



# **THE 18<sup>TH</sup> INTERNATIONAL CONFERENCE**

**"SOCIO - ECONOMIC CHALLENGES IN THE  
POST-PANDEMIC PERIOD"**

## **BOOK OF PROCEEDINGS**

**23-24 September 2022  
University of "Fan S. Noli"  
Faculty of Economics  
Korçë, Albania**



**“FAN S. NOLI” UNIVERSITY  
FACULTY OF ECONOMICS**

**ASECU 18<sup>TH</sup> INTERNATIONAL CONFERENCE**

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# POST-PANDEMIC SOCIOECONOMIC BEHAVIORAL EFFECTS: A NEW PHASE IN THE “CIVILIZING PROCESS

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## ABSTRACT

*The proposed paper investigates the effects of the recent pandemic on individual and collective behavior and their implications for the functioning and effectiveness of socio-economic evolution. These effects are not treated as separate and self-existent, but in the context of the overall, historical civilizing process, according to the relevant position of Norbert Elias, i.e. as part of a long course of distancing from physical behavior, to serve the balance of a society with more extensive and intense inter-personal and -institutional relationships. In combination, the importance of rapid technological development, which among other things reduces the cost of control, is explored and the importance of the concept of "individual responsibility" and "socio-economic guilt" is highlighted. Following, in the last part we analyze the challenges, the risks, but also the opportunities that arise from the current phase of the civilizing process for social justice and economic sustainability.*

**Keywords:** *Guilt Economics, Civilizing Process*

## 1. INTRODUCTION

The recent pandemic revealed and hastened the behavioral effects of an already ongoing, new phase in the “civilizing process”. Although it would be a mistake to ignore the importance of the deep socioeconomic consequences of COVID-19 outspread, we should not overlook that they are part of a rather accelerated, long-term, historical evolution. Norbert Elias (1939) described this as a long course of distancing from physical behavior, to serve the balance of a society with more extensive and intense inter-personal and -institutional connections.

As the intrasocietal interrelations between people and collective identities expand and get deeper, the costs of externally imposing rules become unaffordable and thereby, the expansion of self-control absolutely essential for sustaining the necessary social order. The feelings of “shame” and following of “disgust” have been pointed out by Elias as the main mechanisms for self-imposing the socially (rather than naturally) induced behaviors, being essential for sustaining the functionality in the bourgeois reality.

In the following pages we discuss in details this new phase in the “civilizing process” having in mind both, the deeper tendencies and the structural changes that provoke them, as well as the way how the recent pandemic served as a historical opportunity for speeding up the underlying course. In this approach we analyze two major trends: on the one hand the (re-) appearance of “guilt” as a tool for imposing self-control (therefore the term “guilt economics”) and on the other the social and political legitimization of the use of new technology towards exercising modern, more efficient and thereby affordable control over individual and collective behavior.

Finally, we conclude with a progressive approach of “guilt”, or better said of “responsibility” after recognizing the inevitable overcoming of the traditional bourgeois order. In that sense, in the present chapter we dare to extend the discussion in the normative socioeconomic debate, according to the challenges of our time.

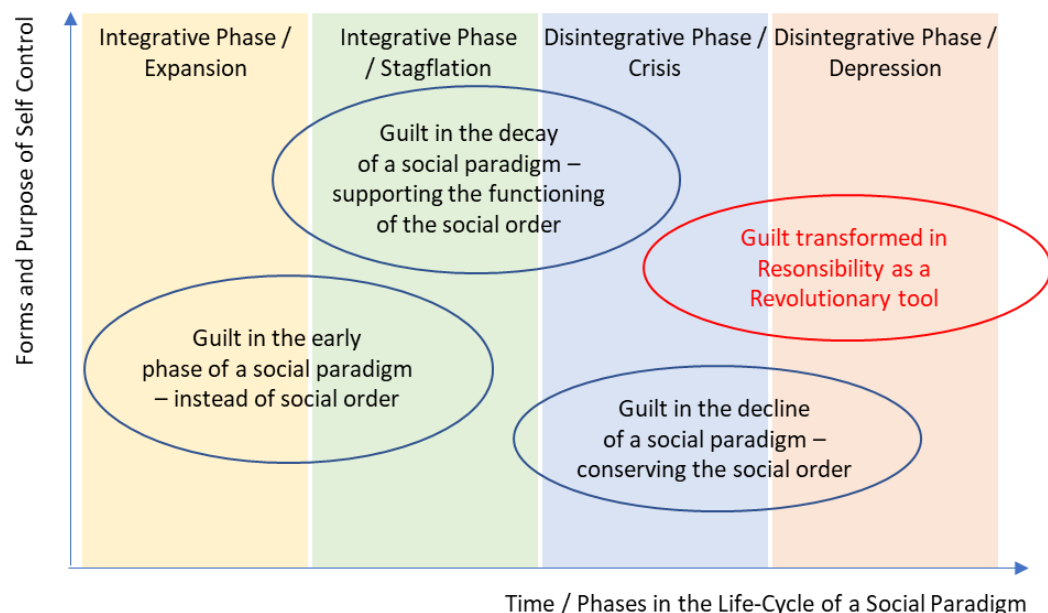
## 2. THE (RE-) appearance OF GUILT as a socio-economic 'tool'

The usefulness of self-control mechanisms in order to align individual and collective behavior with social order is always there, regardless the form of the society and its degree of maturity. What changes is the degree at which self-control is necessary – as Elias pointed out – and also the mechanisms that impose it.

According to the theory of social evolutionism (from the traditional contributions of Auguste Comte, Edward Burnett Tylor, Lewis Henry Morgan, Benjamin Kidd and Herbert Spencer in the 19<sup>th</sup> century till the work of Leonard Trelawny Hobhouse in the beginning of the 20<sup>th</sup> and even the school of Neoevolutionism in the second half of the 20<sup>th</sup> century; Leslie A. White, 1957 and Julian H. Steward, 1955), society and human history progresses in subsequent, non-repeatable, unique forms and structures.

Nevertheless, social progress (meant in a positive rather than normative sense) does not necessarily imply a linear, monotone course of evolution. Cycles that repeat a certain format of development can (and do) appear in the frame of each specific socioeconomic paradigm. Korotayev et.al. (2006) and Turchin (2003), as well as together with Korotayev (2006) established the dominant model in the social cycle theory. Although this is mainly based on the sociodemographic development of the whole population and also of the elites (which, from a socioeconomic point of view, may be seen as a limitation), it provides a suitable framework for introducing the evolution of self-control mechanisms within the life cycle of a certain social paradigm.

Figure 1: Guilt within the “life-cycle” of a social paradigm



In figure 1 we reproduce the four phases of the above-mentioned model of secular social cycles theory – the two integrative phases (expansion and stagflation) and the two disintegrative ones (crisis and depression). In this framework we see the different ways how and for what reasons self-control is being imposed through the feeling of guilt.

In the early evolution of a social paradigm, the determination of guilt, whether externally ascertained and imposed or as a feeling of self-guilt, arises as necessary instead of the institutional immaturity, in place of the lacking social order. Smith (1975) after reminding us of the “*distinctiveness of the political as a form of social organization*”, he proceeds with the “*systematic variation of modes of guilt with modes of government*”. According to the author, in order to propose this substitutional character of guilt and the idea of an “*economy of guilt*” he carries on the work of Nietzsche (1887) and he follows also etymological arguments – for instance:

(i) “*the word guild comes from the Teutonic geld, which means ‘to pay’*”;

(ii) going back in the classical antiquity, he also refers to Seisachtheia (Greek: σεισάχθεια), a set of laws for debt relief instituted by the Athenian lawmaker Solon, in order to rectify the widespread serfdom and slavery that had led to social disorder in Athens by the 6th century BC. Seisachtheia arises from seiein (σειεῖν) that stands for shake and achthos (ἄχθος) that means burden i.e. the relief of burdens.

As the social life cycle proceeds, (self-) guilt gets a different role: in the decay of a social paradigm, it becomes a mechanism that supports the functioning of the social order, rather than substituting it. Elias (1939) sees the strengthening of self-guilt in the rising super-ego, which forces self-control being so necessary for sustaining (and not substituting) the given social order. (“... *die gegenseitigen Abhängigkeiten wachsen... dies erzwingt eine zunehmende Selbstkontrolle... Diese Haltung wird durch Verstärkung des ‘Über-Ich’ verinnerlicht und verfestigt*”.)

Elias goes also two significant steps forward. Beside materializing the explanation of these two functions of (self-) guilt – rising in place of and supporting the social order, according to the phase of social evolution – he also describes a refined and much more efficient, gradually arising version of it: the feeling of shame and of disgust, which is actually a main characteristic of the way how bourgeois (yet not only) civilizing process evolves. Thereby, self-guilt is being internalized, limiting and determining individual and collective behavior in a less conscious, yet much more efficient way.

### 3. GUILT AS A “PRESERVATION” METHOD

The first main contribution of the present paper is how (self-) guilt changes role, as well as ways of appearance and exercise in the frame of the disintegrative stage of the social cycle. According to the relevant literature mentioned above, as the present social paradigm runs into crisis (the 3<sup>rd</sup> phase in figure 1), state strength and collective solidarity collapses and sociopolitical instability is rising.

The characteristics of four time reproduce this description. The internationalized socio-economic order of (post-)capitalist integration has entered a period of multifaceted, persistent systemic crisis. The overaccumulation of financial capital being in complete disharmony with

real economy (Zarotiadis 2014), the deepening of spatial and social disparities that weakens effective demand worldwide and causes socio-political unrest, the intensifying neo-imperialist rivalries and military-political conflicts in the context of contemporary bipolarism (Zarotiadis, 2021), the evident, perceptible effects of the environmental burden on the quality of life questioning even the survival of large population groups, induce, deepen and maintain socio-economic discontinuities and recession.

In such an environment, individual and collective choices are pushed to extremes. Extra-systemic and usually reactionary, regressive political choices prevail (recall the current neo-fascist socio-political retrogression) and standard indirect ways of imposing the necessary behavior are no longer sufficient. In the decline of a social paradigm, guilt is not anymore the instrument for supporting a more or less evident social order – it rather becomes a mechanism for preserving social order given the disintegrative pressure upon the present social paradigm.

This is in fact a twofold extension of Elia's approach: as the pressure of social crisis becomes far more obvious and conscious for the members of a society with severe effects on the prospects of them and their relatives, marginal, antisystemic and even antisocial behavior seems to be often the only choice and therefore, indirect self-control mechanisms become less functional. Guilt needs to come more clearly to the fore, while the purpose of its "application" to the citizens transforms from a progressive to a restraining and preserving one.

We have chosen two categories of examples to support this thesis. First, we focus on the micro-dimension and we choose cases where, in a less or more obvious way, guilt imposing messages are used in order to affect individual activities.

Modern marketing strategies provide two useful examples: The exponential development of know-how and technology and the resulting expansion of productivity opens a twofold way towards the de-commercialization of production (Zarotiadis, 2016): on the one hand through the possibilities for having efficient collective usage of products and services and on the other because of the fact that consumers become aware that final prices are being unnecessarily higher than the diminishing marginal cost of products' (re-)production.

Given this trends that threatens the very essence of western, capitalistic modernity, present business communication tactics invoke guilt to conserve and even extend consumer behavior away from the historically determined, collective needs. In order to preserve the commercial nature of economic goods against the possibilities for socialization resulting out of the systemic evolution itself, marketing strategy of mainly large oligopolies, apart from the standard promotion of their products, is increasingly devoted to an attempt of (re-) establishing their commercial character by passing relevant messages and cultivating a sense of guilt to the customers, who may be lured away from the individuality of use and the unconditional tolerance of the free operation of the market (see for a similar, more detailed discussion the commentary paper of Franck Cochoy, 2021).

Another example for the application of guilt imposing strategies as a preservation method aiming at the micro-lever is related to the individual behavior of laborers in modern socioeconomic conditions. In order to serve the solidification of individual behavior and the voluntary refusal of collective representation and action, a series of interventions in the public discourse by politicians, journalists, influencers and opinion makers being especially able to approach younger generations highlight the individual responsibility of everyone for whether or not to find work, as well as about whether he will have a successful career and salary advancement. The message is



clear: it is your fault if you can't find a job, either because you don't develop your skills properly, or because you don't adapt to the objectively difficult macroeconomic conditions...

This contemporary trend applying (self-) guilt as a “social formalin” is being aggregated at the macro-level as well. We can find many cases where the systemic, conservative policy propagandizes “individual responsibility” as the main, effective response against any socioeconomic or natural crisis:

- the guilt of the person(s) being inefficient, unemployed, inactive or even reactive is the best advocacy of neoliberal deregulation;
- regardless of the radical deterioration in macroeconomic conditions that pushes households completely outside of any previous fiscal planning, at the end it is supposed to be solely the responsibility of borrowers if they cannot service their debts;
- recently, with the energy crisis being in full swing in the European Union and inflation rising dramatically, as the households' purchasing power reduces rapidly, the dominant EC and national propaganda focuses on the responsibility of citizens to limit energy consumption!

Profoundly the worldwide applied policies related to the outspread of COVID-19 were also of the same character. Beside to the commercially rather than medically induced dilemma of investing in therapeutic or preventive treatment methods, which the market solved in favor of the second and the generalized vaccination, the other path of the strategy for facing the pandemic is a clear case of (self-) guilt. Although the public health system suffered a setback around the world during the previous outbreak of the global financial crisis, national governments and global institutions, instead of investing on its reconstruction,<sup>1</sup> they spent significant resources in enforcing specific individual behaviors with restrictive, top-down practices, under the basic motto of “individual responsibility”. It is in the ability, or rather the responsibility of the citizen to comply with the specific behavioral standards in order to stop the spread of the disease!

Social alienation in daily activities, in the working places or with respect to the habits of interaction may be well understood as special necessities in a critical situation (see the relevant case study for the effects of COVID induced digitalization in Thailand in the paper of Srisathan and Naruetharadhol, 2022). Nevertheless, we see that beside being indeed a way for stopping the pandemic, these new alienated behavioral standards became a new status of interpersonal relations of prohibitive nature and should be followed even in the frame of the new arising normality. The media is abuzz with statements by prime ministers, high-ranking officials and experts defending the widespread use of masks and the adoption of distant greetings as a positive outcome of our experience of the pandemic...

The described process in which objectively arising needs to limit “natural” behavior are generalized into self-restraints that facilitate citizens' compliance with social norms and social order is the essence of Elias' civilizing process. The special think with the described, contemporary phase is that, on the one hand self-control returns in more direct forms of (self-)

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<sup>1</sup> The Lancet Commission on lessons for the future from the COVID-19 pandemic provides a comprehensive investigation, analysis, and response to COVID-19. Among other arguments and proposals, the Commission recommends realistic, feasible, and necessary investments to strengthen the first line of defence against emerging infectious agents in countries by strengthening health systems and widening universal health coverage.  
<https://www.thelancet.com/commissions/covid19>

guilt rather than the indirect ones generalized in the previous periods – shame and disgust – while, on the other, the reason for applying it is the preservation of a social paradigm that came in the disintegrative phases of its cyclical development.

#### 4. WHAT ABOUT THE COSTS OF EXTERNAL CONTROL?

Let us sum up the previous discussion: entering the disintegrative phase, a social paradigm experiences an upsurge of antisystemic behaviors; either because for an increasing share of the population this is often the only alternative for sustaining their quality of life, even for their survival, or simply because these behaviors are being induced by the same systemic evolution towards a new social paradigm with new characteristics, requirements and prospects. In a biological analogy, in its effort to remain resilient, the society in question intensifies controlling of individual and collective performance. In the last paragraphs we saw how this changes the type and the role of tactics for (re-) strengthening self-control of the citizens. Yet, this may be not enough and the good old practices of direct enforcement are being reestablished using modern technological means and after undergoing the appropriate “makeover” according to contemporary moral values.

Using the logic of Elias’ approach, external control becomes again important, not only because of the increased necessity for having individuals and collective hypostases in line with the systemic requests, but also due to the fact that contemporary technological changes significantly reduce the costs of control, despite its ever-expanding required intensity and extent. Information and computation (I&C) applications, advancements in the communication technology and artificial intelligence (AI) drastically reduce the costs of collecting, processing, using and communicating data and information. Thereby, the dissemination of messages and instructions, but more importantly the control, that must be carried out by the competent institutions for the individual and collective compliance, becomes possible and requires much less human and / or natural resources (despite the constant deepening of social relations).

In that sense, the reoccurrence of external control in the latest stages of the evolution of bourgeois society does not overthrow the theory of the “civilizing process”. On the contrary, it confirms the approach of Elias, as the return to more traditional methods keeps on having a materialistic justification: aside to the request for stronger influence on the social behavior, the necessary precondition is again satisfied, namely that bearing the relevant costs is feasible.

Although we cannot claim that COVID 19 determined the course of technological development, it is evident that it increased its utilization for affecting social development (starting with the issues of dealing with health crises) and above all that it morally legitimized its application. Saher and Anjum (2021) provide a useful review of the technological aspects and impacts of the recent pandemic and argue in the same direction: *“The current pandemic ... has changed peoples’ way of viewing different things. The whole world is on the lookout for best alternates of the available technological solutions ... for prevention, mitigation, and restoration from aftermath of the disease spread”*.

Internet of Medical Things (IoMT, as a special category of Internet of Things) has made a sizeable contribution in current pandemic being indeed a promising technology for the collection, analysis, and effective transmission of health data to the concerned institutions and

actors. Nevertheless, its application goes beyond the monitoring of diseases and the management of deadly pandemics!

Similarly, robots (unmanned vehicle, UMV) and drones (unmanned aerial vehicle, UAV) have changed the entire concept of how things are delivered, as they are able to approach places where traditional man driven vehicles are unable to or should not reach. Yet, during the pandemic we experienced their use for surveillance and screening reasons, especially in places of the world where the modern western moral values are not so widespread. Finally, Bluetooth and GPS are being deployed to look out for disease carriers in the surroundings, while I&C and AI application made possible - technologically and cost-wise - the administrative control of entire populations on the basis of specific personal or non-personal data.

Although socio-economic necessities determine to a significant extent the direction of technological changes, they always also open up meta-systemic development perspectives. Therefore, the way how these changes are being operated – in favor of the preservation of the present social order or not – is a sociopolitical matter. Precisely here lies the contribution, or rather the way of utilizing the recent pandemic: the technological advancements and how they reduce the costs of generalized external control were / are here regardless any sanitary necessities. But the outbreak of COVID functioned as a useful historical chance for wider application of advanced control methods and especially for overthrowing any thinkable moral and political doubts with respect to their application.

## 5. GUILT AS A REVOLUTIONARY 'TOOL'

In the previous chapters we saw how guilt is being reinforced in the present stage of systemic evolution. If we accept the well-grounded hypothesis that bourgeois society has entered the third phase of the standard social cycle approach, we find good reasons for justifying the trend of fortifying (self-) guilt as a preservation mechanism for a system that stepped into crisis. Moreover, we saw that the cost benefits of latest technological achievements gave to the process of social resilience a well-known instrument that turns to be (again) efficient in its use: external, institutionalized control.

However, as the social evolution goes on, if the prediction for a persistent and deepening, multi-aspect, systemic crisis will be fulfilled, sooner or later we will step into the fourth phase of the social cycle, where regression will be accompanied with either progressive revolutionary or reactive and even relapsing trends.

Kazantzakis' notion of individual responsibility, as this is being revealed in the following quotations, is completely different than the one that provides the basis for the self-controlling guilt and its extensions, shame and disgust. Rather than feeling liable for maintaining the existing social order, it is a responsibility for exactly the opposite, namely to contribute to the progressive change (the following quotations are mainly from the book "Report to Greco", 1961):

- "What never happened is what we didn't desire enough" (*Ο,τι δεν συνέβη ποτέ, είναι ό,τι δεν ποθήσαμε αρκετά*).
- "You have the brushes, you have the colors, paint heaven and enter it" (*Έχεις τα πινέλα, έχεις τα χρώματα, ζωγράφισε τον παράδεισο και μπες μέσα*).

- “O poor man, you can move mountains, do wonders, but you sink into dung, laziness and infidelity! You have God inside you, you carry God and you don't know it - you only learn it when you die, but it's too late.”(*Ε κακομοίρη άνθρωπε, μπορείς να μετακινήσεις βουνά, να κάμεις θάματα, κι εσύ να βουλιάζεις στην κοπριά, στην τεμπελιά και στην απιστία! Θεό έχεις μέσα σου, Θεό κουβαλάς και δεν το ξέρεις - το μαθαίνεις μονάχα την ώρα που πεθαίνεις, μα 'ναι πολύ αργά*).
- “To love the responsibility, to say I, I alone will save the world. If it gets lost, it will be my fault” (*Ν' αγαπάς την ευθύνη, να λες εγώ, εγώ μονάχος μου θα σώσω τον κόσμο. Αν χαθεί, εγώ θα φταίω*).

Especially the last quotation could be the definition of this completely differently oriented feeling of guilt. In fact, the sense of responsibility is completely intertwined with the very existence of human as a social being. What we highlight in this treatise is how its orientation, the way it manifests and even how it is "utilized" change through time, depending on the development phase of the present social paradigm. As demonstrated in figure 1 and the previous paragraphs, in the beginning it arises instead of the immature, lacking social order. In the following it turns into a supportive mechanism for maintaining social order and during the crisis it becomes the preservation of a society that is about to be substituted. Finally, responsibility turns into the sense that provokes individual and collective antisystemic behavior.

The gap between potentiality and reality is always the drive of human history. The more obvious and wider it gets, the stronger are the changes that are about to take place. This is the basis of a theoretical analysis, which leads to the conclusion that we are experiencing a pre-revolutionary period. Indeed, because of the exponentially rising productivity of labor (in terms of quantitative but also qualitative improvements) and of the persisting and deepening imbalances of many aspects of the system, potentiality is far beyond the dystopia of our time and vice versa. Therefore, self-guilt in the service of bourgeois reality is or will be getting weaker, while responsibility for urging for changes comes to the fore. Moving to normative rather than positive discussion, the question that arises is if this urge will get progressive or relapsing characteristics.

## 6. CONCLUDING DISCUSSION AND PROPOSALS FOR FURTHER RESEARCH

The main contribution of the present chapter consists in highlighting important hypotheses, which, although they make sense based on the existing literature and the characteristics of our time, can and should be further explored.

First, we combined the tradition of social cycles with Elias' approach getting thereby a theoretical model for the changing character and purpose of self-controlling and self-imposing individual and collective behavior within a certain social paradigm. This is actually the content of the introduced term “guilt economics”: to understand, explain and evaluate the application of methods that deliberately introduce guilt feelings at the micro and macro level, either by private or public agents and institutions.

As we move in the disintegrative stage of the bourgeois society, we utilized the relevant experiences and the recognized socioeconomic trends in order to extend (but not modify in its basic logic) the traditional analysis of Elias' civilizing process in three ways:

- (i) exposing the return to more direct ways of imposing self-control (stepping gradually from shame and disgust back to guilt);
- (ii) arguing for the preserving orientation of self-guilt, in a way a similar practice to that in the early phase of the evolution of a social paradigm – according to a convenient perception for the elite, citizens being consumers, workers or entrepreneurs (should believe that they) are personally responsible for any socioeconomic disturbance and for any thinkable mistakes and inefficiencies in dealing with the effects of special, exogenous incidences;
- (iii) explaining for the reoccurrence of external control, enabled by the relevant cost-efficiency caused by the latest technological achievements.

Especially with respect to the second and the third, we focused also on the way how the recent pandemic served as a historical opportunity for speeding up the underlying courses. For instance, as mentioned above, these new alienated behavioral standards introduced during the outspread of COVID 19, besides being indeed a way for stopping the pandemic, they gradually became a new status of interpersonal relations of prohibitive nature. This is an already stated hypothesis in the literature – yet, it needs to be closer examined in the following years, letting the necessary time for having a clearer picture of the induced structural modifications.

Finally, as we argued in the previous chapter, social evolution does not cease with the end of any specific social paradigm. Therefore, during the last disintegrative phase and towards the dawn of the next socioeconomic system, guilt, or better said responsibility is being radicalized. Nevertheless, this alone does not secure progress. As we saw, radicality can take also the form of anti-historical deterioration and relapse. In other words, as history never stops, it lies in our hands and minds either to shape it or to suffer it.

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# LOCAL ACTION GROUPS FROM BORDER MUNICIPALITIES IN BULGARIA IN THE POST-PANDEMIC PERIOD. SOCIAL AND ECONOMIC CHALLENGES

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## ABSTRACT

*The present research aims to outline the social and economic challenges for the border Local Action Groups (LAGs) established under the LEADER programme and the Community-Led Local Development (CLLD) approach in the post-pandemic period. In particular, emphasis is placed on the problems related to their financing, the long delays in signing the approved projects and their implementation. Difficulties, caused by working in an atypical situation are also among the main factors influencing the development of LAGs. Along with this, there are modifications in the internal migration processes of the country, which prove to be another challenge for the period. The causes of these problems were identified and the situation in the years before, during and after the Covid-19 pandemic has been analysed. In order to achieve the set goals, we relied on the results obtained from a sociological survey of attitudes among the LAGs in Bulgaria. On the basis of the analysed problems and the results obtained, summaries, conclusions and recommendations were made, aiming to overcome the social and economic challenges in the post-pandemic situation.*

**Keywords:** social and economic challenges, LEADER, Local Action Group, internal migration processes, post-pandemic period

## INTRODUCTION

The present study was conducted among the Local Action Groups (LAG) in Bulgaria, working under the LEADER programme and the Community-Led Local Development (CLLD) approach, located along the land, sea and river borders of the country. It was carried out through in-depth interviews and research of primary and secondary documents, audit and monitoring reports on the implementation of LAG strategies. During the 2014-2020 programme period, one of the three mechanisms for solving the territorial challenges laid down in the Partnership Agreement of the Republic of Bulgaria, outlining the assistance from the European Structural and Investment Funds, is the Community-Led Local Development instrument, which is a continuation of the LEADER approach, implemented during the 2007-2013 programme period.

## RESULTS

**Problems with financing and delays in signing the projects and their implementation**

The budget of the CLLD approach for Bulgaria in the period 2014-2020 amounted to BGN 597 million. The European funding is BGN 520 million and the national co-financing – to BGN 77 million. The financial resource provided for the implementation of local development strategies was BGN 519 million. The funds included in the strategies represented 59% of the planned total financial resource by programmes, with the largest relative share being the Rural Development Programme (RDP), Operational Programme "Human Resources Development" (OPHRD) and Operational Programme "Innovations and Competitiveness" (OPIC).

In Bulgaria, in 2014-2020, sixty-four /64/ LAGs were approved for the implementation of the CLLD approach, including 117 municipalities across the country, located on a territory of 53,828 sq. km with a population of 1,646,496 residents. 48% of the municipalities eligible for the application of the CLLD approach were covered. The population included in the strategies for CLLD represented 120% compared to the planned number of people expected to participate in the CLLD approach and 24% compared to the total number of the country's population as of 31.12.2019, according to data from the National Statistical Institute (NSI, 2022).

The approved 64 LAGs have a diverse structure. Twenty-one LAGs were formed on the territory of one municipality, 33 united two municipalities, and 10 united three municipalities. For the first time during the 2014-2020 programme period, LAGs were created to unite municipalities from different areas.

