is less used because it does not provide explanations for the figures expressed; Grubel-Lloyd index - simultaneous exports and imports of substitutable products cannot be explained by the traditional theory of comparative advantages; intra-industrial trade occurs mainly between industrialized countries and is motivated by product differentiation strategies, economies of scale and imperfect market effects; high levels of intra-industrial trade is considered a sign of progress in the integration process as factors other than the classic ones of comparative advantage play an increasingly important role; the indicator used to evaluate this phenomenon is the Grubel-Lloyd index: the winners in the exchange ratios can be identified by analyzing the coverage rate; this indicator compares the values of exports and imports, the winners being those branches in which exports exceed imports; Traditionally, the winners in terms of exchange rates in the case of Romania come from branches with low added value: wood products, furniture, metals, textiles and leather.

**Financial integration** - the financial market can also contribute to mitigating asymmetric shocks by facilitating the international circulation of assets. By allowing countries to dissipate risk, the financial market makes it possible for countries to work with larger current account deficits. The degree of financial integration can be assessed mainly by the size of capital flows and portfolio investments between countries, by the similarity of financial institutions but also by reference to certain characteristic aspects such as: ownership structure of the banking system and other financial institutions; the share of treasury bills issued by the national government and purchased by non-residents; the share of non-residents in the capitalization of the stock exchange; the share of FDI in GDP. (Szapáry 2002).

**Business cycle synchronization** is a complementary issue to demand or supply shocks. The asynchronization of business cycles produces, albeit in the longer term, similar asymmetric effects. Sometimes the distinction between them is not clearly followed in the literature. As the covariation of East and West business cycles is already dominated by intra-branch trade, it can be concluded that changing the exchange rate regime will not have significant influences. Empirical analyzes of developing economies show that there is no correlation between the exchange rate regime and the main macroeconomic indicators (Maurel, Mathilde, 2002). According to the OECD study, some of the developing economy countries have already achieved a fairly high correlation of business cycles, at least in the field of industrial production. However, there are asymmetric shocks, determined by correlating demand and supply shocks in some countries. The analysis of business cycles for Romania and for the candidate countries, in general, is hampered by the series of time that is too short to use, as well as by the economic turbulence specific to the current period.

**Price and wage flexibility** - when nominal prices and wages are flexible, there is less need for the exchange rate to function as a shock adjustment mechanism. The key factors that determine this flexibility are: the degree of regulation of the markets; protection of employees. From this

perspective, in Romania, a strong restrictive factor is the minimum wage, given that it is at the limit of the affordability of some employers, although at the lower limit of ensuring a decent living.

**The degree of market regulation** has been assessed in OECD studies by a number of indicators such as: the share of controlled prices; barriers to starting a business; barriers to trade; international investments.

**Monetary policy transmission mechanism** - if this mechanism is different between the countries of the monetary union, the effects of the measures taken by the central bank may differ. Factors that may influence the transmission mechanism are: maturity of the debt structure; legal framework; financing alternatives on the capital market. It should be noted that in these respects there are significant gaps between countries that have not yet adopted the euro and those in the monetary union, but there are also considerable differences between the latter.

**Correlation of shocks and exchange rate variation** - the correlation of shocks and exchange rate variation is a more general criterion that applies to macroeconomic indicators which makes it easier to test empirically but at the same time reduces its explanatory power. According to this criterion, if a weak correlation is observed then the costs of losing exchange rate flexibility are reduced, and otherwise increased.

**Risks associated with Romania's accession to the Eurozone** - as a complementary example, Romania the following are some risks derived from the recent experience of the Eurozone - risks to which Romania will be exposed if it enters before recovering a critical mass of real and structural convergence: **the risk of remaining on the periphery for a long time to come** - the Eurozone did not favor catching up before the crisis (see ECB reports 2015, 2016), and after the crisis it amplified the effects, prolonging the recession and the recovery period; Spain and Portugal, for example, entered the Eurozone with the lowest GDP per capita (82% and 68% respectively); **the risk of accumulating imbalances and exposure to asymmetric shocks** (here also related to this proposal to add to the set of convergence criteria and economic criteria associated with the Theory of Optimal Monetary Areas); during the crisis, income gaps between countries led to the accumulation of growing external imbalances, which in turn led to sovereign debt crises; in the absence, for example, of a banking and / or fiscal union, development gaps within EMU have created negative externalities throughout the area;; **the risk of rising prices** - prices in countries with development gaps (Spain, Portugal, etc.) were systematically higher than in the rest of the area, either due to wage dynamics over productivity (Balassa-Samuelson effect) or due to pro-cyclical fiscal policy; as a result, real interest rates were lower than in the rest of the Union and called for indebtedness, and the real exchange rate was constantly rising, jeopardizing the competitiveness of the marketable goods sector; from this point of view, according to the latest competitiveness report, Romania is at the greatest distance from Germany (considered the reference standard), while the Czech Republic is the closest; **the risk of decreasing incomes**; the persistent deviation in terms of inflation in these countries meant lower real interest rates and the appreciation of the real exchange rate; higher inflation and long-term interest rates on lower sovereign debt by more than half a percentage point above inflation targeted by the ECB have led to the inadequacy of the single monetary policy and the accumulation of external and internal imbalances; in the absence of the exchange rate, but also with low competitiveness, in the peripheral states of the euro area internal devaluation remained the only method of rebalancing the external balance; under zero nominal interest rates, this meant a decrease in income; another risk deriving from the previous one is **that wages / earnings remain much lower than in the Eurozone**; the rate of price convergence will be faster than the rate of convergence of euro area revenues; in 2015 the convergence of earnings in Romania was only 19.8%, while the convergence of prices amounted to almost 50% compared to the EU28; in Romania the convergence of revenues (19.8%) is less than half compared to the Czech Republic (41%) and below the level of Poland and Hungary (around 30%), while the convergence of prices is relatively similar (around 50% ); **rising unemployment** - another risk arising from not recovering the gap is maintaining unemployment at high or even higher rates; Spain, Portugal, Greece, etc. faced record unemployment rates, imbalances that could hardly be corrected, even in conditions of high labor mobility; **the risk for Romania to remain in the vicious circle large development gaps** - low convergence of earnings - high unemployment - poverty is very high; the current changeover to the euro would further constrain the real convergence process, with the risk of the gap widening or

even widening; Romania had in 2015 a GDP per capita at purchasing power parity of only 57% of the EU28 average, well below the level of the Eurozone (106%) of Germany (125%), below the levels recorded by Spain, Portugal, Greece at the time of their entry in the euro area, even behind the Czech Republic (87%), Poland or Hungary (68/69%).

Recovering the development gaps of European states compared to the Euro Zone average is a necessity. It is not a question of catching up with the developed countries of the Eurozone, but of achieving a minimum mass of convergence that ensures well-being and minimizes the above risks.

## **Final conclusions**

The decision to join a monetary area must be based on a series of criteria, all of which must involve a level of complexity strictly correlated with the complexity of economic relations, respectively with the complexity of the risks that could arise from the development of these relations. From this perspective, it is understandable that the only way to access, in conditions of economic security, respectively to achieve the necessary economic criteria to ensure sustainability and sustainable development, is the economic decision and in no case the political one. The first theoretical approach that meets a minimum of complexity of the approach, in terms of criteria for access to a monetary area, is The theory of optimal monetary areas - insufficient today as practical applicability, primarily due to the difference in complexity of economic relations between the elaboration of the theory and the current moment, but which constitutes the starting point in the direction of the elaboration of an updated system of criteria on the basis of which a decision regarding the path to a monetary area can be based. Regarding the current issue of access to the Eurozone, the theory of optimal monetary areas must be complemented by additional economic criteria and all this complemented by convergence criteria - the combination of these criteria being closely correlated with the complexity of the risks involved. current international economic relations.

## **Bibliography**

Ailenei, Dorel; Mosora, Liviu Cosmin - Economics of sustainable development. Competitiveness and economic growth. Theoretical and applied economics no. 2 (555) / 2011

Akiba, H .; Iida, Y. - Monetary Union and Endogeneity of the OCA Criteria, Global Economic Review, 38: 1, pp. 101 - 116, 2009

Albu, Lucian-Liviu; Călin, Adrian-Cantemir; Lupu, Radu; Popovici, Oana Cristina - The impact of Romania's accession to the European Union on the Romanian economy. Sector analysis (industry, agriculture, services, etc.), European Institute of Romania, 2017

Andrei, Tudorel; Dinu, Sorin, Iancu, Aurel - Assessment of Romania's short-term economic losses as a result of the health crisis, Romanian Academy - National Institute for Economic Research, May, 2020

Andreiana, Sorin - Analysis - How the adoption of the euro affects Romanians. What are the risks and opportunities for Romania, 04.03.2019

Baldwin, R. - In or Out: Does it Make a Difference? An evidence based analysis of the trade effects of the euro, Center for Economic Policy Research, 2006

Baldwin R .; DiNino V .; Fontagne L .; De Santis R .; Taglioni D. - Study on the Impact of the Euro on Trade and Foreign Direct Investment, Economic Papers 321, European Economy, European Commission, 2006

Baldwin, R .; Taglioni D. - Gravity for dummies and dummies for gravity (equations), NBER Working Paper 12516, 2006

Bun, M.J.G .; Klaassen, F.J.G.M. - The Euro Effect on Trade is not as Large as Commonly Thought, Oxford Bulletin of Economics and Statistics, 69, pp. 473-496, 2009

Cafiso, G. - The Euro's Influence Upon Trade: Rose Effect Versus Border Effect ", Working Paper Series 941, Frankfurt a.M .: European Central Bank, 2008

Cerna, Silviu - The effects of euro adoption, West University - Timisoara, January 2018

Chivu, Luminița; Georgescu, George - Vulnerabilities of the Romanian labor market under the impact of COVID-19, July, 2020

Ciupagea, Constantin and the collective - Theoretical-methodological substantiation of the evaluation of the costs and benefits of joining the European Monetary Union, Romanian Academy - National Institute for Economic Research, Economic Problems Series - Vol III / 2004

Darvas, Z., Szapár, G. - Euro Area Enlargement and Euro Adoption Strategies, Economic Papers 304, European Economy, European Commission, 2008

Dăianu, Daniel - Monedacomună needs a robust euro area, November 13, 2019

De Nardis, S. ; De Santis R. ; Vicarelli C. - The Euro's Effects on Trade in a Dynamic Setting, ISAE Working Papers 80, ISAE - Institute for Studies and Economic Analyzes, Rome, 2007

Diaconu, Răzvan - IMF Report: 4 vulnerabilities of the Romanian financial sector, 12.06.2018

Dragulanescu, Irina Virginia; Drăgulănescu, Natalia - Growth, development and sustainability, Romanian Journal of Statistics, no. 10/2013

Flam H. ; Nordstrom H. - Trade Volume Effects of the Euro: Aggregate and Sector Estimates, Institute for International Economic Studies, Stockholm University Publications, 2003

Flam, H. ; Nordstrom, H. - Euro effects on the intensive and extensive margins of trade, CESifo Working Paper No. 1881, 2006

Frankel, J. - Real Convergence and Euro Adoption in Central and Eastern Europe: Trade and Business Cycle Correlations as Endogenous Criteria for Joining the EMU, in S. Schadler ed., "Euro Adoption in Central and Eastern Europe: Opportunities and Challenges" , IMF, 2005

Frankel, J. ; Rose A. - The Endogeneity of the Optimum Currency Area Criteria, Economic Journal 108 (449), pp. 1009–1025, 1998

Gănescu, Elena-Andreea; Vintilă, Georgeta - Analysis of the determinants of the financial performances of the companies, Bucharest Academy of Economic Studies, Faculty of Finance, Insurance, Banks and Stock Exchanges, Corporate Finance, Work Paper no. 4/2016

Georgescu, George; Zaman, Gheorghe - Challenges during the transition to the market economy in Romania. Increasing the degree of external and internal indebtedness, 2016

Ionescu, Adrian - Eurostat: EU trade deficit widening by more than 16% in January. Where is Romania on the trade balance map, 20.03.2018

Ionescu, Adrian - BNR: Vulnerabilities of financial stability and risks in the economy. Inflation falls in the target area, 10.12.2018

Marinaș, Marius Corneliu - Analysis of the risks of euro adoption by Romania based on ten criteria, Theoretical and Applied Economics no. 1 (578) / 2013

Marinaș, Marius Corneliu - Analysis of EU economic growth in the context of the implementation of the Lisbon Strategy, Theoretical and Applied Economics no. 12 (553) / 2010

Marinaș, Marius Corneliu - Testing the asymmetry of shocks with the euro area, Theoretical and applied economics no. 1 (566) / 2012

Neaga, Flaviu Doru - Concepts of sustainable development. Theoretical-methodological approaches - University of Craiova, Faculty of Economics and Business Administration, 2019

Pană, Marin - Postponing the adoption of the euro. The Polish model and the implications for Romania, 06.11.2012

Pană, Marin - Switching to the euro: advantages, disadvantages - risks. Why 2019 instead of 2015. Example of Greece, 14.03.2013

Pană, Marin - Analysis / January 1, 2019 - target date for euro adoption. Needs, challenges and risks, May 6, 2014

Pele, Alexandra - ECB List: Risks to financial stability in the euro area in the wake of the Covid-19 crisis, 27.05.2020

Popescu, Daniel - Adherence to the euro: advantages and disadvantages, 22.06.2020

Prisecaru, Petre - Greece: a classic example of failure to join the Eurozone, Romanian Academy, Institute of World Economy, 2016

Puiu, Cristina - Endogenous criteria of the theory of optimal monetary areas, Alexandru Ioan-Cuza University, Faculty of Economics and Business Administration, Iași, October, 2010

Socol, Aura - 7 risks of rapid entry into the euro area, or why development gaps matter, 2017

Socol, Aura; Socol, Cristian - Adopting the euro: costs or benefits? - Theoretical and applied economics, 2018

Șeitan, Silviu-Marius - Aspects of vulnerability, risk and inconsistency in the assessment of sustainable economic growth in domestic and international context, Center for Financial and Monetary Research - Victor Slavesco, National Institute for Economic Research, Romanian Academy, 2018

\*\*\* - data of the National Bank of Romania

\*\*\* - Eurostat data

\*\*\* - data of the National Institute of Statistics

\*\*\* - data of the Ministry of Public Finance

\*\*\* - data from the Trade Register

\*\*\* - Risk map at the level of the Single Supervisory Mechanism for 2020

\*\*\* - Report on the substantiation of the National Plan for the adoption of the euro, Bucharest, December, 2018

\*\*\* - 2019 country report on Romania, including an in-depth review of the prevention and correction of economic imbalances - Commission staff working document, European Commission, Brussels, 27.02.2019

### **SECTION III. SUSTAINABLE DEVELOPMENT AND INCLUSIVE ECONOMIC GROWTH**

---



# DIMENSIONS AND POSSIBLE CHALLENGES TO SUSTAINABILITY IN POST COVID-19 PANDEMIC SITUATION ON “CAPTURE” STATE STOCK MARKETS: THE CASE OF BULGARIA

Julia Stoyancheva Stefanova<sup>38</sup>

## **Abstract:**

*The paper outlines the specifics of capture state frontier stock market of Bulgaria in the course of 14 years' full membership of Bulgaria in the European Union and the existing barriers and challenges to sustainability dimensions in pandemic Covid-19 financial situation. As a case in point of façade democracy the paper tests empirically the adjustment of the Bulgarian economy to the requirements of sustainable development based on various eco-efficiency, democracy and human development indicators at the macroeconomic and stock market level. As a result of the empirical analysis the report draws conclusions regarding opportunities and obstacles facing the frontier state stock market of Bulgaria in adjusting to sustainable development objectives in post-Covid -19 pandemic new realities.*

**Keywords:** sustainability, frontier stock markets, “capture”state, ecoefficiency

**JEL classification:** G20, P34, Q56

## **Introduction**

The aim of the report is to examine empirically the sustainability of the business environment in several dimensions (i.e. socio-economic, institutional and environmental) and the financial development of the capital market in a “capture” state with a “façade” democracy as Bulgaria, which in the course of 13 years' full membership in the EU and 30 years of democratic transition continues to be on the periphery of EU integration processes.

The main function of capital markets is to serve as a mechanism for transforming savings into investments and for financing the real sector (Baumol, 1959). The result is an increase in the efficiency of the financial system by increasing competition in the financial sector, reducing the cost of financing for companies, increasing transparency, reducing asymmetric information and establishing financial discipline in economic governance, guaranteeing investors' rights and supremacy of law and order. The development of capital markets is usually associated with measures such as market capitalization, liquidity, volatility (see Table 1 in Appendix for Bulgaria), concentration, integration with other regional and international capital markets etc.

The thesis of the study is that the deterioration of the institutional sustainability of the business environment in a country with "semi-structured democracy" (Freedomhouse, 2020) as Bulgaria with a peripheral stock market is a limit to economic growth, socio-economic and financial development, and is related to the erosion of democratic values (including so-called “façade” democracy) (Ritter, D, 2015) In this report, “sustainability” refers to a process of institutional, socio-economic, environmental and regulatory changes that ensures the adaptive capacity of the economic framework to ensure sustainable economic long-term growth, which is a condition for

---

<sup>38</sup> PhD., Economic Research Institute at the Bulgarian Academy of Sciences, Bulgaria, Sofia, 1040, 3 Aksakov Str., yullia.stefanova@gmail.com

financial development in emerging and peripheral stock markets (Brinkerhoff and Goldsmith, 2005; Ludwig et al., 1997).

This points to the topicality of the issue of the dynamics of institutional factors for the financial development of peripheral capital markets such as the Bulgarian one. In this way, conclusions and recommendations can be formulated for the undertaking of certain actions in the of institutional setting to improve the socio-economic and institutional business environment for the development of the capital market in Bulgaria.

The process of sustainable development in its analyzed dimensions (socio-economic, institutional, eco-efficient) is associated with various challenges and opportunities in the current Covid-19 global realities specifically for frontier stock markets as the Bulgarian one and requires focusing on the current specific financial situation of this stock market in “capture” state with “facade” democratic regime.

The Covid -19 pandemic would definitely require comprehensive adaptation of Bulgarian stock market to overcome the significant negative effects in the social, economic and political system through rapid digital transformation of economic activities, finding effective resolution to rising income polarization through ever increasing role of government and the need of lifting the quality of public institutions that guarantee inclusive and sustainable social contract. These concomitant changes in the social, political, economic and financial spheres will pose challenges especially for developing country as Bulgaria with underdeveloped peripheral stock market (see Table 1 in Appendix) to tackle urgent public health and social needs with limited fiscal space, inadequate transparency, weaknesses in application of practices for effective crisis management, resolution and resilience build-up.

Post-pandemic “creative disruption” would also provide opportunities for productivity shifts through emergence of new business models based on technological and organizational innovations and digitalization of production processes. However, Bulgaria will have considerable difficulties in realizing the benefits from these changes in the short-to mid term perspective due to the backwardness in the innovative potential of its economy, deteriorating democratic process, ineffectiveness in the institutional setting relegating the country to “captured democracy” status<sup>39</sup> in post-Covid-19 situation amid numerous restrictions on civil liberties, faltering trust in public institutions, weak democracy and state capture (European Fund for the Balkans, 2020). The chief preconditions for restoring civil society trust in public institutions generally in the Western Balkans include accurate information (i.e. freedom of expression, media independence), immediate social protection though public policy measures to mitigate income inequality; control on corruption (see Table 1 below) etc.

Political instability encourages alternative forms of savings and directly affects investor confidence and indirectly economic performance. The outflow of human resources from the country is detrimental to economic growth, reduces the level of savings and results in negative effects to sustainability in the long run to preserve educational potential (Rangelova, 2017), but also on the innovative development of a country (Zareva, 2015). An important challenge remains the issue of transforming the creative potential of a country in the direction of generating innovation

---

<sup>39</sup> Some of the characteristics of “capture state” that are given in a report of The Corporate Europe Observatory (2019) relate to the following:

- primarily the state that is operating mechanisms for realization of corporate interests thus disadvantaging the legitimate interest of the citizens enshrined in the social contract, undermining democratic process and the public interests;
- significant asymmetry of influence on the public authorities and lobbying activity by the corporate sector (“corporate capture”) and development of a specific symbiosis of shared ideology;
- incorporation of corporate interests into public policy agendas and their realization through economic governance tools (i.e. fiscal policy etc.) and providing material benefits to particular industrial sectors through loopholes in the legislative acts.

(Naydenova, 2015). The problems of the institutional structure of higher education, its efficiency and adequacy should also be taken into account (Zareva, 2015).

**Table 1**

<b>Specific sustainability dimensions in “capture state”: the case of Bulgaria</b>	
<b>Specific sustainability indicator</b>	<b>Commentary</b>
1. Income inequality (S80/S20)	The income share of the richest 20 % (S80/S20) of the population in Bulgaria is currently 8 times that of the poorest 20 % (the highest in the EU for 2018 while EU average stands at 5.17 according to European Commission Country Report 2020)
2. Fiscal policies impact on income inequality	The capacity of the tax and benefits system to reduce income inequalities in Bulgaria is one of the weakest across EU. Measured by S80/S20 ratio above, taxes reduce income inequality by only 4 % (compared with 13 % for the EU) and benefits mitigate income inequalities by only 28 % (compared with 35 % in the EU)(European Commission Country Report 2020)
3. Freedom of expression	112 <sup>th</sup> ranking (World Press freedom index)
4. Human development index (UN Development Program)	56 <sup>th</sup> ranking out of 140 countries
5. Corruption (Transparency International, average score for 2013-2020)	48 <sup>th</sup> ranking (average score)

*Source: based on data from the sources cited in the Table*

The existing deficiencies in the welfare system in Bulgaria (see point 2 in Table 1 above) would drive economic shifts toward progressive taxation, higher public debt levels, tax free income allowances and systemic social transformations aiming at sustainable economic development in a digitalized industrial era.

Lack of sufficient productive investments resulted in widening inequality gap (see point 1 of Table 1 above) and underinvestments in the public services sector. According to estimations by London School of Economics (2020) if national recovery plans could restore economic growth to around 4 % given interest rate at around 2 %, primary deficit of about 2 %, and unchanged debt-to GDP ratio, this would guarantee public investment spending directed to green infrastructure, RD&I thus increasing economic efficiency (Bruke at al., 2020).

Due to persistent pressure on media (see point 3 in Table 1 above) from government influence in Bulgaria civil society has lost trust in the accuracy of provided information exposing the systemic failures of the institutional framework. Restoring civil society trust requires clear, regular and objective communication by state authorities.

Amid unfolding health, social, economic Covid-19 crises the emergency situation has been used for civil society restrictions and outright violations of various freedoms and human rights enshrined in the Constitution (i.e. of physical movement, work, expression, discrimination of vulnerable groups etc.) further undermining the democratic legitimacy of public institutions and the democratic mechanism of checks and balances.

The aftermath of Covid-19 pandemic in “capture state” is associated with pending economic recession (i.e. equivalent to 3-5 % GDP fall, European Fund for the Balkans, 2020) with above-the-board economic, social, financial and political consequences, requiring rapid adoption of post-

pandemic national recovery plans with additional financing from EU in the adjustment by strictly observing the principles of freedom, democracy, human rights and rule of law .

Raising the human development status ((see point 4 in Table 1 above) in Bulgaria would require rapid adjustment to UN 2030 Agenda for Sustainable Development by adopting major macroeconomic policy package and implementation of different scenarios modeling the business cycle with increased public policy investments to raise eco-innovative competitiveness of the economy, combatting corruptive practices (see point 5 in Table 1 above), restoring public trust and narrowing the inequality gap. Strengthening adaptive capacities and sustainability dimensions of the economy of Bulgaria requires ever increasing focus on economic, institutional, environmental and social objectives through implementation of credible industrial strategy with established standards and best practices based on 5P (i.e. “profit-people-planet-peace-prosperity”) sustainability matrix (UN Development Programme, 2015) at national, regional and EU levels ensuring all public and private sector investments are compatible with resource efficient “green” low carbon economy (Carbon Pricing Leadership Coalition, 2017). This will be a definitive challenge for Bulgaria and generally for the Western Balkan countries with chronic underinvestments (i.e. less than 0.4 % of GDP) in people (including welfare and social safety net underprovision), education, science, R&D. The new industrial policy measures need to focus on knowledge capital (i.e. innovation, enhanced human capital, increased RD&I investments), natural capital preservation (i.e. “the green economy”, net zero emissions trajectory), and expanding social capital for long-term sustainable and inclusive economic rescue, restoration and recovery.

## Methodology and Data

According to Pagano (1993), institutional and regulatory factors can affect the functioning of capital markets. For LaPorta, Lopes-de-Silanes, Scleifer & Vishny (1996), institutional variables are important prerequisites for financial development in general, and for the development of capital markets in particular. Countries with low quality of legal rights and law enforcement have less developed capital markets, and listed companies on their stock exchanges are characterized by more concentrated ownership. In particular, customary law countries (Anglo-Saxon countries) are characterized by a more developed stock market due to greater flexibility and higher protection of minority shareholders. Demircuc-Kunt & Levine (1996) found that countries with a developed regulatory and institutional system have a large and liquid capital market. Perotti & Van Oijen (2001) found that equity investments become more attractive with resolution or mitigation of political risk over time. The development of good quality institutions can affect the country's attractiveness for investment by institutional investors and contribute to financial development. Strengthening the framework of property rights, guaranteeing deposits, investor protection, high transparency in the activities of companies and the proper application of accounting rules are important for the development of corporate securities markets.

The expected return on securities is associated with political risk, and the lower its level, the lower the required rate of return. In emerging financial markets, there is a higher contingent probability of large price changes in financial assets than in developed stock markets. One explanation for this is the role of political risk. Political risk and institutional quality show a strong association with the growth of market capitalization, which also has consequences in the analysis of financial market integration. Political risk is considered to be one of the main obstacles to this process. For Durham (2002), stock market developments have a stronger positive impact on economic growth at higher levels of GDP per capita, lower levels of country risk and higher levels of judicial development.

The objective of the paper is to analyze and empirically test adaptation of a “capture state” macroeconomic level and frontier stock market (i.e. mesoeconomic) level indicators of Bulgaria to sustainability requirements (i.e. 2030 Agenda for Sustainable Development) for the period 2013 - 2020.

More specifically, both at **macroeconomic and meso-economic levels** the focus is on analyzing challenges and obstacles to economic, social and environmental sustainability of Bulgaria by testing the association among market capitalization to GDP (as a measure of financial development) of Bulgaria for the period 2013 - 2020 and the following institutional factor variables:

a)eco-sustainability index (Cornell, INSEAD & WIPO, 2020). This index is part of sub-pillar 3.3. of the Global innovation index and is used as a synthetic measure of environmental sustainability ( $X_1$ );

b)human development index (UN database Human development reports) as a summary measure of long-term sustainable human development beyond GDP measure ( $X_2$ );

c)total democracy score (Freedomhouse database) as a measure of political freedoms and civil liberties in a given country ( $X_3$ ).

The hypotheses that the paper tests empirically for “capture state” frontier stock market of Bulgaria for the period 2013-2020 are as follows:

1) eco-sustainability performance in Bulgaria measured by the ecological sustainability index (Cornell, INSEAD & WIPO) is positively associated with financial development;

2) sustainable human development (measured by UN human development index) is positively associated with financial development;

3) sustainable democratic performance (measured by Freedomhouse total democracy score) is positively associated with financial development.

## Results

The results of applied empirical analysis by using heteroscedasticity model of ordinary least squares regression, for the period 2013-2020 using the following equation indicates:

$Y$  (financial development measured by stock market capitalization rate) =

$\beta X_1$  (eco-sustainability index) +  $X_2$  (human development index) +  $X_3$  (total democracy score) (1)

**Table 2**

**Correlation matrix between tested variables for Bulgaria**

Eco-sustainability Index	Annual GDP growth rate	Market Capitalization as % of GDP	Human development index	Freedom house democracy total score	
1.000	0.5812	-0.4606	-0.1652	-0.4100	<b>Eco-sustainability index</b>
	1.000	-0.2859	0.0575	-0.1861	<b>Annual GDP growth rate</b>
		1.000	0.6970	0.9883	<b>Market capitalization as % of GDP</b>
			1.000	0.7770	<b>Human development index</b>
				1.000	<b>Freedomhouse democracy total score</b>

*Source: own calculations of the author*

According to Table 1 above, the eco-sustainability index of Bulgaria is moderately and positively correlated with annual GDP growth rate, proving stylized fact (see Hall and Lerner, 2009 etc.) that good environmental performance relates to long-term economic growth. This established fact is firmly grounded in endogenous growth models (Romer, 1986) and is explained with increased total factor productivity levels in the course of technological spillovers of the production processes. The market capitalization rate shows moderate correlation (0,6970) with Human development index and strong (0,9883) correlation with Freedomhouse democracy total score proving the importance of institutional and social development for stock market performance in achieving synergistic



impact on sustainability performance in its triple dimensions (i.e. socio-economic, institutional and eco-efficient).

**Table 4**

**Simple linear regression model with heteroscedasticity correction**

**Dependent variable: market capitalization rate for the period 2013-2020 (T= 8 observations)**

	<b>Coefficient</b>	<b>Standard error</b>	<b>t-value</b>	<b>p-value</b>	<b>Sig. level</b>
<b>const</b>	-319.516	101.685	-3.142	0.0348	**
<b>Eco sustainability index BG</b>	-0.313817	0.191563	-1.638	0.1767	
<b>Annual GDP growth rate BG</b>	-0.182659	0.201284	-0.9075	0.4155	
<b>Human development index BG</b>	437.440	116.026	3.770	0.0196	**
<b>Freedom house democracy score</b>	9.92000	0.669674	14.81	5.92e-06	***
Sum of squares of residuals	4.742310	Standard error of regression		1.088842	
Simple coefficient of determination	0.978971	Adjusted R-squared		0.963200	
F(3, 4)	62.07206	P-value(F)		0.000823	
Log-likelihood	-9.259839	Akaike criterion		26.51968	
Schwarz criterion	26.83745	Hannan-Quinn		24.37647	
rho	0.199788	Durbin-Watson		1.591174	

*Source: calculations of the author*

The results of the empirical analysis (Table 2 above) show there exists positive and statistically significant association between market capitalization rate on the frontier stock exchange of Bulgaria and Human development index (p-value of 0,0196), indicating 1 unit increase in the score of the index is related with a rise in the market capitalization by 437.440 units. This is indicative of the increasing importance of long-term sustainable human development (beyond GDP) and its components (i.e. population's average longevity, education, income etc.) in stimulating financial development and financial sustainability in developing countries in particular. On the other side, the model proved existence of strong positive association (p-value of 5.92e<sup>-06</sup>) between stock market capitalization rate and the Freedomhouse democracy total score, indicating that 1 p.p. increase in the score is associated with a boost in market capitalization rate by 9.92 p.p. The model is valid (with a p-value (F) of 0.000823) and leads to acceptance of hypotheses 2 and 3 above. The Durbin-Watson statistics (1,59) is within the acceptability range of relative normality in the distribution of residuals. An interesting result particular for a "capture" state is the negative albeit statistically insignificant association between stock market capitalization rate and the eco-sustainability index. This can be explained with the following:

- Bulgaria still occupies last place in 2020 EU eco-innovation scoreboard and its transition to low carbon economy is still distant as compared to leading eco-innovating countries in the EU (see: [https://ec.europa.eu/environment/ecoap/indicators/index\\_en](https://ec.europa.eu/environment/ecoap/indicators/index_en));
- The eco-innovation environment is extremely sensitive to presence of established legal framework for protection of intellectual property rights, the range of various tax-based incentives



for ecoinnovations, competition policies, market structure regulations, depth of financial markets and access to alternative forms of financing (i.e. venture capital), efficiency of trade and investment etc. The transition of Bulgaria to low carbon economic growth would require significant improvements in the institutional setting, establishment of efficient public policies in environmental protection, control of corruption and protection of property rights.

In another study by the author (Stefanova, 2020) it has been established that statistically significant institutional variables for financial development and institutional sustainability in Bulgaria include: 1) democratic accountability assessment (+); 2) the increased assessment of the political stability in the country is associated with a rise in the market capitalization; 3) the reduced assessment for control over corruption in Bulgaria is associated with a decrease in the market capitalization 3) the reduced assessment for the regulatory quality in Bulgaria is associated with a decrease in the market capitalization of the stock exchange. A correlation matrix of the six institutional variables included in the empirical model in Bulgaria establishes significant correlations between: 1) democratic accountability and market capitalization (positive correlation of 0.76). 2) efficiency of government policies and democratic accountability (positive correlation of 0.49).

## **Conclusions**

The empirical analysis in the report finds that in a “capture” state with a façade democracy, sustainability in its various dimensions (socio-economic, institutional, environmental) correlates with financial development, measured by market capitalization/ GDP for the period 2013-2020. As established in a number of Freedomhouse reports for the period 2009-2018, assessments of corruption in Bulgaria have deteriorated and this corresponds to a decrease in total democracy score. Such institutional instabilities are associated with deteriorating quality of the democratic environment, and thus this report proves the thesis that institutional instability is a limit to growth and a challenge to financial development and sustainability and its dimensions (socio-economic, democratic, environmental) in “capture” states with façade democracy. According to the European Council on Foreign Relations (2018), the EU's supranational institutions are not in a position to prevent this process due to “..destructive liberal division of power to pursue national policies to promote democracy”.

The analysis of factors in the business environment of stock market in Bulgaria shows that ensuring sustainability in its various aspects (socio-economic, institutional, environmental) requires significant institutional changes in administrative, legal, tax and others. aspects, as well as further adaptation of market participants, which may lead to higher costs to comply with the new regulatory requirements for digital transition and green economy. For SMEs, for which access to credit from financial institutions is generally difficult and which do not have the necessary reserves to absorb adverse changes in their financial performance in post Covid-19 situation, it will be difficult for a long time to use bank lending or other alternative forms of financing to overcome declining sales during the crisis (Taseva, G. ., 2012). Against the background of high intercompany indebtedness in CEE countries and liquidity retained in banks, overcoming the challenges facing countries with peripheral financial markets such as Bulgaria is providing alternative sources of financing and improving access to bank lending (Taseva, G., 2014).

## **Future Directions**

In order to fully encompass the factors influencing financial development and sustainability in developing countries with façade democracies in the new global realities in the future it is necessary to use an interdisciplinary complex and systematic approach due to the nonlinear nature of financial market processes, by enriching the theoretical framework and including technological and digital factors, climate, etc. . exogenous variables and assessing their impact in general on economic development and achieving sustainability (socio-economic, institutional, environmental)

by overcoming constraints and challenges to financial development and that of peripheral stock markets such as Bulgaria, in particular.

In addition to the empirically established constraints on the financial development and sustainability of Bulgaria's development in its various aspects (socio-economic, institutional, environmental), the peripheral stock market in Bulgaria has structural constraints that relate to the small size and structure of the economy. The stock market is not able to provide economies of scale for the companies listed on it in conditions of low liquidity, high price volatility and insufficient depth of the stock market (see Table 1 of the Appendix). Overcoming these restrictions requires further deepening of the regional integration of the Bulgarian capital market in Southeast Europe (SEE) and is an optimal solution for increasing the liquidity and visibility of the shares of listed companies on a single technology platform in the process of harmonizing the legislation of SEE countries with The EU and the potential for implementing single market practices, trading systems, quotation rules, clearing and settlement.

## Bibliography

- Baumol, W.J. (1959). Business behavior, value and growth. New York. The Macmillan Company.
- Brinkenhoff, D. and Goldsmith, A. (2005). Institutional dualism and international development. A revisionist interpretation of good governance. *Administration and Society* 37 (2), pp.199 -224.
- Carbon Pricing Leadership Coalition (2017). Carbon Pricing Leadership report.
- Corporate Europe Observatory (2019). Captured states: when EU governments are a channel for corporate interests. Accessible at: <https://corporateeurope.org/en/2019/02/captured-states>
- Demirguc - Kunt, A. Levine, R. (1996). Stock markets, corporate finance and economic growth: an overview. *The World Bank Economic Review*, 10 (2), pp.223-239.
- Durham, J. (2002). The effects of stock market development on growth and private investment in lower-income countries, in *Emerging Markets Review* 3(3):211-232
- European Commission (2020). Country report Bulgaria. Accessible at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1584543810241&uri=CELEX%3A52020SC0501>
- European Council on Foreign Relations (2018). Poland, Hungary and the slipping faced of democracy. Commentary of Piotr Buras of 11th July 2018. Accessible on 25th November 2019 at: [https://www.ecfr.eu/article/commentary\\_poland\\_hungary\\_slipping\\_facade\\_of\\_democracy](https://www.ecfr.eu/article/commentary_poland_hungary_slipping_facade_of_democracy)
- European Fund for the Balkans (2020). The Western Balkans in times of pandemic - public opinion survey. Available at: [https://balkanfund.org/pubs/uploads/The\\_Western\\_Balkans\\_in\\_times\\_of\\_.pdf](https://balkanfund.org/pubs/uploads/The_Western_Balkans_in_times_of_.pdf)
- Freedomhouse (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020). Annual reports.
- Hall, B and Lerner, J. (2009). The financing of R&D and innovation. NBER working papers N 15325.
- La Porta, Rafael and Lopez de Silanes, Florencio and Shleifer, Andrei and Vishny, Robert W., (1996). NBER Working Paper No. 5661.
- London School of Economics (2020). European Union 2030. Looking back, looking forward. Accessible at: <https://www.dahrendorf-forum.eu/publications/ralf-dahrendorf-and-the-european-union-2030/>
- Ludwig, D., B. Walker, and C. S. Holling. (1997). Sustainability, stability, and resilience. *Conservation Ecology* [online](1): 7. Available from the Internet. URL: <http://www.consecol.org/voll/iss1/art7/>
- Naydenova, P. (2015). Innovation and business. Proceedings of the international scientific conference "Economic incentives and restraints". III - BAS. ISBN: 978-954-616-258-8. pp. 463-472.
- Pagano, M. (1993). Financial markets and growth. An overview. *European Economic Review*. 37. pp.613-622.
- Perotti, P., and van Oijen, P. (2001). Privatization, political risk and stock market development in emerging economies. *Journal of International Money and Finance*. 2001, vol. 20, issue 1, 43-69
- Rangelova, P. (2017). Development of human resources in Bulgaria in the conditions of its membership in the European Union. Author's team. FastPrintBooks. ISBN: 978-619-7312-71-3.

- Ritter, D. (2015). International politics and unarmed revolutions in Middle East and North Africa. Oxford University Press.
- Romer, P. (1986). Increasing returns and long-run growth. *Journal of Political Economy*. 94. pp.1002-1037.
- Stefanova, St.J. (2020). Institutional sustainability and stock markets development in Central and Eastern Europe: 30 years transition. *Proceedings of theoretical workshop*. Technical University Sofia. ISBN: 2603-4999. pp.92-110.
- Taseva, G. (2012). Factors for the value of trade receivables of Bulgarian non-financial corporations. *Economic and Social Alternatives*, 4., 87-101
- Taseva, G. (2014). Trade credit - a mechanism for the transmission of liquidity between companies. *Management and Education*, Volume X (I). 63-72
- Transparency International (2009-2020). Annual rankings
- WIPO (2020). World Intellectual Property report.
- Zareva, I. (2015). The foreign migration processes and the innovation potential of Bulgaria. *Proceedings of the International Scientific Conference "Economic Growth - Incentives and Limiters"*. BAS. ISBN: 978-954-616-258-8. pp.409-422.

## APPENDIX

Table 1

### Macroeconomic and stock market (i.e. meso-economic) level indicators of sustainability

Specific indicator	Commentary
1.GNI per capita PPP (2019) in current international \$	\$ 24.900 (World Bank database)
2.GDP growth rate	3.69 % ( average for the period 2012 - 2020, World bank database) -4.9 % (European Commission economic forecast, 2021)
3. Fiscal stability	22.82 % (averaged 2013 - 2020, IMF)
4.Political environment	60.69 averaged score (i.e. semi-consolidated democracy for the entire period 2015 - 2020, Freedomhouse)
5. Asset returns	10.59 % (average for the period 2013 - 2019); max. 97.82 % in 2013; min. -35.32 % in 2015)(MSCI) <b>Note:</b> Annualized returns MSCI Frontier Markets for 2013-2019 stood at average 7.77%, max. 31.86 % in 2017, min. -14.46% in 2015.
6.Private equity flows as % of GDP	-3.08 % (averaged for the period 2013 - 2019, World bank database)
7.Stock market capitalization as % of GDP	16.94 % (averaged for the period 2013 - 2017, World bank database)
8. Stock index volatility	12.89 (averaged for the period 2013 - 2017, Fred Economic Data)
9. Liquidity	1.065 % (2019, World bank database)

*Source: compiled by the author according to the sources cited in the table*

# IN MEMORIAM VICTOR SLĂVESCU - ON THE ECONOMIC THINKING OF THE ECONOMIST

Alina Georgeta Ailincă<sup>40</sup>

Gabriela Piciu<sup>41</sup>

## Abstract:

*Preparing with special attention in his career as an economist, studying at the University of Bucharest, Paris but especially at the Universities of Göttingen, Munich and Halle, Victor Slăvescu distinguished himself throughout his career by seriousness, rigor, firmness, fairness, generosity, desire to straighten things out and the pursuit of perfection. For this reason, his work has not always enjoyed well-deserved recognition, and his contribution to Romania's history of national economic thinking has often been overlooked. Therefore, as a tribute to the 130th anniversary of his birth, this article seeks to highlight, modestly, often emphasizing the quality of perpetual topicality, a number of important ideas of the great teacher's thinking.*

**Keywords:** *Romanian economic thinking, fundamental economic theory, the structure of the Romanian economy in the first half of the 20th century*

**JEL classification:** B10, B20, B31

## Introduction

The First World War brought dramatic changes on the political, social and economic life of Romania, amid a territorial doubling in 1918 (at 295049km<sup>2</sup>) compared to the pre-war period and a population growth over 2.5 times in 1930 (at 18057028 inhabitants) compared to the population registered at the 1912 census (BNR, 2001, pp.13). In this context, many challenges have emerged in the form of: a) domestically - the need to unify state legislation and apparatus, rebalancing state finances and stabilizing the leu's position internationally, carrying out agrarian reforms, moderating the declining purchasing power of the leu, achieving the fight against the effects of prefigured international crises and improving the trade balance, moderating public and private indebtedness, but also inflation, b) externally - highlighted the need to gain state and political recognition and credibility. Therefore, after the Great Union, there was the problem of restoring the Romanian economy after the war, but also the integration of the economic branches within the national economy of the Romanian state.