As of 31.12.2019, the total population of LAG-initiating municipalities was 2,164,790, which is 23.7% of the population of Bulgaria. According to NSI data for the period 2000-2019, the population of Bulgaria decreased by an average of 0.78% per year, and its decrease in the municipalities with LAGs, predominantly small and medium-sized, occurred at a much higher rate - 1, 32%. In 2019, compared to 2007, the population of the country decreased by 688,756 people, and the population of municipalities with LAG by 285,411 people, accounting for 41.4% of the total population decrease. The mechanical growth of the municipalities with LAG was negative until 2018. In 2019, the number of people who settled in the municipalities with LAG was 2,612 more than those who left them, and this result was caused by the significant positive mechanical growth in the municipalities of Kirkovo, Jebel, Ardino, Momchilgrad, Krumovgrad, etc., which are located in Southern Bulgaria - in the South central and Southeastern regions along the border with Greece (Prodanova, D., 2020). The analysis of the municipalities included in the scope of the LAGs shows that all of them are rural because they do not have a settlement with more than 30,000 inhabitants.

Twenty-two /22/ LAGs have been created on the territories of municipalities that are near the borders of the country - land and water (Danube River and Black Sea). Six are located along the border with Greece, two each with Serbia and Turkey, one LAG borders North Macedonia, five border the Black Sea, five LAGs are bordered by the Danube River, and one LAG has a water and land border with Romania: "Tervel - Krushari". One LAG - "Svilengrad Area" borders both Greece and Turkey. These 22 border LAGs cover a population of 469,588 inhabitants (6.88%) of Bulgarian citizens and an area of 18,282 sq. km. or 16.47% of the country's territory.

As shown by the data of the Information System for the Management and Monitoring of EU Funds in Bulgaria (ISMM), the implementation of the CLLD approach for most LAGs as of December 5, 2021 is around and above the average in terms of agreed funds and well below the average in terms of actual disbursed funds – i.e. many of the territories not only completed, but also started projects, and at the end of the programme period, there was no impact of the strategies of CLLD on these territories (INFORMATION SYSTEM FOR MANAGEMENT AND MONITORING OF EU FUNDS IN BULGARIA 2020).

The analysis shows that of the agreed funds under the operational programmes by the end of 2021 with over 70% implementation, there are only 11 LAGs, of which 6 are from the considered border LAGs: on the border with Greece: LAGs "Gotse Delchev - Garmen - Hadjidimovo" and "Kirkovo - Zlatograd", near the Black Sea - LAGs "Balchik-General Toshevo", LAG "Dolni chiflik - Byala" and LAG "Pomorie", and from the ones bordering the Danube river is LAG "Lom". We can also include the neighbouring LAG "Belene - Nikopol", where the implementation is 69.55%.

Unfortunately, statistics show that there are six /6/ LAGs with zero implementation - not a single project started, and two /2/ of them are from the considered border: LAG "Berkovica-Godech" - on the border with Serbia and LAG "Dolna Mitropolia" - Dolni Dabnik" on the border with the Danube River.

The LAGs themselves, despite the delay in the launch of the Strategies and the numerous changes in the indicative schedules and acceptances of the measures, have done their work more efficiently than the central administration. Almost all LAGs have carried out procedures with several admissions for all the measures provided for in the CLLD and have exhausted their previous budgets, even under the conditions of the Covid-19 pandemic. At the end of the programme period, as in the previous one, the activity of the LAGs and the beneficiaries was enhanced, with the highest number of procedures opened precisely in 2020, compared to all previous years.

With some of the LAGs located on the borders of the country, there is also a subjective problem with the capacity at the local level, especially on territories with predominantly small settlements, where it is simply not possible to find experts for the team. External people are appointed who, although they have the relevant address registration, practically do not know the local problems and peculiarities. The Covid-19 pandemic in some of the LAGs under review has led to the physical loss of experts, staff and beneficiaries of funds under the various programmes, creating additional real and bureaucratic problems

Despite the complicated epidemic situation and the conditions hindering the activity as a result of the Covid-19 pandemic in 2020 and 2021, 25% of the border LAGs successfully coped with the implementation of the activities and utilization of a larger part of the planned budget. And this is due to the implementation of multi-fund strategies, especially when using the Operational Program "Innovation and Competitiveness" (OPIC) and the Operational Program "Human Resources Development" (OPHRD). With them, the examination and approval of the projects was carried out even during the Covid-19 pandemic. Payments for all approved projects were made, with 47.5% of the projects being fully completed under the OPHRD, and 95% of the implementation under the OPIC.

In 2020, due to the pandemic, unemployment increased across the country, compared to 2019 (4.2%) to levels of 5.6%. According to data from the Employment Agency, in 2021 it reached 7.6% (Ministry of Labour and Social Policy, Employment Agency, 2022). The biggest loss of jobs – around 100 thousand – occurred in the months of March-May 2020, at the height of the first Covid-19 wave. Although some recovery measures were taken, the municipalities with traditionally low unemployment (especially the tourist ones) also recorded the most unfavourable levels of the indicator for the last five years. On the other hand, municipalities with high unemployment felt less damage from the collapse. Despite the increased unemployment, the poorest municipalities are in a much better position compared to 4 or 5 years ago. Most municipalities where unemployment decreased even in 2020 are in Northern Bulgaria, although there too the unemployment rate rose slightly as a result of Covid-19. Despite the deterioration of

unemployment indicators, it is expected that by the end of the period extended to 2025, CLLD projects will contribute to its reduction.

Through various measures of the Employment Agency and with the participation of the LAGs, prerequisites were created for the preservation of small and medium-sized enterprises, especially in the border municipalities. For example, 380,000 BGN were paid to small and medium-sized enterprises in the municipality of Belene and 420,000 BGN in the municipality of Nikopol under the measure to support medium-sized enterprises to overcome the economic consequences of the pandemic, respectively, under OPIC and on the territory of the Belene-Nikopol LAG.

The pandemic significantly affected tourism, especially in the Black Sea regions (Pomorie, Byala, Balchik) and to a lesser extent those near the land borders. The key geographical position of the municipalities along the border with Greece and Turkey, where there are also border crossings such as the Kirkovo-Zlatograd LAG, Gotse Delchev - Garmen-Hajidimovo and Svilengrad area, is a potential for easier business access to highly competitive markets and to increase the tourist flow. According to ISUN data, it is precisely in these LAGs that the funds paid under the various operational programmes are around 50%-60%. In the municipalities of Gotse Delchev, Simitli, Nesebar, Pomorie, Svilengrad, Balchik, Harmanli, there is an increase in newly opened enterprises and an increase in production exported abroad.

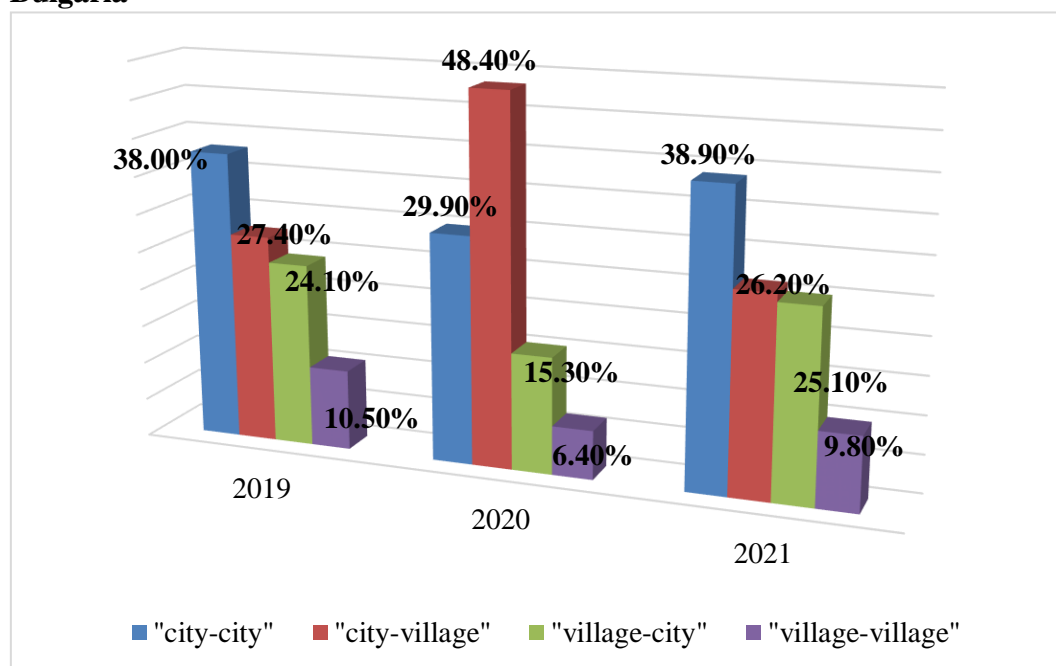
In conclusion, the incomes in the border municipalities, where the LAGs were created and work, are increasing, albeit very slowly, as the implemented projects under the European funds, including CLLD, have also made a certain contribution, which led to a general economic revival. Factors that hold back income growth include the predominantly agricultural nature of the economy (lower pay, unpaid family work, low productivity of monoculture agriculture), insufficient diversification of the economy, migration of the younger population, the general backwardness of the regions, the crisis caused by the pandemic.

To overcome the crisis caused by Covid-19, the Government of the Republic of Bulgaria approved the eleventh /11/ amendment to the Programme for the Development of Rural Areas 2014-2020. It provides additional funding in the amount of over BGN 68 million under the Community-Led Local Development approach. With the changes, a financial resource is provided for the preparation of CLLD for the next programme period, as well as an increase in the budget of each of the implemented strategies with over BGN 900 thousand of public funds, and a deadline for implementation is set until June 2025.

### **Demographic processes - problems**

Along with this, there are also modifications in the internal migration processes of the country, which turn out to be another challenge for the period. From the point of view of demographic science, these types of processes are extremely important for the development of the country, as they have a direct impact on the distribution of the population and its concentration by region. These movements of people form the migration flows in the four main sections: "urban-urban", "urban-rural", "rural-urban" and "rural-rural". What does the picture look like in Bulgaria for the past few years? For development purposes, summary data for 2019, 2020 and 2021 are presented in Figure 1.

**Figure 1: Directions of internal migration in the period 2019-2021 in the Republic of Bulgaria**



Source: NSI, 2022

According to data from the National Statistical Institute for 2019, of all those who changed their usual place of residence within the country, the share of the "urban-urban" direction is the highest (38.0%), followed by the "urban-rural" direction (27.4%) and "rural-urban" (24.1%). The movement of the population in the section "rural-rural" is almost insignificant - 10.5%.

The statistics for 2020 indicate that the most preferred is the movement in the direction "urban - rural" (48.4%), followed by the direction "urban - urban" (29.9%) and "rural - urban" (15.3%). Significantly smaller in number and relative share is the migration flow in the "rural - rural" direction - 6.4% of the migrated persons.

The data for 2021 show that the trend in the movement of internal migration of the population has changed in contrast to the previous year, and the leading position is occupied by the direction "urban-urban" with 38.9%, followed by the direction "rural-urban" (26.2%) and "urban-rural" (25.1%). This can also be seen in the figure above, which provides information on the mechanical movement of the population in Bulgaria during the three years studied.

From the data thus presented, it can be concluded that during the pandemic, when highly restrictive measures were imposed on Bulgarian citizens, including checkpoints set up at the municipal centres, the population preferred to be positioned in the rural areas. According to the parameters set by the National Plan for the Development of Agriculture and Rural Areas (NSI, 2022) of the Republic of Bulgaria, settlements (municipalities) with a population of less than 30,000 and an average density of less than 150 people per km<sup>2</sup> are considered rural. Based on the same classification, by 2022, approximately 82% of the country's territory is occupied by such areas, as out of 265 municipalities, 232 are rural.

The constituent parts of the LAGs examined in the article are municipalities of precisely this type. Table 1 shows the mechanical growth of the population in the border regions. According to the data of the National Statistical Institute, since 2007, not only the internal movements in the

country, but also the migration of persons from and to the country have been counted as mechanical movement.

**Table 1: Mechanical growth of the population in border LAGs for the period 2019-2021.**

	Mechanical Increment (Number)				Mechanical Increment (Number)		
	2019	2020	2021		2019	2020	2021
<b>Border LAGs with Greece</b>				<b>Border LAGs with North Macedonia</b>			
Municipality of Kirkovo	1263	⇒634	⇒556	Simitli Municipality	-108	⇒143	⇒55
Municipality of Zlatograd	↓-88	↓14	↓-65	Kresna Municipality	↑333	-136	↓-94
Municipality of Momchilgrad	⇒601	⇒332	↓240	Strumyani Municipality	-100	⇒25	↓0
Krumovgrad Municipality	⇒745	⇒373	⇒305	<b>Border LAGs with the Danube River</b>			
Municipality of Borino	↓8	↓-6	↓-11	Belene Municipality	-116	↓-27	↓-76
Dospat Municipality	↓-52	↓1	↓-65	Municipality of Nikopol	↓32	⇒137	↓-58
Municipality of Sarnitsa	↓-6	↓-11	↓-26	Municipality of Glavinitsa	↓-31	↓44	↓62
Gotse Delchev Municipality	-104	↓178	↓156	Municipality of Sitovo	↓-24	↓41	↓-31
Municipality of Garmen	-127	↓86	↓56	Dolna Mitropolia Municipality	↓-61	↑495	-121
Municipality of Hadjidimovo	↓-82	↓-42	↓-31	Municipality of Dolni Dabnik	↓-57	⇒237	↓-42
Lyubimets Municipality	↓-57	↓25	↓10	Lom Municipality	-206	↓18	↓-25
Municipality of Ivaylovgrad	↓-22	↓-33	↓-36	Tutrakan Municipality	↓-62	⇒149	↓-10
Municipality of Sandanski	↓-91	↓163	↓-35	Municipality of Slivo Pole	↓-48	↑645	↓-55
Municipality of Svilengrad*	-174	↓72	↓-68	<b>Border LAGs with the Black Sea</b>			
<b>Border LAGs with Turkey</b>				Avren Municipality	↓19	⇒869	↓13
Municipality of Elhovo	↓-63	⇒72	↓-70	Beloslav Municipality	↓-41	↓126	↓-6
Municipality of Bolyarovo	↓13	⇒67	⇒53	Balchik Municipality	↓75	↓261	↓64
Municipality of Sredets	↓-58	↑204	↓-53	General Toshevo Municipality	↓-79	↓-2	-107
<b>Border LAGs with Serbia</b>				Devnya Municipality	↓-7	↓135	↓-17
Municipality of Berkovitsa	↓-68	⇒230	↓-55	Aksakovo Municipality	↓98	1988	↓48
Godech Municipality	↓53	↑625	↓-92	Municipality of Dolni Chiflik	↓-56	↓233	↓6
Municipality of Slivnitsa	↓55	↑458	↓-4	Municipality of Byala	↓53	↓161	↓94
Dragoman Municipality	↓-19	↑461	↓-32	Municipality of Pomorie	↓174	⇒681	↓321
*borders both Greece and Turkey							

Source: NSI, 2022

From the data presented in the table, it is notable that there is a tendency to decrease the values of mechanical growth in general. It is most pronounced during the studied years in the LAGs bordering Serbia and Turkey, followed by North Macedonia, the Black Sea, the Danube River and Greece.

In the first year of the pandemic (2020), an increase in mechanical growth was observed in 7 out of a total of 41 municipalities, included in 27 border LAGs in the country, in which strategies of Local Action Groups are implemented. Near Sofia these are Godech (48 km. from the capital), Slivnitsa (32 km. from the capital) and Dragoman (51 km. from the capital). Aksakovo municipality is 11 km away from the regional centre of Varna and turns out to be the preferred place to live in 2020 for 1,988 people, according to NSI data. The distance between the municipality of Sredets and the regional city of Burgas is 19 km, which is also an acceptable distance for the local population. The municipalities of Dolna Mitropolia and Slivo Pole are close to the regional cities of Pleven and Ruse, respectively at a distance of 11 km. and 25 km.



It may be concluded that the permissible distance for the population is 50 km. The proximity of these municipalities to regional cities makes them a preferred place to live for the population trying to protect themselves from the spread of the Covid-19 virus.

In the municipalities with the most pronounced levels of mechanical growth, the unemployment rate is the following:

**Table 2: Unemployment rate in seven of the border LAGs for the period 2019-2021.**

	Unemployment rate		
	2019	2020	2021
Godech Municipality	6.0	10.6	7.3
Municipality of Slivnitsa	3.1	5.4	4.0
Dragoman Municipality	3.1	5.1	3.3
Aksakovo Municipality	3.0	5.3	5.3
Municipality of Sitovo	20.4	25.7	20.6
Dolna Mitropolia Municipality	10.7	13.3	8.4
Municipality of Sredets	11.3	16.2	16.6

Source: Ministry of Labour and Social Policy, Employment Agency, 2022

After the easing of measures related to the Covid-19 pandemic in 2021, these small municipalities are unfortunately becoming depopulated again as the population returns to the big cities. In 2020, the level of unemployment in all border municipalities included in LAGs has increased, compared to 2019. In 2021, this indicator began to normalize, due to the easing of the measures and the return to a normal rhythm of life. At the national level, it is evident that during the pandemic years 2020 and 2021, the unemployment rate for Bulgaria was 5.1% and 5.3%, respectively, higher than in 2019, when the same rate was 4.2% for the country (NSI, 2022). Therefore, they have no economic contribution.

According to the results of a study carried out by Mutafov and Marinov, another problem is emerging for the residents of rural municipalities, namely the low digital coverage in rural areas. In their study they consider migration processes and accessibility to network services. They come to the conclusion that "the availability of the Internet and the growing dynamics of its use are enough to conclude that rural areas and districts are shrinking and moving towards a higher technological standard" (Marinov, P., Mutafov, E., 2022).

## CONCLUSION

In the current work, the inferences are structured in two main parts. The first presents the negative trend, and the second presents the positive aspects of the problem under consideration.

### Negative trend:

- The general conclusion about the implementation of LAGs at the national level is that the approach is still not effective enough to solve local problems, and there are a number of objective reasons for this. In Bulgaria, the implementation of CLLD in both program periods /2007-2013 and 2014-2020/ is carried out through the model of double evaluation of projects -

once by the LAG and the second time by the MA/SFA, which creates bureaucracy and increases the administrative burden for the beneficiaries, especially when it is necessary to work completely remotely in an isolated environment due to Covid-19. Basically, the idea of CLLD is more decentralization and more independence of public-private partnerships (PPPs).

- Lack of autonomy of PPPs, whose existence literally depends again on the central administration.
- Loss of human potential. The tendency to reduce the population below and above working age represents a limiting factor for the future socio-economic development of the border municipalities.
- The demographic problem is the most serious for the economic development in rural areas. One of the consequences of an aging population will be the change of the labour force, a change in the structure of the labour market, in social services and health care. In the depopulating settlements, there will remain a small elderly population, with limited mobility and financial independence, highly vulnerable and in need of health and social services. An increase in the relative share of elderly people is a prerequisite for increasing the risk of poverty in rural areas.

### **Positive aspects**

- The application of the CLLD approach in Bulgaria also has many positive impacts. First of all, sectors and beneficiaries are supported that would not have received funding without CLLD.
- Municipalities also benefit, as through the LAG Strategies they manage to implement their own projects without competing with the requirements of all other rural municipalities in the country.
- Due to the knowledge of local specifics, according to some measures, the approved proposals through CLLD are many times more successful than those at the national level - for example, according to measure 6.4, which implements hundreds of projects useful for local communities.
- Areas that are not included in the RDP or in the other programs receive assistance, such as the protection of the cultural heritage of villages, improvement of the natural environment and green areas, areas for recreation and tourism, development of alternative tourism, the creation of local brands for products, strengthening of local identities, etc.
- As a favourable trend, the increasingly observed close interaction between the strategies of the Ministry of the Interior and the municipal development plans can be considered, as the measures are upgraded and supplemented and thus the more sustainable development of the territories is guaranteed, especially in the implementation of the measures related to overcoming the consequences of the Covid-19 pandemic such as the creation of a series of services, home social patronage, "Warm lunch", "Save me" and more.

The Covid-19 pandemic allowed LAGs to gain experience in an atypical working environment, stimulated resourcefulness, the creation of flexible schedules in organizing events, decision-making and promoting LAG activities. "Paper vs. electronic documentation" - this dilemma very clearly outlined the need to reduce face-to-face meetings and increase the speed of information flow, as well as the creation of new electronic applications for the complete submission of documents by the LAGs and the beneficiaries on the Internet. The Covid-19 pandemic also put on the agenda the authorization by the MA of more remote activities, including decision-making by the LAG governing boards.

Flexibility, mobility and resilience. These are three key words with which LEADER and LAGs can actively contribute to overcoming the consequences of Covid-19.

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# **SMES SUSTAINABILITY IN THE CASE OF JAPAN: LOCALISM OR LOCALIZATION? AN ASSOCIATIONAL ECONOMY AND MEMBERSHIP PHILOSOPHY**

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## **ABSTRACT**

*SMEs account for around 99.7 % out of total number of enterprises, 70% of total employment, in Japan. This figure is similar elsewhere in the world. It shows their economic and social importance at the local, regional and national levels. In fact, SMEs are rooted in the local society in terms not only of economy, but also tradition, culture and history. Thus, their sustainability correlates with the local sustainability and regeneration. And, it is the local resources and environmental protection that both rely on along with agriculture, forestry and fishery. In this context, to look into the correlation between SMEs and local economy would be the focal point.*

*This paper focuses on SME under such circumstances concerning how they would regenerate their economic sustainability and attain self-sufficiency in association with the locals. For this, the paper argues how they cooperate and/or collaborate with the local institutions, government, other enterprises, intermediary, creating a type of associational economy. This is a socialized economy. Regarding such issues, several case studies in Japan are provided. Also, localism and localization are examined from the viewpoint how these ideas correspond with the regeneration of local economy as such. It is concluded: (1) Localism is a social movement. Localism may indicate localization, but not necessarily. (2) Localization is a benchmark which would be realized through associational economy and attained with alleviation of climate crisis. (3) A type of associational economy could fit into the actuality, and at the foundation membership philosophy is in Japan.*

**Keywords:** *SMEs, localism, localization, an associational economy, membership philosophy*

## **INTRODUCTION**

In this world we live in with urgent problems, climate crisis in particular, localism and/or localisation can indicate the direction to divert from global capitalism towards alternative form of organisation. Such organisation is not to rely on global long supply chain and to be self-sufficient. For such assignment, SMEs is of central importance along with agriculture, forestry and fisheries at the local, regional and national levels. In Japan, small enterprises (with fewer than 20 employees) accounted for 85.1%, and medium-sized (with fewer than 300 employees) 14.6%, and 99.7% totally. Total employment in SMEs was 44.88 million, which is 70% of all private sector employment. The combined annual turnover of SMEs was 51.2% of all private sector turnover in Japan (Small business administration, 2016). SMEs' sustainability is indispensable for the local, regional and national economy and society. Quantitatively they

overwhelm large enterprises in the number of total enterprises and employment. Qualitatively, they create and distribute goods and services consumed by everybody's everyday life. It is called 'the foundational economy' (quoted in Parker, 2017). Moreover, they are made up of many small businesses in a lot of different sectors and different sizes. This means they are more resilient to cope with changes (Parker, 2017).

SMEs are rooted in local resources and society in terms of economy, tradition, culture and history. Therefore, SMEs sustainability correlates with local sustainability and regeneration. It means that they need to explore the local resources and circumstances, and for this, to cooperate and/or collaborate with external actors. Their management and organization should be developed not limited within their sphere but extended wider outside, economically, socially and politically. How they have been managing in this context?

Localism and localization should be referred to in the context mentioned above. They are generally linked to globalism and globalization as a kind of antagonism toward. In this paper they are reviewed to see whether process of sustainable and regenerative SMEs and other economic or political entity's activities in Japan are related to them. At first, the issues about how localism and localisation are understood are addressed. In relation to this, some socio-economic movement in the rural areas are described. Secondly, managerial and organizational development of SMEs is explained. Thirdly, several case studies of SMEs and their cooperation and/or collaboration with external actors in Japan are provided, which show SMEs' managerial and organizational extension and evolution for the sustainability and regeneration for both SMEs and the local economy.

## **1. LITERATURE REVIEW - LOCALISM AND LOCALIZATION**

A lot of studies related to localism have been carried out and there are various localisms. It seems that they may be classified into two groups: the studies in UK (and Australia) and the other countries. The studies in UK have been prolific especially after the Coalition Government was formed in May 2010, and in November 2011 when the Localism Act became law. Naturally, their topics of and approaches to localism are various, but the base of their focuses are linked to the Localism Act. Also, it may be added that UK has a historical tradition of philosophy linked to localism (Clarke & Cochrane, 2013). Localism is decentralization of political power. It is identified that there are three different types of localism; managerial, representative, community (Evance, M., et al, 2013) and/or 'centrally managed', 'laissez-faire', 'democratic' (Hodgson & Spours, 2012). In reality, they are not just that. Apart from in the UK, most studies arguing localism are as a matter of course 'community or democratic localism' based (Ciuchta & O'Tool, 2018). Further, they indicate more or less anti-global capitalism – anti-global supply chain or 'buy local' movement. It would be said, however, that localism should not be grasped as being countering globalism, but should be as being independent neither supplementary nor complementary to globalism (Roudometof, 2019).

Their arguments are related to self-sufficiency to environment protection and in some cases to de-growth (Moccat, 2020; Akbulut, 2021). So, there are various approaches to and movements for localism. They could be summed up as a social movement (Ciuchta & O'Tool, 2018). In reality, they could not be the transition movement – social change like to socialism – theoretically and practically (Felicetti, 2013). This could show the limits of localism, while SMEs and the local aim at attaining a holistic sustainability in their society including self-

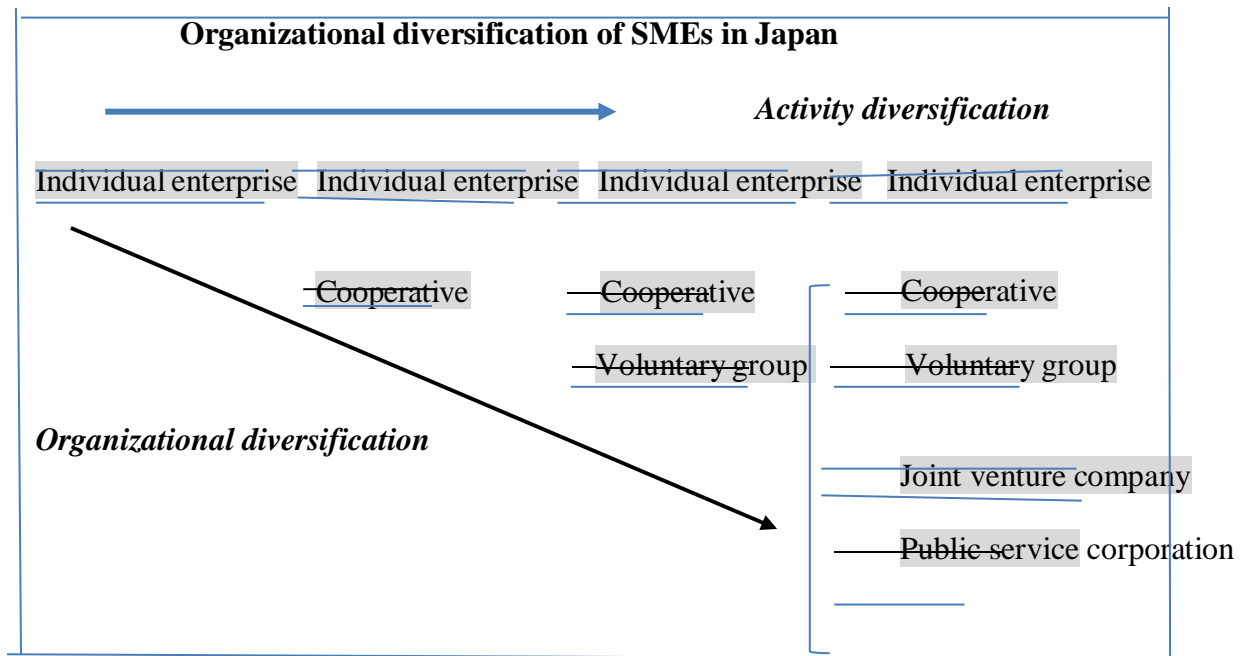
sufficiency, environmental protection and well-being equality. It could claim a social and economic structural change.