In this context, as a young Romanian specialist with studies abroad, Victor Slăvescu's personality stands out, in the first phase, by resuming his position at Banca Românească (1915), then becoming director of this institution. Subsequently, Victor Slăvescu held the position of director at the National Industrial Credit Society (1923) and he was given the task of reorganizing the Public Debt Directorate of the Ministry of Finance. Then, he was an expert (along with Nicolae Titulescu, which was Minister of Finance in the period 1920-1921) in the negotiations on the regulation of the war debt to the USA. At the same time, Victor Slăvescu has held numerous positions in the management of many industrial companies, including the president of the General Union of Romanian Industrialists (in Romanian -Uniunea Generală a Industriaşilor din România - UGIR). Equally, within the Government I.G. Duca, he was appointed Undersecretary of State at the Ministry of Finance, after that he was appointed Minister of Finance (1934-1935), then he was appointed Vice President of the Superior Banking Council of the Superior Economic Council (in Romanian - Consiliul Superior Bancar al Consiliului superior Economic, 1937), then he was in six

---

<sup>40</sup> PhD., scientific researcher 3rd degree, Centre for Financial and Monetary Research "Victor Slăvescu" of INCE "Costin C. Kiriţescu", Romanian Academy, Bucharest, Romania, e-mail: alinageorgetaailinca@gmail.com

<sup>41</sup> PhD., scientific researcher 2nd degree, Centre for Financial and Monetary Research "Victor Slăvescu" of INCE "Costin C. Kiriţescu", Romanian Academy, Bucharest, Romania, e-mail: gabriela\_piciu@yahoo.com.

successive governments Minister of the Army endowment. Victor Slăvescu was also a member of the Directorate of the National Renaissance Front (in Romanian *Directoratul Frontului Renașterii Naționale*) and of the steering committee of the Institute for Social Research, but was also elected a member of the Board of Directors of the National Bank of Romania (1945 - 1946). All the functions obtained culminated with the appointment of a corresponding member of the Romanian Academy (1937) and especially of a full member of the Romanian Academy (1939) (BNR, 2001, pp.8-11).

Beyond political activity and banking practice, since 1925 Victor Slăvescu stands out as a professor at the Department of Currency, Credit and Banking of the Academy of Advanced Commercial and Industrial Studies in Bucharest, later teaching courses at the Higher School of War as a holder of the department of political economy and national economy. In the period 1955-1977, following the imprisonment without prior trial in Sighet (1950-1955), Victor Slăvescu retired from the forefront of public life, devoting himself entirely to scientific research, leaving in addition to the printed work, also about 80 volumes typed, unpublished (BNR, 2001, pp.10-11).

As Pascu remarks (1937, pp.223), Professor Victor Slăvescu's writings can be divided into: a) writings on currency, credit, banking and exchange, b) writings on enterprises, c) writings on transport, d) writings on economics and f) various writings (e.g. agriculture, public finance, labor). At the same time, Pascu (1937, pp.223) remarks that the entire work of Victor Slăvescu can be divided into didactic works (courses taught especially at the Academy of Higher Commercial and Industrial Studies in Bucharest) and non-didactic (research on various national financial problems, phenomena and institutions).

## **Description of the Problem**

After 130 years from the birth of Victor Slăvescu, marking mainly the highlighting of realities, but also of thinking and especially of human behaviour, from the interwar and post-war period, we could have expected that the possible comparisons with contemporary realities would not be possible. However, the realities seem to transcend time and space, carefully analyzing the realities of the Romanian economy, through the critical lens of Professor Victor Slăvescu, especially in issues aimed at: rethinking rural space and Romanian agriculture, the need to strengthen the role of local capital, supporting industrial branches through industrial credit, solutions and proposals to the global economic crisis of 1929-1933, the adequacy of banking regulations to the realities of the time and possible solutions to financial-banking problems. We can note that today industrial credit is still a problem, agriculture, still has a poor population unable to have technology without the help of credit from banks, and international economic crises (e.g. in 2008) or non-economic (e.g. COVID -19) retain its devastating force. All these considerations make Victor Slăvescu's contribution to the history of Romanian economic thought extremely relevant and current, and the solutions proposed by him are still to be considered today.

## **Methodology and Data**

The article follows, through a theoretical, logical, but also critical analysis, both the framework - the interwar period, and especially the coordinates of the activity and especially the coordinates of the thinking of the professor and economist Victor Slăvescu. The paper captures, by highlighting the depth of the great professor's thinking, the connection with the current period, in which, keeping the scale, unfortunately the same perpetual problems of the Romanian economy are highlighted. The data sources are represented by: BNR study notebooks, documents of the time, books, articles and studies, aiming especially to reveal the problems of Victor Slăvescu's economic thinking.

## **Results**

Although less noticed, Victor Slăvescu is an important historian of Romanian economic thought, often leaning on archival documents, being convinced that following the course of time of a discipline "it is much easier for us to understand its purpose, the methods that it also uses the results it obtains" (Slăvescu, 1926). Therefore, his work is carried out in three important directions: the history of Romanian economic thought and the national economy, the fundamental economic



theory and the structure of the Romanian economy in the first half of the twentieth century (BNR, 2001, pp.64).

Constantly connected with the country's problems, Victor Slăvescu considered that one of the main problems of the country was found in the agrarian and peasantry problem in particular, being found as a concern from the beginning of his career as an economist in the doctoral thesis "The agricultural issue in Romania"(Die Agrarfrage in Rumänien). Although the law on the implementation of the agrarian reform was given in 1921, the ownership of the peasantry was difficult, requiring special laws in each of the historical provinces of the country. At the same time, the size of the lots was inadequate to the structure of the peasant households, and the agricultural inventory necessary for the work of the land required support from the state for the acquisition but also agricultural credit from bank. Thus, the agricultural credit was not in Victor Slăvescu's vision "only a matter of humanitarianism, but a vast economic and social problem, the solution of which depends also the raising of the state on unshakable foundations" (Slăvescu, 1925, pp.213) and that "And the state budget and the banking body and the country's currency and industry and trade rest on the peasant household" (Slăvescu, 1931, pp.1). At the same time, as a solution to the difficulties of farmers, Victor Slăvescu proposes the agricultural cooperation: "When 80 percent of the country's population lives in the country and has agriculture as its main occupation, when agrarian reform goes from its legal application to enter its agricultural technical organization, there is no doubt that our constant concern must be the education and guidance of our villager towards a better culture to be achieved only through agricultural cooperation" (Slăvescu, 1928, pp.1), a considerable role been seen to be played by popular cooperative banks. In V. Slăvescu's view, the agricultural cooperation was seen as oriented partly *towards supply* (for machinery, seeds, etc.) and partly *towards sales*(in order to avoid exposing the peasantry but also to make peasants the clientele of speculation), and interest on agricultural loans,in order not to become burdensome, it had to be better framed in the National Bank of Romania (NBR) regulations.Supporter of the Code of Cooperation voted in 1928, V. Slăvescu publicly reiterates his confidence in the cooperative movement in 1936 through the article "I believe in cooperation", which showed that it is the only solution for this social class (the peasantry).

At the same time, Victor Slăvescu was a convinced promoter of national values, considering that the liberal doctrine "by ourselves" should be seen only as a defensive policy of protecting national interests from external desires of seizure (Slăvescu, 1929, pp.7), the state being interested and even obliged in Victor Slăvescu's vision to support local capital on a healthy basis, avoiding international financing, which often put the selfish, momentary and speculative gain in the foreground. In the period 1919-1920 Victor Slăvescu published a significant number of articles in which he analyzes the role and purpose of domestic capital, the conditions of collaboration of foreign capital, the need to "Romanianize" the economic life of Romania. Moreover, he advocates the "nationalization of economic life as soon as possible, going so far as to impose itself on the basis of the country's economic activity," first of all, and, if possible, exclusively the element Romanian", which aims at "the economic independence of the country, by developing its wealth and by supporting Romanian capital, energy and labor".Slăvescu's vision was not to be interpreted as being against foreign capital, but rather as a precaution, foreign capital being the bearer of well-defined interests and political ideas belonging to the borrower. In addition, no state has the interest to contribute to the economic rise of another state, which in time could become its competitor; therefore, the solution is complementary collaboration between capitals, the majority role having the national capital and not the foreign one (Slăvescu, 1919, pp.1).

Regarding industry, Victor Slăvescu considered that the state should be the supporter of the industrial field, especially since the share of foreign capital in this field was 80% in 1916 and in the oil field it was close to 100% (Scurtu, 1996 pp.13), shares unacceptable in the liberal view. As a solution, Victor Slăvescu saw the establishment of an industrial credit company to cover four types of specific financing for companies in the industrial field: - of investment (with a long investment horizon), - of working capital financing (for supply, salaries, etc.), - financing for supply (for the purchase of raw materials) and - financing for deliveries (especially to regulate the relationship with the state, which was still suffering from massive war losses and precarious public funding, therefore the coverage of this credit was proposed by Victor Slăvescu to be made by payment orders of the Ministry of Finance) (BNR, 2001, pp.23). Thus, after becoming director of the National Industrial Credit Society, Victor Slăvescu contributed directly to the development of

Romanian industry through capital that allowed the establishment of state-owned enterprises such as: Câmpia Turzii Wire Factory (1922), Titan – Nădrag - Călan Plants (1924), Copșa Mică-Cugir (1925), Malaxa (1926), IAR-Brașov (1926) (BNR, 2001, pp.24).

At the same time, in Victor Slăvescu's vision, the state had to ensure public order, but the economic and legislative means for a good life in general, supporting areas such as education, transport, promoting the interests of economic enterprises and ensuring intellectual property. At the same time, Victor Slăvescu accurately classified the categories of enterprises in relation to the state: - state-owned enterprises or monopolies, - state-controlled enterprises (in areas of national interest), - state-supported enterprises, - free or private enterprises (NBR, 2001, pp.24-25).

If we refer to the world economic crisis of 1929-1933, marked by price volatility in some categories of goods (e.g. falling prices for grain, wood and especially the fall in oil prices on US stock markets - all being dominant elements in the structure of trade balance and payments of Romania), reducing revenues to different categories of enterprises, increasing the interest rate on capital, increasing unemployment and deteriorating stock market indicators, Victor Slăvescu tried to outline a series of solutions. These solutions include: - assessment and classification of taxes and fees on the actual ability of taxpayers (especially the peasantry) to pay, - regulation of agricultural debt, rescheduling and adjustment of interest rates in line with the ability of farmers to pay, - proper organization of the grain trade, externally, but especially internally, - the imposition of a protectionist customs policy, to protect the industry from the dramatic effects of the crisis and the preferential acquisition of the state for national industrial products (Slăvescu, 1932a). At the same time, Victor Slăvescu remarks, what happened also later in the economic crisis triggered in 2008 globally, that the post-war lending activity was of an inflationary type, doubling the monetary inflation, the loans were granted too easily (Slăvescu, 1932b) .

In connection with the financial-banking crisis, Victor Slăvescu notes a series of symptoms that foreshadowed the crisis: - declining liquidity in the system, - increasing demand for loans to the NBR and reducing the supply of guarantees from the debtor, - the need to restructure the credit period by the transformation of short-term loans into long-term loans, and - the withdrawal of deposits or cash from banks suspected of being in difficulty, etc. (BNR, 2001, pp.68-69). Slăvescu also highlights in his works the lack of morale and sometimes the lack of rational judgment of depositors who seek profitability rather than stability and security of deposits and, at the slightest weaknesses of the banking system, immediately ask back their deposits, aggravating the crisis by panic and by withdrawing money from the normal economic circuit.

At the same time, Victor Slăvescu observed that along with the economic crisis there were also moral and social crises, passivity, blaming, lack of continuity in public governance measures, inability to seek methodical solutions and of continuous application of discovered remedies, but also lack of rational judgment of the rulers, who, often, did not understand that a prosperous budget can be obtained only with prosperous taxpayers and not with ruined and burdened taxpayers (Slăvescu, 1932b).

It should be noted that an important contribution of Victor Slăvescu is in understanding and describing the local banking system, as Costin Murgescu said, he (n. V. Slăvescu) "[...] elaborates the first, most complete and most important monograph of our credit system when it had to embark on the path of post-war activities [...]" (Murgescu, 1994). At the same time, in consolidating the role of Romanian finances, in numerous papers, Professor Victor Slăvescu lists a number of principles of running a commercial bank, emphasizing the need for caution and balance in lending, but also: the bank's independence from political factors, lack of concentration economic power, framing the bank's policy in the general interests of the state, respecting the bank's role as a financier of the economy, respecting customers without taking advantage of their good faith, maintaining the national character of majority capital, ensuring the credit institution's capacity, supporting small economies and their channelling to ensure general prosperity, the need for co-optation of new shareholders, the bank's contribution to the financing of public administrations, as well as the carrying out of charitable acts in support of the general interest (Slăvescu, 1922).

Regarding the National Bank of Romania, Victor Slăvescu points out, in an impressive monograph from 1925, that the NBR was, in addition to a bank issuing money and controlling money circulation, also a financial institution involved in financing Romanian industry, trade and

communications, but especially in consolidating the Romanian banking sector. At the same time, Victor Slăvescu captures, through an ex-post analysis, the evolution of the NBR, starting from the establishment of the NBR and evoking the figure of the founder Eugeniu Carada, so that later he can outline a series of directions for solving complex problems of the time (Slăvescu, 1925 and BNR, 2001).

As Costin I. Murgescu (1943, pp.463) points out, the writing of Professor Victor Slăvescu "is equivalent to opening a new chapter in our economic literature", and that in order to start outlining a unitary critical look, in the form of a compact history of economic thinking required a diligent work of documentation, which Victor Slăvescu started as Murgescu noted with "a young energy and devotion that is illustrated by the number of works printed between 1936-1943." At the same time, about the working method of Victor Slăvescu, Murgescu mentioned that the Victor Slăvescu method "chosen was not that of monographs, claiming to solve definitively chapters from a probable and future economic history, a method full of risks, the monograph assuming itself the evidence of all the existing works, but the partial presentation of texts and people, put in the light and in the ambiance of the epoch, by brief references to the published texts." (Murgescu, 1943, pp.465).

Thus, Victor Slăvescu follows through his studies, many important figures in the history of Romanian economic thought such as: Eugeniu Carada, Partenie Cosma, Dionisie Pop Marțian, Ion Ghica, Ion Ionescu de la Brad, Petre Mavrogheni, Dimitrie A. Sturdza, Gh. Gh Cantacuzino, P.S. Aurelian, A.D. Xenopol, B. P. Hașdeu, Nicolae Șuțu etc. Therefore, the study of history is in Victor Slăvescu's vision an important point in research work to identify the origin and development of Romanian economic science and economics. At the same time, Murgescu (1943, pp.467) remarks that Victor Slăvescu "does not follow any plan in choosing the economists on whom to dwell. The only criterion is that of the importance that certain works or lives present, doubled by that of their recognition in the intellectual and even specialized world in our country".

Along with the historical study of the evolutions of credit institutions, Victor Slăvescu also explores the area of economic theory and foundations. For example, he points out the differences between the technical and the political-doctrinal role of credit institutions, highlights the roles of credit institutions as intermediaries of payments, capital management and offering loans in addition to creating means of payment, not forgetting that "the primary function of a banking enterprise is to promote, through all the powers at its disposal, the national economy to which it belongs" (Slăvescu, 1930). At the same time, Victor Slăvescu makes a corollary of bank policy identifying principles regarding the nature and usefulness of credit, guaranteeing and repaying it, the bank, in his vision, having to focus on production loans and less on consumer loans. Equally, Victor Slăvescu brings contributions on the concept of financing the enterprise, the reasons and conditions that justify the financing of the enterprise, while identifying two types of financing: occasional (commercial) and professional (banks and stock exchanges), establishing the necessary parameters related to own and foreign financing, so that the decisional autonomy at national level can be preserved (Slăvescu, 1927; BNR, 2001).

It should be noted, Victor Slăvescu's constant concern for currency, being in his opinion used "in order to achieve a specific goal" and being assigned five functions: - instrument of economic exchange (Slăvescu noting, in other works, that economic imbalances also before the war of independence (1877) was due to the lack of a national currency, with many foreign currencies circulating in parallel), - the measurement of the values of exchanged goods, - the instrument of storage and hoarding, - the instrument of payment and basis of credit (Slăvescu, 1932c). Equally concerned with the new forms of currency or rather with the dematerialization of currency, Victor Slăvescu also focuses on explaining how the scriptural currency works in relation to the actual currency, emphasizing that in general transactions of higher value, belonging to the production or economic circulation takes place through scriptural currency. Thus, the scriptural currency is similar by Victor Slăvescu to the banknote issued by the NBR with full coverage in gold and convertible at any time into gold, with the difference that the scriptural currency is based on both the credit and the authority and prestige enjoyed by the commercial bank issuing deposit (Slăvescu, 1942).

The great economist V. Slăvescu also has an important role in the development of Romanian accounting in the first half of the twentieth century. Having influences from the German school of

business economics and benefiting from the studies of his predecessor V.N. Madgearu who approaches accounting in the discipline of study (management) of enterprises, in 1952 V. Slăvescu treats accounting as the main tool of business administration. Considering that "here are found the researches related to the administration and registration of operations (accounting-balance sheet), with the procurement of means of work (financing), with the examination of the obtained results (profitability) etc.", V. Slăvescu integrates accounting in the economy of the enterprise, considering that "enterprise science" aims to create universally valid rules and principles that facilitate profit maximization.

## Conclusions

Victor Slăvescu's contributions to the history of Romanian economic thought, to the fundamental theory but also to the accurate description of the Romanian banking system in the first half of the twentieth century reveal the topicality of his studies and demonstrate a depth of analysis based on his experience and training. Author of the largest work in the Romanian economy culture (over 55,000 pages), Victor Slăvescu is, along with others, a pioneer in highlighting moments, but also important writings in making understood the need for works of Romanian history and economic thought, constantly trying to avoid making premature conclusions on texts collected and published. Therefore, as Costin I. Murgescu (1943, pp.467) pointed out, "the works of Professor Victor Slăvescu have acquired an essential position, he not only opens the interest but also inaugurates the work of capitalizing on our economic thinking."

Marked by clarity and synthesis, especially in writing didactic works, the scientific work of Professor Victor Slăvescu overflows with a real ideological coherence in defence of the national economic interest, emphasizing once again the need to relate to its own economic, political, social and cultural identity of a nation, so that economic solutions, otherwise general, gain meaning, strength and efficiency. Therefore, the ideas, lucidly presented, more than a century ago, by Professor Victor Slăvescu, remain valid to a large extent, even today, indicating the need for more seriously approach (both from theorists and researchers but especially from practitioners and decision makers) on the perpetual problems of Romanian economy.

## Future Directions

Concerns for the history of economic thought, the history of Romanian economic literature can be found in many contemporary and less contemporary authors, and personalities, such as Victor Slăvescu, are a true historical landmark, but also a pillar of development for future Romanian economic science and research. As Costin I. Murgescu (1943, pp.464) pointed out, "history, as a synthesis of life experiences, is if not the main, in any case one of the primordial elements of economic science in deciphering the social and economic possibilities and tendencies of a people". Therefore, the unknown, unremembered and misunderstood history inevitably leads to its repetition in various forms, with more or less dramatic consequences. Thus, this article aims to be, on the one hand, a modest tribute to the activity of the great professor of economics Victor Slăvescu, and on the other hand, a gate to the knowledge of other scientific creations of other authors concerned with the history of national economics and national economic thought, but also of the economic history of the world.

## Bibliography

Banca Națională a României (2001), Restitutio, nr.1 octombrie, ISSN 1582- 7550, online: <https://www.bnr.ro/PublicationDocuments.aspx?Icid=6921>.

Murgescu, Costin (1994), The course of economic ideas in Romanian, Bucharest, Encyclopedic Publishing House, 1994, vol.I, pp.57-58.

Murgescu, C., I. (1943), Victor Slăvescu and the possibility of a history of our economic thinking, Revista

Royal Foundations monthly magazine of literature, art and general culture, Year x, no. November 11, Bucharest.



- Pascu, Dim, P. (1937), The economic writings of professor Victor Slăvescu, in the Bulletin of the Romanian Economic Institute, year XVI, no.4-6, April-June 1937.
- Scurtu, I. (1996), History of Romania in the years 1918-1940. The evolution from the democratic regime to the dictatorship, Didactic and Pedagogical Publishing House, Bucharest.
- Slăvescu, V. (1919), Working methods of international finance, in "Viitorul", year XII, no. 3547/12 December 1919, pp.1.
- Slăvescu, V. (1922), Credit Organization of Romania, Cartea Românească Publishing House, Bucharest.
- Slăvescu, V. (1925), The history and development of popular banks, in the Bulletin of the Romanian Economic Institute, year IV, no. 3/1925, pp. 213.
- Slăvescu, V. (1925), History of the National Bank of Romania 1880-1924, Romanian Social Institute, Archive for Science and Social Reform, ed. National Culture.
- Slăvescu, V. (1926), Object, method and doctrine in the science of enterprises, in "Economic and statistical annals", year IX, no.11-12 / 1926, pp.1.
- Slăvescu, V. (1927), Financing of economic enterprises, in "Economic and statistical annals", year X, no. 3-4 / 1927, pp.20.
- Slăvescu, V. (1928), New orientations in cooperation, in "Viitorul", year XXI, no. 6182/25 September 1928, pp.1.
- Slăvescu, V. (1929), Economic problems and political parties, in "Democracy", year XVII, no. 7-8 / 1929, pp.7.
- Slăvescu, V. (1930), Bank Treaty, Cartea Românească Publishing House, Bucharest, vol. I, pp.15.
- Slăvescu, V. (1931), Agricultural debts, in "Viitorul", year XXIV, no. 7075 / September 3, 1931, pp.1.
- Slăvescu, V. (1932a), Current economic problems, Bucharest, Imprimeriile Independența, pp.8.
- Slăvescu, V. (1932b), Our economic crisis and its current solutions, Bucharest, Copuzeanu Printing House, 1932, pp.14.
- Slăvescu, V. (1932c), Currency, credit, exchange rate, Romanian Writing Publishing House, Craiova.
- Slăvescu, V. (1942), On the Scriptural Currency, in "Economic Independence", year XXV, no. 1-3 / 1942.

# CONVERGENCE OF HORTICULTURAL FARMS IN ROMANIA FROM THE PERSPECTIVE OF COMPETITIVENESS AND PROFITABILITY IN EU

Cornelia Alboiu<sup>42</sup>

## **Abstract:**

*The paper aims to analyze the degree of convergence of the horticultural sector in Romania in terms of competitiveness indicators with other EU member states. In order to be able to establish a robust causal link between the factors of competitiveness in determining the degree of convergence of the horticultural sector, certain indicators of competitiveness were considered such as the family income of the holding per unit of work and the net added value per unit of annual work. In addition, other indicators were calculated, such as the degree of capitalization, the share of production costs, net assets, return on assets, trade balance. The results show a low level of competitiveness compared to all countries analyzed, which indicates that the horticultural sector in Romania is not yet on the verge of achieving an economic convergence with the main EU horticultural sectors.*

**Keywords:** convergence, competitiveness, Romanian horticultural sector

**JEL classification:** Q10, Q19.

## **Introduction**

The convergence study aims to describe the way in which different economic, social and political factors and mechanisms act or contribute to mitigating differences or gaps between these entities. The first way of perceiving the achievement of real convergence through the exclusive prism of market forces is that which belongs to the neoclassical theory of growth. Considering that the economic result (GDP / inhabitant) is given by the contribution of several factors of production (capital, labor, natural resources, technological progress) the neoclassical model takes as fundamental hypothesis the dependence of growth on the particularities of capital return which has a general downward trend. Iancu (2006) reviews the authors who do empirical research on convergence and divergence using the modified and developed neoclassical model.

For example, Mankiw, Romer, and Weil (1992), and Islam (1995) have shown that economies with low initial incomes tend to grow faster than economies with high initial incomes after entering the model, as control variables, the rate of saving and the rate of population growth, and Barro, Salla-i-Martin, Blanchard, and Hall (1991) additionally considered capital mobility, labor migration, and so on.

The paper aims to analyze the degree of convergence of the Romanian horticultural sector in terms of competitiveness indicators compared to several EU countries. There are currently many concerns about assessing the competitiveness of the horticultural sector due primarily to the measures of the Common Agricultural Policy as it is desired to observe its impact on total production, yields and incomes of farmers and the degree of convergence. The approach is also necessary in order to improve the internal supply and satisfy the consumers' requirements. The instability of the vegetable market, the high volatility of prices and the inability to provide the raw material needed for processing plants further accentuate the need to ensure the stability of the

---

<sup>42</sup> Institute of Agricultural Economics, the Romanian Academy, Calea 13 Septembrie no. 13, sector 5, Bucharest; e-mail coraalboiu@yahoo.com



vegetable supply, and especially to find solutions to improve the use of factors that contribute to increasing competitiveness such as supply chain, consumption of inputs, technical progress, given the existence of a rather low level of capitalization of the sector and a domestic production that is still far from ensuring the consumer demand of the population and possibly the creation of a competitive producer status in Europe. At the same time, the poor organization of the supply chain, the small number of producer groups and organizations in the sector contribute to maintaining a low level of competitiveness of the sector.

## Methodology and Data

The evaluation of the competitiveness of the horticultural sector will be performed for 9 countries in the European Union for the years 2013-2018, including Romania. The analysis will be based on FADN data (Farm Accountancy Data Network), EUROSTAT data (Economic Accounts of Agriculture), Tempo-online.

The main indicators considered in this paper that measure profitability and competitiveness relate to:

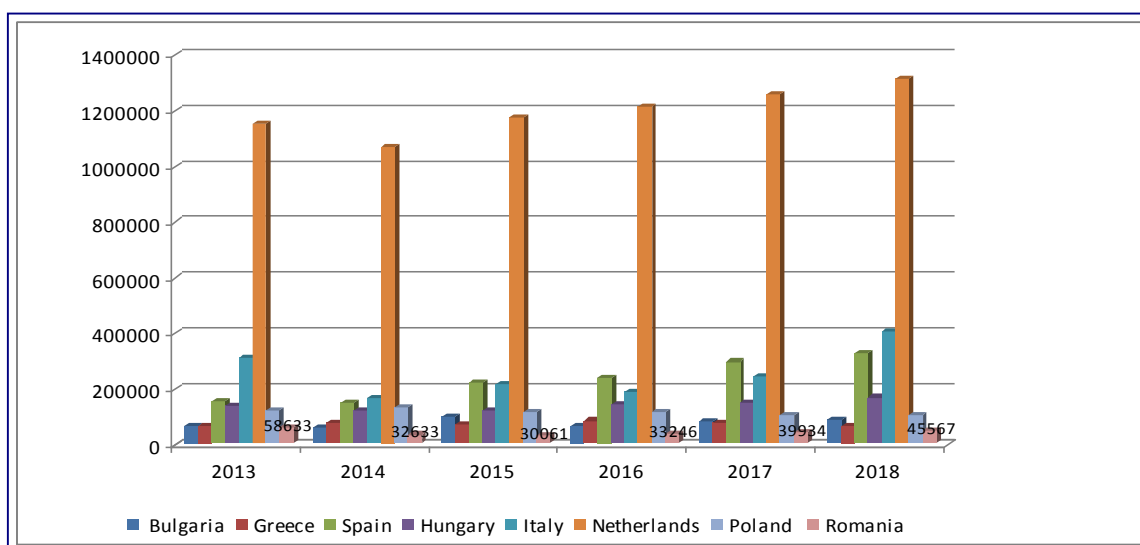
- the average capital
- return on assets
- net worth (net assets),
- the share of debts in fixed assets
- trade balance

The paper will focus on the analysis of the competitiveness of the primary horticultural sector mainly, but also at the level of the other links of the chain (insofar as the availability of data will allow) based on an analytical approach taking into account some competitiveness indicators in order to observe the degree of structural convergence of Romania's horticultural sector compared to other EU member states. A comparative analysis was performed on the evolution of the competitiveness indicators listed above, at the level of primary production, for other EU member states that represent Romania's competitors in this field.

## Results

### The average capital

The average capital of the farm is mainly composed of working capital, buildings, machines and equipment. The figure above reveals the high degree of decapitalization of the horticultural farm in Romania, our country being on the last place. Since 2013 there has even been a reduction in the degree of capitalization, with a return in 2018, but still below the level of 2013.



**Figure 1: The average capital of the horticultural farm, Romania compared to the EU**

*Source: calculations on the base of FADN data, 2020*

### Share of costs in total production

This indicator reveals the competitive position of horticultural farms without taking into account subsidies (and taxes). It is calculated as the ratio between total costs and total production. Total costs were calculated as the sum of specific costs, overheads, factor costs (land, labor, capital) and occasional costs (eg depreciation + external factors). The lower their share, the more productive the farm can be considered.

**Table 1**

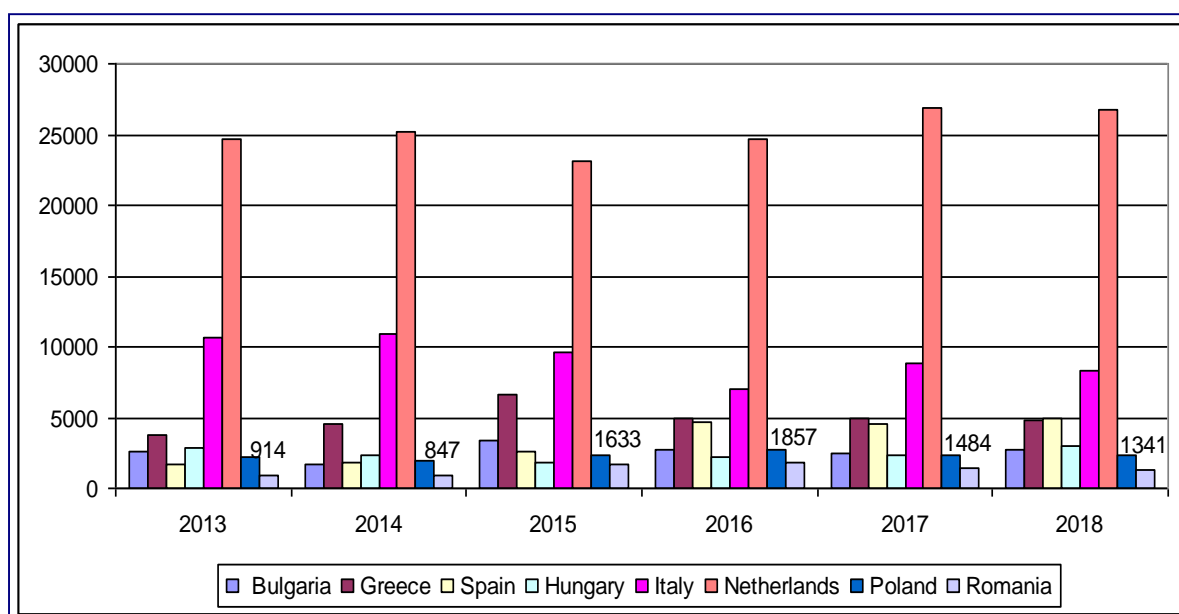
### Share of costs in total production

%

	2013	2014	2015	2016	2017	2018
<b>Bulgaria</b>	105%	103%	109%	100%	99%	117%
<b>Grecia</b>	68%	69%	69%	67%	67%	66%
<b>Spania</b>	71%	74%	72%	64%	62%	66%
<b>Ungaria</b>	74%	77%	80%	83%	82%	75%
<b>Italia</b>	69%	67%	67%	67%	62%	47%
<b>Olanda</b>	104%	99%	94%	93%	94%	96%
<b>Polonia</b>	75%	73%	69%	76%	77%	76%
<b>Romania</b>	54%	78%	74%	82%	84%	63%

Source: calculations on the base of FADN data, 2020

As for the specific costs of the horticultural sector taken into account, they are related to seed, chemical fertilizers (N, P, K), plant protection products and other specific costs.



**Figure 2: Specific costs per hectare, Romania compared to other EU Member States (euro / ha)**

Source: calculations on the base of FADN data, 2020

As it can be seen from the figure above, Romania ranks last in terms of these costs per hectare by about 1400 euro / ha. However, there is an increase of these costs from approximately 840 in 2014 euro / ha to 1341 euro / ha in 2018.

### Share of subsidies in the net income of the farm

This indicator reveals the degree of competitiveness taking into account subsidies and their impact on farm income in the horticultural sector.

**Table 2**

#### Share of subsidies in the farm's net income

%

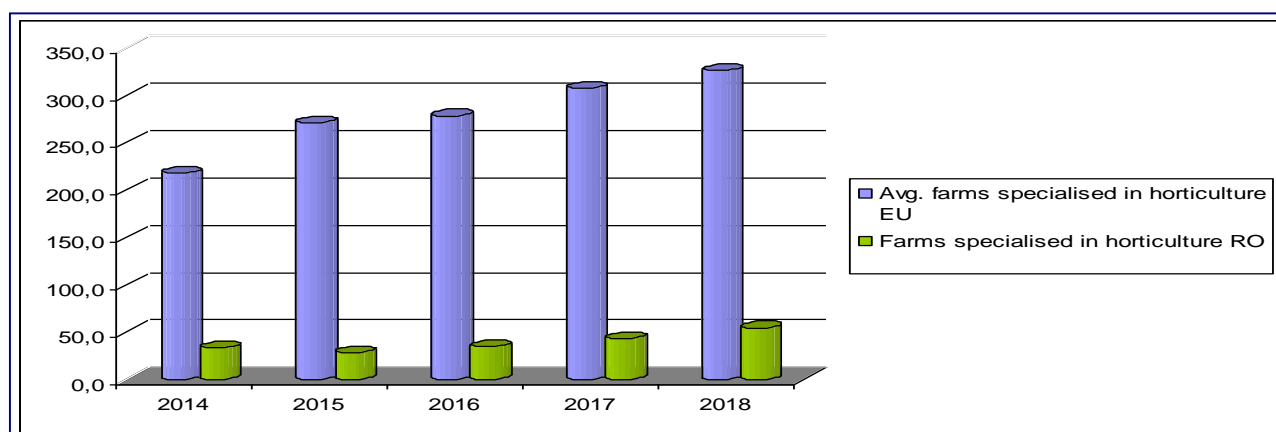
	2013	2014	2015	2016	2017	2018
Bulgaria	121	42	64	66	74	57
Greece	10	10	5	8	6	5
Spain	9	10	6	4	3	2
Hungary	8	9	11	13	12	11
Italy	2	1	3	3	2	1
Netherlands	2	2	1	2	2	3
Poland	10	11	7	8	9	9
Romania	<b>6</b>	<b>10</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>9</b>

*Source: calculations on the base of FADN data, 2020*

The results show that the largest subsidies that contributed to the increase of the net income of the horticultural farm were granted in Bulgaria this country registering the highest levels of subsidies granted for the entire analyzed period. Significant subsidies were also granted in Hungary (12% in 2016) and Poland (11% in 2016). Romania recorded maximum levels of the share of subsidies in 2014, which was also reflected in the indicators calculated above. However, their level is quite low, with an average share of about 8%, the minimum level being recorded in 2013 and 6% respectively. In 2018, their share in revenues was 9%. The lowest share of these subsidies seems to have been recorded in the Netherlands.

### Convergence of the horticultural sector through the prism of assets profitability and the balance of trade

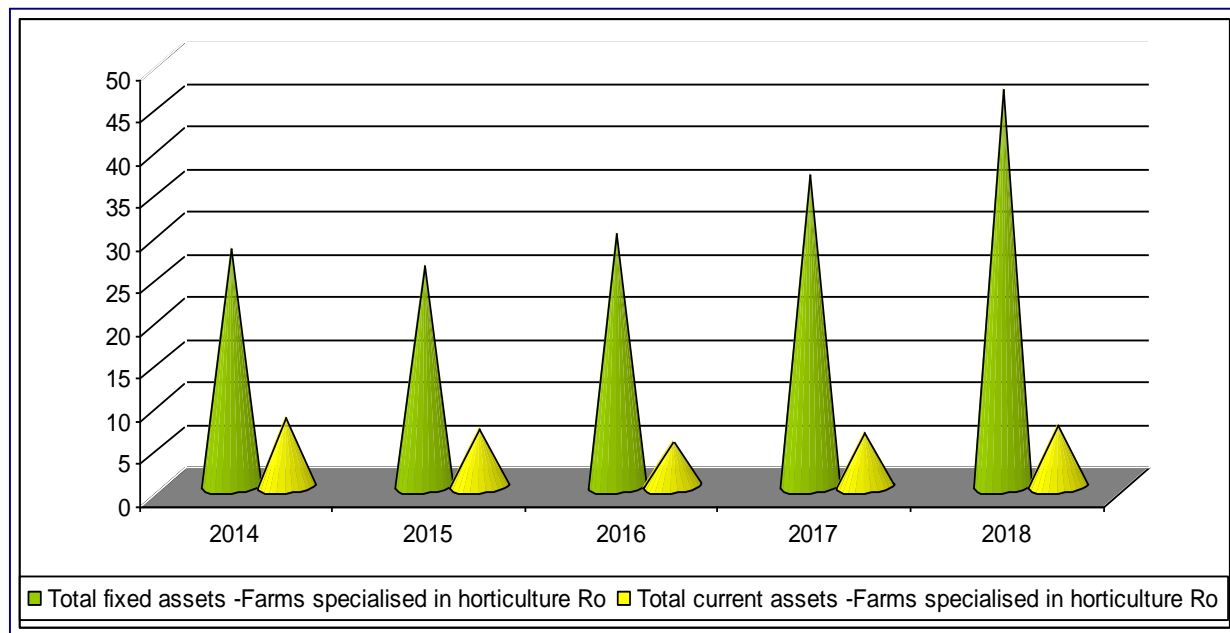
The net value or net assets (the difference between total assets and liabilities) at the farm level in Romania compared to the EU average is very low, about 50 thousand euros, while the EU average exceeds 300 thousand euros in 2018. This indicator of profitability reveals that the profitability of Romania's horticultural sector is about six times lower than the EU average.



**Figure 3: Net value / net assets of the horticultural farm (thousand euros)**

*Source: calculations on the base of FADN data, 2020*

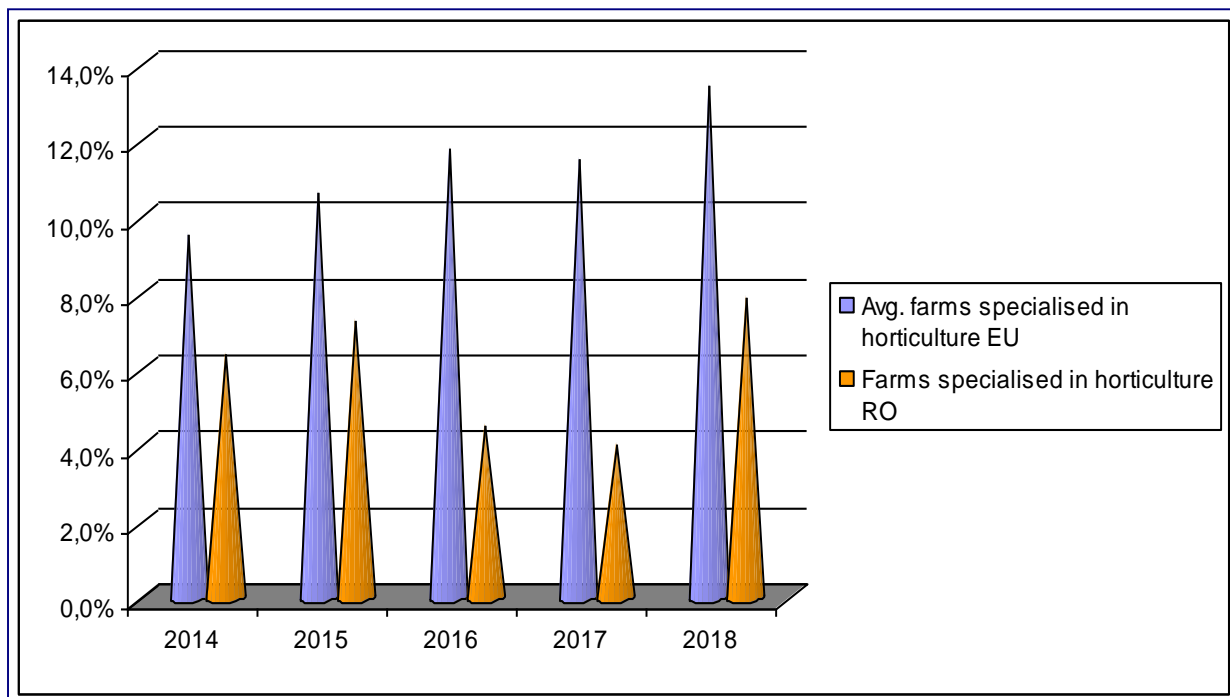
The share of current assets in total fixed assets is very low, the value of fixed assets exceeding in 2018 over 45 thousand euros, while current assets slightly exceed the value of 5 thousand euros.



**Figure 4: Total assets (thousand euros)**

*Source: calculations on the base of FADN data, 2020*

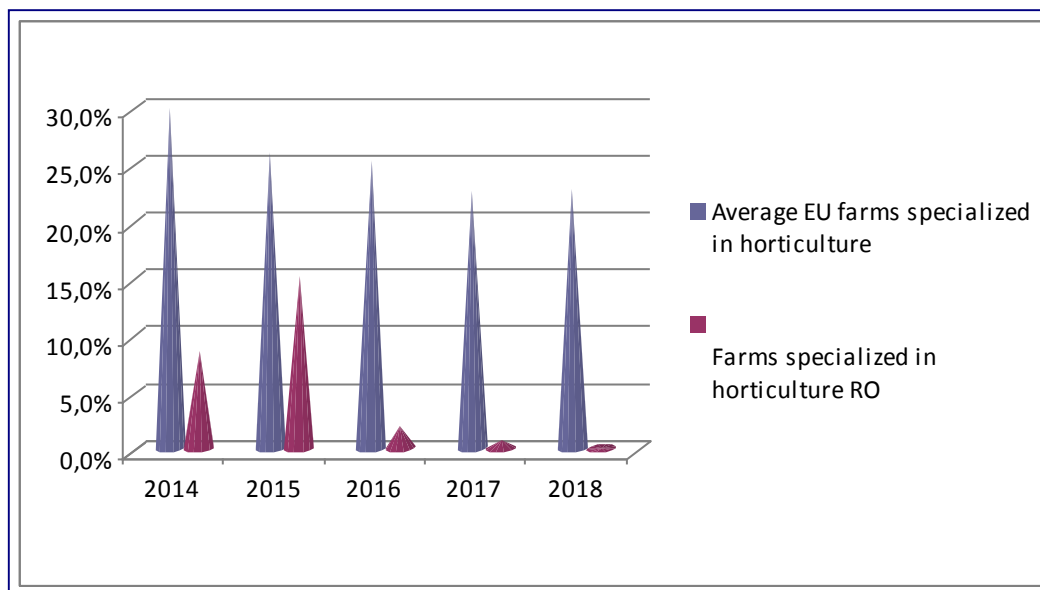
The return on assets is given by the ratio between the net income of the farm and the total assets. The evolution of this indicator in Romania compared to the EU average is presented in the figure below.



**Figure 5: Return on assets**

*Source: calculations on the base of FADN data, 2020*

Regarding the return on assets, one can notice a low return on assets in Romania compared to the EU average, with a slight attempt to flatten this gap in 2018.