Localization could be hold more dynamic meanings than is held in the organizational notion of localism. In the context of governance, it is used being a source of activism. Localization can also be used to attempt to achieve greater participation in political decision making by communities or even individuals through their greater participation in public services. In a larger scale, the opposite of localization is globalization (Ian Greener, Britannica). Localization can be such shows change oriented, or ‘transformative sustainability strategy’ (Olivier et al, 2017). A study shows an attempt that quality of localization can be measured by metric set as follows: (1) resource self-reliance; (2) resource dependence; (3) social health; (4) environmental damage/impact; (5) localisation type/governance participation; and (6) control and ownership of resources, land, assets and business (Olivier et al, 2017). It helps us to figure out what localization should be attained for sustainable local economy and society. The matter is that localism is experienced as a social movement, while localization is on the way to be attained.

## **2. SMES’ MANAGERIAL AND ORGANIZATIONAL EVOLUTION FOR SUSTAINABILITY IN JAPAN**

In fact, the local economy has not been doing well in Japan. The globalization of economy, in particular, has hit local SMEs. They are grouped in three tiers: SMEs with competitive edge, with standardized skill in the supporting industry, and independent SMEs. The elite SMEs have been privileged by the central government, since they are the core of multinational enterprises to be on the competitive edge in the global capitalism. The *local Abeno Mix* has continued to support the global circulation strategy based on ‘regional creation (*chihou sousei*)’ strategy, which essentially keep multinational enterprises up by locating strategically organized elite SMEs. Local SMEs, domestic demand related, may be outside of this global circulation strategy. They have been grappling with the given circumstances and developing their managerial and organizational strategy. Local economic circulation should be restructured (Yoshida, 2016). Local SMEs have organized mutual cooperation, supplement with each other and develop new extended forms of organization. The research (Shoko-tyūkin organizational financing section. 2000) shows that new organizational forms have been emerged, and they are getting diversified from conventional ‘same industry unions’ to ‘cross industry collaborative unions’, in other words; ‘economy of scale’ to ‘economy of connectivity’. This organizational change reflects their managerial development.





*Source:* Multidirectional solidarity organization casebook (1999, March), Federation of Small Business Association  
Quoted in Shokokin'yu, 2000.04

Their organizational and managerial activities have expanded into collaboration with external economic actors – local institutions, municipalities, other enterprises, voluntary groups, credit unions, intermediary, cooperatives and so on. A study shows that how cooperative financial institutions have contributed to revitalizing the regional economy its sustainable development (Kin, Y. 2018). This research focuses on a case study of three *shinkin* banks (credit unions) in Nara prefecture, Japan. an increase in deposit share in Nara's three *shinkin* banks has directly contributed to intra-area funds flows. Especially, lending patterns that are irrelevant to the economy have constantly led to the intra-regional reinvestment through stable supply of funds. Moreover, as of 2009, an amount of loans as well as the number of loans has been on the increase (or recovering) in the regional economy where there has been a decrease in the number of private enterprises in all sectors. At the very least, it can be inferred that loan and deposit operationcas of 'Nara *Shinkin* Bank' and that of 'Yamato *Shinkin* Bank' are closely connected with Nara's regional economy and have played a prominent role in sustainable development of its economy and society (Kin, Y. 2018).

The study above demonstrates the significance of collaboration between economic entities for local economic regeneration. Further, it should direct to local economic circulation, which could make local economy possible self-reliance (Yoshida, 2016).

#### Localism in Japan

Both concepts of localism and localization are neither familiar nor commonplace scholarly in Japan so far (I have done the search for the both concepts in the academic journals published by the following. The Japan Association for Regional Economic Studies; The Japan Association of Economic Geographers; Shoko Research Institute; The Japan Research Institute for Local

Government). Given that localism is a social movement, *ie* ‘buy local’ movement, it was not found in Japan, which fits into the frame argued in the previous section.

So called “OVOP (one village one product)” movements have been born in rural areas. It started in Oita prefecture in 1979, more than 40 years passed, while some saw success others did not. During that time around, many groups of farming women played a central role in the movement. The aim is ‘independence of the local, village and farmer’. Each group consisted of less than 10 women and one leader among them, and had regular meetings about management – what kind of products, how to sell, for example. They were strong and self-reliant as they acted for themselves and did not rely on subsidies or handouts. It was bottom-up movement. This movement has basically derived from the ‘everyday life improvement group’ which was established just after the World War II. Members of life improving spread had contributed tremendously and comprehensively for improvement of rural everyday life and rural women’s empowerment (Aihara, 2019).

### **3. CASE STUDIES – SMES’ INDIGENOUS, MANAGERIAL AND ORGANIZATIONAL DEVELOPMENT.**

Here two case studies are taken up, Tokachi prefecture in Hokkaido, and Sumita-machi, in Iwate prefecture. The case studies show that each municipality has its own perspective and plan of industry promotion and its own way of industrial collaboration between SMEs, municipality, local financial agencies, and other economic entities. It suggests they rely on its own resources and circumstances. It means any municipality could be creative or innovative under its own distinctive circumstances in economic development.

The background above is the amendment of the Small and Medium Enterprises Basic Act in 1999, which created the possibility that municipality tackles its own matters in its own way. Based on the amendment, the ordinance of SMEs promotion has been enacted in many municipalities since 2000, *ie* 147 municipalities until 2014. The enacted ordinance is the idea or concept of industry promotion. Accordingly, municipality must have formed a vision with plan to realize the idea. For this, many meetings and conferences, which consist of SMEs, academics, local financial agency, local public entity, and other economic entities, are held to enhance more learning and understanding about the vision and plan. Moreover, they contributed greatly to deepen participants’ relationships socially and personally. Such enduring processes have brought them on unique and stimulating outcome while the process is on the way yet (Ogai, 2013). Note that municipality plays a key role for collaboration among these economic entities (Ogai, 2012; Yoshida, 2016).

(1) Tokachi region – structuring regional economic circulation and industry promotion (Ogai, 2012)

Hokkaido, especially Tokachi-region, is the country's largest producer of wheat. But, many of them are transported to big cities, consuming area. As a result, it is rare that inter-industrial relations are constructed from production to consumption through processing. Recently some farm producers and SMEs took action about local production for local consumption. Also, the municipality took some policies to promote activation of regional-industry. It was based on the ‘industry promotioyen vision’ in Obihiro-City in 2009. To realize the vision for the enactment, the ‘Industry Promotion Conference’ was organized. They had conferences and meetings for learning and understanding better more than 70 times in one year. They emphasize full utilization of regional resources. It is shown the importance of the collaboration between the

municipality and economic entities. Further, it is remarkable that economic entities took efforts to create economic circulation in Tokachi region along with the Obihiro-City's (local capital of Tokachi region) regional economic policy of industry promotion towards regional economic circulation. It is noted that such accumulated conferences and meetings produced personal and social networks among the participants.

(2) Local economic circulation in Sumita-machi – development based on Forestry promotion (Yoshida, 2016)

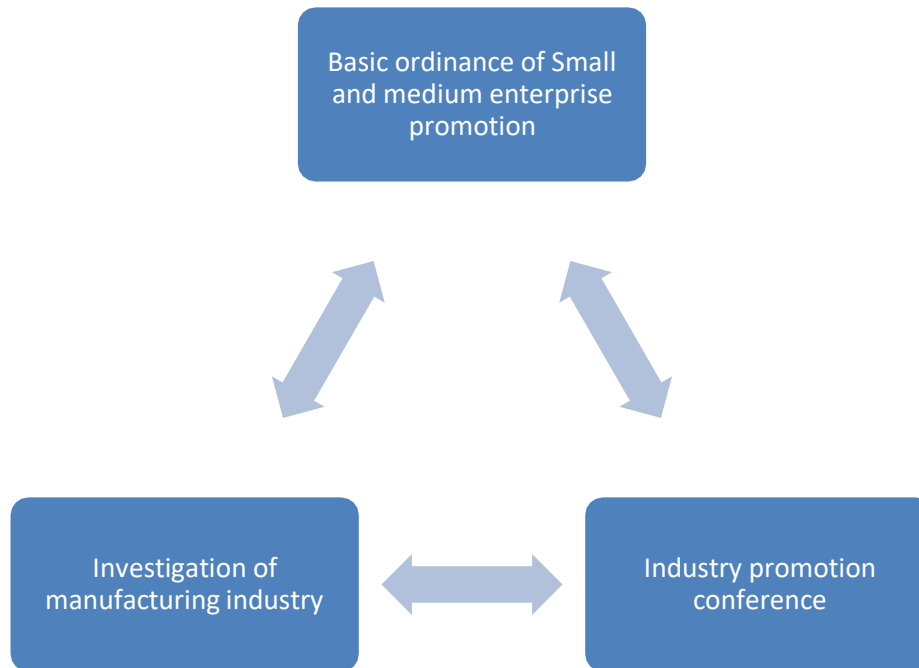
In April 2002, Sumita-machi had been tackling the “Basic stance on Town planning concept and against municipality merger” to demonstrate the final report of project. In the previous year the town organized ‘the local management committee’ and then framed a basic plan. It is the local resources that was the starting point to create energy (wood biomass) and through which job and finance are circulating. From upstream (forestry) to downstream (house construction) and lumbering process between, they challenged to take in the related business and manufacturing process as many as possible, and to build up the system that employment and income circulate and reproduce within the local.

(3) A case of Sumida Ward in Tokyo as a ‘Model of basic Ordinance of SMEs Promotion’ (Ogai, 2013).

In 1970s the Ward had faced serious problems caused by environmental pollution, and moving out of factories. The result was loss of employment and corporation tax. It is the three main things that the municipality (Sumida Ward) tackled the problems. First, “the actuality investigation of manufacturing industry” was executed. Second, “Sumida Ward SMEs Promotion Basic Ordinance” was enacted, based on the ‘actuality investigation’. Third, “Industry Promotion conference” was set up to examine materialized industry policy. It is remarkable with regard to the ‘actuality investigation’ that 180 staff the Ward, chiefs and the higher status, visited about 9,000 business offices and interviewed for the investigation. This made possible examining industry policy, based on the view point of ‘business offices’. Moreover, with regard to the enactment of the Ordinance, “responsibility of headmen of the ward”, “effort of small and medium enterprise” and “understanding and cooperation by the inhabitants” are included.

‘Industry promotion conference’ consists of small and medium enterprises, academics and municipality staff and hammered out many creative policies. As shown below, “SMEs Promotion Basic Ordinance”, “the Actuality investigation of manufacturing industry”, “Industry Promotion conference”– these three pillars are the base of industry promotion. Particularly, investigation of actuality is important to take effective action for the matter found.

## ‘Sumida – Ward’ local industry: The three pillars of SMEs Promotion



Source: Ogai, 2013: p. 36

## 4. FINDINGS AND CONCLUSION

Localism and localization as words are not used in Japan so far. SMEs and local people are aware of the impact of global capitalism. But they are involved in much more urgent and practical project, how to regenerate and sustain the local economy. Several case studies and/example could show this reality. Localization as a benchmark could be a part of SMEs indigenous development, and local economy regeneration.

SMEs' collaboration with external economic and political entities could make up a type of associational economy, by adding one important factor, cultural values, which is not collectivism (Sato, 2022). Collectivism is abstraction based on and derived from individualism. I would say, instead, membership philosophy (Oikawa, 2021).

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# ECONOMIC AND SOCIAL IMPACT OF COVID-19 IN REPUBLIC OF NORTH MACEDONIA AND FUTURE POLICY CHALLENGES IN ACHIEVING SUSTAINABLE DEVELOPMENT

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## ABSTRACT

*Covid-19 pandemic has begun as a health crisis, causing a large-scale loss of life and a human suffering. In a short time period, the health crisis has brought the greatest economic, social and financial shocks of the 21<sup>st</sup> century, and has been recognized as the worst economic crisis since the Great Depression of the 1930s. North Macedonia belongs among the severely affected countries. The pandemic has had a negative impact on overall economic activity in North Macedonia. The subject of the paper is to identify the economic and social implication caused by Covid-19 in North Macedonia. The aim is to design proposals to policy makers, applicable in the period of the economic recovery, in direction of achieving sustainable development. At the beginning of the paper an overview of the socio-economic impact of Covid-19 on global scale is given. Further in the paper the economic and social implication of the pandemic, as well as the government measures implemented in North Macedonia are elaborated. Analyzes of the economic impacts of the crises is based on the movement of the key macroeconomic indicators as: GDP growth rates, unemployment rates, inflation, gross debt, etc. Analyzes of the social impacts of the crises is focused on the reduced incomes, increased inequality in income distribution and poverty growth. At the end of the paper is given summery overview of the socio-economic implication in the country and proposals for policy makers are prepared. The performed analyses are based on the already available data from relevant institutions.*

**Keywords:** Covid-19, North Macedonia, economic implications, social implications, sustainable development.

## INTRODUCTION

During 2019, 12 years after the Great Recession of 2007-2009, the macroeconomists have debated about the potential possibilities of an emergence of a new global crisis (The Economist 2020). Several important factors were stressed, indicating the possibility of a new global crisis. The **first factor** is the slow recovery of economies in the period after the Great Recession of 2007-2009, the **second factor** is the USA – China trade war and the **third factor** refers to the formation of “hot spots” in financial bubbles (Фити 2020). What followed in the next years

showed that a new global recession did occur, but as a result of the outbreak of the Covid-19 pandemic, not as a result of the abovementioned factors.

Because this crisis is caused by a non-economic factor, but by a real factor – epidemic, it could not have been predicted by any mathematical model. The shock that caused the emergence of a new crisis has come from the health sector, and it is classified as a shock on the aggregate supply side. The very fast transmission of the health crisis to the economy is explained as a result of a strong shock on the aggregate supply side, which was simultaneously transmitted to the aggregate demand side. The shock on the aggregate supply side occurred as a result of: closure of entire economic sectors (tourism and hospitality, public transport, segments of manufacturing); social and physical distance; self-isolations and quarantines; disruption of international trade and global supply chains and reduce work ability of workers and business entities. On the demand side, the shock occurred as a result of: decline of demand and consumption of final goods and services in the household sector; decline of the consumption and gross-investments in the business sector and increase of budget spending, which resulted in large budget deficits and large public debts (Fiti 2021).

On December 31 2019, the WHO China Country Office informed of cases of pneumonia unknown etiology, detected in Wuhan City, Hubei Province of China (WHO 2020). On January 9, 2020, a new coronavirus was identified, for which genetic sequencing determined that it belonged to the beta-corona strain. On February 11, 2020, the WHO named the pneumonia as coronavirus disease-19 also known as Covid-19 (Li et al. 2020; Waris et al. 2020). The coronavirus epidemic which started in China quickly spread worldwide and affected many countries and relatively large percentage of the world's population. The Covid-19 pandemic was officially declared on March 11, 2020 by the WHO Secretary General. As per current statistics reported by the WHO, by the mid of July 2022, 228 countries have been affected and have reported 559.469.605 cases of Covid-19, including 6.361.157 deaths and a total of 12.130.881.147 vaccine doses have been administrated (WHO 2022). Among the hardest hit countries are the high-income countries, they reported cumulative cases 330.226.478 and cumulative deaths 2.515.493, by the mid of July 2022. The number of reported cases is the highest in USA, India, Brazil, France, Germany and in the UK<sup>2</sup>.

The first positive case of Covid-19 in North Macedonia was reported on February 26, 2020. According to the current statistics, as of July 18 2022, there have been 318.138 confirmed cases of Covid-19 and 9.339 deaths. The first peak of contamination is mid-November 2020, after which the number of active Covid-19 cases has been steadily decreasing. The second peak of contamination is at the beginning of April 2021, on April 5 were confirmed 8.233 cases. The third peak is at the end of January 2022. By the end of June 2022, a total number of 1.850.145 vaccine doses have been administrated in the country (WHO 2022).

The strong decline in aggregated supply caused by Covid-19 pandemic spread very quickly to aggregated demand on global level and triggered the largest global economic crisis in the last century. This crisis has dramatic economic and social consequences across countries. The countries have established large economic and social policy measures as a response to the crisis. The measures were generally successful in a short-run in mitigating human costs. But the policy response created new risks and challenges at global level – dramatic increase of public debt and public deficit. After more than two years of pandemic, now the world is facing with other challenge – the Russian's invasion in Ukraine. This invasion and its effects on the energy prices, food prices, food insecurity and poverty, supply chains, financial vulnerability and inflation is

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<sup>2</sup> For more detailed Covid-19 statistics, see the WHO Dashboard: <https://covid19.who.int/table>.

accelerating the slowdown of the global growth. The danger of stagflation – high inflation and slow growth at the same time is considerable today.

The subject of the paper is to identify the causes of Covid-19 crisis and its implications on global level, through the movement of the main macroeconomic aggregates. A special focus is put on the implications caused by the pandemic of Covid-19 (the Great Lockdown) on the Macedonian economy, as well as, on the new challenges caused by the Russian's invasion in Ukraine.

At the beginning of the paper are analyzed the social and economic implications of Covid-19 crisis and the recent challenges on global level. Further the analysis continues with the implications of the Covid-19 crisis on the Macedonian economy. As part of the paper are elaborated the policy response in North Macedonia to the crisis. The impacts of the Covid-19 crisis are reviewed through the prism of the main macroeconomic aggregates, such as: GDP, inflation, gross debt, labour market, poverty, income inequality, etc. Based on the analysis of the implication caused by the Covid-19 crisis and new energy and food crisis, summarized proposals for the policy makers in North Macedonia are prepared.

For the purpose of the paper are used results from empirical studies and already available data from relevant international and national institutions, such as: World Bank, International Monetary Fund, World Health Organization, State Statistical Office, National Bank of Republic of North Macedonia, Ministry of Finance, etc.

The analysis confirms that North Macedonia as small and open economy is severely affected by the Covid-19 crisis and by the energy and food crisis. Still in the country in the coming period the Covid-19 remains a main concern, because a new and more infection variants could have strong negative repercussions on the whole economy. The prolonged war between Russia and Ukraine is evident that will dipper the energy crisis, as well as food crisis, and further threat the inflation rate. As a result of the fact that global financial market conditions are tightening and energy and food prices are persisting on high level, the debt sustainability is main concern for the next period and urgent well-structured policy measures should be put in place in order to achieve sustained growth rates, inclusive growth, to accelerate the green transition and to set back the public finances to sustainable path.

## **1. SOCIO-ECONOMIC IMPACTS OF COVID-19 CRISIS ON GLOBAL SCALE, THROUGH THE MAIN MACROECONOMIC AGGREGATES**

The global health crisis caused by Covid-19 lead the world to the deepest global recession since the second world war. The pandemic resulted in output construction in majority of countries around the world. The countries that have weak health systems, that rely heavily on global trade, tourism or on remittances from abroad are the hardest hit by the pandemic. Beyond the short-term impacts, the pandemic caused lasting damage to fundamental determinants of long-run growth prospects, as well as, to the leaving standards, human capital, global trade and supply linkages. The first policy measures as a response to the crisis were intended to support the health care systems and to moderate the short-term impact on the economic activity and employment.

In 2021 the world economy has started the uneven recovery from the pandemic crisis. Growth process was rapid and concentrated mainly in advanced economies, while the developing economies were legging behind. The situation on global level remains uncertain, as a result of large Covid-19 waves caused by new virus variants and the unequal access to vaccines. The policy makers were facing with double challenge, as they need to balance between the recovery measures on one side and the need for safeguarding price stability and fiscal sustainability on the other side.



The recovery process was undermined in the beginning of 2022 as a result of the Russian's invasion in Ukraine. The negative spillovers caused by the war hit the global economy. Policy creators are required to reverse the damage inflicted by the dual shocks of the pandemic and the war. Currently, according to the World Bank (2022a) the global conditions are comparable with the era of stagflation of the 1970s.

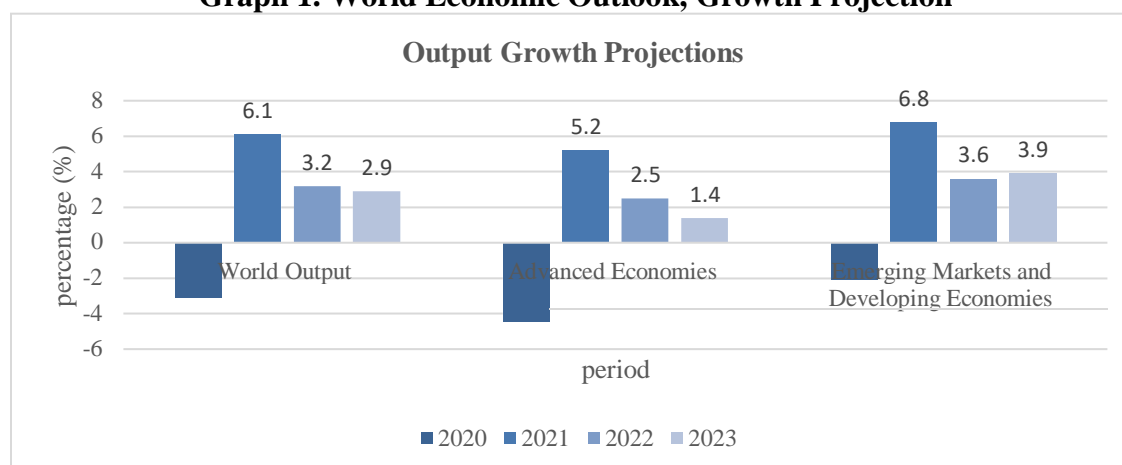
### *1.1. GDP*

The Covid-19 pandemic has plunged global economy in a deep recession. As a result of the pandemic, according to the IMF calculations the world output has declined by 3.1%, presenting higher decrease compared with the 2007 global financial crisis. Hardly hit was the economic output in advanced economy, negative growth rate was achieved in 2020 (-4.5%). The emerging markets and developing economies (EMDE) finished 2020 with growth output decrease of -2.1% (IMF 2021).

The global recovery started in 2021 supported by the fiscal and monetary policy measures, but the movement was weak, due to the highly transmissible Delta variant, which resulted Covid-19 deaths to rise close to 5 million. Pandemic outbreaks in critical links of global supply chains continue in 2021 and resulted in longer than expected supply disruptions, further feeding the inflation and threatening the economic output. The economic divergence across countries remained a main concern during 2021. The aggregate output in advanced economies increased by 5.2%, but did not reach the pre-pandemic level. In EMDE the aggregate output increased by 6.8%, but the growth rates differ significantly between the countries part of the group. The output losses for EMDE and the uncertainty in the recovery process were due to slower vaccination process and generally less policy support measures compared with one established in advanced economies.

IMF in *The Global World Outlook*, published in January 2022 was expecting the global recovery to strengthen from the second quarter of the year after a short-lived impact of the Omicron variant (IMF 2022a). But the world real GDP is estimated to have shrunk in the second quarter of 2022 – presenting the first contraction since 2020, as a result of the new lockdowns in China and war in Ukraine. The China's zero-Covid strategy has global consequences on economic activity: the lockdowns added to global supply chain disruptions and the decline in domestic spending has led to decrease of demand for goods and services from China's trade partners. Despite the life losses, the war in Ukraine has higher than expected economic effects worldwide, major in European economies. The war increased the energy prices, slowed the manufacturing process, disrupted the supply chains, caused food crisis and increased the input costs. All those negative effects hit the global output. The global slowdown accelerates as downside risks materialize. The economic uncertainty and risks for oncoming recession have increased in the recent period and resulted in revision of GDP forecast. In *The Global World Outlook* of July 2022, IMF projects the global output to slow down from an estimated 6.1% in 2021 to 3.2% in 2022 and 2.9% in 2023, presenting 0.4 p.p. and 0.7 p.p. lower growth respectively, compared with the previous projections from April (IMF 2022b; IMF 2022c). In 2022 and beyond, scarring effects are expected to be larger in EMDE than in advanced economies. Those forecasts are highly uncertain and downside risks to the global economic growth are expected if the situation in Ukraine become worse, inflation increases and the sanctions on Russia escalate.

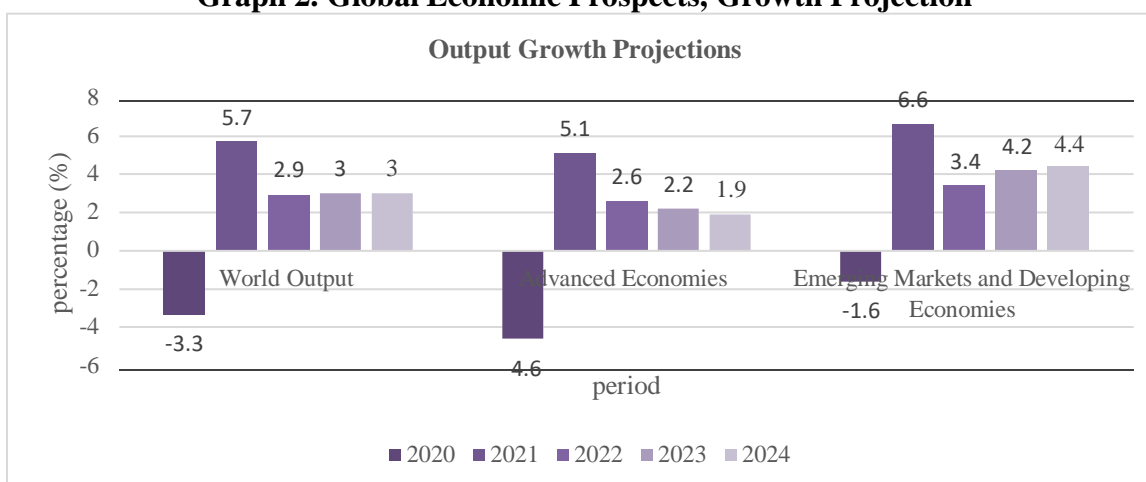
**Graph 1. World Economic Outlook, Growth Projection**



Source: IMF 2022c.