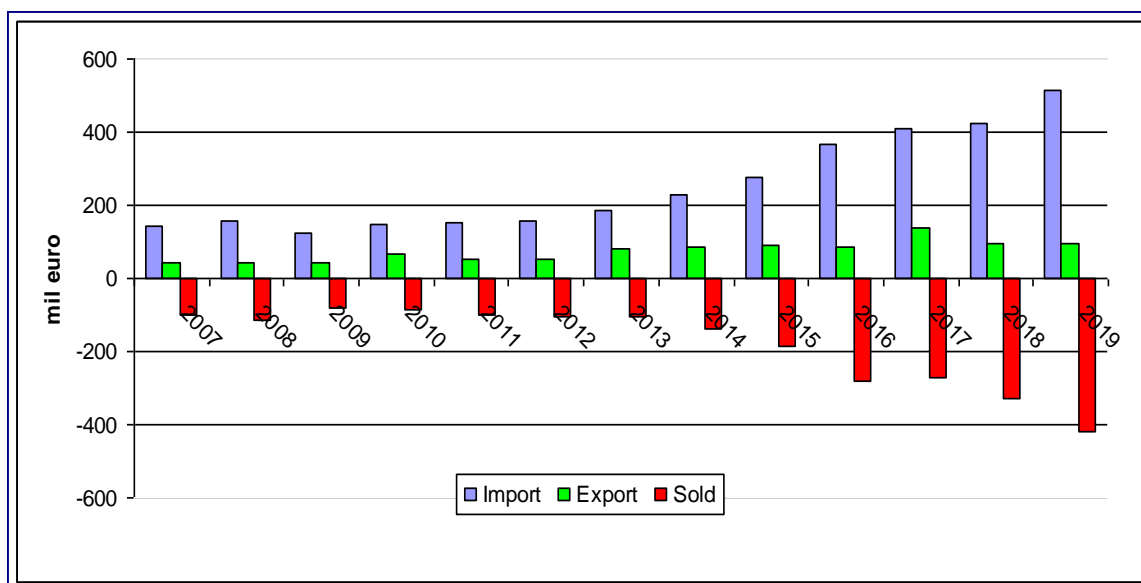
**Figure 6: Share of debts in total assets%**

*Source: calculations on the base of FADN data, 2020*

It is interesting to note that the share of debt in total fixed assets is very low in Romania compared to the EU average, which suggests that domestic vegetable producers do not have bank commitments, and therefore do not make sustained investments from the bank loans, perhaps due to high credit costs in our country.

### Competitiveness of the sector in terms of trade balance

The competitiveness of the sector in the light of this indicator remains low and the degree of convergence does not appear to have occurred. Although the level of investment in farms has increased, the impact at national level on the evolution of total production and yields remains low. The competitiveness of the sector, measured by the trade balance indicator, did not improve in the period 2013-2018, the trade balance registering a deficit of over 400 million euros in 2019, see the figure below:



**Figure 7: Trade balance on vegetables**

*Source: calculations based on INS data*

## Conclusion

The calculation of the competitiveness indicators of profitability related to the Romanian horticultural sector reveals a low level of competitiveness compared to all EU states considered competitive in this field. The Netherlands stands out as the most competitive country, followed by countries such as Italy, France and Spain.

The size of the farm is the smallest compared to the EU average and this could be a structural cause that explains the weak competitiveness of the horticultural sector. In addition, the specific costs per hectare of (seeds, chemical fertilizers and plant protection products) are the lowest compared to all the countries with which the comparison was made, with a trend of growth in recent years.

To all these causes was added the prohibitive cost of loans compared to the other states with which comparison was made, including difficult access to them.

The negative balance of trade has widened in recent years, deepening the negative gap in economic convergence. The explanation is found in the causes listed above to which was added the poor functioning of the supply chain.

There is, however, an increase in yields, which is primarily due to the increase in areas grown in greenhouses and plastic tunnels that allow the use of more productive varieties and the correct application of technologies. However, average yields remain highly volatile.

The increase of cultivated areas in greenhouses and plastic tunnels will allow the increase of yields per hectare by using selected seeds, with high productive potential but also the correct application of technologies including the purchase of equipment, logistics, new storage systems.

Although the supply of horticultural products is relatively diversified, the added value of the products is small, mainly due to the lack of marketing knowledge meant to ensure attractiveness and safety in front of the consumer, the lack of technical means of sorting, packaging, labeling, storage and transport production to the market, as well as the lack of a system for planning production and adapting it to market requirements.

The policy of this sector must respond to market demands by reducing price fluctuations and the imbalance between supply and demand and encouraging the consumption of fruit and vegetables, while ensuring the competitiveness of products. Supporting local production through coherent legislative measures, facilitating access to European funds, creating an organized distribution chain (by supporting the formation of producer groups) could significantly contribute to the development of the horticultural sector in Romania.

## Bibliography

1. Barro, R.J., Sala-i-Martin, X., Blanchard, O.J. and Hall, R.E. (1991) Convergence across States and Regions. Brookings Papers on Economic Activity, 1991, 107-182. <https://doi.org/10.2307/2534639>
2. Capalbo S.M, Vo T.S., (1998), *A review of the evidence on agricultural productivity in SM Capalbo J.M Antle eds, Agricultural Productivity: Measurement and explanations*
3. Iancu A. (2006). The problem of economic convergence, Revista OEconomica, 2006, issue 04, [https://econpapers.repec.org/article/oeneconom/y\\_3a2006\\_3ai\\_3a04\\_3aid\\_3a93.htm](https://econpapers.repec.org/article/oeneconom/y_3a2006_3ai_3a04_3aid_3a93.htm)
4. Islam (1995), Growth Empirics: A Panel Data Approach, Source: The Quarterly Journal of Economics, Vol. 110, No. 4 (Nov., 1995), pp. 1127-1170, Published by: Oxford University Press
5. Korom E., Sági J. (2005), *Measures of competitiveness in agriculture*. Journal of Central European Agriculture, 6: 375–380.
6. Mankiw, Romer, and Weil (1992), A Contribution to Economic Growth, May 1992 Quarterly Journal of Economics 107(2):407-37, Source RePEc



# POST - COVID RECOVERY FOR A MORE SUSTAINABLE, RESILIENT AND EQUITABLE EUROPE

Georgiana Chițiga<sup>43</sup>

## **Abstract:**

*The article has as its starting point the need for a conclusive picture of the situation in which we find ourselves, to provide guidance so that Europe can recover. At present, even if the final conclusions are faced with a lack of certainty and the economic outlook presents risks, if decisive action were not taken, the crisis could worsen.*

*Access to finance is an ongoing challenge, requiring investment and funding to ensure Europe's economic recovery and a more sustainable future for the next generation. Where each country acts differently, the recovery may be incomplete, uneven and unfair. Recovery tools established at EU level shows an historical and unique proposal, which reflects the extent of the challenge facing us. We will strengthen strategic autonomy, while maintaining the benefits of an open economy.*

**Keywords:** Post-Covid recovery, recovery instruments, investments.

**JEL classification:** Q56.

## **Introduction**

The Covid pandemic has affected Europe and the world in a particularly negative way - health and social protection systems, economies, societies and the way we live.

One and a half years after the pandemic, it is time for the European Union to recover and work together to repair the damage caused and create a better future for the next generation. It appears that there is a common need to support those affected by the crisis and to focus on investing in common European priorities. Supporting a coherent recovery at EU level, ensuring a faster transition to the dual transition - green and digital - will boost the resilience to shocks, competitiveness and Europe's position as a world leader.

At EU level, the efforts of member countries to exit the health crisis and mitigate the economic impact through access to the EU budget have been supported. The new SURE instrument has secured more than five hundred billion euros to support those working to keep their jobs, support small businesses and Member States' economies, building on the flexibility of budgetary rules and on state aid. This EU response, together with the actions of the European Central Bank, provides the Member States with the necessary financial resources, realizing that what they have undertaken will not be enough for relaunching their savings..

The ability to recover will depend on the possibility of giving up - gradually and sustainably - the existing measures of social distancing, on our strength to adapt and live with this virus and to have a real and clear knowledge of the situation throughout Europe. At the global level, we have never faced such a crisis. Ever since his debut, it has had and still has an evolutionary character that has caused disturbances, so that the discrepancies generated and its effects will continue to manifest themselves, in a way that is difficult to estimate or that we did not anticipate at their true dimensions. We have faced new risks.

Even though this virus is the same in all Member States, there are differences in the impact and recovery potential, with each Member State supporting those who work, businesses, but in a

---

<sup>43</sup> Centre for Financial and Monetary Research „Victor Slăvescu”, e-mail: georgiana\_chitiga@yahoo.com

different way. There is a need for a European response, in order to eliminate the risk of an unbalanced recovery, of unfair competition.

Massive investments are the basis for economic recovery, so the EU Recovery Plan must provide guidances and build a more sustainable, resilient and equitable Europe for the next generation.

The European Commission has proposed a temporary recovery instrument - Next Generation EU - worth more than € 800 billion, as part of a review of the EU's long-term budget. It will be the basis for the start-up of the economy at EU level and will ensure the relaunch of Europe, the recovery will certainly require more time, even if the needs are immediate.

## **The current situation of the economic crisis caused by the coronavirus pandemic**

This is an important moment. In order to understand how to act so that Europe can recover, it is necessary to have a clear and real picture of the situation we are in.

The restrictions that were imposed to ensure that the spread of the virus was limited had the effect of slowing down and, in some cases, even interrupting economic activity. Production lines and supply chains have been severely affected, trade in goods and services has been halted, household spending and private investment have collapsed, reaching an all-time low, and Europe's economy, like most of its industrial ecosystems, has been operating at a capacity much reduced.

The coronavirus pandemic is a shock of historical proportions for Europe's economies. The figures are threatening, with the scale of the damage hitting an unprecedented record. EU gross domestic product (GDP) fell by about 15% in the second quarter of 2020 compared to the same period in 2019. The euro area economy contracted by 6.6% in 2020 and will recover by 4.3% this year and 4.4% next year, while the EU economy contracted by 6.1% in 2020 and is projected that it will increase by 4.2% in 2021 and by 4.4% in 2022. The employment rate has fallen sharply, more than ever in the second quarter of 2020, although much higher compared to the decline in GDP, given the unprecedented support provided in the Member States and the EU through its new SURE instrument, as well as the flexibility in the use of cohesion policy funds under the Investment Initiative in response to coronavirus. This represents a significant improvement in the growth outlook compared to the economic forecasts for the winter of 2021. Growth rates will continue to fluctuate at EU level, but the economies of all Member States should return to pre-crisis levels by the end of 2022.

Even if the economy will continue to grow starting this year 2021, the initial recovery was only partial, the impact of the crisis being particularly acute, both for citizens and businesses. Individual income has fallen and jobs have been jeopardized. The unemployment rate is estimated at 7.6% in 2021 and 7% in 2022 in the EU, and in the euro area, the unemployment rate is estimated at 8.4% in 2021 and 7.8% in 2022. These rates remain higher than pre-crisis levels, particularly affecting young people, those with low qualifications, temporary employees and those in less productive households

Poverty and inequality have emphasized the importance of a social recovery, favorable to inclusion.

The economic impact of the crisis is very different from one economic sector to another. Liquidity and access to finance are an ongoing challenge for businesses, especially small businesses, and the risk of insolvency must be reduced in order to avoid a more severe domino effect.

The crisis has affected SMEs the most: in the absence of liquidity and facing uncertainty, they are making efforts not to close, to have access to finance and to maintain their employees.

The absence of concrete action and immediate funding to support this period until the resumption of activities could have the effect of bankrupting many businesses.

Businesses that provide services that require physical contact with customers or crowded workplaces are most affected.

Businesses in the tourism sector are facing the most acute liquidity crisis. As a result of travel and other restrictions, tourism, the social economy and creative and cultural ecosystems faced a gradual cessation of activity in the first quarter of 2020 in the EU and worldwide. The Organization for Economic Co-operation and Development (OECD) estimates that this decline in activity is between 45% and 70%, depending on the duration of the health crisis and the pace of recovery.

According to tourism industry estimates, losses of incomes at European level have reached 85% for hotels and restaurants, 85% for tour operators and travel agencies, 85% for long-distance rail and 90% for cruises and airlines. The EU's travel and tourism sectors report a reduction in bookings of between 60% and 90% over the same period in previous years.

On the other part, production, retail or health - ecosystems with a higher degree of consumer confidence will recover much faster, while others will later feel the economic consequences.

The textile industry, the transport industry, the energy-intensive industries and the renewable energy sector are and will continue to be affected.

The impact of the pandemic and the degree of recovery also depend on the demographic and economic structure of each country, for example those with a large number of small and medium-sized enterprises (SMEs) are more severely affected.

They are also dependent on the skill and ability of economies to absorb and cope with shocks, in particular through state aids.

All this has a major impact on the single market and exacerbates misunderstandings and disparities between Member States, so that the recession will be almost 10% in some states and 6-7.5% on average in others.

All these have a major impact on the single market and exacerbates misunderstandings and disparities between Member States, so that the recession will be almost 10% in some states and 6-7.5% on average in others.

The presented picture of the current situation of the economic crisis demonstrates the need for massive investments and financings, even if at this stage of the crisis, no definitive figures on investment needs can be presented.

However, according to existing needs, it is expected that in the current year and 2022, public and private investment of 1.6 thousands of billions euro will be needed to ensure that Europe is on the path to a sustainable economic recovery.

## **Investments in the next generation**

In the situation presented, the identified needs demonstrate the need for massive large-scale investments, including substantial public and private investments, both at EU and national level.

Under the conditions in which the economic recovery would be achieved independently by each country, it could be incomplete, uneven and unfair. This risk is indisputable in other parts of the world, but in the EU, where citizens, businesses and economies are dependent on each other, Europe is in a unique position to have investment opportunities to ensure a real economic recovery and sustainable future. Investing at EU level will be a common good for our future and thus attests to the real value that EU countries have.

It is well known and demonstrated that the EU budget is an instrument that already exists, created to ensure cohesion, convergence and solidarity. Already tested, it is characterized by transparency and enjoys absolute trust, being designed to invest in mutually agreed programs and priorities and to offer those who need more support the opportunity to receive the investments they need to recover the gap.

Based on the considerable progress made, it was proposed to mobilize a consolidated EU budget, which also came as a political response:

- to remove the economic and social damage caused by the pandemic;
- to start the recovery;

- to prepare a better future for the new generation.

SURE - The European instrument for temporary Support to mitigate Unemployment Risks in an Emergency / Guarantee fund for workers and enterprises instituted by the European Investment Bank	540
Next Generation EU	750 temporary consolidation
Multiannual financial framework	1 100

It was proposed:

- the Next Generation EU instrument, aimed to stimulating the EU budget through new funding collected from financial markets in the period 2021-2024;
- consolidating the long-term EU budget for the period 2021-2027.

It is a historic and unique proposal, which demonstrates the magnitude of the challenge, thus achieving a total financial capacity of the EU budget that will amount to EUR 1.85 thousands of billions.

We will show how the Next Generation EU instrument will work, starting from its main features:

*a. Attraction of funds*

Funding for the Next Generation EU instrument will come from the temporary suspension of the own resources ceiling at 2% of EU gross national income (GNI). Using its very high credit rating, the European Commission will be able to borrow EUR 750 billion from the financial markets for this instrument.

The funds raised will have to be reimbursed through future EU budgets - starting in 2028, no later than 2058.

It must be done equitable and in a shared way, so a number of new own resources have been proposed for the EU budget.

It is necessary that with the implementation of these new own resources, to take into account:

- (a) their transparency, simplicity and stability;
- (b) their coherence with EU policy objectives;
- (c) their impact on competitiveness and sustainable growth;
- (d) their equitable distribution among the Member States.

Own resource based on *non-recycled plastic packaging waste* is designated as the a new revenue source to the 2021-2027 EU budget, starting in January 2021. This own resource is proving to be one of the priorities of EU policy. The aim is to encourage Member States to achieve a reduction in packaging waste and to stimulate Europe's transition to a circular economy by implementing the European Plastics Strategy.

Possible new resources could include:

- Own resource based on the EU Emissions Trading Scheme (EU ETS);
- Carbon Border Adjustment Mechanism (CBAM);
- a digital levy (Tax and digital transformation), based on the work of the Organization for Economic Co-operation and Development (OECD). The Commission actively supports the OECD and G20 talks and is ready to act if no global agreement is reached.

Other new own resources will be proposed: a *Financial Transaction Tax* – (endorsement by G20 marks a key step towards the implementation of the historic global tax reform agreed in october 2021), a *financial contribution linked to the corporate sector* or a *new common corporate tax base*.

The revenues obtained from these new own resources, established after 2021, will be applied for the early repayment of the credits contracted within NextGenerationEU.

#### *b. Investing funds*

The funds raised through the Next Generation EU instrument, as well as the new EU budget will be channeled through EU programs, in order to make available every euro invested for Europe to recover, to intensify the double transition, both the green and the digital with the ultimate goal of building a more equitable and resilient society. (Table 1)

**Table 1**

### **The main instruments supporting Recovery Plan for Europe**

<b>Beneficiaries</b>	<b>Regions, enterprises and the citizens</b>	<b>Enterprises</b>	<b>The health sector</b>	<b>Global partners</b>
<b>Instruments</b>	<ul style="list-style-type: none"> <li>• <i>The Recovery and Resilience Facility</i></li> <li>• <i>REACT-UE</i></li> <li>• <i>European Agricultural Fund for Rural Development</i></li> <li>• <i>Just Transition Funds</i></li> </ul>	<ul style="list-style-type: none"> <li>• Solvency Support Instrument</li> <li>• InvestEU Programme</li> <li>• European Fund for Strategic Investments</li> </ul>	<ul style="list-style-type: none"> <li>• Eu4health Programme</li> <li>• Horizon2020</li> <li>• European Civil Protection Mechanism - rescEU</li> </ul>	<ul style="list-style-type: none"> <li>• Guarantee Fund for External Actions</li> <li>• European Fund for Sustainable Development</li> </ul>

Source: Eurostat, 2020

Funds from the Next Generation EU instrument (EUR 500 billion in grants and EUR 250 billion in loans to Member States) will be channeled through a series of instruments within three pylons:

-The first pylon is aid to Member States involved in *resolving the crisis*.

#### *The Recovery and Resilience Facility*

- budget: EUR 560 billion: EUR 310 billion in grants and EUR 250 billion in loans;

- usage: *Investments and reforms, including for the green transition and the digital transition*;

- mechanism: grants and loans through the implementation of Member States' National Energy & Climate Plans, integrated into the objectives of the European Semester, including the green transition and the digital transition and the resilience of national economies;

- made available to all Member States, especially in the most affected countries.

Member States will also be able to use the funds for this purpose by ensuring that energy bills are reduced, healthier living conditions and energy poverty levels are reduced.

#### ✚ *REACT-UE (Recovery Assistance for Cohesion and the Territories of Europe)*

- budget: EUR 55 billion - provides additional support to Member States in cohesion policy for 2020-2022;
- usage: employment subsidies, partial unemployment schemes and employment measures for young people; liquidity and solvency for SMEs;
- mechanism: flexible cohesion policy grants for municipalities, hospitals, businesses, through the managing authorities of the Member States. National co - financing is not required;
- made available to the countries and regions most affected, taking into account the severity of the economic and social impacts of the crisis.

#### ✚ *Supporting a just transition*

To support the transition to climate neutrality, additional funding will be provided through funding from the Next Generation EU Instrument for:

- *Just Transition Funds* – € 40 billion for attenuation the socio-economic impact of the transition in the most affected regions;
- *European Agricultural Fund for Rural Development* – €15 billion to support rural areas in making those necessary structural changes, in line with the European Green Deal, and achieving the ambitious targets of the *EU Biodiversity Strategy for 2030* and the *Farm to Fork Strategy* - is at the heart of the European Green Deal, aiming to make food systems fair, healthy and environmentally-friendly.

Cohesion policy programs will, in turn, be strengthened in the next EU budget period to allow for greater flexibility.

- The second pylon concerns the recovery of the EU economy by stimulating private investment.

In order to ensure the unblocking of the necessary private investment, long-term certainty and predictability are paramount. This reinforces the importance of the European Climate Law - a prelude to a wave of green regulations, as well as future proposals for more ambitious emission reduction targets by 2030.

✚ *Solvency Support Instrument* - will mobilize private resources to provide urgent support to viable businesses suffering from the coronavirus crisis budget: 31 billion euros;

- usage: support in the form of equity and to support them in the realization of the green transition and the digital transition;
- made available to all Member States.

The investment guidelines for this new instrument demonstrate the need to prioritize green investments.

Investments will be channeled to companies in the most affected sectors, regions and countries, in order to create a level playing field for Member States that are less able to provide state aid support.

✚ *InvestEU Programme* - emblematic EU investment program

- budget: EUR 15.3 billion;
- usage investments in sustainable infrastructure, digitalization, SMEs and mid-caps, social investment and skills development;
- made available to all Member States.

In addition, a new instrument will be created within InvestEU - *European Fund for Strategic Investments (EFSI)*;

- budget: EUR 15 billion;
- usage: to develop independent value chains, such as: sustainable critical energy infrastructure, green and digital technologies such as renewable and energy storage technologies, clean



hydrogen, batteries, carbon capture and storage, etc. to develop independent value chains, such as: the critical infrastructures - sustainable energy infrastructures, green and digital technologies, such as renewable and energy storage technologies, clean hydrogen, batteries, dioxid carbon capture and storage, etc.

*The European Battery Alliance (EBA)* will speed up the activity, and the new *European Clean Hydrogen Alliance* will guide and drive the rapid development of clean hydrogen production and use in Europe. Proposals will also be made to stimulate the use of energy from offshore renewable sources and better integration of the energy system.

- made available to all Member States.

- The third pylon refers to the lessons learned from the crisis:

#### ✚*Eu4health Programme*

- budget: EUR 9.4 billion;

- usage: investments in health systems - crisis preparedness, the purchase of vital medicines and equipment, the long-term prevention and surveillance of diseases, and the improvement of long-term health outcomes;

- made available to all Member States, centrally managed.

#### ✚*rescEU/ European Civil Protection Mechanism* – responds to large-scale emergencies.

- budget: EUR 3,1 billion;

- usage: ensures response to health emergencies: storage capacity, transport systems for medicines, doctors and patients, both inside and outside the EU;

- made available to all Member States, centrally managed.