According to the World Bank (2021) estimates, the global growth decreased in 2020 by 3.3%. Compared with the IMF calculation, the World Bank has estimated greater decrease in advanced countries (-4.6%), compared with EMDE (-1.6%) in 2020 (World Bank 2021a). Despite the recovery, World Bank highlights that in 2021 the global output was around 2% below the pre-pandemic level. Among major economies, the leading one regarding the growth output was US (5.7%). Excluding China, the recovery in 2021 among EMDE group is moderate, presenting growth of 6.8%, but gains in this group are not sufficient to deal with the losses caused by the pandemic. In the latest report – *Global Economic Prospects* (2022), World Bank projects the global growth to slow down from 5.7% in 2021 to 2.9% in 2022 and to 3% in 2023 and 2024, as a result of the new crisis caused by the war in Ukraine and increase of energy and food prices. The growth losses are expected to continue in the upcoming period, especially among EMDE. In advanced economies the slowdown of economic activity is caused by the raise of energy prices, disruptions in the global chain supply and non-favorable financial conditions. As a result of those conditions the economic growth in those economies is projected to decrease by 2.2 p.p. i.e. from 5.1% in 2021 to 2.9% in 2022. The recovery will not be so fast and easy process in the advanced economies. It is projected this group to achieve moderate growth in the coming period, 2.2% and 1.9% in 2023 and 2024 respectively, mainly as a result of the unwinding of the fiscal and monetary support measures provided for mitigating coronavirus effects. EMDE growth is projected to slowdown in the coming period, decreasing by 2.8 p.p. in 2022, compared with 2021 and will stay below the annual average of 4.8% before the pre-pandemic level. This slowdown is mainly due to the spillovers caused by the war. The global output of this group will remain below the pre-pandemic level even in 2024.

**Graph 2. Global Economic Prospects, Growth Projection**



Source: World Bank 2022.

According to the experts, the global growth is expected to slow further in the next period as a result of weakening its fundamental drivers (Dieppe 2021; Kose and Ohnsorge 2020). First, working age population is declining on global scale, in advanced economies as well as in EMDE. Second, the uncertainties raised by the Russia's invasion in Ukraine is expected to weak the investment growth. Third, the global productivity growth slowdown is expected to continue in the coming period as the effects of improvements to education and health outcomes wane. As a result of those facts, the slowdown of global potential growth is unavoidable.

### *1.2. Inflation*

The global inflation was a quite stable in the period before the Covid-19 crisis. The inflation on global scale was on average 2.3% in 2019. In 2019, in the pre-pandemic period, in advanced economies inflation rate was 1.3% and in EMDE was 1.3 p.p. higher, reaching level of 2.6% (WB 2022a). The stable and low level of inflation was a result of the focus of monetary policy on price stability and also of rapid globalization and liberalization of product, labour and financial markets. The low level of inflation between 1990s and 2000s is known as "The Great Moderation" and it became the main challenge in almost all economies.

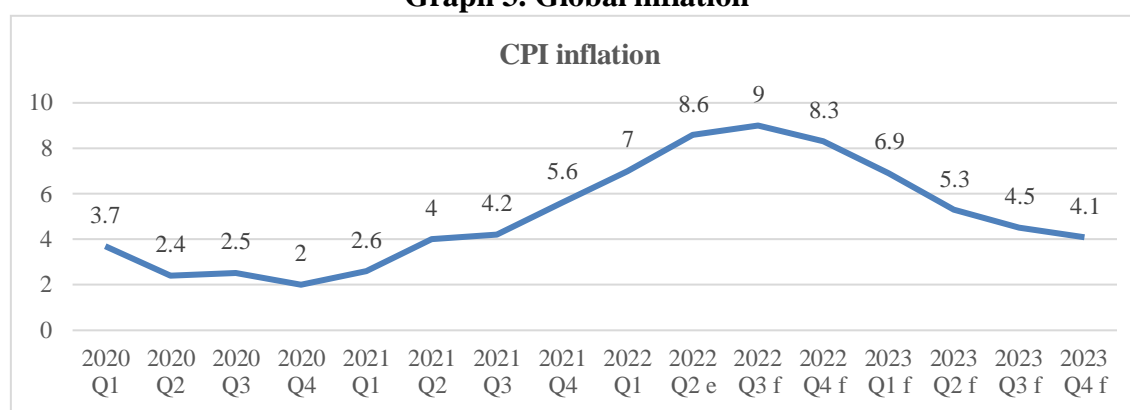
In 2019, the pre-pandemic year in almost all advanced economies, the inflation rate was below the target, and in about half of EMDE inflation remain in the target range (WB 2022a). Starting from the beginning of 2020, as the crisis begin the inflation started to be quite volatile category. In the first months of pandemic, between January and April 2020, the global inflation has declined by 1 p.p., reflecting the collapse in global demand, as consumption and investment collapsed. Another factor for the disinflationary trend was the plunge in oil prices. The disinflationary effects from the decrease of demand and increase of oil prices were partly offset by the inflationary effects of global chain disruptions. Since May 2020, the global inflation started to pick up as a result of the easing of the lockdowns, increase of economic activity and demand. The easing of global supply bottlenecks began to lower the inflation pressure but the sharp rebounds in oil and food prices put upward pressure on the inflation tendency on global scale.

From the mid of 2021, as the global economy started the recovery process, the inflation accelerated and become more broad based category. The rebound of global growth, rising of oil

prices, supply shocks and increase of non-oil commodities have all contributed to increase the inflation rate on global scale. The war in Ukraine lead to energy and food crisis, which have further driven up inflation. The demand shocks were the dominant force for pushing up inflation in the first half of 2020, but since the mid of 2021 the supply shocks are the main drivers for pushing up inflation. According to some researchers the recent inflationary tendencies could mark a permanent ratcheting up of price pressures after decades of low and stable inflation (Borio et al 2021; Ha, Kose and Ohnsorge 2022).

As a result of the war, inflation is expected to remain elevated in 2022. The gas and oil prices, as well as food prices as a major contributing factor to the inflation in 2021 and 2022, are expected to continue to increase in 2023. According to the IMF forecasts, global inflation is projected at level of 8.3%. In advanced economies inflation is expected to reach 6.3% and higher inflation is expected in EMDE, reaching 10% (IMF 2022c). However, those forecasts are a subject of high uncertainty, mainly related with the war and pandemic and their effects on prices of commodities and inputs in the production process. The supply disruptions and bottlenecks would further increase the costs of intermediate inputs. The sustained increase of commodity prices could cause the medium term inflation expectations to rise.

**Graph 3. Global inflation**



Source: IMF 2022b.

Note: e = estimate; f = forecasts.

While the global inflation has risen sharply since the mid of 2020, the global growth is moving in opposite direction, it has decline sharply since the beginning of 2022 and is expected to remain below the average of the 2010s. This is raising the concern among the experts about stagflation risks – a combination of high inflation and sluggish growth (Blanchard 2022; Summers 2022). The threat of stagflation is becoming more evident since the combination of weak growth and high inflation is highly synchronized across many countries around the world. If the stagflationary pressures persist, then the world may face with the similar consequences as those caused by the stagflation in 1970s. If the 1970s stagflation episode happened, EMDEs would face with severe challenge because of their financial vulnerabilities and weak growth fundamental. As a response to the current situation, it should be used the lessons learned from the 1970s, the central banks should act in preemptive manner to avoid loss in confidence in their commitment to maintaining low inflation rate, and simultaneously sustainable fiscal responses should be put in place also.

### 1.3.Public debt

All governments in affected countries opted for expansionary fiscal and monetary policies as a response to the Covid-19 shocks. This led to a sharp increase in budget deficits and accumulation of public debt in individual economies and on global level. At the beginning of the crisis the fiscal support consisted of additional spending and the other half on liquidity support, including loans and capital injections by the public sector. The issue of those fiscal measures has helped to mitigate the effects of the crisis on the economic activity, saved lives and has supported the vulnerable categories of peoples. The fiscal response has massive negative consequences for public finance in all affected countries. In 2020, government debt approached to 9.9% of GDP at global level and global public debt approached to almost 100%, a record high level compared with the previous period. The general government fiscal balance, in 2020, compared with 2019, in the group of advanced economies is worsened by 7.5 p.p., from -3% to -10.5% and the general government debt reached 123% of GDP in those economies. In the group of EMDE, in the same period the general government fiscal balance deteriorated by 4.7 p.p., from -4.6% to -9.3%, and the general government public debt reached 64.9% of GDP, a lower level compared with the advanced economies (IMF 2022d). The ability of countries to respond with fiscal support varied across countries and it has been determined by the countries' fiscal space and public debt levels. The fiscal response has positive effects. The public health policies and finance support contained the spread of the virus and helped the economy to recover. Targeted cash transfers for most vulnerable categories helped to prevent poverty to some extent. The unemployment benefits supported consumption, tax cuts supported liquidity, etc. All those measures have positive impacts on short-run but have negative fiscal repercussions on long-run.

In the next year, 2021, the fiscal policy measures were shifted toward economy recovery, straightening the economies through green transition, digital transformation, inclusive growth and other long-term capital investments. In the advanced economies mainly in US and European Union large fiscal packages were adopted intended for the recovery process. The lower public revenues and higher interest rates have strained the fiscal capacity of EMDE. The world fiscal deficit decreased by 3.5% in 2021 (-6.4%) compared with 2020 (-9.9%), but it is still above the pre-pandemic level, especially in advanced economies (-10.5%). In EMDE the budget deficit reached -9.3% of GDP and the reduction of the deficit is expected to occur through lower spending as a result of the lower level of tax revenues, below the pre-crisis trajectory. The global government debt is below 100% but still presents a record-high level. The debt increase leads to the rise of governments' financing needs, especially in EMDE. Many of developing countries need debt restructuring and additional international aid.

**Table 1. General Government Overall Fiscal Balance, percentage (%) of GDP**

	2018	2019	2020	2021	2022	2023	2024
<b>World</b>	-2,9	-3,6	-9,9	-6,4	-4,9	-4	-3,9
<b>Advanced economies</b>	-2,5	-3	-10,5	-7,3	-4,3	-2,9	-2,8
<b>Emerging Market Economies</b>	-3,6	-4,6	-9,3	-5,3	-5,7	-5,5	-5,4
<b>Low-Income Developing Countries</b>	-3,3	-3,5	-5,1	-4,9	-5,2	-4,6	-4,3
<b>World Output (percent)</b>	3,6	2,9	-3,1	6,1	3,6	3,6	3,4

Source: IMF 2022d.

The 2022 has brought new challenges to fiscal policy creators. The fiscal responses are now shifted from mitigating the pandemic effects to mitigating the war repercussions, fighting against high energy and food prices in conditions of slowdown of economic growth and high public debt. Developing countries and low income countries are seriously affected by the new reality, because most of them are net importers of energy and food commodities. At the same time many of them are still facing with the pandemic effects and have a very tiny fiscal space to cope with the new shocks. The fiscal support in those countries in the previous period was not insufficient to prevent a fall in households' income which is boosting the fiscal pressure now. The international institutions are facing with new challenge to predict the public debt and fiscal deficit in the coming period shaped with high uncertainties. The IMF in its *Fiscal monitoring*, from April 2022, projects the global fiscal deficit to decrease to -4.9%, but still to remain above the pre-pandemic level. The fiscal deficit will be higher in EMDE (-5.7%), compared with the fiscal deficit in advanced economies (-4.3%). According to the projection, the government debt is expected to slightly decrease and to approach to 94.4% of GDP at global level. Debt is projected to decrease in advanced economies (115.5%) but to slightly increase among developing countries. Public debt is expected to grow faster in countries which are food and energy commodity importers. As a result of the tight fiscal space, rising inflation and interest rates, the fiscal support should focus on priority areas.

**Table 2. General Government Debt, percentage (%) of GDP**

	2018	2019	2020	2021	2022	2023	2024
<b>World</b>	82,2	83,6	99,2	97	94,4	94,1	94,5
<b>Advanced economies</b>	102,7	103,8	123,2	119,8	115,5	113,7	113,1
<b>Emerging Market Economies</b>	52,3	54,6	64,9	66,1	67,4	69,8	72,1
<b>Low-Income Developing Countries</b>	42,4	43,6	49,5	49,8	50,3	48,8	47,8
<b>Net Debt (world)</b>	67,5	68,5	80,1	79,8	77,2	76,3	77,1

Source: IMF 2022d.

#### *1.4. Labour markets*

The Covid-19 lock downs have hard hit the labour market in 2020. Besides the policy measures intended for the mitigation of effects on the labour market, still more than 93% of world's workers faced with some sort of workplace closure measures. The ILO (2020) calculations shows that during the first quarter of 2020 relative to the last quarter of 2019, an estimated 4.7% of global working hours were lost, but the biggest loss occurred in the second quarter of 2020, when almost 19% of global working hours were lost as a result of the crisis. The impact on the labour market was bigger than the previously expected (ILO 2020). The hardest hit by the Covid-19 crisis was the US labour market, with the largest reduction of 18.3% in working hours (ILO 2020). The factors leading to decline in working hours vary across countries. In some countries the cut-off of working hours and the temporary leave of workers contributed to the decline, while in others the people being pushed into unemployment and inactivity contributed to the rise of the unemployment. In the second half of 2020 slight recovery was achieved, but the labour market still worked below the pre-pandemic level.

The labour market continue to be impacted by the Covid-19 pandemic in 2021, but the vaccination process has helped the countries to combat the virus and open up. During 2021 a little progress has been made compared with the previous year. According to ILO (2022) calculations the global working hours in 2021 remain significantly below the fourth quarter of 2019, at -3.8% in the first quarter of 2021, -4.4% in the second quarter, to -3.2% in the fourth quarter of 2021. The divergence between the countries have increased during 2021. Labour markets in high and upper-middle income countries recovered faster in 2021, while both lower-middle and low-income countries faced with large losses. During 2021 the global productivity growth has slow down significantly. The productivity gap between advanced and developing countries has grown, the average worker in a high income country produced 18 times more output per hour than the average worker in low-income country, presenting the biggest difference since 2005. At same time the real wage growth in 2020/21 is 1.6% in the median country, i.e. is 0.7 p.p. bellow the median growth in 2019. In 2021 fragile and diverging recovery trends were presented on a global level. The labour force has not fully recovered, the young people, mainly women, continue to face with challenges, while the situation was more difficult in the middle-income countries.

**Graph 4. Change in global hours worked relative to Q IV 2019 (benchmark period)**



Source: ILO 2022.

In 2022, labour markets are now facing with further shocks caused by the Ukraine conflict, which has serious consequences on trade and commodity markets, and increased the prices of essential goods, mainly food and energy. During 2022, some work restrictions are put in place, but strict form of closure are phased out. The labour market is suffering from Covid-19 and Ukraine conflict, the numbers of hours worked on a global level deteriorated in the first quarter of 2022 and remains 3.8% below the pre-crisis period (the fourth quarter of 2019), this is equivalent to a deficit of 112 million full-time jobs (Graph 4). The statistics indicates on a significant setback in the recovery process. The financial and monetary turbulence, disruption of global supply chains and increasing inflation have a broad negative impact on the labour markets around the world. At the end of 2021 and beginning of 2022 the increase of job vacancies has led to a tightening of labour markets with a growing number of available jobs relative to jobseekers, with the latter remaining relatively stable. However strong evidence that the labour markets are overheated could not be seen (ILO 2022). Developing economies in 2022 continue to suffer significant labour market slack. The increasing global inflation, erodes the recovery of the labour markets and the real incomes of workers. Aggregate demand could fall significantly, treating growth and labour markets at same time, as a result of the absence of commensurate wage

increases. The increasing uncertainty, multiplications of crisis and increasing inequality treats the recovery of the labour markets. In such uncertain conditions, policy makers are facing with challenge to navigate both the effects of Covid-19 crisis and the shocks of Ukraine conflict, including the negative impact of inflation on jobs and real wages.

### *1.5. Social consequences*

The Covid-19 pandemic triggered the largest global economic crisis and led to the dramatic increase of inequality and poverty within and across the countries. The impacts were especially severe in low-income countries and in EMDE, where income losses caused by the pandemic revealed and worsened some preexisting economic fragilities. As the pandemic unfolded in 2020, it become clear that many households will withstand an income shock. Global poverty has increased for the first time in a generation. As a result of income losses, the survey's data show that more than 50% of households in advanced and emerging economies were not able to sustain the basic consumption for more than three months (Badarinza, Balasubramaniam, and Ramadorai, 2019). Many households were burdened with unsustainable debt levels as a result of the crisis and a sharp decline in income levels. The income losses have led to a dramatic increase of inequality among countries. The largest income losses were registered among youth, women, self-employed and casual workers with lower level of formal education (Bundervoet et al., 2021). Those categories of workers have faced with income losses because they were likelier to be employed in sectors strongly affected by lockdowns and social distancing measures. Based on the World Bank (2021b) calculations, the pandemic push 97 million more people in poverty around the globe in 2020, presenting unprecedented increase in global poverty. In 2021 it is estimated global poverty to decrease by about 21 million people compared with 2020, i.e. from 732 in 2020 to 711 million in 2021. Still this decline does not mean that the world will set back before the pre-pandemic level and the poverty gap would not be closed. A lot of uncertainties shaped 2021, including new virus variants and energy crisis, but the abandonment of the lockdowns, which strongly affected the income level, and the increase of economic activity it is estimated that will accelerate the economy and will reduce the poverty rate.

The combined effects of the increased inflation, pandemic and war in Ukraine, according to the World Bank's estimates (World Bank 2022a) are expected to lead to an increase of 75 million people in extreme poverty, by the end of 2022, relative to the pre-pandemic projections. Per capita income is also expected to be lower in 2023 than its pre-pandemic level. The recovery in per capita income is expected to be slowest in low-income countries and among EMDE dependent on tourism, where income levels remain depressed compared with the pre-pandemic levels. The sustained increase on energy and food prices and food uncertainty could further deepen the poverty, inequality and dampen economic recovery.

## **2. GREEN TRANSITION**

Before the Covid-19 crisis, public investments on global scale were declining and the growth in infrastructure does not response to the needs. As part from the priorities were included the urgent need to increase the investments in environmental protection and climate change. Before the health and economic crisis, despite the realized investments and established instruments, still the world was not on a path to achieve net-zero greenhouse gas emissions by 2050 (Meinshausen et al. 2022). But 2020 brought new challenges for the green transition process. The policy response to Covid-19 crisis aimed at rescuing the economy, mainly consists of: cash transfers, temporary liquidity support, tax relief measures and vaccination programs. The green spending presented



only a small percentage of the rescue package, only 0.27% (World Bank 2022b). The decrease of economic activity, reduction in fossil fuel use contributed to declines in pollution and cleaner air in 2020, but the carbon emissions are accelerating with the recovery. The new investments in environmental protection and climate change to facilitate the green transition of the economies and support the long-run economic growth are needed. But today governments face with dual challenges, first the pandemic has a significant impact on government budgets and erode the fiscal sustainability and on other side the climate treat demands immediate action. This means that balance between taxation and investment through the path of inclusive transition to a decarbonized economy is needed. In case of a tiny fiscal space, establishment of price-based approaches as carbon taxation or emission-trading systems are identified as effective instruments in moving toward green transition.

The new challenge raised by the Russian's invasion in Ukraine, the decline of energy security and increase of energy prices is expected to strongly affect the world's efforts to fight against climate crisis. This raises the question of whether the war will be a limited detour to the path of net-zero transition, or will accelerate the green transition process. In short-run the green transition process it seems that will be affected, having in mind that Russia is one of the world's largest producers of gas, oil and other energy commodities. On long-run, the logic for ensuring energy security, increasing the domestic energy production of national economies could converge to kick net-zero transition efforts and accelerate the net-zero transition and foster the greening process.

### **3. ECONOMIC IMPACTS OF THE COVID-19 CRISIS IN THE REPUBLIC OF NORTH MACEDONIA**

The Macedonian economy was hard hit by the Covid-19 pandemic. The lockdowns, disrupted supply chains, self-isolations, quarantines and social distancing policy have hard hit the economy, human lives, household incomes. The negative impacts of the crisis were felt in the second quarter of 2020, especially in April and May. The crisis has a serious negative repercussion and has disrupted the positive dynamics of the economic growth in the sphere of investments, labour market, foreign trade, public investments. The economic and social government measures were put in place to mitigate the impacts of crisis on households and enterprises.

The measures have positive results at short-run but the fiscal space narrowed as public debt increased and counted 60 percent of GDP. In 2021 the Macedonian economy was under robust recovery, the immunization process has started but still the country was under the pressure of appearance and intensity of new virus variants. The government support measures have continued but have further increased the public debt.

In 2022 the war in Ukraine and the energy crisis have brought new challenges to the partially post-pandemic recovered economy. Now, The Covid-19 measures are replaced with measures intended for the most energy vulnerable households and enterprises, making high pressure on the public debt. Inflation rate is highly accelerated in 2022, predominantly led by increase of energy and food prices. The policy creators are faced with challenge to setting the public finance on a sustainable path and setting the structural reforms structure contributing to the green transition, inclusive development, accelerating human capital development and technological progress.

#### ***3.1.GDP***

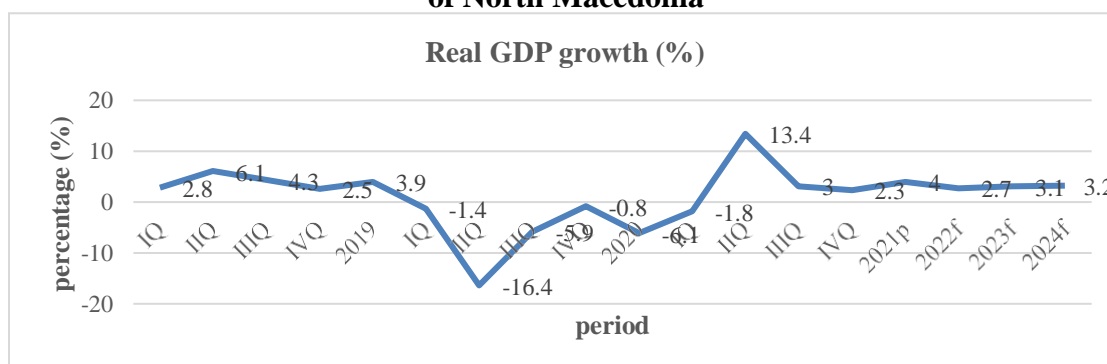
Before the pandemic, the economic growth in North Macedonia has straighten to 3.9% in 2019, presenting highest rate since 2015, reaching 3.4%. The main growth drivers were the sectors: wholesale and retail trade, accounting for 1.5 p.p. and agriculture, contributing with 0.5 p.p. On the demand side, gross-investments were the main growth force.

North Macedonia in 2020 has faced with the deepest recession since 2001. The GDP growth in 2020 was down by 6.1%, presenting higher decline than the expected. The decrease in economic activity in 2020 is mainly result of the high decrease in the second quarter, when the real GDP decreased by 16.4%, due to the restrictive measures put in place to prevent the spread of the coronavirus and unfavorable international environment. Those conditions have a negative impact on the service sectors, construction and industry. In the third and fourth quarters, the decline in economic activity has slowed down significantly, i.e. a decline of 5.9% and 3.8% was recorded respectively in conditions of slower decline in activity in the industrial and services sectors, i.e. a more favorable trends in the export and investment activity were recorded, as well as increase of public spending in order to mitigated the pandemic's effects.

After the negative growth in 2020, the Macedonian economy has started the recovery in 2021. The growth rate reached 4% and was led by the growing investments and by the strong government construction. On the production side, the main growth forces were the services – trade, ICT, tourism and transport. During 2021, the most hit sector – tourism, still does not reached the pre-pandemic level.

According to the World Bank projections (2022) as a result of the Ukraine war, energy crisis and weak domestic demand due to the inflator pressure, it is expected the economic growth to lose some momentum in 2022, i.e. to decrease by 1.3 p.p. and to reach a level of 2.7% in 2022. The effects of the Covid-19 crisis and sanctions as result of Russian invasion in Ukraine will be persistent through 2022 and even in 2023. In the upcoming years real GDP growth is projected to slow down in 2023 (3.1%) and to accelerate slightly in 2024 (3.2%) (World Bank 2022c). The hardest affected sectors in the current year will be the energy, agriculture and manufacturing sector, mainly the car production industry. The economic growth in the next period will slow down and will be under its potential. The risk of prolonged conflict in Ukraine, problems with the supply chains on a global level, as well as energy supply disruptions are the key treats to the economy growth in the country.

**Graph 5. Annual and quarterly real GDP growth rates, in percentage (%), in the Republic of North Macedonia**



Source: NBRM 2022a, WB 2022c.

Notes: p = provisional data, f = forecast.

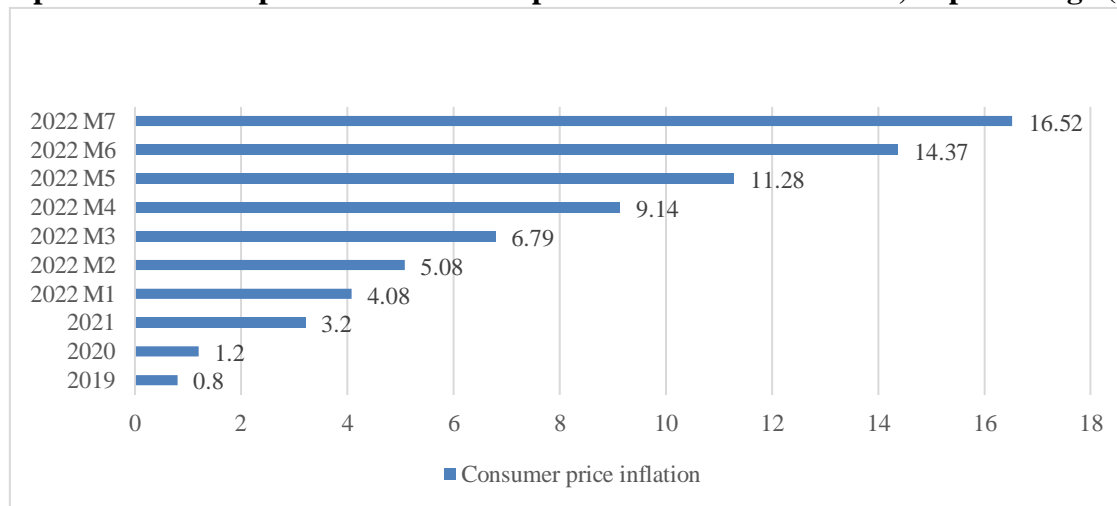
### 3.2. Inflation

In the period before the Covid-19 crisis, the inflation rate in the country was relatively stable and at low level. Inflation dynamics have softened, due to the low inflation in trading partners and lighter domestic demand pressures. The low inflation helped to reduce the poverty. In 2020 the Covid-19 crisis depressed the domestic demand, driving down the inflation. The price effect was amplified by depressed international prices for oil and other commodities. In 2020 consumer price inflation averaged 1.2%.

The inflation has accelerated in the second half of 2021, reaching a level of 3.2% on average and it was primary driven by increase of electricity, fuel and food (mainly edible oil) prices, reflecting global prices hikes. The global supply shortages and uncertainty on energy and food market increased the inflation pressure, putting the inflation rate on a historically high level during the first half of 2022.

The current inflation in North Macedonia, as well as on global level is predominantly driven by the supply side factors, namely driven by the strong increase of energy and food prices caused by the war in Ukraine and established economic sanctions against Russia. As those pressures are persisting a long period, price increases pass on the price of other goods and services, further fueling inflation expectations that contribute to price increases. The consumer price index in July 2022, in comparison with the previous year increased 16.5%. The inflation is becoming more broad-based. The food rose by 22.7% compared with the previous year, transport rose by 33% and costs for electricity, gas and housing rose by 15.6% (SSO 2022a). The average inflation for the period from January to July 2022 is 10.9% and the inflation pressure is result of food and energy raise. The inflation pressures further straighten with the government decision for double-digit minimum wage increase in March 2022. According to the NBRM's forecasts, 2022 will end with 8.8% average inflation (NBRM 2022b).