Guidelines at EU level have also been aimed at strengthening other programs that will enable the Union to be more resilient and responsive to the problems caused by the pandemic and its consequences:

#### ✚*Orizont Europa Horizon2020*

- budget: EUR 94.4 billion;

- usage: for health and climate research and innovation.

This funding also shows the crucial role of research and innovation in guiding the transition to a clean, circular, competitive and climate-neutral economy.

Emphasis will be placed on the massive orientation of investments in those clean technologies and value chains.

- ✚*the Neighbourhood, Development and International Cooperation Instrument* to better support our global partners and the *European Fund for Sustainable Development* - EUR 87 billion.

- ✚*The European Fund for Aid* –an increase of 5 billion euros for the most affected areas of the world.

- ✚In addition, it is also proposed to strengthen a number of other programs in the EU budget. These include: *Common Agricultural Policy (CAP)* – increase by EUR 4 billion, *European Maritime and Fisheries Fund (EMFF)*– an increase of EUR 500 million, *Single Market Programme* supporting fiscal and customs cooperation - with an amount of EUR 3.7 billion, EUR 239 million and EUR 843 million respectively, *Erasmus Plus* - by 3,4 billion euros, reaching 24,6 billion euros in youth investment, *Creative Europe Programme* – a total of EUR 1.5 billion to support the cultural and creative sectors, *Digital Europe Programme*– a total of € 8.2 billion, *European Defence Fund (EDF)* - a total of EUR 8 billion, *Internal Security Fund (ISF)* - a total of EUR 2,2 billion, *Asylum, Migration and Integration Fund (AMIF)* and *Integrated Border Management Fund (IBMF)* - a total of EUR 22 billion and *Instrument for Pre-Accession Assistance (IPA)* - a total of EUR 12,9 billion.

- ✚*The Connecting Europe Facility (CEF)* – will provide investment in modern, high-performance transport infrastructure to facilitate cross-border connections with an additional € 1.5 billion.

Emphasis will also be placed on accelerating production and the use of sustainable vehicles and ships, as well as on alternative fuels, as the crisis has shown the special role that transport plays, after all modes of transport, value chains and our economies have been affected by interruptions of transport routes and logistics routes.

The Connecting Europe Facility, InvestEU Programme, together with other funds, they will provide support to finance the installation of one million charging points, the renewal of the fleet of green vehicles owned by cities and businesses and sustainable transport infrastructure and will enable the transition to clean urban mobility.

The EU must also give priority to the social dimension of this issue, especially through implementation the *European Pillar of Social Rights*

We need to invest in protecting and creating jobs, boosting our competitive sustainability by building a fairer, greener and more digital Europe.

We need to address the short-term damage caused by the crisis through a way in which we can invest in our long-term future. In order to achieve the proposed goals, the EU must, through its policies, provide both clarity as to the aim pursued and certainty as to the direction.

It is crucial that the Next Generation EU instrument leads us to our competitive sustainability.

✚ *The European Green Deal*: EU enlargement strategy - also emphasizes the need to mobilize financial flows and of private capital for green investigations.

It joins *Renewed Sustainable Finance Strategy* (RSFS– 6Jul, 2021). In October this year, the Council of the European Union underlined its commitment to increase the contribution to international financing of the fight against climate change and the need to improve the mobilization of private funding.

As a result of these investments, the European Green Deal will turn into a real job generator. Meeting the climate and energy targets by 2030 will generate 1% GDP growth and create almost 1 million new green jobs.

The green recovery must ensure, in addition to achieving long-term security, the relaunch of Europe's economy, both in a short and short term, but also locally.

*EU Biodiversity Strategy for 2030*, recently adopted, aims both to put Europe's biodiversity on the path to recovery by 2030, with concrete actions and commitments, but will also support the green economic recovery as a result of the COVID-19 pandemic.

*EU Forest Strategy for 2030* it also acquires a double meaning by protecting and restoring biodiversity and natural ecosystems: to stimulate resilience and prevent the emergence and spread of future epidemics.

Many of the people, regions and sectors hardest hit by the crisis will also have to make more changes than most.

It was proposed to strengthen the Just Transition Funds by EUR 32.5 billion. This funding will be used for:

- mitigating the socio-economic impact of the transition, supporting requalification measures;
- supporting SMEs to create new economic opportunities;
- the transition to clean.

There are proposals to establish a new lending instrument for the public sector.

The new instrument will benefit from € 1.5 billion from the EU budget and € 10 billion from the European Investment Bank.

✚ *Equitable and inclusive recovery*

Europe must work to ensure that what started as a pandemic, turning into an economic emergency, does not become a real social crisis. We will all benefit from Europe's economic recovery and we must all contribute to achieving this goal.

Investments made through the Next Generation EU will provide new jobs throughout the economy, especially in the green transition and digital transition.

The EU will ensure that equality is at the heart of recovery efforts. Ensuring a prosperous and social Europe is determined by us, all its citizens, and has a double significance in the context of this crisis which has had an unequal impact on certain groups in society.

It will be crucial for the recovery that all EU workers have a decent standard of living, with levels such that minimum wages allow vulnerable workers to make financial reserves during favorable times and limit declining incomes in difficult times.

The crisis is an examination of our social security systems and that is why we need to make the necessary investments to remedy the damage caused by it.

We can say that Europe has embarked on the difficult path to recovery, to a greener, digital, and more resilient economy and society.

Europe will also pursue a model of open strategic autonomy, by defining the new system of global economic governance and developing mutually beneficial bilateral relations, but protecting itself from unfair and abusive practices.

. EU must also protect its strategic infrastructure and technologies from foreign direct investment that could put in danger its security/public order, through a strengthened Mechanism for the Examination of Foreign Direct Investment - an issue that will be addressed in the forthcoming Commission White paper on the future - reflections and scenarios for the EU27 by 2025, relating to an instrument on foreign subsidies.

As international differences in climate ambition levels continued at international level in January 2021, the European Commission proposed a Border Adjustment Mechanism for carbon dioxide to reduce the risk of carbon leakage. carbon. It is a new own resource for the EU budget, which would help repay the funds attracted in the future by the Next Generation EU instrument. As differences in levels of ambition in the field of climate continue at international level, in January 2021 the European Commission proposed a Carbon Border Adjustment (CBA) - mechanism to reduce the risk of carbon leakage. carbon. It is a new own resource for the EU budget, which would help to repay funds attracted in the future by the Next Generation EU instrument.

## Conclusions

We faced a common challenge that demonstrated the need for enhanced multilateralism and a norm-based international order. Global challenges call for international cooperation and common viable solutions, more than ever.

The agreements that unite us must be constantly maintained to ensure that we adapt to new realities and to cope with the challenging developments of the 21st century. We need to join forces in what we can do together, because in the long run, the EU's recovery also depends on the recovery of partners around the world.

With the status of the main economic power, proving to be the largest supporter of international aid, the EU will always be open and ready to support its partners. This has been demonstrated in the more than € 23 billion mobilized by Europe to support partner countries and international organizations so that they can withstand the social and economic impact of this unique crisis.

It is our moment, of the Europa team that is in an exceptional position, to invest in a common recovery and in a better future for future generations.

It is the duty that will characterize our generation. The investment made through the Next Generation EU instrument will ensure both the recovery of economies, the support of citizens, businesses and regions, and stands out as an investment in our future, which will help us to be more resilient, so as to succeed in overcoming the crisis stronger and more forward-looking than we did before this pandemic. We will place major emphasis on the double transition - green and digital and we will make sure that citizens are at the heart of recovery efforts.

Recovering Europe and building a more just future will not be easy and cannot be achieved if we act alone. It takes will, courage and the support of the whole society because it is a common good for our common future.

## Bibliography

Bruyninckx, H. (2020) - *Europe and global sustainability*, European Environment Agency (<https://www.eea.europa.eu/ro/articles>).

Kieselbach, S. (2020) - *Sustainable Packaging Trends*, Sphera (<https://sphera.com/spark/>).

Piciu, Gabriela Cornelia, and Carmen Lenuța Trică.(2012) - *Trends in the evolution of environmental taxes*, Procedia Economics and Finance 3, pages: 716-721.

Piciu, Gabriela Cornelia, and Carmen Lenuța Trică.(2012) - *Assessing the impact and effectiveness of environmental taxes*. Procedia Economics and Finance 3, pages: 728-733.

Schmidt, V.A. (2020) - *Theorizing institutional change and governance in European responses to the Covid-19 pandemic*, Journal of European Integration, Volume 42, Number 8, Pages: 1177-1193 (<https://www.scienceopen.com/>).

\*\*\* (2020), *European Union Responses to the Covid-19 Pandemic: adaptability in times of Permanent Emergency*, European Commission

\*\*\* (2020), *Europe's moment: Repair and Prepare for the Next Generation*, European Commission Communication From The Commission To The European Parliament, The European Council, The Council, The European Economic And Social Committee And The Committee Of The Regions (<https://eur-lex.europa.eu/legal-content/EN>).

\*\*\* (2020), *Next Generation EU*, European Commission ([https://europa.eu/next-generation-eu/index\\_ro](https://europa.eu/next-generation-eu/index_ro)).

\*\*\* (2020), *Potential new sources of revenue*, European Commission ([https://ec.europa.eu/info/strategy/eu-budget/long-term-eu-budget/2021-2027/revenue/potential-new-sources-revenue\\_ro](https://ec.europa.eu/info/strategy/eu-budget/long-term-eu-budget/2021-2027/revenue/potential-new-sources-revenue_ro)).

\*\*\* (2020), *A Common Coronavirus response*, European Commission ([https://ec.europa.eu/info /coronavirus-response\\_en](https://ec.europa.eu/info /coronavirus-response_en)).

\*\*\* (2020), *Recovery Plan for Europe*, European Commission ([https://ec.europa.eu/info/strategy/recovery-plan-europe\\_ro](https://ec.europa.eu/info/strategy/recovery-plan-europe_ro)).

\*\*\* (2020), *The Recovery and Resilience Facility*, European Commission ([https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility\\_ro](https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_ro)).

\*\*\* (2021), *EU Adaptation Strategy*, ([https://ec.europa.eu/clima/policies/adaptation/what\\_en](https://ec.europa.eu/clima/policies/adaptation/what_en)).

\*\*\* (2021), *Plastics own resource*, European Commission ([https://ec.europa.eu/info/strategy/eu-budget/long-term-eu-budget/2021-2027/revenue/own-resources/plastics-own-resource\\_en](https://ec.europa.eu/info/strategy/eu-budget/long-term-eu-budget/2021-2027/revenue/own-resources/plastics-own-resource_en)).

\*\*\* (2021), *Sustainability transitions - Towards a global sustainability*, European Environment Agency (<https://www.eea.europa.eu/>).

# INCLUSIVE ECONOMIC GROWTH, THROUGH EUROPEAN PROJECTS FOR SUSTAINABLE DEVELOPMENT

Florin Diaconescu<sup>44</sup>

## **Abstract:**

*In Romania, inclusive growth can be supported by the private sector, but it can not only stand on the shoulders of this sector, especially since the Romanian business environment is affected by factors such as: access to finance, inefficiency of government bureaucracy, tax rates, labor inadequately educated, exaggerated tax regulations, inadequate infrastructure etc.*

*In order to be able to have inclusive economic growth, based on technological investments, which will ensure long-term sustainability, government support is needed in particular. The government is one of the major social agents of change. However, there must be cooperation with international organizations, the business community and NGOs and, last but not least, the consistent support that European projects can provide. Only corroborated and coordinated action by these entities can support inclusive growth.*

**Keywords:** *Inclusive Economic Growth; European Projects; Sustainable Development.*

**JEL classification:** *O: Economic Development, Innovation, Technological Change and Growth; E: Macroeconomics and Monetary Economics.*

## Introduction

Reconfiguring a key variable of our theme, essential for the smooth running of any society, *the problem of limited resources in the context of sustainable development* or, in short, the rapid increase in demand for resources compared to diminishing their ability to obtain them, and the use of resources in an efficient way, it naturally directed our scientific analysis towards the study of community funding sources, which, accessed, can contribute and support, along with traditional funding sources, the increase of the quality of life.

In this sense, based on an extensive documentation, as well as on the professional experience, in specific activities, accumulated in the field, we considered necessary and opportune to explore the topic of our scientific approach. As such, the assumed objectives of our research are the following: *identification and operational definition of the concepts specific to our topic; presentation of the key concepts and theories applicable to the areas of interest of our research; integration of the thematic concepts exposed in a unitary and substantiated approach of the concept of sustainable development; identification and presentation of realities and trends of European project management in Romania, in terms of their relationship with the economic, social and ecological variables, information to be made available to stakeholders in public and private institutions.*

In short, by integrating, in our analysis, the phrase *project-oriented thinking*, we will capture and highlight the new style of thinking, action and communication, whose actors we are all involved: *we plan activities that, carried out according to applicable rules, will produces quantifiable results.*

---

<sup>44</sup> National Institute for Economic Research "Costin C. Kiritescu" (INCE), Romanian Academy, Romania, diaconescu1973@yahoo.com



In this regard, in order to be able to explain the importance given, lately, to the *project management concept*, we will start from the idea, according to which any modern activity can be seen as a project.

These fundamental concepts of our theme are joined by the variable regarding the implementation, in a real, responsible and assumed way, of the concept of *sustainable development*, in our country, on the list of indisputable national priorities with a role in sustainable economic recovery, in optimizing living standards of the entire population and in increasing the importance given to the environmental component.

Briefly, the expected results take into account the innovative presentation of the existing interdependencies between the key concepts of our theme: European projects - sustainable development (seen through the sphere of *the trinomial economy - equity (social) - ecology (environment)* - methodological of the concepts specific to our theme, of the European and national strategic legislative framework in order to identify additional areas of action and solutions to solve problems specific to economic and social life.

## **Description of the Problem:**

### **European projects - strategic resource for the sustainable development of Romania**

If in English, by the term project is designated *a plan of something to be undertaken*, without mentioning the *act of fulfilling this plan*, in Romanian, according to DEX, the concept is given several meanings, of which, of interest for our topic, we consider them to be the following: *plan or intention to achieve something, to unfold, to undertake a thing; the first version of a plan (financial, economic, social, etc.) to be analyzed and approved in order to acquire official character and to be applied; technical work carried out starting from a given theme and containing the technical framework, drawings, location and justification of the need for the projected object.*

Also, illustrative for our theme, we consider to be the meanings of the project concept found in the *Oxford Dictionary* - *individual or collective action, very well planned, made to achieve a particular goal or objective - a project to build, a research project*; in the French Dictionary "*Le Petit Robert*" - *intention, drawing, sketch; preparatory writing; the plan of a construction; the image of a desirable situation at a given time or well determined; something "thrown," as a guide to action, before the self*; as well as those rendered by the *Webster Dictionary* - *plan or scheme; planned or conceived work; major enterprise (task), involving personnel, equipment, considerable expenses; specific task for investigation; additional task, drawn by teachers, long-term, students.*

A first simple definition of the project concept, formulated according to two elements characteristic of it - limited resources and the uniqueness of the result -, which we will present below, is the following: temporary effort to create, with limited resources, a product or a unique service (2000, Project Management Institute, p. 4).

Approximate in this sense are the following two definitions of the concept: a series of interdependent activities, based on a plan, in a well-defined period, to achieve a goal and achieve certain results, activities that cease when the goal is achieved assumed; a temporary work started to achieve a certain goal, involving people, performing interdependent activities, a financier and / or a beneficiary interested in capitalizing on resources, to complete, in a certain time and in an efficient manner, the project (Radu V. PASCU, 2011, p. 4).

In summary, the project can be presented as an action with limited resources (human, material, time, information and financial resources), which also involves risks, a single task, systemically planned, considered possible, achievable, a instrument of change, with precise, clear objectives and observable and measurable final results.

From the anatomy of the image of the project concept, we can detach and highlight the main characteristic elements of it, such as: the rigorous plan; specific objectives (SMART objectives)



and purpose (solving an identified, well-defined and formulated problem); limited allocated resources; unique, innovative, interdependent and planned activities in a logical succession; clear, determined, quantifiable results; dedicated team; the existence of a sponsor or financier and a beneficiary; determined, limited duration; realism, complexity, limitation, uniqueness, unrepeatability, risk and uncertainty, evaluability (Ovidiu TIȚA, Constantin OPREAN, coord., 2015, p. 7).

The second concept necessary to be operationally defined for the theme of this study is the concept of sustainable development, an approach on which we will continue our action.

As a consequence, the sustainable development of mankind, one of the current fundamental paradigms in which the future is predicted and planned as a balance between economic growth and environmental protection, is increasingly in vogue today and in Romania as a result, mainly, of the background of European and international regulations. In other words, Romanian contemporaneity, despite the difficulties encountered, must cross, in an increasingly rapid and complex dynamics, to achieve a state of balance and normalcy, but also to align with European and international trends, and equally measure, to overcome the stage of slogan or concept that "sounds very good", but which is devoid of substance, and to turn the theme of sustainable development into a real priority, really important, for the whole society. Also, the challenge of our millennium is imposed on the national and international agenda for managing an interdependence: limiting development and the idea of progress to the level strictly allowed by the recovery capacities of the environment and, implicitly, of natural resources.

Following the analysis of the etymology of the concept of sustainable development, we want to emphasize the existence, in Romanian, of two relatively similar concepts: sustainable development, respectively sustainability.

Regarding the origin of the second concept, sustainability, we specify the following aspects: derived from the Latin *sub* and *tender* which means to support or preserve, at least a few hundred years ago, the terms sustainability, sustainable and sustainable development have entered the lexicon of the English language, from where the synonymous phrases were taken over, then, after 1989, in the vocabulary of the Romanian language. Moreover, according to DEX, sustainability is the attribute of carrying out an anthropic activity without exhausting its available resources and without devastating its environment, thus without compromising the possibilities of satisfying the needs or needs of future generations.

When the concept is used in the sense of economic development of a country, a region is preferred the notion synonymous with sustainable development. We also consider another necessary clarification to the one referring to the initial use of both concepts, especially in official, technical documents and less in the common language.

Another element according to which the concept of sustainable development can be operationally defined is the evolutionary process of human attitudes towards the environment in Western cultures, which we will briefly present below.

Without exaggerating, we can say that environmental issues, in general, and the way in which man endangers the ecosystem, in particular, have been among the concerns of human society since prehistoric societies, when the first rules and taboos to use, protection and rational exploitation of certain common resources. Equally, the natural resources that sustained daily life were found in the representations, paintings, traditions and rituals of communities that lived in close communion with nature. We must not forget that the decline or even the disappearance of some crops have been attributed to natural disasters.

The classic development concept was completed with the contribution of another term, sustainable, which finalizes its content. Thus, sustainable development can be defined as "a process of maintaining well-being projected for an indefinite period in the future", a development that meets and ensures the needs of the present, without, however, jeopardizing the potential for insurance by future generations of their own needs. Moreover, in an integrated approach, sustainable development involves economic, social, ecological, political, human, spiritual and cultural development. This concept can be considered only with the obligatory observance of two conditions: firstly, for the well-being of citizens to increase progressively and safely over a long

reference period and secondly, to ensure that today's development does not endanger development opportunities for future generations. Equally, the need to identify a general term that responds to the pressure to identify a balance between economic and social progress, on the one hand, and concern for the environment and natural resources, on the other, and which can also The correspondence of two realities - the need of the economy to develop, respectively its actual possibilities for development - determined the association of the concepts of development and sustainability.

Among other definitions offered to the concept of sustainable development, which we consider relevant for completing the synoptic table of our topic, are the following:

- emphasizing some fundamental principles: sustainable development meets the five major requirements: (1) acclimatization of development and nature conservation; (2) meeting basic human needs; (3) social justice and equity; (4) opportunities for cultural diversity and social self-determination; (5) maintaining ecological integrity. (1986, International Union for the Conservation of Nature);
- maintaining and optimizing systems: Sustainability involves maintaining or optimizing the overall level of variety and productivity of the components as well as the relationships within the systems. (1988, Noorgard);
- the ability to support ecosystems - sustainable development involves optimizing the quality of human life, but taking into account the ability to support the ecosystems that support this life. (1991, World Conservation Union).

Similar to the notoriety of the definition of sustainable development in the Brundtland Report - being the first definition found in almost all specialized works in the field - the theory of the three E specific to sustainable development was imposed. According to it, the three E's of sustainable development - economy, ecology (environment) and equity (social) - represent a set of values around which the process of change should be planned. Its author, Stephen M. Wheeler, argues that, at present, the importance and attention given in the past to the economic dimension has shifted to the ecological dimension. In the first perspective, the economic majority, the social and ecological dimensions are contained as subsets of values, and in the second perspective, ecological, sustainable development involves economic values as a subset of ecological and social values, with a wider range.

Contemporary critics of the concept of sustainable development, Susan S. Fainstein and Scott Campbell, in Readings in Planning Theory, demonstrate that the way the concept is defined today does not propose solutions for practitioners, in real conditions, because all three values are in a conflicted relationship and, very often, it is almost impossible to be pursued at the same time. That is why the authors emphasize that sustainable development, characterized as the balancing element of the three values - economy, social equity and ecology (environmental protection), is a utopia.

## **Conclusions:**

### **Sustainable development in Romania - result of the implementation of European projects**

First of all, a first clarification that we consider clarifying is that European funds are the main financial instrument of the European Union, meant to support the implementation of the three dimensions of sustainable development in Romania.

Secondly, another aspect that we must also highlight, in this context, is the emphasis that falls, within the projects co-financed by European funds, on the integration of sustainable development oriented mainly to the dimension of environment if we take into account that two of the three specific perspectives of sustainable development, the economic dimension, respectively the social dimension are already included, managed and implemented through the projects financed from the community budget. But, as mentioned above, the dimensions of sustainable development -

environmental issues, social and economic development - must be treated in an integrated way, as a single theme composed of mutually supportive elements for development to become sustainable.