**Graph 6. Consumer price inflation in Republic of North Macedonia, in percentage (%)**



Source: SSO 2022a.

Note: 2019, 2020, 2021, previous year = 100; 2022 M1, M2, M3, M4, M5, M6 and M7, current month / average of the previous year.

As a response to the increasing inflation rate, the NBRM has started with a tightening of monetary policy, through increasing of interest rate and with gradual withdrawal of the liquidity injected. The tightening of monetary policy is a signal for anchoring inflation expectation on a

low level. Simultaneously with the monetary measures were implemented fiscal measures in order to mitigate the inflationary pressures.

### *3.3.Public debt*

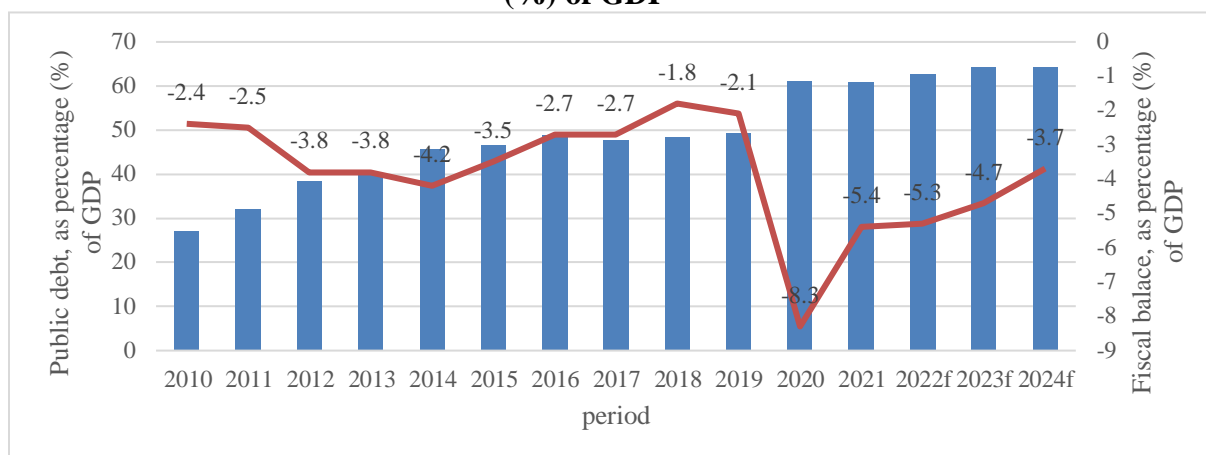
Before the crisis the fiscal deficit in terms of GDP has been declining. As a response to the Covid-19 crisis, the government established packages of measures in order to mitigate the negative effects of the crisis. Those measures in 2020 amounted to 2.5% of the GDP and resulted in increase of public and publicly guaranteed debt of 61% relative to GDP, growing more than 11 p.p. compared with the pre-pandemic year 2019 (49.2%).

The fiscal deficit quadrupled in 2020 (-8.3%) compared with 2019 (-2.1%), as a result of drop in VAT and excise revenues, which resulted in fell of budget revenues by 1% of GDP and on the other side the social contributions and containment measures lead to the increase of budget spending of more than 5%. In 2021 public and publicly guaranteed debt stabilized and it stayed almost unchanged, it reached 60.8% of GDP, presenting decline of 0,2% of GDP compared with 2019, but still remain highly above the pre-crisis period.

In 2021 the budget revenues increased by 15.3% as a result of phasing out the pandemic restrictions. The current expenditures increased by 2.9% in 2021, down from the pandemic increase of almost 14% in the previous year. The general budget deficit present 5.4% of GDP, bellow the target of 6.5%.

As a result of the prolonged pandemic shocks and war in Ukraine it is expected the downside risks to public finances to continue in the upcoming period. In July 2022, were adopted amendments to the Supplementary Budget as a response to the crisis. The 2022 Supplementary Budget is response to the crisis and its aim is to protect the living standards and the liquidity of the business sector in conditions of prolonged energy and price crisis. Under the amendments of the 2022 Budget, total budget revenues are projected in the amount of Denar 245.8 billion, i.e. 2.9% higher compared with the initial Budget projection. Total expenditures are projected in the amount of Denar 288.5 billion, or by 5.9% higher compared with initial 2022 projection. As a response to the energy crisis and Covid-19 crisis in the field of health, infrastructure and environment are provided additional funds of Denar 25 million. Capital expenditures are projected in amount of Denar 32.1 billion, including here the investments for reconstruction and modernization of equipment within the public health institutions, investments in the education area, child care and social protection, road and railway infrastructure and rural development. Ministry of Finance 2022a). As a result of the weak fiscal impulse, the fiscal deficit is expected to decrease only 0.1 p.p. in 2022, compared with 2021. Higher decreases are expected in 2023 and 2024. The public debt and publicly guaranteed debt will increase in the upcoming years, presenting 64.3% of GDP in 2023 and 64.1% in 2024.

**Graph 7. Public debt and fiscal balance of the Republic of North Macedonia, in percentage (%) of GDP**



Source: Ministry of Finance 2022b, WB 2022c.

### 3.4. Labour market

In 2019, the year before the spread of pandemic in the country, labour market has continued improving. The activity rate increase compared with 2018, by 0.3 p.p. The employment rate improved to 47.3%, up by 2.2 p.p. compared to the previous year (45.1%). On the other side, the unemployment rate fell to 17.3%, presenting the historically low level. Most of the new jobs were in manufacturing, administrative services, transport and storage and marketing. The wage continues growing and the highest increase was among health sector, education, construction and transport and storage. The trend of growth wage, mainly in the labor-intensive sectors followed by the decrease of the productivity is destroying the productivity of the economy.

In 2020 the pandemic hit the labour market in North Macedonia. In the first quarter of 2020 in the labour market were evident some improvements, the unemployment rate has slightly decreased to 16.2%, while the employment rate and activity rate have slightly increased, 48.1% and 57.4%, respectively. At the peak of the crises, in the second quarter, when the numerous lockdown measures were put in place and numerous economic activities were temporary closed, the unemployment rate has increased to 16.7% i.e. 0.5 p.p. compared with the first quarter (SSO 2022b). As a result of the government job retention subsidies and support for employment benefits, was managed the fallout of the employment rate to 16.5% in the third quarter, up to 16.1% in the fourth quarter. The unemployment rate remained largely unchanged and declined to 16.4%, i.e. 0.9 p.p. compared with 2019. The improvement in this area was not due to the rise in employment rate, but was a result of the decrease of activity rate, the decrease presented 0.8 p.p. compared with 2019. This indicates on the fact that as a result of the Covid-19 pandemic the number of people actively searching for a job has decreased. Most of the job losses in the labour market were because short-term job contracts were terminated. A bigger negative consequences and job losses were prevented as a result of government measures directed in the hardly hit sectors. Male employees were more affected than females.

The labour market was slowly recovering in 2021. The unemployment rate continues to fall in all quarters resulting in 0.7 p.p. fall by the end of 2021, compared with the 2020. The activity rate has decrease by 0.4 p.p. indicating on the negative tendencies on the labour

market. The employment rate does not change compared with the previous period. The government measures and support continued in 2021 in order to mitigate the effects of the crisis on the labour market. The wage pressure was evident in 2021 and adopted changes in labour law, increasing the hourly pay in Sunday and holiday work additionally increase the wage pressure.

The energy crisis and Ukraine war brought new challenges on the labour market. The Covid-19 measures now are replaced with measures targeting the most energy vulnerable households and enterprises. As part of the measures and to mitigate the price pressure, the Government has increased the minimum wage by 18.5% and introduced the annual indexation of the minimum wage with the consumer price index and average wage growth. In order to cover the labour costs, the Government provide compensation to companies through the subsidy support program, which is increasing the public debt further. The labour market reached a very slow improvement despite the large financial government support. The unemployment rate decrease to 14.8% in the QI 2022, presenting decrease of 0.4 p.p. compared with the last quarter of 2021, but this decrease is not due to the increase of employment rate, but due to the decrease of activity rate (down by 0.4 p.p. compared with the fourth quarter of 2021). The activity rate is still below the pre-pandemic level. The unemployment rate is on a history low level, as a result of drop of women unemployment rate and youth unemployment rate. But still the youth unemployment rate of 34.9% is high and urgent measures for its improvement are needed. Brain drain continues to be one of the most serious issues in the next period. According to the World Bank's forecasts (2022c) it is expected the unemployment rate not to gradually change compared with the first quarter of 2022. In the coming period, is expected a decrease of the unemployment rate i.e. the unemployment rate be at level of 13.9% and 13.5% in 2023 and 2024, respectively.

**Graph 8. Labour market in Republic of North Macedonia (activity rate, employment rate and unemployment rate) in percentage**



Source: SSO 2022b, WB 2022c.

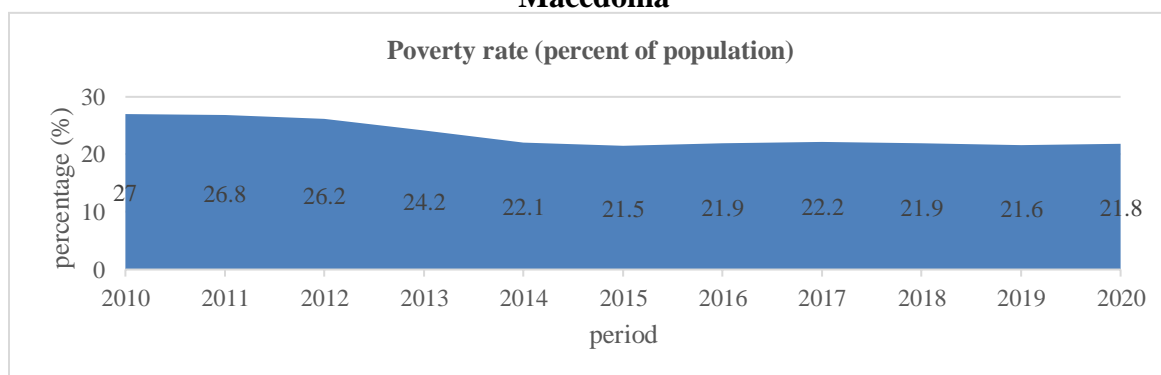
#### 4. SOCIAL IMPACTS OF THE COVID-19 CRISIS IN THE REPUBLIC OF NORTH MACEDONIA

The coronavirus pandemic exacerbated many of the preexisting ills of Macedonian society, including its living standards and inequality. The Covid-19 crisis caused multidimensional

threats to individual and collective well-being across the Macedonian society in 2020 and 2021. The crisis increased the social vulnerability of the population and decreased the living standards. The severe impact of the Covid-19 crisis slashed the income of the thousands of households. The country has reduced the poverty rate since the 2008 global financial crisis. The poverty rate has decreased by 5.4 p.p. in 2019 compared with 2010. This decrease was mainly driven by the greater employment opportunities and increased labour earnings. In 2020 due to the coronavirus crisis the poverty rate has increased by 0.2 p.p. i.e. the number of persons leaving in difficult condition has increased by 4 thousand, from 448 thousand in 2019 to 452 thousand in 2020 (Graph 9). According to the SSO's (2021a) latest data, the poverty rate is highest (45.6%) in households with two adults and three or more children, followed by the households of single parent with children (41.6%). Women are more affected than man, 21.9% of women and 21.7% of men living in poverty.

The government provided support measures and social security contributions to the business sector and cash benefits and vouchers for the vulnerable categories of citizens, which to some extent has mitigated the negative poverty effect of the Covid-19 crisis, but it did not provide economic safety necessary to remove people from the poverty trap. Poverty reduction was going slowly in 2021 due to the uneven labour market performance with containment measures and unsolved structural problems. The persistent inflation combined with the war in Ukraine is of significance concern for the welfare of the households in the country. Raising global energy and food prices disproportionately hurt the poor, as they spend a large share of their budget on food products. As a response to the price shocks, the government has increased the minimum wages, which could only partially cushion the shock, although in medium term this could create further price pressures and could further increase the poverty rate and accelerate the inflation tendencies. According to UNICEF analysis, the hidden victims of pandemic are the children (UNICEF 2020). The published analysis found that 16.000 children are living in difficult conditions, i.e. are living below the poverty threshold. Furthermore, the education system was hardly affected by the health crisis, it is estimated that more than 40.000 pupils had limited access to the education system in 2021, which shifted physical presence to distance learning, adding extra pressures to teachers and pupils. The crisis has hardly affected the overall mental health, as a result of the pandemic pressure on people's life, the anxiety, stress and depression are intensified. It is more likely that the prolonged crisis will increase the negative social externalities and will have numerous adverse effects on the overall society.

**Graph 9. At-risk-of-poverty rate, percentage (%) of population in Republic of North Macedonia**

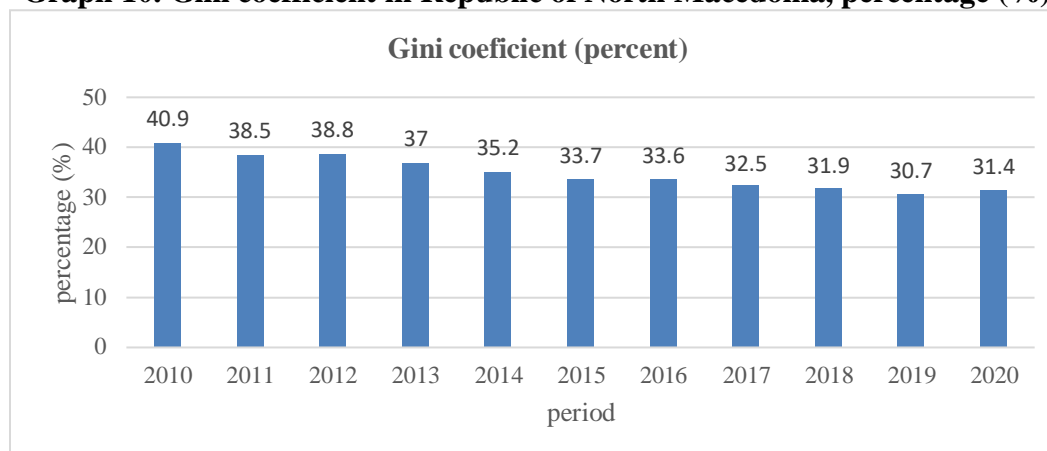


Source: SSO 2021a.



The effect of the crisis on the income distribution is unfavorable. An increase of Gini by 0.7 p.p. to a level of 31.4% in 2020 indicates on the increase of income inequalities among Macedonian society (Graph 10). The income inequality as a result of the health crisis has increased because of severe jobs and income losses mainly among the lower-income population groups. The government measures have relativized the income inequality pressure, but the raising inflation and disruption in the education process present potential risks for future inequality increase.

**Graph 10. Gini coefficient in Republic of North Macedonia, percentage (%)**



Source: SSO 2021a.

Major positive shifts in the living standards and inequality reduction are not expected in 2022. As a result of the combined health, social and economic crisis, the human and social uncertainty are likely to remain high throughout the next period.

## 5. MACROECONOMIC STIMULUS

The response of the policy makers to this severe and specific crisis caused by pandemic is characterized by the implementation of aggressive fiscal and monetary policy i.e. by expansion of the key macroeconomic policies in accordance to the situation. As a response to the crisis, Central Banks mainly used unconventional monetary policy measures – reduction in the interest rates and quantitative easing. The fiscal policy response in all countries affected by the pandemic was extremely strong and has resulted in large increase of budget deficits and accumulation of public debt.

As a response to the Covid-19 crisis, the National Bank of the Republic of Macedonia has reduced the reference interest rate from 2.25% before the beginning of the crisis to 1.5% in 2021. In March 2021 the reference interest rate was reduced by additional 0.25 p.p. and has reached a level of 1.25% presenting the historically lowest level since the county's independence. By lowering the reference interest rate, the NBRM has sent signal to the commercial banks that they can relax their lending standards and grant new loans with lower interest rates. The NBRM has adopted additional measures intended for economy support: it reintroduced the non-standard reserve requirement measure which allows reducing the base for banks' denars reserve requirements for the amounts of newly approved and restructured loans to the most affected companies; abolished fee charged for withdrawing and returning cash to the central vault of the National Bank and adopted a decision to change loan agreements terms for citizens and business concerned (NBRM 2020a, 2020b). The monetary measures of the National Bank were well



structured but the response of the commercial banks was not as strong as in the case of the developed economies.

As a response of the fiscal policy to the Covid-19 crisis were undertake measures on the expenditure and on the revenue side. On the expenditure side of the budget, despite the measures undertake in the health sector, at the same time were implemented measures aimed at: supporting the most affected sectors, the liquidity of the business, subsidizing salaries and contributions, improving public investments and introducing financial support to the most socially vulnerable households. On the revenue side of the budget, the main measures referred to: exemptions for the payments on personal tax and profit tax, extending deadlines for tax filling including cutting of interest rates for some taxes, etc.

As a response to the Covid-19 crisis the Government of Republic of North Macedonia has adopted six support packages. Four of them were adopted in 2020 and two in 2021. All supporting packages are mainly aimed at: supporting the citizens and keeping their jobs, supporting companies and creating favorable environment for recovery from the Covid-19 crisis. The first set of anti-crisis measure was adopted on March 18 2020, as a first quick response to the new situation caused by the Covid-19 crisis. The package includes supporting measures targeting the most affected citizens and companies by the crisis. This package mobilizes a total of EUR 12.2 million, and an EUR 11 million was implemented. The other three packages adopted during 2020 were mainly intended for supporting the most affected companies and citizens and helping to mitigate the Covid-19 crisis' consequences. Within the second package EUR 332.9 million were allocated and all of them were implemented. A total of 229.3 million is the value of the third package, of which EUR 172.9 million i.e. 75.4% have been implemented. A higher amount of the third package is intended for supporting the citizens i.e. EUR 122.4 million, while EUR 106.9 million is aimed for supporting the companies. The fourth package of measure was adopted as a direct aid to the social and economic security of the citizens and to rebound the consumption. A total of EUR 472.1 million have been allocated for the fourth package, of which 73%, or 343 million, have been implemented. The fifth and sixth packages implemented in 2021 were intended for the economy recovery after the Covid-19 induced crisis. The fifth package consists of 29 measures and worth EUR 160 million, it covers measures directed for improving the liquidity of the economy and its recovery. The sixth package intended to prevent the spread of the virus and to support economic activities affected by the crisis worth EUR 17.8 million. In 2021 the Ministry of Finance has incorporated the Recovery and Growth Acceleration Financing Plan geared toward supporting future growth of the economy and recovery after the Covid-19 crisis, the Plan's focus is on the support on digital economy, green economy, inclusive prosperity and fiscal consolidation. The Plan is expected to contribute to increased rates of medium-term growth to 5% annual growth and ensure financial consolidation by reducing the public debt below 60% of GDP on medium term.

The fiscal response has a significant impact on mitigating the negative effect consequences on the business sector and citizens caused by the Covid-19 pandemic. Hence it is estimated that through the fiscal impulse the economic decline has been mitigated, i.e. without these measures the decline in economic activity has been higher by 2.3 p.p. in 2020, amounted to -8.4%, against the achieved deadline of 6.1%. The analysis by the GDP components indicated that if the measures were not undertaken than the decline in private consumption would be quadrupled, i.e. -11.8%, instead of -2.7%. The measures increased the public consumption by 9.3 p.p. i.e. an increase of 12.6% was realized, instead of 3.3% projected increase. The measures had positive effects as well as on the import side, but a positive effect were not registered in the gross capital

formation. The gross capital formation is of key importance for the economy growth because of the positive multiplicative effects on the whole economic activity.

**Table 3. The impact of ant-crisis measures on the economic activity in North Macedonia, in 2020**

<b>Real growth rates (%)</b>	<b>Without measurment impact</b>	<b>With measurement impact</b>	<b>Impact (p.p.)</b>
GDP	-8.4	-6.1	2,3
Private consumption	-11.8	-2.7	9,1
Public consumption	3.3	12.6	9,3
Gross capital formation	-11.6	-19.8	-8,2
Export of goods and services	-11.9	-10.6	1,3
Import of goods and services	-12.6	-10.6	2

Source: Author's calculation based on the data available at: <https://koronavirus.gov.mk/info-so-status-na-realizacija-na-ekonomski-merki> and SSO 2021b.

A new set of challenges confronted the policy makers caused by the energy crisis, higher food prices and the Russian invasion in Ukraine. North Macedonia as a small and open economy was affected by the new trends on the international markets of commodities (energy and food). As the crisis took higher dimension, such consequences were felt less in 2021, but were intensified at the end of 2021 and reached the peak at the beginning of 2022. As a first measures to mitigated the initial impact of energy price increase, the tax rate on supply of electricity to households was reduced from 18% to 5% in July 2021. Further, prices of part of commodities were frozen in December 2021. In March 2022, a set of 26 measures was adopted for protecting the living standard and supporting the economy activity. The new set of measures worth EUR 400 million and if one takes in account the measures implemented in the previous year the allocated amount to mitigate the price shocks is around EUR 615 million (MF 2022c). As part of the measures for protecting the living standards, the minimum wage and pension were increased. After the Supplementary Budget adoption, will start the implementation of the new anti-crisis measures. The new model of targeted measures is in line with the latest recommendation of the international financial institutions – the IMF, World Bank and EC. The new measures are based on three goals: protection of the most vulnerable categories; fair distribution of funds and fiscal consolidation, as a key goal for ensuring public debt stability and the stability of the domestic economy.

## CONCLUSIONS

The Covid-19 pandemic and the economic shutdowns all over the globe have disrupted billions of people's lives and jeopardized decades of development progress. The Covid-19 crisis is a specific one, because is initiated by non-economic factors. The crisis is more broadly manifested as social crisis, it delivers severe repercussions not only on economies, but also on the health sector, education, science, culture, etc. and at same time has seriously psychological consequences on human lives. The presented analysis within the paper shows that this crisis

caused serious economic and social consequences – it deteriorated the economic output and its structure and at same time it raised the unemployment rate which resulted in decrease of incomes, increase of income inequalities and plunged several million people into extreme poverty. This crisis especially threatened young people in working age, resulting in increase of its unemployment rate and closing of the education institutions in turn has negative effects on the human capital formation on long-run. The data shows that the repercussions are evident on global scale and the hardest hit by the crisis are the developing countries. As response to the crisis all countries introduced expansionary monetary and fiscal policy measures in order to mitigate the negative effects, which at the long-run led to increase of budget deficits and accumulation of high public debts. This is a serious problem, especially for those who have lost their fiscal space, especially having in mind that now the world is facing with double challenge, the pandemic and the negative shocks caused by the war in Ukraine. Currently, the deep slowdown and negative global spillovers are evident as result of the war in Ukraine. The countries are facing with energy crisis, food crisis, disrupted global supply chains, etc., all those negative spillovers are interlinked and are destabilizing the global economic activity and fragmenting the financial markets, investments and global trade. The new figures and forecasts presented in the paper indicate on a possible period of stagflation, period of weak economic growth and high inflation. The analysis of the current situation shows that, if the stagflation pressures intensify than the developing countries would face with severe challenges because of the evident financial vulnerabilities, weak growth fundamental and not so well anchored inflation expectations.

The analysis of the main macroeconomic aggregates for North Macedonia indicates that the country as small and open economy is severely affected by the Covid-19 crisis. The crisis hit the country's economic activity resulting in decrease of 6.1% of the growth rate in 2020. The disrupted supply chains, numerous lockdowns, the new virus variants have negative repercussions on the labour market, which one led to the increase of the poverty rate and increase of the income inequalities, after a years of improvement before the pre-pandemic period. As a result of the crisis the unemployment rate has not dramatically changed, but the employment rate and activity rate have decreased indicating that unemployed were discouraged for looking for a job. The government in order to mitigate the effects caused by the crisis has put in place a support packages intended for support of workers and enterprises. The data as well as the analysis performed in order to measure the impact of the support programs shows that those packages at same extend mitigated the negative effect on the economic output as well as on the labour market. On the other side, the fiscal stimulus, as well as the decrease of the budget revenues resulted in increase of the public debt, reaching 60% of GDP during 2020 and in same time budget deficit reached -8.3%. The new situation limited the fiscal space and eroded the fiscal sustainability of the country. The numerous lockdowns, self-isolations have produced negative psychological consequences, depression, increased the domestic violence, etc. The data shows that the recovery process started in 2021 but still it is shaped with numerous uncertainties as a result of the appearance of new virus variants, disrupted supply chains, tightening financial conditions and increased inflation pressures. The labour market is slowly recovering despite the government support measures. The public debt increases further during the country is facing with new challenges as a result of the food and energy crisis. Inflation pressure is raising fueled by the energy and food prices and minimum wage increase.

As a result of the uncertain environment, on a global level as well on a country level, policy creators need to focus on building resilience and on undertaking structural reforms in order to

support the growth and steer through the double crisis. Policy responses need to be flexible, to adjust to the stages of economic recovery and at the same time to be appropriately targeted and calibrated in order to foster resource reallocation and contain economic scarring.

Having in mind the present risks of the new virus variants, and the new challenges and treats of stagflation, it is necessary the policy makers in North Macedonia to take in consideration the following aspects in the coming period:

- Government should design an effective capital investment plan, which will combine the public and private funds for capital projects in crucial sectors such as energy, health, roads and railways, municipal infrastructure and environment. Those projects will contribute to the process of green and digital transformation of the economy. At the same time those capital investments will foster the growth process and will speed up the income convergence.
- Improvement of the public investment management (PIM) is one of the priority areas. Currently, the efficiency of public investments is hampered as a result of the governance weakness. The improvement of the policies and practices governing the public investments could maximize the benefits of higher investments and limit the fiscal risks.
- In the Budget relevant funds should be projected intended for relativization of consequences caused by health crisis and energy crisis, and at the same time the budget should accelerate the economic growth while ensuring fiscal sustainability. On the spending side, the focus should be on cutting unessential and unproductive costs, while improved support for innovation and competitiveness of the business-sector should be provided. In order to ensure inclusive growth sufficient funds for social transfers should be projected. On the revenues side additional revenues should be collected through establishment of measures intended for fight against corruption and informal economy. New sources of financing such as “green” bonds could be introduced.
- Tax policy reform is of key importance to strengthening public finance and to achieve higher, more inclusive and sustainable growth. The new challenges impose the need for improving the consistency between policy priorities and budget planning. Efforts to improve the fiscal discipline also are of a high importance. On the revenues side should be strengthen tax revenues by widening the tax base in a non-regressive way, and fighting against tax evasion and informal economy should be intensified.
- Accountability and transparency in the public spending is of key importance for such difficult period. In this area transparency measures, including information on crisis-related funds for Covid-19 and energy crisis should be implemented. Contracts should be awarded through competitive procedure and awarded contracts should be published.
- Monetary policy should take decisive steps in order to preserve stability and ensure medium-term price stability. As a result of the fact that price shocks are relatively stronger and growth perspectives are uncertain, increase in interest rate should be gradual, with moderate tightening cycle accompanied by other complementary measures aimed to stabilized inflation expectation and confidence.
- As a result of the limited fiscal space, the government should rationalize state aid in order to address the fiscal sustainability and provide more targeted support to the domestic economy, covering the most affected economic sectors and business entities, as well as, the most vulnerable households.
- As response to the increase of energy prices financial instruments through the Development Bank of North Macedonia intended for financing the investments in

renewable energy and energy efficiency for SMEs should be established. Those measures would accelerate the green transition process and help the business sector in overcoming the energy prices shocks.

- The labour market is slowly recovering by the negative effects caused by the Covid-19 pandemic. The high youth unemployment rate calls for preparation of action plans, programs and trainings intended for increase of the employment rate.
- Having in mind that institutions are one of the key factors in the process of achieving sustained development, an attention should be redirect to institutional reforms in the area of role of law, regulatory framework, fight against corruption, judiciary, straighten of capacity and efficiency of public institution.

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# THE DETERMINATION OF THE OPTIMAL LEVEL OF NATURAL RESOURCE EXTRACTION WITH ECONOMIC CRITERIA IN THE CASE OF THE EAST MEDITERRANEAN SEA BY MEANS OF “DUTCH DISEASE” MODEL

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## ABSTRACT

*The aim of the present work is to provide the theoretical background, on which an empirical model of costing and the benefit of mining in the southeastern Mediterranean region will be based. In the case of the Mediterranean Sea, the ‘Dutch Disease’ phenomenon is more severe and therefore for these reasons the prospect of hydrocarbons has implications. The core ‘Dutch Disease’ model is a model of general equilibrium, which can be modified from time to time. The general model is explained and the ways in which it fits in each real case are analyzed. In the eastern Mediterranean the model is modified due to the special conditions of the region. In the process, this is reversed through various structural changes that occur in the economy, such as intergenerational taxation, the adoption of models of sustainable development and the blue economy. Eventually the question arises whether it is advantageous to extract or not in terms of additional social benefit.*

**Key – words:** Dutch Disease Model, extraction, optimization, natural resource, Mediterranean Sea

## INTRODUCTION

There are origins and symptoms of the ‘Dutch Disease’ model in Economics. The core ‘Dutch Disease’ model refers to the fears of de-industrialization that gripped the Netherlands as a result of the appreciation of the Dutch guilder that followed the discovery of natural gas deposits within the country’s jurisdiction in the North Sea in the late 1950s and early 1960s (Max Corden, 1984). The structure of recent models of the relationship between natural resource abundance and economic growth is nearly always the same. The challenge for economic growth theorists and empirical workers in the field is to identify the map these intermediate variables and mechanisms (Frank and Romer, 1999).

In countries that are rich in oil, minerals and other natural resources, economic growth over the long haul tends to be slower than in other countries that are less well endowed (Gylfason and Zoega, 2001). Norway has charted a long – run oriented, tax-based and reasonably market – friendly approach to the management of its vast oil resources. Exactly how vast they are depends on oil prices, which are quite volatile, estimates of the oil wealth range from 50% to 250% of GNP (Thøgersen, 1994).

In general, natural resources bring risks. One is that too many people become locked in low skill intensive natural – resource – base industries, including agriculture and thus fail through no fault of their own to advance their own or their children's education and earning power. Another risk is that the authorities and other inhabitants of resource – rich countries become overconfident and therefore tend to underrate or overlook the need for good economic policies as well as for good education and good investments (OECD Economic Surveys, 1998).

The nations that believe that natural capital is their most important asset may develop a false sense of security and become negligent about the accumulation of human, physical and even social capital. Indeed, resource – rich nations can live well off their natural resources over extended periods, even with poor economic policies and a weak commitment to education. Awash in easy cash, they may find that education does not pay. Nations without natural resources have a smaller margin for error and are less likely to make this mistake (Wood, 1999). In resource – rich countries, awareness of these risks, as well as a conscious effort and ability to contain them, is perhaps the best insurance policy against them (Auty, 2001).

In the core 'Dutch Disease' model, there are three sectors, the booming sector, the lagging sector and the non – tradable sector. There are economic effects, the spending effect and resource movement effect. The two effects combined, leading to a movement of labor from the lagging sector to the non – tradable sector, bring about, what can be called, indirect de – industrialization, which supplements the direct de – industrialization that resulted from the movement of labor from the lagging sector to the booming sector (Casing and Warr, 1982).

Some degree of migration in response to booms is very common, especially when there are regional booms and the migrants come from other parts of the country, as can be found in the history of Brazil, Canada and the United States. But the following analysis was inspired by the issues raised in Maddock and Mc Lean (1983), which deals with the effects of the Australian gold rushes in the middle of the nineteenth century, when massive immigration resulted.

The lagging sector exportable will then be hit twice, first by the real appreciation (which will now be greater than before) and then by the direct resource loss to importable. The adverse effect on importable will have been moderated only by intensifying the adverse effect on lagging sector exportable. If the main concern is with conserving real incomes or rents then it is clearly not a logical policy. The central problem is the adverse effect on the lagging sector as a whole and it does not seem justified to shift the burden wholly on to one part of it in order to shelter the other part. From a Pareto – efficiency point of view, ordinary protection imposes, of course, the usual cost of protection; unless any of the standard second – best arguments for protection are applicable.

In the core 'Dutch Disease' model, there are negative effects from mining a natural resource due to crowding out of other exporting sectors and crowding of natural resources. Especially in the area of East Mediterranean Sea, there are as following: an increasing political cost, cleaning costs and a higher dealing cost. Nowadays, the mining of the natural resources is a part of the Industrial Ecology (IE). Industrial Ecology includes a methodological framework that deals with energy and materials flows within a system of inventories and processes between

natural resources and the environment. In this work an inter/multi disciplinary approach is adopted base on economic criteria for determining the optimal level of the mining of the natural resource which seem promising synthesized economic terms. An implementation for the Mediterranean Sea area is presented and the economic results are discussed.

## THE MODIFIED DUTCH DISEASE MODEL

The core Dutch Disease Model creates two effects, firstly the spending effect and secondly the resource – movement effect. The core function of this model is as following:

Decline in Manuf. Or Agric. = f (Spending effect, Resource Movement effect) (1)

where:

%DDManuf : % share of manuf. in GDP (2)

GE : Dutch Disease: Spending Effect, government expenditure

Woil = Resource – Movement Effect, wage in the domestic oil industry

MS: money supply, annual rate of growth in money supply

RGDP: Real GDP

IDPC Manuf : ratio of manuf. goods

The linear regression analysis for developed countries gives the function as following:

%DDManuf =  $a_0 + a_1GE + a_2IDPCManuf + a_3MS + a_4RGDP + e_1$  (3)

where:

%DDManuf: % share of agriculture in GDP

RER: spending effect, real exchange rate

Woil: Res-movement effect, wage in the domestic oil industry

MS: money supply, annual money supply in home currency

IDPC manuf: ratio of price of manuf. goods of MDCs and LDCs

PCY: per capita income in monetary units

The linear regression analysis for developing countries gives the function as following:

%DDManuf =  $b_0 + b_1RER + b_2IDPCManuf + b_3MS + b_4PCY + e_2$  (4)

where:

%DDManuf: % share of agriculture in GDP

RER: spending effect, real exchange rate

Woil: Res-movement effect, wage in the domestic oil industry

MS: money supply, annual money supply in home currency

IDPC manuf: ratio of price of manuf. goods of MDCs and LDCs

PCY: per capita income in monetary units

The core model assumes that: Labour is perfectly mobile among all the three sectors and makes sure that wages equalize across them. All goods are for final consumption. Trade is always balanced as national output always equals expenditures. Commodity and factor prices are not distorted.

## THE EFFECTS OF DUTCH DISEASE MODEL

In the core ‘Dutch Disease’ model in Economics, there are negative effects from mining a nature resource due to crowding out of other exporting sectors and crowding of natural resources. Especially in the area of East Mediterranean Sea, there are as follows: an increasing political cost, cleaning cost and o higher dealing cost.

Among the negative consequences of extracting a natural resource, it is worth mentioning the following: the appreciation of the domestic currency in a regime of floating exchange rates. This will result in a reduction in the country's exports and thus a recession in its product market. In addition, the increase in wages and the general level of prices that accompany the extraction of natural resources, will lead to a reduction in the inflow of capital into the foreign investment market. There is a general decrease in the competitiveness of the domestic economy due to the increase of wages in the developed sectors of the economy and due to the increase of rents. All of the above are accompanied by political imbalances and economic invasions of foreign states, resulting in increased state spending on national defense. There is a reduction in incentives to accumulate human capital, a reduction in social capital and a lack of awareness for investment and savings. Finally, social prosperity is burdened by the general erosion of human, social and physical capital.

The intensity of the 'Dutch Disease' phenomenon varies in relation to the conditions of the international money market due to the circulation of hydrocarbons. The cost of non-mining is essentially an opportunity cost. Trading costs and cleaning costs include not only costs over time, but also externalities (adverse externalities) in areas where they are proportionately affected (i.e. tourism, fisheries). The benefit of the activities is defined in units of social surplus per unit of time, according to the Principles of Welfare Economics.

The phenomenon of 'Dutch Disease' has short-term or medium-term effects and is then effectively addressed through the additional benefits that mining brings to the economy.

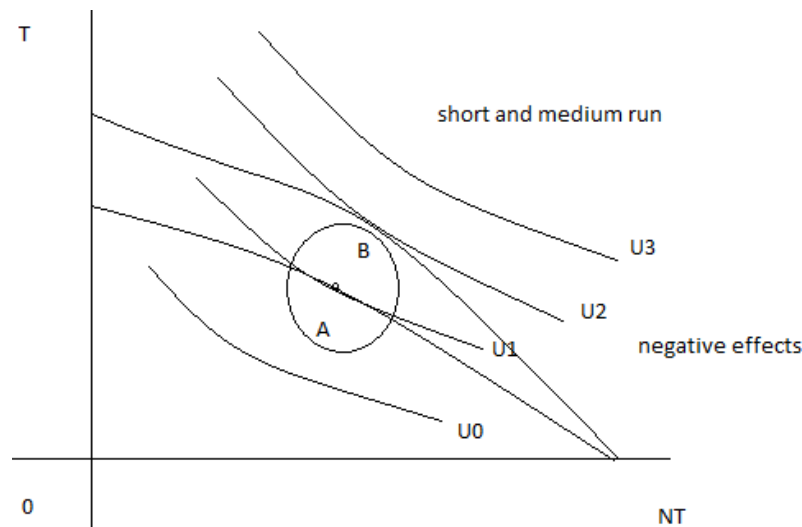


Figure 1: The negative effects of core 'Dutch Disease' in East Mediterranean Sea

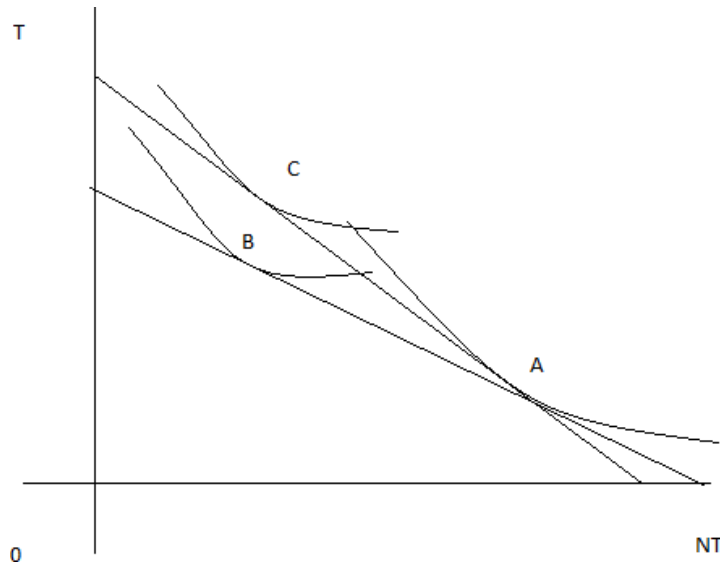


Figure 2: The effects of 'Dutch Disease' model in different economies

In the short run, the cost of cleaning the eastern Mediterranean Sea is estimated. The power  $P$  ( $W = \text{Kg.m}^2.\text{s}^{-3}$ ) required to have a stirrer to cause complete stirring of the contents of a tank is a function of an dimensionless constant  $c$ , the speed of rotation of the stirrer  $N$  ( $\text{s}^{-1}$ ), the diameter of the stirrer  $D$  (m), the density and viscosity of the stirring fluid  $\rho$  ( $\text{kg.m}^{-3}$ ) and the acceleration of gravity  $g$  ( $\text{m.s}^{-2}$ ). The cost of buying a stirrer  $E$  (EUR/W) is a function of power  $P$  and the cost of installing a stirrer is a function of the diameter  $D$ .

Therefore, the function results in a dimensionless form:

$$f(E, K, P, N, D, \rho, \mu, g) = c$$

$$(E.P) / (K.D) = c . N^a_P . N^b_{Re} . N^c_{Fr}$$

Where:

$$N_P = P / (\rho N^3 D^5), \text{ the number of power}$$

$$N_{Re} = (\rho N D^2) / \mu, \text{ the number of Reynolds}$$

$$N_{Fr} = (N^2 D) / g, \text{ the number of Froude}$$

## THE DUTCH DISEASE MODEL EFFECT IN MEDITERRANEAN SEA AREA

In no case can the unilateral development of a region support its entire economy, as has already been proven by the exploitation of oil and gas. This raises the question of what will happen in general to the countries of the Mediterranean region if they are led to such a situation. Initially, more and more under the European Directive<sup>23</sup>, there is a shift towards a sustainable blue economy which includes alternative forms of development of the maritime and offshore

economy. For the Mediterranean countries, its main sectors are fisheries, tourism and the use of renewable energy sources.

Therefore in case these activities are replaced by mining activities a high opportunity cost will be created. Specifically in the case of Greece, any extraction process beyond time consuming, requires particularly high extraction costs. In addition, they need a specialized workforce for this work, so it is very likely that they will need to enter from foreign countries as specialists. With this development, however, new jobs are not created for the locals nor are the unemployment rates reduced. But even if hydrocarbon mining activities are successful, it is doubtful whether the foreign money coming into the country will be used properly for future generations (as in the case of Norway) or if there will be political corruption, with as a result, the country's economic problems are exacerbated by the changing political climate. At the same time, world commodity prices (oil, etc.) may have a significant impact on the world economy (and not just the Mediterranean countries), either due to the size of the hydrocarbon reserves (in case of discovery of high reserves), or due to the effort made for decarbonization.

But beyond the huge economic impact, there is also the environmental dimension of the Dutch Disease Model. The Mediterranean Sea Area is characterized by its great biodiversity as it is home to unique and endangered species of fish and animals. From the very beginning of the investigation of the existence of hydrocarbons, the noise caused (by the seismic activity) can affect the marine fauna of the area. At the same time, the equipment used in these activities through air pollutants and waste contaminates the sea area with direct (extinction or movement of marine species) and indirect consequences (reduction of tourist arrivals). The most catastrophic scenario, the existence of a leak or the creation of an oil spill is what can lead to a complete environmental catastrophe. Even the cost of trying to repair a leak is huge, as is the long time horizon. However, the result of an oil spill does not lead to the degradation of the environment of the specific area, but of the wider one as the water does not remain stable in one area, but moves. Therefore, the environmental impact can be expressed both as the direct cost of cleaning in the event of an accident, and as an opportunity cost for other sectors (mainly those related to the blue economy). The size of the hydrocarbon reserves (in case of discovery of high reserves), or due to the effort made for decarbonization (Whisnant and Reyes, 2015).

In addition to the economic and environmental dimension, the Dutch disease model in the Mediterranean includes an international political version. The Mediterranean is made up of different peoples, cultures which use this sea and are called to live peacefully among themselves for the welfare of all. However, raising capital can create conflicts between border countries and create uncontrollable conflict as our history has shown. It is no coincidence that the Mediterranean has been described as a 'sea under siege' 24. Its geopolitical position has made it the crossroads of the three continents since antiquity.

Therefore, the already cooled relations between some countries (Greece - Turkey, etc.) may deteriorate into possible mineral wealth of the region. More specifically, Greece has not yet declared its own zone, although it could as it is one of the countries that have signed the Convention on the Law of the Sea. Turkey, on the other hand, refuses to be part of this agreement and is constantly showing expansionist tendencies in any direction. In fact, since 1973, a confrontation between the countries began, which stems from the claim of the Greek continental shelf. So in the already tense relationship between the countries, if we add the existence of hydrocarbons in the claimed areas, the relationship between the countries looks like a cauldron ready to explode. But even if the relations between the states were governed by a cooperative and peaceful spirit, there would be an international political dimension between the

mining companies (as most of them are international companies) and the local public bodies in terms of the concession rates of the areas research and development of mining activities (Whisnant and Reyes, 2015).

Based on the above, it is observed that in the case of the Mediterranean Sea there is not only the economic dimension of the Dutch Disease Effect, but a wider model appears with both environmental and national-political dimensions, making it imperative to take care to avoid such a situation in the sea area of the Eastern Mediterranean. All the above analysis is best presented in the following diagram:

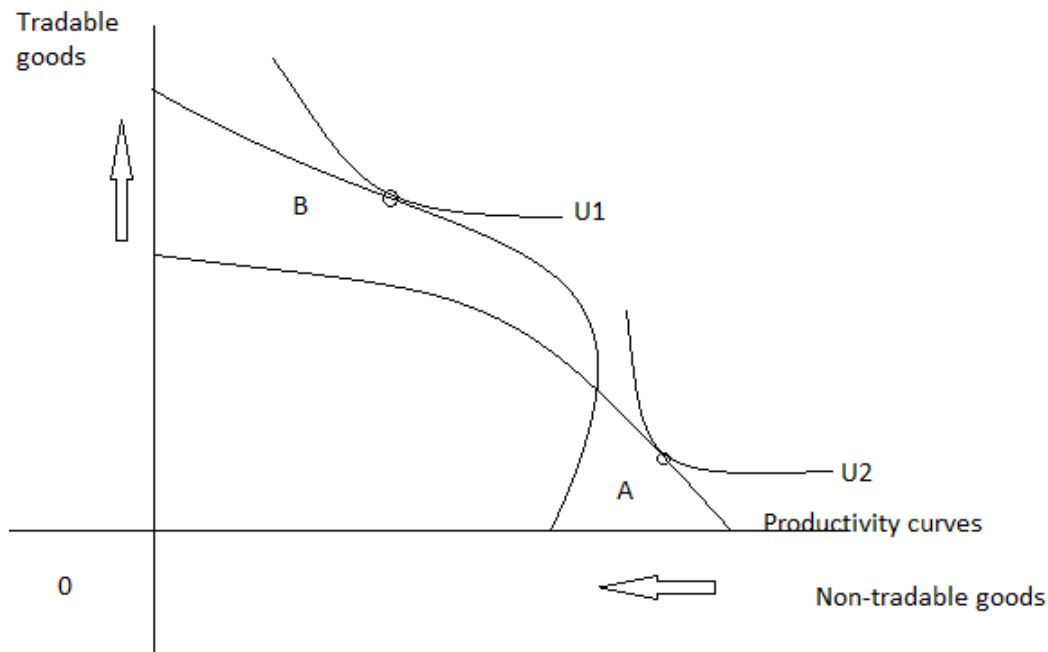


Figure 3: The alternative equilibrium combinations for: a) the optimistic scenario (A) and b) the pessimistic scenario (B) that may arise due to the anisomeric expansion of production capacity in both the short and long run period of the production.

Therefore, in the wider area of the Mediterranean Sea, the pessimistic scenario appears (1st group A-B).

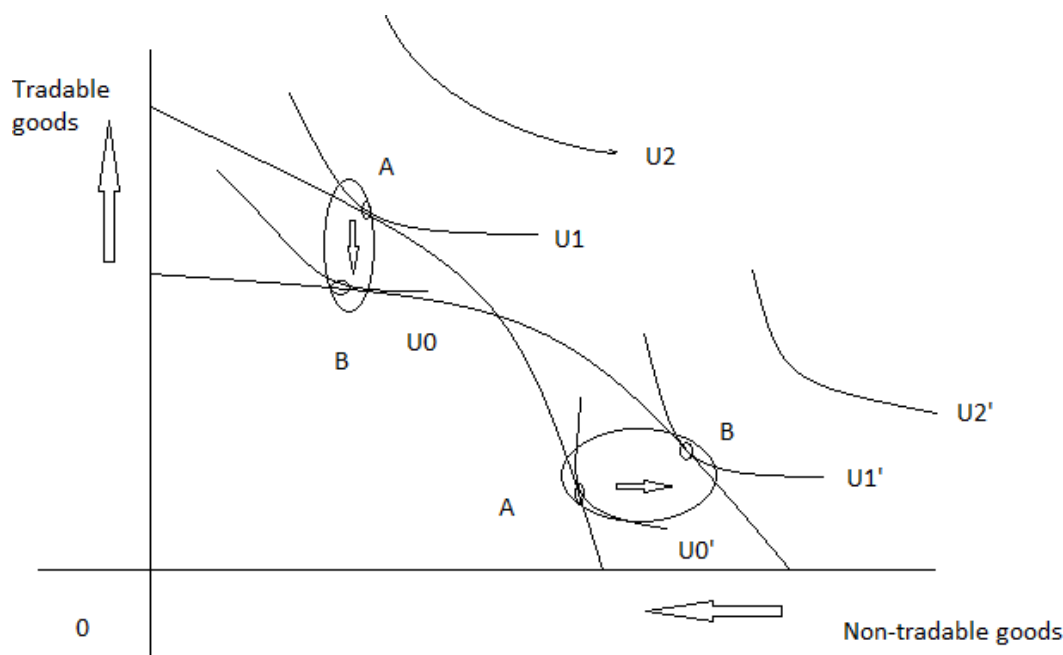


Figure 4: The analytic alternative equilibrium groups due to Dutch Disease Effect in different economies.

The vertical axis concerns tradable goods and the horizontal axis represents services. The initial productivity curve is TS and the initial equilibrium point is at point A. In this position the Production Capacity Curve with the highest possible indifference curves. We then assume that there is rapid growth in the energy sector, due to the extraction of hydrocarbons in the Mediterranean region. As the demand for tradable goods increases there is a shift from the T position to the TD. However, the rapid growth of this sector leads to a reduction in the production capacity of other industries and non-tradable goods. That is, in contrast to the Dutch Disease model, there will also be a shift in the maximum service efficiency of the economy from position S to position S'. The reason for this shift is due, as mentioned above, both to the environmental cost of opportunity that is created, as well as to the geopolitical concerns of the wider Mediterranean region. Therefore, a new Production Capacity Curve is created as T'S' (Zarotiadis, 2019).

The new equilibrium point of the economy now is B. One notices that the new indifference curve at point B, relative to A, shifts closer to the beginning of the axes. In contrast to the previous example, the new indifference curve shifted further. Therefore, in the case of the Mediterranean, a reduction in total GDP may be caused and the prosperity of society in both the short and long term. This is the reason why a new enlarged and more complex model of Dutch Disease is being created in this region of the Mediterranean (Zarotiadis, 2019).

## CONCLUSIONS

Due to the appearance of the Dutch Disease phenomenon the Pareto condition is not satisfied. The profit of the mining sector is accompanied by the loss of exports and other non-tradable services. Thus, social welfare is not maximized by economic criteria. Of particular



interest is the economic situation of the countries of the south-eastern Mediterranean where the industry, industry and industry sector are already weakened and the non-market sectors of services are significantly burdened. The extraction of natural resources and mainly hydrocarbons, even though you are in the era of independence from conventional forms of energy, creates several problems in the countries of the southeastern Mediterranean. Which are forced to pay a high cost of negotiations, political strategies, as well as defense equipment to deal with outside intruders.

The lack of compensation on the part of the beneficiary sector to the burdened sectors of the economy does not allow the satisfaction of the Kaldor – Hicks condition either. However, the external costs (negative externalities) of pollution within the Mediterranean Sea can be addressed through a Pigouvian Tax Policy (positive and negative Pigouvian taxation).

However, it is worth noting the contribution of this model to the management of mining by capturing the relationships that link causal economic quantities to each other or economically to physical quantities (analytic / positive economics). This creates an indication of the use of these relationships for the conduct of; inter alia, environmental policy (normative economics).

The analysis of this model can go from micro to macro-economic (scale up in economics) through experimental economics, measurement of corresponding resiliencies in selected stakeholder samples and from macro to micro economic (scale down in economics) through directed action, such as grants (subsidies or negative Pigouvian taxes).

The present work can be the theoretical documentation of a preliminary feasibility study for the production of hydrocarbon extraction in the wider region of the eastern Mediterranean. Assessing its contribution to environmental management by capturing relationships that link causal economic quantities to each other or economically to physical quantities.

The expression ‘think globally, act locally’ is frequently used as a slogan urging people to consider the health of the entire planet or a global / total system and to take action in their own localities. The same expression is, also a Principle in Economics suggesting decentralization as a basic method for sustainable development.

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## Appendix

Adam Smith, in his *Wealth of Nations* (1776), describes how government bounties to one favored industry hurt other industries as well as the national economy as a whole: 'But the great encouragement, which a bounty of thirty shillings then ton gives to the buss fishery, is necessarily a discouragement to the boat fishery; which, having no such bounty, cannot bring its cured fish to market upon the same terms as the buss fishery. The boat – fishery, accordingly, which before the establishment of the buss bounty was very considerable, and is said to have employed a number of seamen, not inferior to what the buss fishery employs at present, is now gone almost entirely to decay.....the herring buss bounty serves no....good purpose. It has ruined the boat fishery, which is, by far, the best adapted for the supply of the home market.....When the undertakers of fisheries, after such liberal bounties have been bestowed upon them, continue to sell their commodity at the same, or even at a higher price than they were accustomed to do before, it might be expected that their profits should be very great; and it is not improbable that those of some individuals may have been so. In general, however, I have every reason to believe, they have been quite otherwise. The usual effect of such bounties is to encourage rash undertakers to adventure in a business, which they do not understand, and what they lose by their own negligence and ignorance, more than compensates all that they can gain by the utmost liberality of government.....there must surely be something more than ordinary absurdity, in continuing such profusion in times of general difficulty and distress.'

In economics, the paradox of Jevons occurs when technological advances increase the efficiency of a machine by reducing the resources used to operate it, but the rate of resource consumption increases due to increasing demand. The Jevons paradox is perhaps the best known paradox in environmental economics. However, governments and environmentalists generally

assume that gains from machine efficiency will reduce resource consumption, but ignore the possibility of the paradox occurring as resource consumption increases.

This phenomenon has a psychological foundation. Someone who reduces energy consumption, for example by using low-voltage light bulbs, is satisfied with the savings he achieves and offers himself, as a bonus, a trip to a distant destination, which will represent an energy consumption much higher than what we will have.

The issue has been reconsidered by modern economists studying the effects of a recovery in consumption, with improved energy efficiency. In addition to reducing the amount required for a particular use, improved efficiency also reduces the relative cost of using a resource, which in turn increases the total amount of resources required. This offsets (to some extent) the reduction of resource use by improving the performance of a machine. In addition, improving efficiency accelerates economic growth, further increasing resource demand. The Jevons paradox occurs when the effect of increased demand prevails and improved efficiency increases the speed at which resources are used.