Therefore, in order to be able to materialize the specific objectives of sustainable development, projects can include the realization of transversal actions, whose permanent purpose is the organization of the resources of a project, so that the negative effects on the environment are diminished or even eliminated.

For this, the potential beneficiary of a project, from the first stage, the definition and elaboration of the project, can identify the answers to a series of questions such as: project activities and results can create, during implementation or later, negative effects on the environment, biodiversity or on the efficient use of resources ?; can the activities and results of the project contribute to the protection of the natural environment (terrestrial, aquatic), to the protection and conservation of the habitats in the protected areas ?; can the activities and results of the project increase the responsibility and respect for the environment?

Equally, in the case of affirmative or partially affirmative responses, possible measures to mitigate and adapt to climate change, measures to enhance disaster resilience and to prevent and manage risks can be identified and described.

At the same time, if the schedule of a project has activities that are intended to take place in protected natural areas, or that may have an impact on either air, water or soil quality, or that involve the production of waste or the use of hazardous substances, etc., the beneficiary must prove in advance that he has obtained and holds all the necessary legal advice and also that he complies with the applicable legislation in force. Certain projects with potential significant effects on the environment - the construction of a motorway or an airport, thus become the subject of an environmental impact assessment. In this case, in order to ensure a higher level of environmental protection, the environmental aspects are included in the application for funding and the possible consequences are taken into account before the approval of a project.

With regard to the second stage of the project, implementation, the beneficiary must ensure that, throughout it, the planned resources are used in an effective, efficient and sustainable manner, mainly through rules or guidelines behaviors of rational consumption of resources - either as a result of promoting the efficient use of resources, or as a result of increasing the use of renewable resources. It must also ensure that it minimizes the level of air, water and soil pollution in the area of the activities carried out - for example, by selective waste collection or by reducing the volume of waste, by reusing, recovering and recycling waste.

In order to conclude, we consider it opportune to present a series of techniques specific to the environmentally friendly approach, used in the project management activity: organizing for the team a training session on sustainable development and practical ways to save resources involved in implementing the project; if the financier and the project budget allow, the involvement in the team of an expert in the issue of sustainable development; elaboration and publication of materials for the presentation of the transversal activities planned for the dimension of sustainable development; implementation of resource efficiency activities (promoting the printing of double-sided documents; printing only documents strictly necessary to be printed; mitigating the negative impact of transport by using electronic means of communication - videoconferencing).

## **Bibliography**

Bodea, G., (2014), Sustainable development, 37 ° C (Sustainable development, 37 ° C), Cluj University Press Publishing House, Cluj-Napoca.

Fainstein, S. S., Campbell, S., (2011), Readings in Planning Theory, 3rd edition, Wiley-Blackwell Publishing.

Gavrilă - Paven, I., (2014), Sustainable development. Course support (Sustainable Development. Course support), "December 1, 1918" University, Alba Iulia.

Ohliger, T., Environmental policy: general principles and the basic framework. European Union Fact Sheets, June 2018, available online at: [http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuld=FTU\\_2.5.1.html](http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuld=FTU_2.5.1.html), accessed on 21.09.2021.

Pascu, R. V., (2011), Introduction to project management, "Lucian Blaga" University Publishing House, Sibiu.

Tița, O., Oprean, C., coord. (2015), Current perspectives on sustainable development, Pro Universitaria Publishing House, Bucharest.

Wheeler, S. M., (2004), Planning for Sustainability. Creating Livable, Equitable and Ecological Communities, New York, Routledge.

\*\*\*, A Guide to the Project Management Body of Knowledge, 2000 Edition, Project Management Institute.

\*\*\*, Government of Romania, Department of Integration, Project Management Manual, <http://www.projectmanagement.ro>.

<https://www.dictionarenglez.ro/englez-englez/project>, accessed on 21.09.2021.

<https://dexonline.ro/definitie/proiect>, accessed on 21.09.2021.

<https://en.oxforddictionaries.com/definition/project>, accessed on 21.09.2021.

[www.le-dictionnaire.com/definition.php?mot=projet](http://www.le-dictionnaire.com/definition.php?mot=projet), accessed on 21.09.2021.

<https://www.merriam-webster.com/dictionary/project>, accessed on 21.09.2021.

[www.learnersdictionary.com/definition/project](http://www.learnersdictionary.com/definition/project), accessed on 21.09.2021.

<https://dexonline.ro/definitie/sustenabilitate>, accessed on 21.09.2021.

# THE OPPORTUNITY TO INTRODUCE THE TAX FOR NON-RECYCLED PLASTIC PACKAGING WASTE AND HOW TO IMPLEMENT IT IN ROMANIA

Piciu Gabriela-Cornelia<sup>45</sup>

## **Abstract:**

*This article draws attention to the European Council's decision to introduce in 2021 the tax on non-recycled plastic packaging waste. The article analyzes the potential revenues generated by the application of the tax, the ambiguities related to the fiscal proposal and the implementation mechanism, as well as the ways of implementing the tax in Romania and the obstacles it may encounter.*

*The effect of the tax will also be debated, with the national contribution of plastics providing at least an indirect impact for EU Member States. take measures to reduce non-recycled plastic packaging waste. However, it is noted that the tax will not have the effect of a double dividend: a tax benefit and an environmental benefit, it would only be complementary to the direct legal incentives already established in EU environmental legislation.*

**Keywords:** environmental tax, non-recycled plastic packaging waste, ways of implementation

**JEL classification:** Q53, Q56, Q580

## **Introduction**

As part of a fundamental reform of the EU funding system after 2020, In early 2021 the European Union introduced a new fiscal instrument called tax for non-recycled plastic packaging waste.

The European Council argues that this tax will not only serve the tax purpose of generating revenue, but will also support the average goal of reducing the amount of unrecycled plastic waste. Consequently, as the new resource is directly proportional to the amount of non-recycled plastic packaging waste in each Member State, the U.E. will also provide an incentive for Member States to reduce waste streams and encourage recycling and stimulate the circular economy

## **Description of the Problem**

The purpose of this tax is to obtain revenue from national contributions calculated on the weight of non-recycled plastic packaging waste, at an effective rate of EUR 0,80 per kilogram, from 1 January 2021.

Revenues from taxation will be used to support the general budget of the EU, but should not be used as a mechanism for repaying EU loans, especially in international financial markets.

The fee will be paid annually by each EU member state, and the payments will come from national budgets. Member States are likely to use this opportunity to create equivalent plastic duties on national markets to recover the costs of their contributions to the EU budget.

---

<sup>45</sup> Ph.D. Senior Researcher, Centre for Financial and Monetary Research "Victor Slăvescu" of INCE "Costin C. Kirițescu", Romanian Academy, Bucharest, Romania, e-mail: gabriela\_piciu@yahoo.com

Contrary to what he claims in the U.E, the national plastic contribution will not have the effect of a double dividend: a tax benefit and an environmental benefit. Its alleged environmental purpose is mainly an attempt to greenwash an unpopular tax measure.

However, it could be argued that this fee - the national plastic contribution - provides at least an indirect impact for Member States to take measures to reduce non-recycled plastic packaging waste.

However, this indirect economic incentive is at best only complementary to the direct legal incentives already laid down in EU environmental legislation).

Given the very short period of implementation of this tax, it may be recommended that the companies covered by this measure consult within the professional associations to which they belong. These companies should analyze the impact that this measure could have on their business and identify the most appropriate implementation options that could be introduced in the legislation to ensure clarity, predictability, efficiency and effectiveness, in the interest of environmental protection. and also, because the legislation will work well from the point of view of business and authorities).

## Methodology and Data

The methodology used in this research largely includes data from the Growth Limits Report from Rome in 1972, ideas from the Report of the World Commission on Environment and Development (1987), ideas and proposals from the Environmental Program Sustainable Development and recommendations of the Program "Promoting" green "economic development in member states of E.U.

## Results

As a result of previous negotiations, countries with a gross national income per capita below the EU average were eligible for a reduction in lump sums (Table no.1.).

**Table 1**

**Potential revenue generated by the application of the tax (in 2021) for non-recycled plastic packaging waste, which can be projected based on the weight of non-recycled plastic packaging waste in 2018 in each EU Member State.**

Member State	Non-recycled Plastic Packaging Waste (in metric tons)	Initial Payments based on Call Rate (0.80 Euro/kg)	Lump Sum Reduction	Final Payments (after Reduction)
<b>Austria</b>	205.765	164.612.000	–	164.612.000
<b>Belgium</b>	199.945	159.956.000	–	159.956.000
<b>Bulgaria</b>	53.641	42.912.800	22.000.000	20.912.800
<b>Croatia</b>	40.332	32.265.600	13.000.000	19.265.600
<b>Cyprus</b>	7.933	6.346.400	3.000.000	3.346.400
<b>Czechia</b>	115.033	92.026.400	32.187.600	59.838.800
<b>Denmark</b>	165.713	132.570.400	–	132.570.400
<b>Estonia</b>	34.491	27.592.800	4.000.000	23.592.800
<b>Finland</b>	93.244	74.595.200	–	74.595.200
<b>France</b>	1,723.640	1.378.912.000	–	1.378.912.000
<b>Germany</b>	1.712.000	1.369.600.000	–	1.369.600.000



<b>Greece</b>	110.340	88.272.000	33.000.000	55.272.000
<b>Hungary</b>	238.566	190.852.800	30.000.000	160.852.800
<b>Ireland</b>	182.116	145.692.800	–	145.692.800
<b>Italy</b>	1.287.456	1.029.964.800	184.048.000	845.916.800
<b>Latvia</b>	28.001	22.400.800	6.000.000	16.400.800
<b>Lithuania</b>	23.292	18.633.600	9.000.000	9.633.600
<b>Luxembourg</b>	17.523	14.018.400	–	14.018.400
<b>Malta</b>	10.739	8.591.200	1.415.900	7.175.300
<b>Netherlands</b>	254.000	203.200.000	–	203.200.000
<b>Poland</b>	633.094	506,475,200	117.000.000	389.475.200
<b>Portugal</b>	274.140	219.312.000	31.322.000	187.990.000
<b>Romania</b>	223.106	178.484.800	60.000.000	118.484.800
<b>Slovakia</b>	64.102	51.281.600	17.000.000	34.281.600
<b>Slovenia</b>	19.889	15.911.200	6.279.700	9.631.500
<b>Spain</b>	815.961	652.768.800	142.000.000	510.768.800
<b>Sweden</b>	122.876	98.300.800	–	98.300.800
<b>EU-27</b>		8.656.938		<b>6.214.297.200</b>

Source: Projection based on Eurostat (2020), *Packaging waste by waste management operations and waste flow*; Council Decision 2020/2053 on the EU Own Resources System, Art. 2.

Some EU member states have already initiated various national tax projects depending on local situations: for example, Finland (packaging made from non-recycled natural resources), Italy (disposable plastics, except compostable or recycled plastic), Lithuania (composite plastic), Spain (non-recycled plastic packaging), Slovenia (composites and plastic-coated paper).

## Some ambiguities related to the fiscal proposal and the implementation mechanism

1. The new source of revenue for the EU budget consists of "revenue from a national contribution calculated on the weight of non-recycled plastic packaging waste at an appeal rate of EUR 0,80 per kilogram" (see pages 8, 64, A29).

Thus, the 27 EU Member States increase their annual contributions to the EU budget based on the amount of non-recycled plastic packaging waste in their country.

The tax is set to be levied on countries and not on polluters or consumer packaging companies. Thus, the task of recovering the tax amount already paid to the EU treasury is left to certain countries.

From a technical point of view, each country can develop its own system to transfer the cost to packaging companies.

Consequences: Because some EU Member States (including Romania) will benefit from reductions, an asymmetry will be created in terms of levy throughout Europe and, if each country proposes its own mechanism for recovering the cost of the plastic tax, then it will lead to the fragmentation of the EU market and will act against the concept of the single market.

Moreover, if several countries impose the tax while others do not, then there is a chance of migration of packaging companies or part of their activities to countries with a lower tax burden.

2. The methodology for determining the quantity not recycled is unclear.

As the tax burden is not uniform in all countries and some of them have obtained reductions, it is not certain whether countries will develop similar mechanisms and charge fees for packaging companies. In addition, it is not yet known how countries will assess the recycling rate and how soon the methodology will reflect the new directive. It is important to define this methodology, as it will significantly change the evaluation of non-recycled plastic packaging.

The potential revenue generated by the application of the tax is estimated at EUR 6.214 billion (less than EUR 700-800 million as estimated by the EC) and is derived from the recycling rate reported by Eurostat of 42% (i.e., the non-recycling rate of 58% or 7, 5 million metric tons), which is based on Directive 94/62 / EC, which measures recycling at gross level or after the sorting stage.

The old directive has been replaced by the new directive issued in 2018, which measures entry-level recycling for recyclers. According to the new directive, the recycling rate is much lower, at around 30%. In fact, if all the provisions of the new directive apply, then the recycling rate will continue to fall to about 25-30%, raising the non-recycling rate to 70-75% or even more. It is not yet clear when this new calculation methodology will be implemented, but when it will finally be, the tax burden will increase on countries and, by extension, on packaging companies.

3. There is no correlation between the use of recycled material and this new tax.

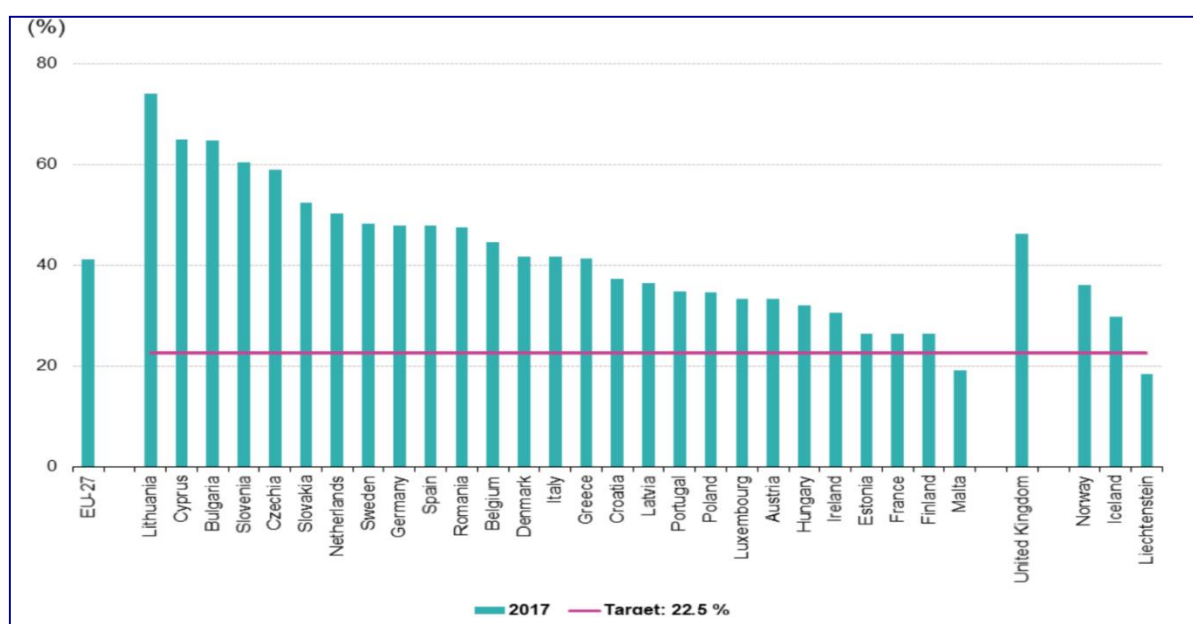
4. The tax will not promote recycling and the circular economy, as it deprives Member States of the investment funds needed for a better infrastructure for sorting and recycling plastic packaging.

As the tax is not earmarked for a specific purpose, these investments are not made through the EU budget either. Improving the recycling of plastics requires considerable investment from medium-sized companies in innovative materials, new machinery and the design of plastic packaging.

These investments will only materialize if political decision-makers create the necessary planning and legal certainty that these investments will work.

5. Revenue from the EU plastics tax will not contribute to the financing of the Corona Recovery Fund, but will be paid into the general budget of the EU without being allocated for a specific purpose.

6. Eurostat waste statistics are not judiciously comparable between Member States, as the way the figures are generated differs significantly between Member States. Thus, according to the latest Eurostat data - the countries with the highest recycling rates for plastic packaging are Lithuania, Cyprus and Bulgaria (Figure no.1.).



**Figure 1: Recyclin rate for plastic packaging waste, 2017**

Source: date Eurostat, 2018

To date, national recycling rates have not had a real impact - as long as EU targets have been met. With the direct impact of recycling on national payments to the EU budget, the amount of plastic packaging statistically reported to be recycled is expected to increase. What is lost is the comparability and especially the model function of the countries that actually recycle more.

7. The tax on non-recycled plastics is disproportionately high, the revenues from the plastics tax exceed ten times the annual costs calculated for better recycling of plastic packaging in the EU27. According to the study What is plastic (Simon Hann and the team, January 21, 2020), the total investment costs for recycling plastic packaging in the EU27 will amount to about 6 billion euros between 2021 and 2027. This represents about 800 million euros. per year, which represents one tenth of the assumed revenue from the fee for non-recycled plastic packaging waste.

8. The term "tax" is the generic term for taxes, duties and contributions. In the case of fees and contributions, the equivalence between payment and returned service must always be sought (principle of equivalence or "Quid pro quo"). Instead, taxes are prohibited from allocating specific expenses and are used for general fundraising. As the revenue from the so-called plastics tax is not allocated, but will be paid to the general budget of the EU, there is therefore a strong argument for the name of the tax.

9. The fee will apply in particular to those Member States with reduced plastics recycling capacities, as they will have to pay more than those with better recycling infrastructure. There are major differences in the distribution of recycling capacity in Europe: Italy has the highest installed capacity for these flows, with a rate of 25%, Germany 22%, Spain 22%, Great Britain 15% and France 9%, and the other Member States together they hold only 7%.

Consequences: Paradoxically, the tax will affect countries that need support in building their recycling infrastructure. Instead, these countries will be forced to contribute disproportionately more to the overall EU budget than other countries with high recycling rates.

This tax should act as an incentive for Member States to improve their recycling capacity, but may affect competition at European level, depending on how it is implemented in each Member State.

10. Taxation policy is very important because it can create a serious imbalance in the market and lead to unfair competition.

Consequences: A duty paid only by European producers leads to unfair competition from exporters in countries that do not have to pay this duty. There is also a lot of competition between virgin and recycled plastic, some manufacturers not wanting to use this type of plastic (recycled).

## **Tax application in Romania**

If the authorities choose to introduce a new environmental tax, there are several implementation options, such as for the tax to be borne by plastic packaging manufacturers or companies whose products are packaged in plastic or by companies that sell plastic consumer products placed on the market) and the quantities of packaging waste handed over for recycling / recovery.

Thus, the authorities may decide to amend this charge or introduce an additional charge, in order to collect and redirect to the EU budget 0.8 euro / kg for non-recycled plastic packaging waste.

Imposing this tax will create a new burden for producers who place packaged goods on the market, as it will be based on the amount by weight of plastic placed on the market / generated waste, and not on recycled plastic waste.

Romania currently recycles approximately 15% of the waste it produces.

Currently, there is already a tax of 2 lei / kg on plastic packaging, which is paid by companies that put packaged goods on the market, for the difference between the annual recycling / recovery targets (compared to the quantities of packaging).

For the introduction of the plastic packaging waste tax, the most appropriate implementation options that could be introduced in the legislation to ensure clarity, predictability, efficiency and effectiveness must be identified.

## **Obstacles in the introduction of the tax in Romania**

- Lack of a sufficient number of plastic recyclers;
- The new fee should be combined with an increase in the landfill tax, so as not to put too much pressure on the system;
- rethinking the municipal waste stream that does not work at the parameters at which it was designed, to streamline the guarantee-deposit system, which can solve up to 20% of the problem of plastic waste;
- the lack of adequate waste collection infrastructure will mean that the cost of any potential plastic charges currently proposed or introduced behind this legislation will be passed on to the consumer until chemical recycling matures and provides sufficient volume of material to address the shortages;
- if the cost of the tax is transferred to the supply chain, for many packaging operations, the limited volume of plastic in a product will mean the addition of only 1-2 cents (per product), which could be easily transferred to the consumer.
- the consumer will be the one to pay and there will be no incentive to convince him to collect, sort and use better and for a longer time the recycled plastic contained in a certain product.

## **Introduction of the plastic tax in Romania**

The plastic tax in Romania includes in its scope

- a) Plastic packaging that is not designed to be reused;
- b) All non-reusable plastic products that contain liquids or solids or for the packaging of goods or food.
- c) Plastic containers composed of several materials.

### ***Exemptions***

- (i) The manufacture, import or intra-Community acquisition of non-reusable plastic packaging which is shipped directly to other EU or non-EU countries.
- (ii) The manufacture, importation and intra-Community acquisition of non-reusable plastic packaging, which is destroyed before the end of the period set for the submission of the tax return.
- (iii) The manufacture, import or intra-Community acquisition of unusable plastic packaging used as primary packaging for medicinal products.

It is necessary to set up a deduction system to guarantee tax exemption. In addition, intra-Community purchases and imports of reusable plastic packaging made for private purposes shall not be subject to duty where the weight of non-reusable plastic packaging does not exceed five kilograms.

### ***Tax base and tax rate***

The tax base will consist of the quantity, expressed in kilograms, of plastic packaging that cannot be reused, and the tax rate will be less than or equal to EUR 0.8 per kilogram.

### ***Contributors***

Producers of taxable items and those who make intra-Community purchases or imports in Romania will be the tax payers.