# THE IMPACT OF DIGITALISATION ON VULNERABLE EMPLOYMENT: ANALYSIS FOR THE GENERAL CASE AND BY SEX COMPOSITION

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## ABSTRACT

*The links between and the possible consequences of the main means of managing the way of life of society and the digitalisation of economy, on the one hand, and employment, productivity, economic growth, on the other hand, have been the subject of various studies in recent years. Digitalisation processes have an impact on all sectors of economy and society, and, at the present time, no group of beneficiaries can be left out of them. Identifying the opportunities and challenges of digitalisation is important not so much for theoretical results as for transforming existing means of conducting economic activity, developing and implementing new solutions. However, there are almost no scientific results related to the impact of digitalisation on vulnerable employment, and this is despite the fact that it accounts for almost half of all employed globally, but in many low-income countries the share is much higher.*

*The impact of a number of digitalisation indicators on vulnerable employment for the general case, for male and female employees is examined in the paper. The hypothesis that digitalisation unequivocally leads to a decline in vulnerable employment is not supported by panel analysis. Moreover, it mainly results in an increase of vulnerable employment. Thus, when developing and implementing public policy, governments of countries considered in this research need to pay attention to these circumstances in order to avoid possible negative consequences of digitalisation.*

**Key words:** *digitalisation, fixed and random effects, panel analysis, unobserved heterogeneity, vulnerable employment.*

## INTRODUCTION

The links between and the possible consequences of the main means of managing the way of life of society and the digitalisation of economy, on the one hand, and employment, productivity, economic growth, on the other hand, have been the subject of various studies in recent years. Digitalisation processes have an impact on all sectors of economy and society, and, at the present time, no group of beneficiaries can be left out of them. Identifying the opportunities and challenges of digitalisation is important not so much for theoretical results as for transforming existing means of conducting economic activity, developing and implementing new solutions. However, there are few studies that consider the impact of digitalisation on the employment of the most vulnerable groups of the population, and there are almost no results related to the actual vulnerable employment. In a research, considering 27 EU member states and covering a 5-year

period, the impact of labour cost growth rate, human capital, demand growth rate, total population growth rate and three composite indicators of digitalisation on the growth of employment rate of the “disadvantaged” groups of the population (women, old workers, aged 55-64, and long-term unemployed people) is assessed (Evangelista, Guerrieri, & Meliciani, 2014). Another work, based on the latter, studies the impact of labour cost, real GDP, population, and the Digital Evolution Index both on employment and actual vulnerable employment of total employed, male employees and female employees for a group of 25 developing countries, but for the year 2017 (Aly, 2020). Thus, the issue of the impact of digitalisation on vulnerable employment continues to be a subject of scientific interest and has a possibility to act as a priority of digitalisation, given that it accounts for just below half of the employed globally, but in many low-income countries the share is much higher (International Labour Organization, 2016, p.61).

The impact of a number of digitalisation indicators on vulnerable employment for the general case (total employed), for male and female employees is examined in this paper. The hypothesis that digitalisation unequivocally leads to a decline in vulnerable employment is put forward.

## RESEARCH METHODOLOGY AND DATA DESCRIPTION

The following specifications are considered for panel data analysis<sup>3</sup>:

- fixed-effects model.

$$y_{it} = X'_{it}\beta + \alpha_i + \varepsilon_{it},$$

$$\varepsilon_{it} \sim \text{iid}(0, \sigma^2), i = \overline{1, N}, t = \overline{1, T}$$

- random-effects model.

$$y_{it} = \mu + X'_{it}\beta + \varepsilon_{it},$$

$$\varepsilon_{it} = \alpha_i + v_{it}, \alpha_i \sim \text{iid}(0, \sigma_\alpha^2), v_{it} \sim \text{iid}(0, \sigma_v^2), i = \overline{1, N}, t = \overline{1, T}$$

where the dependent variable is denoted by  $y_{it}$ ,  $X_{it}$  is the matrix of independent variables,  $\varepsilon_{it}$  is the error,  $\alpha_i$  shows the unobserved heterogeneity of countries. In random-effects model  $\varepsilon_{it}$  consists of  $\alpha_i$  and  $v_{it}$  idiosyncratic error. For fixed-effects model the following transformation is considered:

$$y_{it} - \bar{y}_i = (X_{it} - \bar{X}_i)' \beta + (\varepsilon_{it} - \bar{\varepsilon}_i),$$

$$\bar{y}_i = \frac{1}{T} \sum_{t=1}^T y_{it} = \bar{X}_i' \beta + \alpha_i + \bar{\varepsilon}_i, \bar{X}_i = \frac{1}{T} \sum_{t=1}^T X_{it}, \bar{\varepsilon}_i = \frac{1}{T} \sum_{t=1}^T \varepsilon_{it}$$

Subtracting the mean, the fixed effects are left out, and after that  $\beta$  is estimated. Estimators obtained - within estimators, also called fixed-effects estimators - are ordinary least squares

<sup>3</sup> Based on Cameron and Trivedi (2005, pp. 700, 703-705, 717, 734), and StataCorp (2015, pp. 405, 423-424).

estimators for this specification. In some software packages (also in Stata/MP 14.2 that is used in this research) the following transformation is implemented:

$$y_{it} - \bar{y} + \bar{y} = (X_{it} - \bar{X}_i + \bar{X}) \beta + (\varepsilon_{it} - \varepsilon_i + \bar{\alpha}) + \varepsilon,$$

$$\bar{y} = \frac{1}{N} \sum_{i=1}^N \bar{y}_i = \frac{1}{NT} \sum_{i=1}^N \sum_{t=1}^T y_{it} = \bar{X} \beta + \bar{\alpha} + \bar{\varepsilon}, \bar{X} = \frac{1}{N} \sum_{i=1}^N \bar{X}_i = \frac{1}{NT} \sum_{i=1}^N \sum_{t=1}^T X_{it},$$

$$\bar{\alpha} = \frac{1}{N} \sum_{i=1}^N \alpha_i, \bar{\varepsilon} = \frac{1}{N} \sum_{i=1}^N \varepsilon_i = \frac{1}{NT} \sum_{i=1}^N \sum_{t=1}^T \varepsilon_{it}.$$

In the model with random effects, the method of feasible GLS estimators (also called random-effects estimators) is considered:

$$y_{it} - \lambda \bar{y} = \frac{1}{1-\lambda} \mu + (X_{it} - \lambda \bar{X}_i) \beta + \varepsilon_{it}, \quad \varepsilon_{it} = (1-\lambda) \alpha_i + (v_{it} - \lambda \bar{v}_i),$$

$$\lambda = 1 - \sqrt{\frac{\hat{\sigma}_u^2}{\hat{\sigma}_u^2 + T \hat{\sigma}_v^2}}.$$

The percentage share of vulnerable employment in total employment for the general case, the percentage share of male vulnerable employment in male employment and the percentage share of female vulnerable employment in female employment are considered as dependent variables. The independent variables are the percentage shares of employment in services in total employment, in female employment and in male employment, the percentage share of urban population in total population (these are included due to an indirect connection with digitalisation), the percentage share of information and communication technology (ICT) goods exports in total goods exports, the number of fixed broadband subscriptions per 100 people, and the number of mobile cellular subscriptions per 100 people. The indicators are taken from the “World Development Indicators” database<sup>4</sup>. Panel data analysis techniques are used, as 26 countries are observed, and the values of indicators are for 2008-2019. The names used in Stata for the variables are shown in Table 1, descriptive statistics - in Table 2.

Table 1. The names used for the variables in the program and corresponding descriptions

Name Used	Description of the Variable
Vul_emp_total	percentage share of vulnerable employment in total employment
Vul_emp_male	% share of male vulnerable employment in male employment
Vul_emp_female	% share of female vulnerable employment in female employment
Emp_serv_total	percentage share of employment in services in total employment
Emp_serv_male	% share of employment in services in male employment (for males)
Emp_serv_female	% share of employment in services in female employment (for females)
Urban_pop	percentage share of urban population in total population
ICT_goods_export	percentage share of ICT goods exports in total goods exports
FBBS_100	number of fixed broadband subscriptions per 100 people
Mob_cell_sub_100	number of mobile cellular subscriptions per 100 people

<sup>4</sup> <https://databank.worldbank.org/source/world-development-indicators>. Values of the percentage share of ICT goods exports for Albania, Montenegro, and Ukraine for the year 2019 were not available and were generated in Microsoft Excel by function FORECAST, based on values of 2008-2018.

Table 2. Descriptive statistics for the considered variables

Variable		Mean	Std. Dev.	Min	Max	Observations	
Vul_em~l	overall	22.0441	15.83895	3.26	61.53	N =	312
	between		15.97385	3.438333	56.19833	n =	26
	within		2.175675	14.38327	27.9916	T =	12
Vu~_male	overall	22.61106	14.72316	4.39	58.82	N =	312
	between		14.86848	4.850833	53.84167	n =	26
	within		1.875931	16.90856	28.98689	T =	12
Vu~emale	overall	21.53827	17.64869	1.79	67.04	N =	312
	between		17.68576	2.045833	62.32833	n =	26
	within		3.123005	7.70077	29.1166	T =	12
Emp_se~l	overall	56.53449	8.656313	35.75	77.67	N =	312
	between		8.489261	39.3225	75.12083	n =	26
	within		2.326631	49.56615	62.80616	T =	12
Em~_male	overall	47.99144	6.2862	34.74	68.78	N =	312
	between		6.058715	37.88167	66.755	n =	26
	within		2.026485	41.69644	53.55061	T =	12
Em~emale	overall	66.44337	12.55925	32.44	89.67	N =	312
	between		12.39439	37.45417	85.76083	n =	26
	within		3.089879	58.6467	75.89336	T =	12
Urban_~p	overall	60.80988	10.2077	35.284	79.044	N =	312
	between		10.3358	35.71667	76.4135	n =	26
	within		1.07085	55.0173	66.2553	T =	12
ICT_go~t	overall	3.672174	5.292692	.0030328	25.99533	N =	312
	between		5.186534	.0150654	16.84486	n =	26
	within		1.436631	-1.669745	13.14176	T =	12
FBBS_100	overall	17.07991	8.392478	.3253223	34.98495	N =	312
	between		7.050281	2.328485	28.27756	n =	26
	within		4.741871	-3.372634	29.34524	T =	12
Mob_~100	overall	119.5104	24.52123	49.59386	207.7518	N =	312
	between		21.19932	81.55075	175.2283	n =	26
	within		12.9528	59.23918	156.8048	T =	12

Table 3 shows the best results of percentage growth of all included indicators in 2019 compared to 2008.

Table 3. The best results of percentage growth of indicators in 2019 compared to 2008\*

Countries	Vul_emp_ _total	Vul_emp_ _male	Vul_emp_ _female	Emp_serv _total	Emp_serv _male	Emp_serv _female	Urban_pop	ICT_goods _export	FBBS_100	Mob_cell_ sub_100
Albania	-12.36	-2.16	-23.39	15.60	11.11	22.77	22.48	-96.66	610.36	47.41
Armenia	-21.07	-2.16	-38.53	16.34	5.94	27.03	-0.66	-68.59	2647.80	146.70
Azerbaijan	-4.38	-9.86	0.55	1.95	6.28	-1.84	5.74	439.65	2743.27	44.15
Croatia	-52.28	-43.16	-62.28	17.42	16.25	16.81	4.42	-13.36	130.48	1.91
Kazakhstan	-31.18	-24.93	-37.13	26.00	26.32	26.30	1.51	326.61	536.55	47.48
Kyrgyz	-25.01	-19.61	-36.19	22.03	27.23	20.06	3.70	-27.30	1058.06	108.08

Republic										
Turkey	-18.21	-13.33	-29.64	11.64	4.21	34.56	8.58	-37.13	108.66	3.60

\*In the case of shares of vulnerable employment, the best results are achieved through the decrease of the indicators.

Source: calculated by author, based on the values for the years of 2008 and 2019.

Considered 26 countries are Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Montenegro, North Macedonia, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Turkey, and Ukraine.

## ESTIMATION RESULTS

### Results for the General Case

When considering the percentage share of vulnerable employment in total employment, it was observed that the indicator Mob\_cell\_sub\_100 is not significant, thus leaving it out from the fixed-effects and random-effects models.

In order to choose the necessary model, the Hausman test is considered, where the null hypothesis for panel data analysis assumes that the independent variables and country-specific errors are not correlated. In that case, it is appropriate to use the random-effects model, because estimators obtained are consistent and efficient at the same time.

Table 4. The results of the Hausman test for the general case

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
Emp_serv_t~1	-.7415519	-.7643757	.0228238	.0091026
Urban_pop	-.4174351	-.4338305	.0163954	.0539592
ICT_goods~t	.1662688	.1342494	.0320194	.0117103
FBBS_100	.1078801	.11045	-.0025699	.0080287

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg  
 Test: Ho: difference in coefficients not systematic

chi2(4) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
 = 21.41  
 Prob>chi2 = 0.0003

The null hypothesis is rejected, thus the fixed-effects model should be considered.

Table 5. Estimation results for the general case



```

Fixed-effects (within) regression               Number of obs   =        312
Group variable: Country_ID                     Number of groups =         26

R-sq:                                           Obs per group:
    within = 0.5905                           min =          12
    between = 0.5982                           avg =         12.0
    overall = 0.5959                           max =          12

corr(u_i, Xb) = 0.3470                        F(4,282)        =       101.65
                                           Prob > F         =       0.0000

```

Vul_emp_total	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Emp_serv_total	-.7415519	.0463933	-15.98	0.000	-.8328731	-.6502307
Urban_pop	-.4174351	.1009179	-4.14	0.000	-.6160831	-.218787
ICT_goods_export	.1662688	.0586917	2.83	0.005	.0507393	.2817983
FBBS_100	.1078801	.0265139	4.07	0.000	.0556898	.1600704
_cons	86.89839	6.197538	14.02	0.000	74.69908	99.09769
sigma_u	10.825449					
sigma_e	1.4621272					
rho	.98208457	(fraction of variance due to u_i)				
F test that all u_i=0: F(25, 282) = 373.62 Prob > F = 0.0000						

As Table 5 shows, the percentage share of employment in services in total employment (Emp\_serv\_total) and the percentage share of urban population in total population (Urban\_pop) lead to a decrease in the percentage share of vulnerable employment in total employment (Vul\_emp\_total). A 10-point increase in these indicators, ceteris paribus, decreases the percentage share of vulnerable employment by about 7.42 and 4.17 percentage points, respectively, while the increase in the percentage share of ICT goods exports in total goods exports (ICT\_goods\_export) and in the number of fixed broadband subscriptions per 100 people (FBBS\_100) by 10 points, ceteris paribus, increases the percentage share of vulnerable employment by about 1.66 and 1.08 percentage points, respectively.

### Estimation Results for the Male Vulnerable Employment

In the case of male vulnerable employment, not all indicators show the necessary significance. For a more comprehensive picture, two models are distinguished, the first of which shows the impact of the percentage share of employment in services in male employment (Emp\_serv\_male), Urban\_pop and Mob\_cell\_sub\_100 on the percentage share of vulnerable employment in male employment (Vul\_emp\_male), while the second considers the impact of Emp\_serv\_male, Urban\_pop and ICT\_goods\_export on Vul\_emp\_male. In the first case, the null hypothesis of the Hausman test is not rejected, thus the random-effects model can be considered.

Table 6. The results of the Hausman test for the first model of male vulnerable employment

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
Emp_serv_m~e	-.3950604	-.3971605	.0021001	.0069341
Urban_pop	-.2646455	-.3289752	.0643298	.0375333
Mob_cell~100	.0188607	.0191837	-.000323	.0005317

b = consistent under Ho and Ha; obtained from xtreg  
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(3) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
= 5.70  
Prob>chi2 = 0.1271

To make sure that this model is appropriate, that is, the variation of country-specific error -  $Var(\alpha_i)$  - is not equal to zero, the Breusch and Pagan Lagrangian multiplier test for random effects is implemented. In Stata/MP 14.2,  $\alpha_i$  is denoted as  $u[Country\_ID]$ , where Country\_ID is the panel variable (country identifier), and  $Var(\alpha_i)$  is denoted as  $Var(u)$ . The null hypothesis that the variation is equal to zero is rejected, thus the model should be considered.

Table 7. The Breusch and Pagan Lagrangian multiplier test for random effects for the first model of male vulnerable employment

```
Vul_emp_male[Country_ID,t] = Xb + u[Country_ID] + e[Country_ID,t]
```

Estimated results:

	Var	sd = sqrt(Var)
Vul~_male	216.7716	14.72316
e	3.016454	1.736794
u	137.1674	11.71185

Test: Var(u) = 0

chibar2(01) = 1578.30  
Prob > chibar2 = 0.0000

Table 8. Estimation results for the first model of male vulnerable employment

```
Random-effects GLS regression              Number of obs   =       312
Group variable: Country_ID                Number of groups =        26

R-sq:                                     Obs per group:
      within = 0.2192                      min =          12
      between = 0.4364                     avg =         12.0
      overall = 0.4283                     max =          12

corr(u_i, X) = 0 (assumed)                Wald chi2(3)    =       91.48
                                           Prob > chi2     =       0.0000
```

Vul_emp_male	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
Emp_serv_male	-.3971605	.0536459	-7.40	0.000	-.5023046 - .2920164
Urban_pop	-.3289752	.0912402	-3.61	0.000	-.5078028 - .1501477
Mob_cell_sub_100	.0191837	.0081309	2.36	0.018	.0032474 .03512
_cons	59.38365	5.740842	10.34	0.000	48.13181 70.63549

sigma_u	11.711848	
sigma_e	1.7367942	
rho	.97848215	(fraction of variance due to u_i)

Table 8 shows that a 10-point increase in Emp\_serv\_male and Urban\_pop, ceteris paribus, decreases Vul\_emp\_male by about 3.97 and 3.29 percentage points, respectively, while an increase in Mob\_cell\_sub\_100 by 10 points, ceteris paribus, leads to an increase in Vul\_emp\_male by about 0.19 percentage points.

In the second case, the null hypothesis of the Hausman test is rejected (Table 9), thus the fixed-effects model is considered. In Table 10, the estimation results are shown.

Table 9. The results of the Hausman test for the second model of male vulnerable employment

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
Emp_serv_m~e	-.3607507	-.3613186	.0005679	.0077622
Urban_pop	-.2119469	-.3013656	.0894187	.0413875
ICT_goods_~t	.1484609	.1099329	.0385279	.0129053

b = consistent under Ho and Ha; obtained from xtreg  
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(3) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
= 12.15  
Prob>chi2 = 0.0069

Table 10. Estimation results for the second model of male vulnerable employment

Fixed-effects (within) regression	Number of obs	=	312
Group variable: Country_ID	Number of groups	=	26
R-sq:	Obs per group:		
within = 0.2178	min =		12
between = 0.3613	avg =		12.0
overall = 0.3522	max =		12
	F(3,283)	=	26.27
corr(u_i, Xb) = 0.3930	Prob > F	=	0.0000

Vul_emp_male	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Emp_serv_male	-.3607507	.0516785	-6.98	0.000	-.4624737 -.2590277
Urban_pop	-.2119469	.0986628	-2.15	0.033	-.406153 -.0177407
ICT_goods_export	.1484609	.0693019	2.14	0.033	.0120483 .2848734
_cons	52.26729	5.713437	9.15	0.000	41.02107 63.51352
sigma_u	12.992423				
sigma_e	1.7392578				
rho	.98239509	(fraction of variance due to u_i)			

F test that all u\_i=0: F(25, 283) = 425.25 Prob > F = 0.0000

A 10-point increase in Emp\_serv\_male and Urban\_pop, ceteris paribus, leads to a decrease in Vul\_emp\_male by about 3.61 and 2.12 percentage points, respectively, while an increase in ICT\_goods\_export by 10 points, ceteris paribus, leads to an increase in Vul\_emp\_male by about 1.48 percentage points.

### Estimation Results for the Female Vulnerable Employment

In the case of female vulnerable employment, all indicators are highly significant, thus the Hausman test can be immediately considered.

Table 11. The results of the Hausman test for the case of vulnerable employment of women

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
Emp_serv_f~e	-.9509827	-.9728418	.0218591	.0083943
Urban_pop	-.6694464	-.5488955	-.1205509	.0571577
ICT_goods_~t	.2160199	.1959546	.0200653	.0125911
FBBS_100	.2385565	.2233801	.0151764	.0077252
Mob_cell~100	-.0240523	-.0217796	-.0022727	.0007771

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(5) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
 = 19.00  
 Prob>chi2 = 0.0019

The null hypothesis of the Hausman test is rejected, thus the model with fixed effects can be considered, the results of which are shown below.

Table 12. Estimation results for the case of female vulnerable employment

Fixed-effects (within) regression      Number of obs = 312  
 Group variable: Country\_ID      Number of groups = 26

R-sq:      Obs per group:

within = 0.8093	min = 12
between = 0.7057	avg = 12.0
overall = 0.7089	max = 12

corr(u\_i, Xb) = 0.0222      F(5,281) = 238.54  
 Prob > F = 0.0000

Vul_emp_female	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Emp_serv_female	-.9509827	.0348251	-27.31	0.000	-1.019534 - .8824314
Urban_pop	-.6694464	.1008556	-6.64	0.000	-.8679748 -.470918
ICT_goods_export	.2160199	.058342	3.70	0.000	.101177 .3308628
FBBS_100	.2385565	.0264005	9.04	0.000	.1865886 .2905244
Mob_cell_sub_100	-.0240523	.0068993	-3.49	0.001	-.0376333 -.0104713
_cons	123.4404	5.917684	20.86	0.000	111.7918 135.0891
sigma_u	9.5968512				
sigma_e	1.4346498				
rho	.97814073	(fraction of variance due to u_i)			

F test that all u\_i=0: F(25, 281) = 288.05      Prob > F = 0.0000

According to the results, Emp\_serv\_female, Urban\_pop and Mob\_cell\_sub\_100 have a negative effect on the dependent variable: a 10-point increase of these indicators, ceteris paribus, leads to a decrease of Vul\_emp\_female by about 9.51, 6.69 and 0.24 percentage points,

respectively. In contrast to those indicators, an increase of ICT\_goods\_export and FBBS\_100 by 10 points, ceteris paribus, increases Vul\_emp\_female by about 2.16 and 2.39, respectively.

## DISCUSSION OF RESULTS

The analysis shows that the share of vulnerable employment in total employment decreases with the increase in the percentage share of employment in services and in the percentage share of urban population, while the increase in the percentage share of ICT goods exports and in the number of fixed broadband subscriptions per 100 people leads to an increase in vulnerable employment. In the case of the share of male vulnerable employment, a decreasing effect is shown by the increase in the percentage share of male employment in services and the percentage share of urban population, but the increase in the number of mobile cellular subscriptions per 100 people and in the percentage share of ICT goods exports contributes to the increase in the share of vulnerable employment. In the case of the share of female vulnerable employment, it turns out that the reduction of the share of vulnerable employment is caused by the increase in the percentage share of employment in services and in the percentage share of urban population, as well as in the number of mobile cellular subscriptions per 100 people, while the increase in the percentage share of ICT goods exports and in the number of fixed broadband subscriptions per 100 people leads to an increase in the share of vulnerable employment.

Thus, the results show that digitalisation indicators increase rather than reduce vulnerable employment. The number of mobile cellular subscriptions per 100 people is the only indicator that contributes to the decline in vulnerable employment, and only for women. Thus, the hypothesis put forward is rejected, because, according to the results, digitalisation almost does not contribute to the decline in vulnerable employment. When formulating and implementing public policy, it is important to pay attention to the circumstance that the growth of employment in services and urban population contributes to the reduction of vulnerable employment in all three cases, but the impact of growing digitalisation shows trends different from that. In particular, the increase in the number of fixed broadband subscriptions per 100 people may make it preferable to become self-employed and look for freelance jobs. This is especially relevant in a situation when there are almost no formal jobs in a country, or opportunities to find out about jobs (work platforms, job-related sections of websites of organisations, etc.) are few or almost unavailable. As for the percentage share of ICT goods exports in total goods exports, the not-reducing impact of the growth of the latter may be caused by the possibility of self-employed and micro-entrepreneurs to use online platforms and other means to offer the potential buyers their ICT products with almost no contribution to the transformation of vulnerable employment into ordinary employment.

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# BANKS' LOSS ABSORPTION AND RECAPITALIZATION CAPACITY IN THE POST-PANDEMIC ENVIRONMENT

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## ABSTRACT

*According to the latest prudential requirements (FSB TLAC at the global level and MREL in the EU), banks are obliged to build (until 2024) loss absorption and recapitalization capacity (LAC) in order to be prepared for financing of their own crisis from internal resources. The process of achieving the target levels of loss absorption and recapitalization capacity has however been impacted by the volatility of markets and macroeconomic environment caused by the pandemic and (at least for some markets) sharpened by the conflict between Russia and the Ukraine. The aim of the article is to assess the current level of the banks' LAC and identify the factors that have the most important influence on its level in Poland. The analysis shows that till (and partly through) the pandemic banks consequently boosted their LAC (mainly by profit retention and own funds and eligible debt issuances). The interest rate increases started by the central bank (as inflation targeting measure) combined with worsening macroeconomic perspectives as well as the market instability caused by military conflict in Ukraine resulted in losses diminishing banks' capitals (and lowering LAC) and closure of markets for banks' securities. Moreover, new national banking legislation creates additional strains for banks by discouraging investors. The situation threatens the ability of banks to meet the requirements (TLAC and MREL). Moreover, the situation of banks in Poland casts light on the high level of interdependence between banks and government (so called "sovereign-bank doom loop").*

**Key words:** *loss absorption capacity, recapitalization capacity, banks' resilience, financial stability, crisis preparedness, market volatility, bank capital, bank debt, sovereign exposures*

## INTRODUCTION

Basel Accord introduced in 1988 the framework for the calculation and meeting the banks' solvency (capital adequacy) requirements. It was modified and supplemented a few times, usually after crises in the banking sectors (Koleśnik 2014). Nevertheless, the global financial crisis (2007+) confirmed that the capital requirements obviously does not provide protection against the failure. Moreover, it also does not provide appropriate safeguards for the financial system to dampen the potential consequences of the bank's failure (mainly as a result of too low capital or its doubtful quality). Therefore, as a lesson learnt from the financial crisis 2007+, Financial Stability Board (FSB) recommended that national resolution regimes should be introduced (at least for global systemically important institutions, so-called G-SIIs) (FSB 2011) creating the global, harmonized system for bank crisis management. One of the most important

elements of such a regime should be the requirements that would ensure appropriate level of loss absorption capacity and the ability to recapitalize (restore the level of solvency ratios) itself by a bank after the crisis situation (the concept of so-called LAC) (FSB 2015). This should be done through the implementation of the Total Loss Absorption and Recapitalization Capacity (TLAC) requirement, the equivalent of which in the European Union is the Minimum Requirement for Own Funds and Eligible Liabilities (MREL)<sup>5</sup>.

MREL requirement is applicable in Poland since a few years and is to be met in full from 2024 (BFG 2021). Through years (even during the pandemic) the loss absorption and recapitalization capacity of banks acting in Poland has been gradually built up. Currently, almost post-pandemic, but still turbulent times and associated tough market conditions have undermined the ability of banks to boost their LAC. Political projects imposed (or will impose) additional burden on banks further waning the probability of meeting MREL requirements. In fact, current developments erode the LAC of banks at the time, when banks should be ready to weather the financial and economic storm (due to the worsening economic outlook). At the same time, it should be noted that banks have multiple ways to meet the requirement. Nevertheless, current market environment visibly limit the possibility to use them to build MREL.