Taxpayers who are not established in Romania must appoint a tax representative to represent them before the tax administration and make the respective appointment, duly accredited, before starting the activities subject to taxation.

### **Collection procedure**

The revenues from this tax can be collected as those obtained from the imposition of the tax of 2 lei / kg tax on plastic packaging, which is paid by the companies that introduce packaged goods on the market.

The plastic tax will be assessed quarterly. Taxpayers will also need to register, before starting their work, for a national tax census that will be created for this purpose. In addition, the taxpayer will be required to keep and electronically submit some specific accounting books.

In order to assess the effects that this new tax could have on different companies, the impact on both the business and the supply chain should be analyzed, identifying areas that could be affected and how they should be adapted to the new business. plastic tax.

## **Conclusions**

By 2030, all packaging in Europe should be recyclable. Until then, 10 million tons of recycled materials are to be used in the manufacture of plastic products. The industry is working to make more recyclable plastic packaging to increase the use of recycled materials. All these actions cost billions of euros. If this money were now taken from companies and used to cover the EU budget, it would create a major obstacle to the circular economy.

## **Future Directions**

It is appropriate to consider the creation of a new indirect tax on non-reusable plastic packaging for single-use plastic articles intended to contain or protect goods or foodstuffs with a wide scope.

It can internalize the environmental costs of manufacturing and consuming plastic in the price of final products.

Taxation is performed for the manufacture, import or intra-Community acquisition of unusable plastic packaging only when they will be used on the Romanian market.

## **Bibliography**

1. Politico of 10 April 2020, Plastic tax proposal faces resistance.
2. European Commission (2018), Communication COM (2018) 28 of 16 January 2018, A European Strategy for Plastics in a Circular Economy, p. 11.
3. The Guardian of 16 January 2018, EU declares war on plastic waste.
4. ZEIT ONLINE of 11 May 2018, Umweltministerin Schulze lehnt Plastiksteuer ab; FAZ of 6 June 2018, Merkel verteidigt ihre EU-Pläne; Rat für Nachhaltige Entwicklung of 29 May 2019, Mit der Plastiksteuer zur Plastikwende?.
5. Although the new own resource is still widely called “EU plastic tax”, for reasons of legal precision (see section 2), the term “national plastic contribution” (NPC) will be used herein.
6. European Commission (2018), Proposal COM (2018) 325 of 2 May 2018, Council Decision on the System of Own Resources of the European Union, pp. 4, 6 and 8.
7. Council of the European Union (2020), Proposal ST 10025 2020 INIT of the Presidency of 29 July 2020 for a Council Decision on the system of Own Resources of the European Union.
8. Council of the European Union (2020), Council Decision (EU, Euratom) 2020/2053 of 14 December 2020 on the system of own resources of the European Union and repealing Decision 2014/335/EU, Euratom [Council Decision 2020/2053 on the EU Own Resources System].

9. European Commission (2018), Staff Working Document SWD (2018) 172 of 2 May 2018, Financing the EU budget: report on the operation of the own resources system, p. 27.
10. Council of the European Union (2020), Proposal ST 10025 2020 INIT of the Presidency of 29 July 2020 for a Council Decision on the system of Own Resources of the European Union, p. 4, recital 7.
11. Council of the European Union (2020), Draft conclusions of 14 February 2020 for the special meeting of the European Council, p. 53, point 139.
12. European Council (2020), Conclusions of 21 July 2020 on the recovery plan and multiannual financial framework for 2021–2027, point A29.
13. Council of the European Union (2020), Proposal ST 10025 2020 INIT of the Presidency of 29 July 2020 for a Council Decision on the system of Own Resources of the European Union.
14. European Parliament (2020), legislative resolution P9\_TA-PROV (2020)0220 of 16 September 2020 on the draft Council decision on the system of own resources of the European Union; European Commission (2020), Follow up SP (2020)455 of 15 October 2020 to the European Parliament legislative resolution on the draft Council decision on the system of own resources of the European Union.
15. Council Decision 2020/2053 on the EU Own Resources System, Art. 12.
16. Regulation (EC) No 1907/2006 of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) [REACH Regulation], Art. 3 point 5; Directive 94/62/EC of 20 December 1994 on packaging and packaging waste [Packaging Waste Directive 94/62/EC], Art. 3 point 1 and point 2; Commission Implementing Decision (EU) 2019/665 of 17 April 2019 establishing the formats relating to the database system; Directive 2008/98/EC of 19 November 2008 on waste [Waste Framework Directive 2008/98/EC], Art. 3 points 1 and 17.
17. Packaging Waste Directive 94/62/EC, Art. 12(3a).
18. Bundesregierung (2020), Antwort der auf die Kleine Anfrage der FDP-Fraktion, Drucksache 19/22068, Die „Plastiksteuer“ als zweckungebundene EU-Einnahmequelle, p. 3.
19. Council Decision 2020/2053 on the EU Own Resources System, recital 7 and Art. 2(2).
20. PlasticsEurope (2019), Plastics – the Facts 2019 (EU-27 and United Kingdom).
21. Eurostat (2020), Packaging waste by waste management operations and waste flow (EU-27 and United Kingdom).
22. Voßwinkel, J. S. / Reichert, G. / Schwind, S. / Jousseume, M. (2020), Kreislaforientierte Kunststoffwirtschaft für Non-Food-Verpackungen, Anforderungen an die Umsetzung des EU-Aktionsplans Kreislaufwirtschaft, Studie, p. 10.
23. Eurostat (2020), Packaging waste by waste management operations and waste flow.
24. Umweltbundesamt (2019), Aufkommen und Verwertung von Verpackungsabfällen in Deutschland im Jahr 2017, Texte 139/2019, p. 33.
25. Eurostat (2020), Packaging waste by waste management operations and waste flow.
26. Packaging Waste Directive 94/62/EC, Art. 6. Other materials are: glass, paper and cardboard, metals, and wood.



# A COMPARATIVE ANALYSIS OF SUSTAINABILITY PROMOTED BY THE CONCEPTS: CIRCULAR ECONOMY, SOCIAL ECONOMY, GREEN ECONOMY

Piciu Gabriela-Cornelia<sup>46</sup>

## **Abstract:**

*This article proposes a comparative analysis of the three concepts: circular economy, social economy, green economy. Starting from the fact that they have as common objective the harmonization of economic, social and environmental objectives, the analysis I propose is made in order to capture the differences and similarities of diversity in and between such concepts.*

*Also, the article makes a critical comparison of the potential and limits of the three concepts. Based on what is analyzed, a hierarchy is made, which can serve to better implement the policies.*

**Keywords:** sustainability, environmental and growth, economic, social and environmental objectives

**JEL classification:** O44, Q01, Q56

## **Introduction**

The circular economy, the social economy and the green economy are three concepts that have grown on the scale over the last decade. Although the three concepts have different assumptions and operationalization strategies, they have in common sustainability with its goals of reconciling the environment with the economy and social objectives.

Although the main ways of sustainability of the three concepts are known, there is currently a lack of comparative analysis and ranking.

## **Description of the Problem**

The conceptual delimitations are based on a review of the literature, structured so as to highlight the relationships between the circular economy, the social economy and the green economy, as elements that underpin this study. a conceptual analysis to identify the predominant narratives and sustainability issues in each concept.

On the one hand, studies that highlight sustainability and the predominant aspects of the three concepts: the relationship between the circular economy, the social economy and the green economy, concepts that have different assumptions and operationalization strategies, and the relationships that are established between them.

On the other hand, a comprehensive analysis of the diversity of and the concepts of circular economy, social economy and green economy.

---

<sup>46</sup> PhD. Senior Researcher, Centre for Financial and Monetary Research "Victor Slăvescu" of INCE "Costin C. Kirițescu", Romanian Academy, Bucharest, Romania, e-mail: gabriela\_piciu@yahoo.com

## Methodology and Data

In conducting this study, a mixed methodological approach will be used, both on the basis of the literature and on the basis of international statistical data (Eurostat, EEA).

Also, the literature will be explored to identify the main trends in the field, and theoretical, descriptive and comparative analysis will be used.

The conceptual delimitations are based on a review of the specialized literature, structured so as to highlight the relations between the circular economy, the social economy and the green economy, as elements that substantiate this study.

## Results

The results obtained from the conceptual analysis led to the identification of sustainability aspects predominant in each of the concepts of circular economy, social economy and green economy. Thus, the significance of sustainability

Starting from the sustainability characteristics identified by Franceschini and Pansera (2015), which describe the economic dimension of sustainability, represented by increase or decrease, we identified the main aspects included in the social and environmental dimensions of sustainability (Table 1).

**Table 1**

Sustainability	Circular Economy	Social Economy	Green Economy
	<p>Sustainability is given by the efficient conversion of natural capital into man-made capital</p> <p>Natural and man-made capitals cannot be considered interchangeable.</p> <p>Negative environmental impacts can be partially avoided by increasing environmental efficiency in pursuit of economic growth</p> <p>Economic growth and environmental sustainability can be reconciled and have positive feedback from each other. This process is fueled by nature solutions, i.e., ecological adaptation and resilience;</p> <p>The aim is to raise awareness of ecological limits and the limits of growth, as well as to find solutions based on nature, ecological adaptation and resilience.</p>	<p>Social education and training, inter- and intragenerational social justice. Health, quality of life and well-being, social inclusion, social capital, community network, safety, employment and income.</p> <p>Security and equality, social order and cohesion, cultural traditions</p>	<p>Water, carbon and nutrient cycles, including emissions and waste; greening cities and logistics; Increasing the quality of energy sources and efficiency in production and use; maintenance of biodiversity, ecosystems and related services.</p>

*Source: data processed by the author*

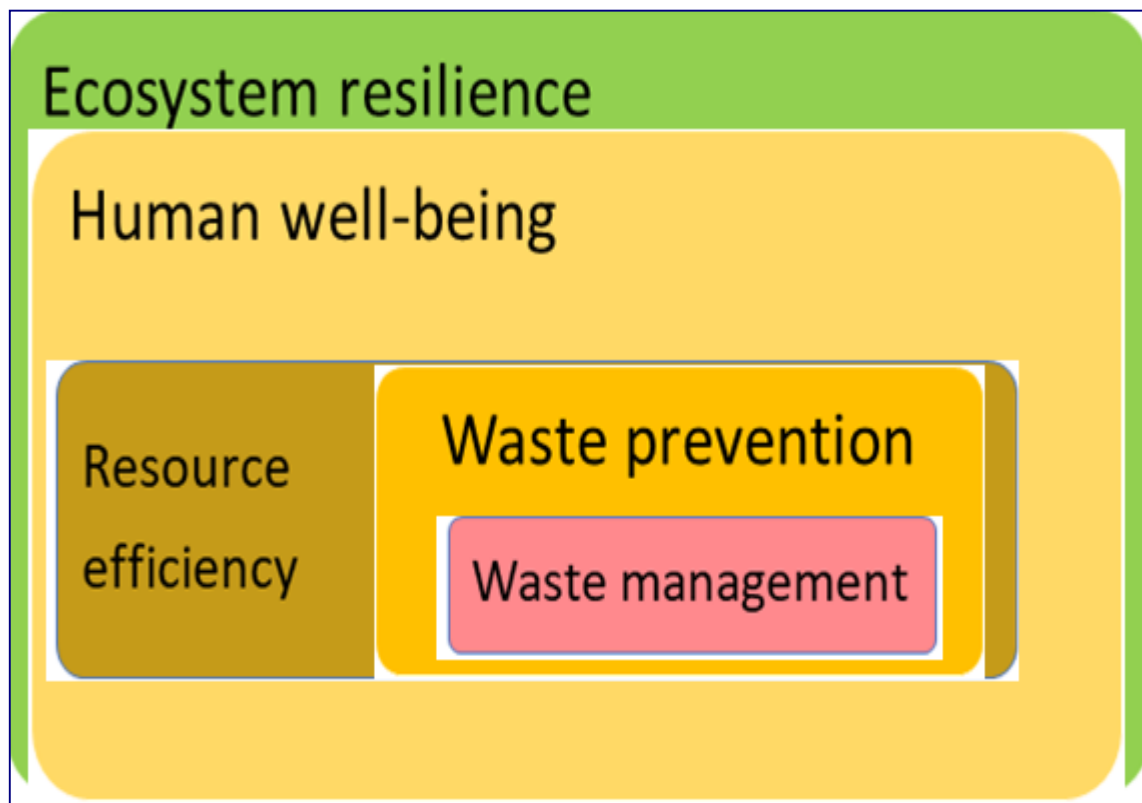
The European Environment Agency (2015) considers that the green economy includes the circular economy which aims to reuse materials and reduce to waste disposal to increase social welfare and ecosystem sustainability.

The EC conceptualization was based on several papers (Dempsey et al., 2011; Moldan et al., 2012, Franceschini and Pansera (2015)) and led to the following observations:

- 1) Reduction, reuse and recycling are notions associated only in the context of recycling as part of the circular economy;
- 2) The transition to the circular economy is made through a change of system;
- 3) The impact on social equity is not given importance but only economic development and the quality of the environment are taken into account

Starting from the three objectives pursued in the circular economy: waste design and pollution reduction, the use of materials for as long as possible and the regeneration of ecosystems, we can explain its influence on the quality of life.

The European Environment Agency has interpreted the EC as the core of a green economy perspective that extends the focus from the use of waste and materials to human well-being and the resilience of ecosystems (see Figure 1)



**Figure 1: European Environment Agency view on circular economy**

*Source: data processed by the author*

Sustainability transitions, conceived as “fundamental transformation processes through which established socio-technical systems move to more sustainable modes of production and consumption” (Markard et al., 2012).

Such transformation processes, which support the sustainability of the transition in the three areas: economic, social and environmental, can reap from potential benefits in each of the categories of the value creation framework (Table 2).

Table 2

### From potential benefits in each of the categories of the value creation framework

Categories	Economic	Environment	Social
1.Welfare	<p>Increased GDP, both by sector and per capita; higher average incomes and lower unemployment</p> <ul style="list-style-type: none"> <li>• Improved trading / competitiveness conditions</li> <li>• Security of energy, food and other resources</li> <li>• Increasing economic stability</li> <li>• Reduced risk of major economic damage</li> </ul>	<ul style="list-style-type: none"> <li>• Increased conservation of natural environments</li> <li>• Reduced pollution / contamination</li> <li>• Reduced waste stored</li> <li>• Increasing biodiversity</li> <li>• Reduced risk of major damage to the environment (such as climate Change)</li> </ul>	<p>Poverty reduction</p> <ul style="list-style-type: none"> <li>• Improved access / accessibility to basic services (energy, water, sewerage, etc.)</li> <li>• Reducing income inequality</li> <li>• Improved safety and health</li> <li>• Equitable access to resources and opportunities (for vulnerable groups)</li> <li>• Civil and / or political participation</li> <li>• Reduced vulnerability to ecological risk</li> </ul>
2.Wealth	<p>Increase in physical capital stocks</p> <ul style="list-style-type: none"> <li>• Reduction of blocked assets</li> <li>• Resistance of assets to natural hazards</li> <li>• Increased resistance to exogenous shocks (price)</li> <li>• Improving net savings</li> <li>• Improving foreign exchange reserves</li> </ul>	<ul style="list-style-type: none"> <li>• Soil / soil stocks (eg agriculture, coastal areas)</li> <li>• Water (slow or no replenishment)</li> <li>• Atmospheric assets (ozone layer, low GHG atmosphere)</li> <li>• Fish stocks</li> <li>• Stocks of natural raw materials (eg forest timber)</li> <li>• Other natural resources</li> </ul>	<ul style="list-style-type: none"> <li>• Improved levels of education and literacy</li> <li>• Improved health levels</li> <li>• Conserved cultural heritage</li> <li>• Robust and stable government and institutions</li> </ul>
3.Environmental goods and services	<ul style="list-style-type: none"> <li>• Land use efficiency (or yields), including large and small scale production</li> <li>• Water efficiency (eg reduced shrinkage, advanced irrigation)</li> <li>• Energy efficiency (eg buildings, industry, transport, etc.)</li> <li>• Energy supply efficiency (eg installation efficiency, engine efficiency, etc.)</li> <li>• Labor productivity, especially for low-income labor or vulnerable populations</li> <li>• Efficiency in the use of mineral and other natural resources (eg iron and steel, clinker, timber, fertilizers, etc.)</li> <li>• Efficient use of food (eg reduced food waste)</li> <li>• Space efficiency (eg to reduce travel, etc.)</li> </ul>		
4.Socio-economic context	<p>Engineering, science, and technology capacity, especially in clean/green related areas</p> <ul style="list-style-type: none"> <li>• Increased financial sector lending, especially to sectors with high capital needs</li> </ul>	<ul style="list-style-type: none"> <li>• Investment in RD&amp;D, especially in technology areas with large potential co-benefits and spill-overs</li> <li>• Access to risk capital for entrepreneurs, especially those with triple bottom-line businesses</li> <li>• Increased employment, especially among vulnerable populations</li> </ul>	<ul style="list-style-type: none"> <li>• Legal frameworks for intellectual property rights</li> <li>• Technical standards for technologies with large network effects</li> </ul>

Source: data processed by the author

## Conclusions

The implementation of EC principles supports efforts to develop a sustainable, low-carbon, resource-efficient and competitive economy.

The concepts of circular economy, green economy and social economy have in common the reconciliation of economic, environmental and social objectives.

By conducting a comparative analysis of these three concepts, they can be integrated into the policy-making process as solutions to achieve economic, social and environmental sustainability.

## Future Directions

The transition to a circular economy is a systemic change. The implementation of EC principles supports efforts to develop a sustainable, low-carbon, resource-efficient and competitive economy. These can be achieved by increasing the quality of the environment, economic development, social equity.

Innovation will also play a key role in this systemic change, which seeks ways to produce and consume and to turn waste into high value-added products.

## Bibliography

- Allen, B., 2016. A Step Further. Orizon 2020 Project: Portal, pp. 196-199.
- Barbier, E.B., 1987. The concept of sustainable economic development. *Environ. Conserv.* 14, pp. 101-110.
- Bezama, A., 2016. Let us discuss how cascading can help implement the circular economy and the bio-economy strategies. *Waste Manag. Res.* 34, pp. 593-594.
- Birch, K., Levidow, K., Papaioannou, T., 2010. Sustainable Capital? The neoliberalization of nature and knowledge in the European "Knowledge-based bioeconomy." *Sustainability* 2, pp.2898-2918.
- Borel-Saladin, J.M., Turok, I.N., 2013. The green economy: incremental change or transformation? *Environ. Policy Gov.* 23, pp. 209-220.
- D'Amato, D., Droste, N., Chan, S., Hofer, A., 2016. Green economy: pragmatism or Revolution? Perceptions of Young researchers on social ecological transformation. *J. Environ.* 26, pp. 413-435.
- Dempsey, N., Bramley, G., Power, S., Brown, C., 2011. The social dimension of sustainable development: defining urban social sustainability. *Sustain. Dev.* 19, pp. 289-300.
- EAA, 2013. Towards a Green Economy in Europe - EU Environmental Policy Targets and Objectives 2010-2050.
- Eaton, D., 2013. Technology and innovation for a green economy. *Rev. Eur. Comp. Int. Environ. Law* 22, pp. 62-67.
- EC, 2012. Innovating for Sustainable Growth. A Bioeconomy for Europe.
- EC, 2015. Closing the Loop - an EU Action Plan for the Circular Economy. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM/2015/0614.
- Kitchen, L., Marsden, T., 2011. Constructing sustainable communities: a theoretical exploration of the bio-economy and eco-economy paradigms. *Local Environ.* 16, pp. 753-769
- Kettunen, M., Ten Brink, P., 2015. Towards a Framework for Assessing Current Level of and Future Opportunities for ES/NC Integration at Different Levels of Governance.
- Knutas, A., Hajikhani, A., Salminen, J., Ikonen, J., Porras, J., 2015. Cloud-based bibliometric analysis service for systematic mapping studies. In: *ACM International Conference Proceeding Series*, pp. 184-191.
- Korhonen, J., Seager, T.P., 2008. Beyond eco-efficiency: a resilience perspective. *Bus. Strat. Environ.* 17, pp.411-419.

- Loiseau, E., Saikku, L., Antikainen, R., Droste, N., Hansjürgens, Pitk€anen, K., Leskinen, P., Kuikman, P., Thomsen, M., 2016. Green economy and related concepts. *J. Clean. Prod.* 139, pp. 361- 371.
- Lorek, S., Fuchs, D., 2013. Strong sustainable consumption governance – precondition for a degrowth path? *J. Clean. Prod.* 38, pp. 36-43.
- Markard, J., Raven, R., Truffer, B., 2012. Sustainability transitions: an emerging field of research and its prospects. *Res. Pol.* 41, pp. 955-967
- Marchetti, M., Vizzarri, M., Lasserre, B., Sallustio, L., Tavone, A., 2014. Natural capital and bioeconomy: challenges and opportunities for forestry. *ASR* 38, pp.62-73
- Martins, N.O., 2016. Ecosystems, strong sustainability and the classical circular economy. *Ecol. Econ.* 129, pp.32-39.
- Munda, G., 1997. Environmental economics, ecological economics, and the concept of sustainable development. *Environ. Values* 6, pp. 213-233.
- Murray, A., Skene, K., Haynes, K., 2015. The circular economy: an interdisciplinary exploration of the concept and application in a global context. *J. Bus. Ethics*.
- Rogge, K.S., Reichardt, K., 2013. Policy mixes for sustainability transitions: an extended concept and framework for analysis. *Res. Pol.* 45 (8), pp. 1620- 1635
- Ten Brink, P., Mazza, L.B.T., Kettunen, M., Withana, S., 2012. Nature and its Role in the Transition to a Green Economy.
- UNEP, 2011. Towards a Green Economy: pathways to Sustainable Development and Poverty Eradication.