The goal of the article is to evaluate the framework for building LAC by banks in a post-pandemic environment, putting special emphasis on the conditions in Poland. For this purpose, TLAC and MREL requirements are presented and assessed. Then, the level of LAC in Poland and the challenges in meeting MREL will be shown. This analysis is aimed at verifying the real preparation of banks to crises looking at their changing level of LAC and the framework for MREL requirement (i.e. showing how LAC is contributing to the credible ability to withstand the financial difficulties).

## **LOSS ABSORPTION AND RECAPITALIZATION AMOUNT – ORIGINS AND RULES FOR SETTING THE REQUIREMENTS IN THE EU**

After the global financial crisis, the formerly applied policy of public bail-outs was assessed as inappropriate (mainly due to its costs and controversies that they raised) (Fratzscher, Rieth 2015) and was replaced by the bail-in policy, where private, banks' stakeholders money are used to cover the losses of ailing banks (Sanchez-Roger, Oliver-Alfonso, Sanchís-Pedregosa 2018). Nevertheless, application of bail-in requires appropriate level of capital and bail-inable liabilities, that in fact might be used in order to cover the costs of the bank's crisis and recapitalize it (i.e., might be written down or converted). To ensure such a possibility LAC requirements were implemented (Kościńska 2018).

The prototype of the European loss absorption and recapitalization capacity requirement is Total Loss Absorption and Recapitalization capacity requirement, so-called TLAC, introduced as part of the recommendations for effective bank resolution regimes (FSB 2011, FSB 2015). The TLAC is applicable only towards G-SIBs. There are two types of TLAC – external and internal. External TLAC is set at the level of 18% Total Risk Exposure Amount (TREA) and 6,75% Leverage Ratio Exposure (LRE) and must be maintained by the resolution entities (entities toward which the resolution plan assumes application of resolution tools) at the consolidated

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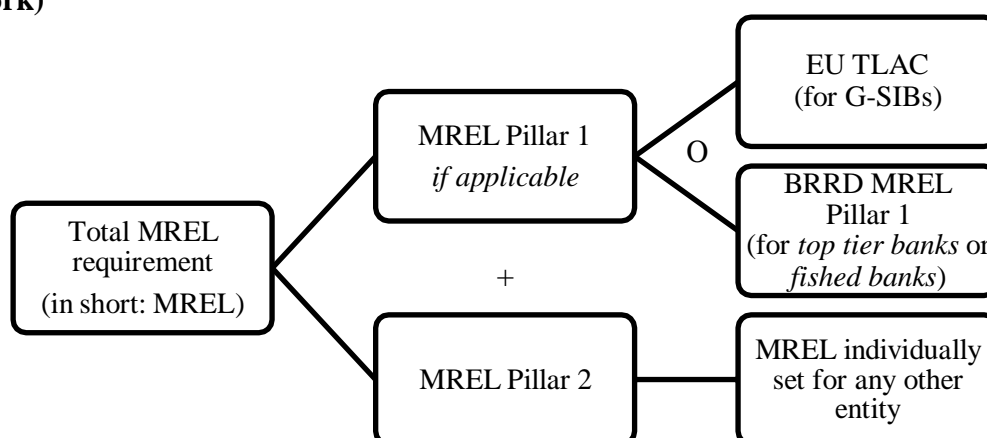
<sup>5</sup> The requirements that should ensure LAC of a bank are TLAC and MREL. The concept of LAC is however broader than the TLAC and MREL requirements, since it means the whole capacity of a bank to cover losses and recapitalize (i.e., includes all instruments that might be bailed-in, not only those with the specific features allowing for the inclusion to the TLAC or MREL).



level. Rest of the entities from the resolution group<sup>6</sup> are required to meet internal TLAC at the level of 75-90% of the external TLAC, at the individual level. There is a possibility to set TLAC at the higher, individually evaluated level. The feature of the TLAC is also full deduction regime (holdings of TLAC-eligible instruments must be deducted from the institution's TLAC eligible items, namely Tier 2 capital), as well as clear relation to the capital requirements, which assumes clear stacking order: core capital should be first used to meet TLAC, then capital buffers. TLAC requirement must be met with institution's own funds and "eligible liabilities". There are a few traits that eligible liabilities must have: issued directly by the entity and paid-in, unsecured, subordinated (senior liabilities might be used only up to the amount of 3,5% of RWA), not subject to set-off and netting rights and not redeemable by the holder and with the residual maturity of at least 1 year. The characteristic of TLAC is however obligatory share of debt (33%) in all instruments that are counted towards TLAC (FSB 2015).

MREL requirement was initially implemented as part of the BRR Directive in 2014, but it was amended in 2019 in order to align it more with TLAC, since part of the European banks had to meet these two requirements at the same time (Directive 2014/59/EU). After the implemented modifications MREL requirement is broadly compatible with the TLAC – in fact TLAC was made fit into the EU MREL framework in Regulation 2013/575. There are however a few issues that remain divergent or specific (distinguished) for MREL framework (and its fixed part for G-SIBs – EU TLAC). First and foremost, MREL requirement is set at the fixed level (13,5% TREA and 5% TEM) for so-called top tier banks (banks, which resolution groups have more than 100 bn euro assets) and so-called fished banks (systemically important banks enumerated by the resolution authorities). This is MREL Pillar 1. At the same time, as a separate requirement (regulated in a separate legal act) EU TLAC is applicable towards G-SIBs (looking at the level of the requirement). Additionally and principally, MREL is set for every credit institution at an individual level (MREL Pillar 2) according to the specific formula (presented in the Table 1 below) (Directive 2014/59/EU, Regulation 2013/575). The rules regarding setting MREL requirement for a given entity is summarized on the Picture 1.

**Picture 1. Total MREL requirement for a given entity in the European Union (MREL framework)**



Source: own elaboration based on Directive 2014/59/EU and Regulation 2013/575

<sup>6</sup> Resolution group consists of resolution entity and its subsidiaries.

Calculation of MREL Pillar 2 consists in summing loss absorption amount and recapitalization amount calculated both for TREA and Total Exposure Measure (TEM) – the European counterpart of the LRE. The details of MREL Pillar 2 calculation are presented in the Table 1.

**Table 1. Calculation of MREL Pillar 2 requirement**

Total requirement	MREL Pillar 2 requirement	
Sum of:	Loss absorption amount (LAA)	Recapitalization amount (RCA)
Calculation as of % of TREA	8%TREA + additional requirement for own funds (as % of TREA) <i>before the loss coverage – full amount of TREA is applicable</i>	8%TREA + additional requirement for own funds (as % of TREA)  <i>after the implementation of the resolution – consequently, the above formula is usually multiplied by the scaling factor</i>
Calculation as of % of TEM	3%TEM <i>before the loss coverage – full amount of TEM is applicable</i>	3%TEM  <i>after the implementation of the resolution – consequently, the above formula is usually multiplied by the scaling factor</i>
Application	Always applicable	As a rule, RCA is equal to 0 (zero) if entity is going to be liquidated under normal insolvency procedure (is not going to be put under resolution)

Source: own elaboration based on Directive 2014/59/EU

Similarly like in the case of TLAC, also MREL framework introduces the differentiation for external and internal MREL (for resolution entities and non-resolution entities accordingly). MREL framework also assumes capital stacking order according to which core capital must be first used to meet MREL and then combined buffer requirement. Nevertheless, deduction regime is not applicable (i.e., deduction regime is limited only to EU TLAC part of MREL). MREL Pillar 1 and MREL Pillar 2 are not included in the scope of the deduction regime. Also, the eligibility criteria for MREL-eligible liabilities are a little bit different. Main differentiating element is the level of subordination – TLAC must, as a rule, be fully subordinated. Subordination of MREL is assessed and set individually for a given entity by the resolution authority. Moreover, there are discrepancies in the structure of MREL – in any part there is no requirement for a fixed share of debt instruments. Consequently, MREL might be fully met with own funds (Directive 2014/59/EU, Regulation 2013/575) although also other instruments are available (eligible liabilities). Most important features of FSB TLAC and MREL requirements are summarized in the Table 2.

**Table 2. Comparison of EU LAC requirements and FSB TLAC**

	<b>MREL requirements (EU TLAC and BRRD MREL requirements)</b>	<b>FSB TLAC</b>
Aim	Ensuring the loss absorption and recapitalization capacity of banks in order to make it feasible to implement potential write down or recapitalization of an ailing entity (bail-in)	
Scope of entities	All credit institutions  Type and level of requirement dependent on the type of institution (EU TLAC, MREL Pillar 1, MREL Pillar 2)	Only G-SIBs
Type of requirement dependent on the role in resolution	External and internal requirements (for resolution and non-resolution entities accordingly)	
Level of setting the requirement	Individual	Standard for all (but possibility to make it higher as part of Pillar 2)
Basis for the calculation and maintenance	TREA and TEM (requirements in TREA and TEM must be met at the same time)	
Treatment of capital buffers	Stacking order – buffers are met by capital after LAC	
Scope of LAC-eligible instruments	issued directly by the entity and paid-in, unsecured, subordinated (to the extent dependent on the decision of resolution authority), not subject to set-off and netting rights and not redeemable by the holder, with the residual maturity of at least 1 year	issued directly by the entity and paid-in, unsecured, subordinated, not subject to set-off and netting rights and not redeemable by the holder and with the residual maturity of at least 1 year

Source: own elaboration based on FSB (2015), Directive 2014/59/EU and Regulation 2013/575

In the EU the target level of MREL requirements will be applicable from 1 January 2024. Banks are now in the process of building their MRELs.

The presented (very concise) description provides the first conclusion that could be drawn – the level of complexity of the European MREL framework is extremely high, what causes the problems in interpretation, setting and meeting the requirements both for resolution authorities and institutions. Moreover, in the EU the framework has already been changed (firstly as part of Banking Package in order to align with FSB TLAC, secondly in 2022 in order to facilitate setting

and meeting MREL in the cross-border groups; what is more so-called BRRD3 is expected what may also bring next changes to the framework). Such a situation does not support institutions in building real strength to withstand crises.

## **INSTRUMENTS ELIGIBLE FOR MREL AND THE LEVEL OF LAC IN POLISH BANKS**

There are at least a few ways to meet MREL. The basic source of MREL-eligible instruments are own funds (Core Equity Tier 1 (CET1), Additional Tier 1 (AT1) and Tier 2 (T2) capital). The instruments that are no longer eligible to be included in own funds (due to their residual maturity shorter than 5 years) might also be counted towards MREL (as long as their residual maturity is longer than 1 year). Apart from own funds also eligible liabilities are counted towards meeting MREL requirement. A form of eligible liabilities is senior non-preferred debt (so-called SNP). It consists of instruments that fulfil MREL-eligibility criteria – the most important are that the instruments must be directly issued by the resolution entity, paid-in, unsecured, subordinated and with the residual maturity of at least one year. As long as resolution authority does not require full subordination, also ordinary senior debt might be counted towards MREL provided that it fulfills eligibility criteria mentioned above (Directive 2014/59/EU, Regulation 2013/575).

It should be noted that in many countries banking activity is financed mainly through deposits. Such banks usually have very little experience in issuing debt instruments on the capital markets. At the same time, such banks, due to their size relative to the national market and the critical functions that they perform in the local economy, might be earmarked for resolution during the resolution planning, what means that such banks are obliged to meet MREL requirements. MREL requirements are usually essentially higher than the minimum capital requirements, what results from the formulas for calculating the requirements. Consequently, deposit-funded banks face significantly higher requirements being dependent mainly on own funds to fulfil them.

The country where banks are confronted with the above-mentioned situation is Poland. In Poland, the average target level of MREL requirement for commercial banks that are resolution entities (most important part of the banking sector) should be almost equal to the double capital requirements. In the whole banking sector the average level of MREL requirement is definitely lower, since part of the sector is earmarked for the liquidation and its MREL requirement is equal to applicable capital requirements. On the whole, it should be assumed that the average level of MREL ranges between 8 and 16% of TREA, as well as 3-6% of TEM (detailed data about the MREL requirements in Poland are not published; banks will be obliged to publish MREL-related information from 2024). At the same time, the level of capital adequacy ratio is relatively high – at the end of 2021 the aggregated level of capital adequacy ratio was 19.5% of TREA (KNF 2022). Data about the level of leverage ratio (%TEM) are not published by the supervisory authority. That means that banks functioning in Poland should not have problems with meeting MREL. Nevertheless, there might be single entities that (due to their high capital adequacy requirements resulting from the higher level of risk) have significantly higher MREL requirements and their own funds are not enough to meet MREL requirement. They will be forced to issue eligible liabilities. Moreover, banks are obliged to meet combined buffer requirements, which consume banks core equity capital and, consequently raises the probability of banks' need to issue additional instruments (preferably eligible liabilities that are cheaper than capital (BCBS 2019)).

Concluding, in Poland:

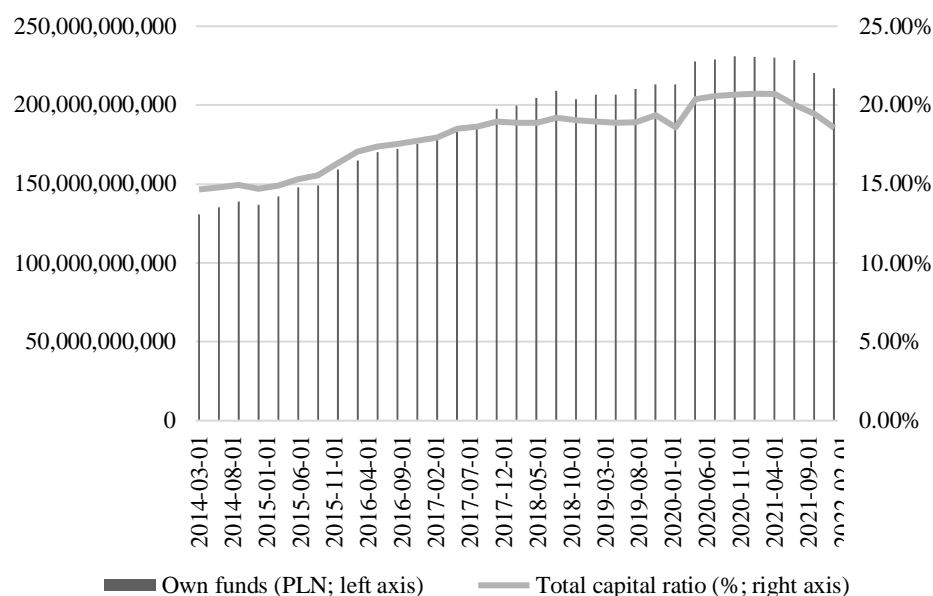
- the level of MREL requirement for banks that are resolution entities is higher than the minimum requirement for capital (sometimes even almost doubles minimum capital requirements),
- banks have relatively high level of own funds,
- the main source of MREL fulfilment are own funds (their level is decisive from the point of view of MREL),
- till the mid-2022 issuances of other MREL-eligible instruments (other than own funds) were exceptional,
- it might not be excluded that there will be a need to boost LAC by the issue of eligible liabilities in order to meet MREL.

## CHALLENGES IN MEETING MREL REQUIREMENT AND BUILDING LAC IN POLAND IN A POST-PANDEMIC ENVIRONMENT

Considering that meeting MREL requirement in Poland is dependent mainly on the situation on the own funds market, the list of challenges that banks face should start with the analysis of own funds.

Since the introduction of MREL requirement in BRRD in 2014 in the EU and 2017 in Polish legislation, the level of own funds (main component of meeting MREL) was rising. Even during the time of pandemic, which corresponded with the increased volatility, high credit risk, extremely low interest rates (consequently margins) and economic slowdown, the level of own funds (and corresponding level of total capital ratio) was relatively stable (even slightly increasing during the pandemic). Nevertheless, since the last quarter of 2021 the level of own funds in Poland is falling (KNF 2022) what translates into lower level of instruments that meet MREL requirement. This results from a few factors.

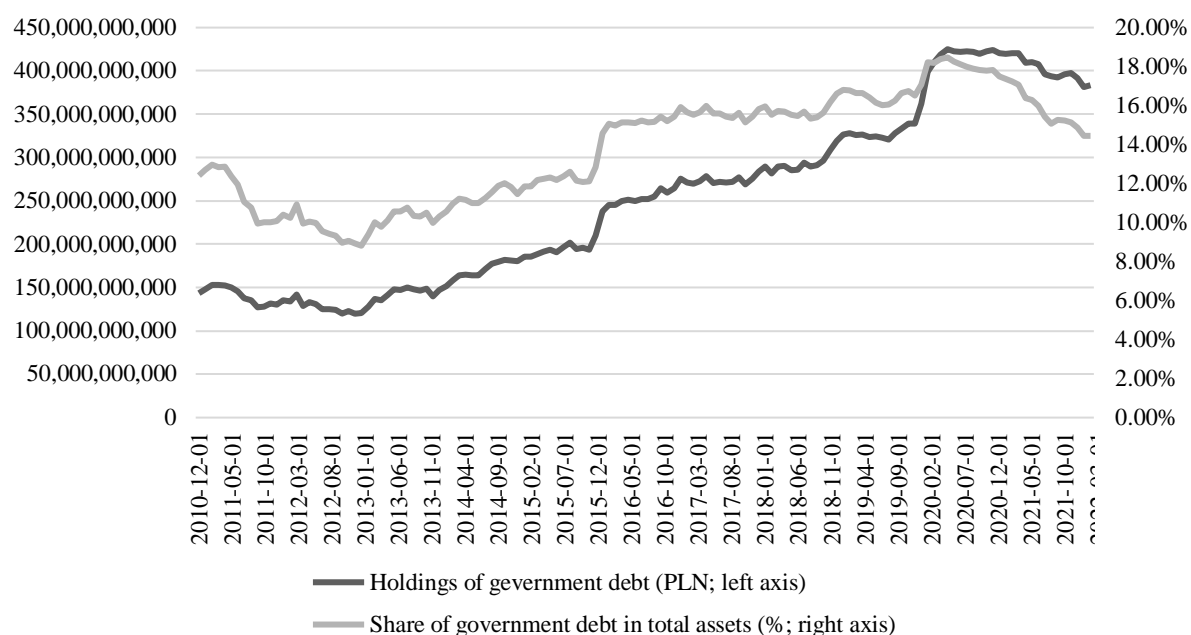
**Picture 2. Level of own funds and total capital ratio in Poland 2014-2022**



Source: own elaboration based on KNF (2022)

The period of the slump in the level of own funds corresponds with the increase of the interest rates by the central bank. The changes are connected with the central banks' exit from pandemic, extremely expansionary monetary policy and the current (mid-2022) fight with exceptionally high levels of inflation rate (being – to the high extent – the result of accommodative monetary and fiscal policy). The increase in the interest rates widens the discount rates for debt instruments that banks hold in their portfolios. In Poland, as a result of the introduction of so-called banking tax (calculated as a percentage of the total assets) in 2016, the amount of sovereign debt on the banks' balance sheets is rising, since it is the only way to optimize the impact of banking tax (the amount of sovereign debt holding is deducted from the taxable basis). The rise of the sovereign debt holdings in banks' portfolios was quicker than the rise of the total capital ratio. Consequently, the losses resulting from the change in the valuation of sovereign bonds are now the first, one of the most important factors decreasing the level of banks' capitals, waning their ability to meet MREL requirement and denting their capacity to cover losses and recapitalize in the case of potential crisis.

**Picture 3. Holdings of government debt in Polish banks**



Source: own elaboration based on KNF (2022)

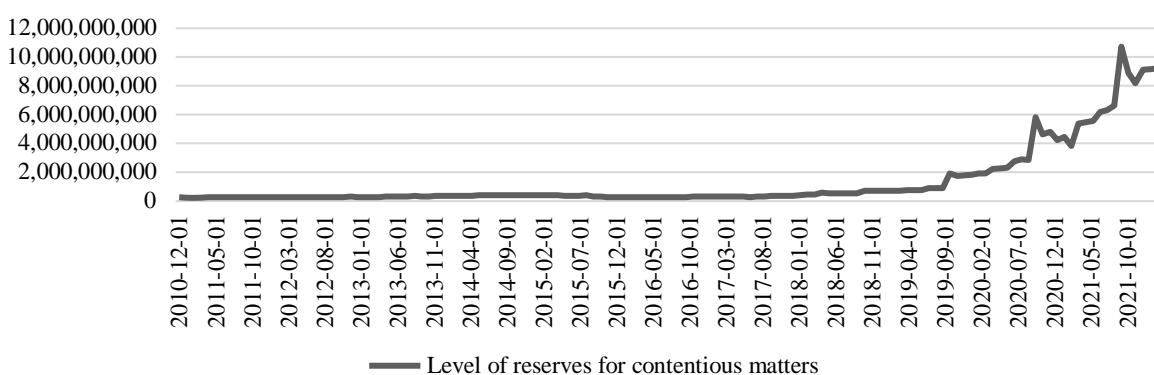
The next factor that limit banks' ability to boost their level of MREL (and LAC) is the scale of exceptional (one-off, not being part of business-as-usual environment) costs that they had to or have to cover, namely:

- creation of the Borrowers Support Fund (600 mn PLN in 2015 as seed funding and 1,4 bn PLN in 2022 as additional contributions set by the government (Act on the crowdfunding for economic undertakings and the support for borrowers)),
- creation of reserves for legal risk connected with the loans denominated in Swiss franc (in sum almost 20 bn PLN during a few last years (Votum 2022)),
- 'credit holidays' for borrowers (up to 37 bn PLN in 2022 and 2023 (ZBP 2022)),

- contribution to the Institutional Protection Scheme for commercial banks in Poland (3,5 bn PLN in 2022 (Business Insider 2022)).

Among listed factors at least two (increase of the Borrowers Support Fund and credit holidays) are implemented as a measures alleviating the consequences of accommodative monetary and fiscal policy during the pandemic (resulting in the high inflation rate and the necessity to increase interest rates sharply in the short period).

**Picture 4. Level of reserves created by banks for legal disputes (including legal disputes over loans denominated in Swiss francs)**



Source: own elaboration based on KNF (2022)

The factors enumerated above are strongly waning the banks' own funds, which – as already signaled – are the main source of MREL eligible instruments in Poland. Mounting costs dent also the ability to strengthen the own funds base by profit retention (especially taking into account that the government is trying to force banks to increase the interest rates on deposits what limit interest rate margins – the basic source of banking profit in countries with traditional banking business model; profit generated by banks on interest rates margin during the period of interest rates increase was assessed by the decision-makers as unjustified and they signaled readiness to impose additional tax on banks in order to redistribute their “unfair” profits (Ziemska, Wieczeryńska 2022)). That means that there is a growing probability that banks will have to issue more instruments to meet MREL. Due to the fact that equity is the most expensive source of funding, banks will probably prefer to issue senior non-preferred debt, which – among all MREL-eligible instruments – is the most senior type of debt, so consequently is least costly. However, the market conditions for issuing debt are more and more challenging. After the pandemic turbulences (which resulted in the investors' searching for higher rates of returns on the alternative markets and falling interest in the banking sector where the RoE are low), the next factor and halted the possibility to issue debt, especially by smaller banks, is the military conflict between the Russia and the Ukraine.

**Table 3. Return on investments in the banking sector and the alternative market sector – bitcoin in recent years.**

Year	2019	2020	2021
ROE (banks in Poland)	7,72%	-0,28%	4,35%
ROI (bitcoin)	87,20%	302,80%	57,60%

Source: own elaboration based on BFG (2022) and UpMyInterest (2022)

Due to the recent uncertainty generated by the military conflict, as well as consecutive government projects of support for the borrowers at the cost of the banking sector or imposed higher level of taxation, the interest of investors to buy banks' bonds is extremely low (as of mid-2022). In 2022 most of banks' issuances were canceled or postponed (e.g., Millennium Bank or mBank SNP's issues).

The next factor limiting the investors' interest in the banks bonds is benchmark reform, where current market benchmark interest rates (WIBOR and WIBID) are going to be replaced by different benchmarks. Such a reform brings however high level of legal risk and uncertainty, since almost all issued banks' bonds are based on the variable remuneration, where the component is benchmark interest rate.

The factors listed above clearly shows that currently the banks' ability to meet MREL requirement is falling.

## CONCLUSION

The analysis provided in the previous sections shows that the MREL framework in the EU (and Poland) is complicated. Nevertheless, banks have to prepare to fulfilling the MREL requirement from 2024. In Poland, the banks' capacity to build MREL is more and more limited.

Firstly, the banks' MREL-eligible instruments consist mainly of own funds. Current, post-pandemic market conditions translate into the decrease of the level of own funds. This happens at the time when economies are heading towards the recession – the time when the capacity of banks to absorb losses and recapitalize themselves should be high (rising). This shows that the construction of MREL does not incorporate one of the most important lessons learnt from the global financial crisis 2007+ that the banks' capital and LAC should be countercyclical.

Secondly, the ability of banks to meet MREL and generally boost LAC is being dented by the activity of government, which – before next-year (2023) elections – is implementing projects connected with the high costs for the banking sector. Combined with the exceptionally high level of uncertainty on the markets, the probability of issuing MREL-eligible bonds is marginal. Also, the growing dependencies between the banks and governments are strengthening the so-called sovereign-bank doom loop (which is divergent from the direction of global supervisory policies).

Once again, the lessons learnt from the global financial crisis 2007+ to limit the interdependencies between banks and sovereigns was not implemented. Moreover, populist ideas of ruling party brings high costs and uncertainty for the banks, undermining their stability. The situation generates a kind of trap for the Polish banking sector after the pandemic. Exiting the accommodative monetary and fiscal post-pandemic policy requires interest rates' increases. This lowers the level of own funds and the government projects limit the possibilities for banks to earn higher profits that could outweigh the loss of own funds. Such project lower also the interest of investors, which are extremely reluctant to buy Polish banks' debt. All in all, before the projected recession the LAC of banks is lowering, which will result in the low resilience of the banking sector during the economic crisis.

It should also be noted that the Polish banks' inability to meet MREL will result in sanctions being imposed on them, e.g., cash penalties or limitations in the payout of dividends and variable part of staff remuneration. This will further limit the interest of investors in buying Polish banks' instruments.



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# ASYMMETRIES AND MACROECONOMIC IMPACT OF OIL PRICE TRANSMISSION IN OIL-EXPORTING EMERGING ECONOMIES'

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## ABSTRACT

*Is the relationship between economic activity and oil prices asymmetric in oil-exporting emerging economies? How does fiscal policy in these economies react to oil price changes? In this paper, we tackle these questions by testing and evaluating the premise on which the responses from oil price shocks to GDP growth and adjustments of public expenditure are asymmetric using techniques developed by Kilian and Vigfusson (2011a) building on censored-regressor nonlinear VARs. We find substantial empirical support for the presence of asymmetries for our sample containing a group of oil-exporting emerging markets. We explain how the output and fiscal responses to large shocks are significantly different depending on country-specific characteristics and stabilization incentives. Our applications are able to uncover and explain the distinct co-movements between oil prices and fiscal spending which enable us to evaluate how to address fiscal imbalances. The implications for theoretical models of the transmission of exogenous energy price fluctuations can motivate further investigation into the roles of energy prices, foreign exchange inflows and government expenditure cyclicity in understanding the growth process specific to resource-rich open economy emerging countries.*

JEL Classification: C32, E37, Q43

**Keywords:** Asymmetries; Oil price transmission; Censored oil price VARs; Emerging economies

## 1. INTRODUCTION

Economic activities in many oil-exporting developing countries are determined by the large swings in oil prices due to their heavy dependence on revenues accruing from oil exports. While some countries have been successful in using the oil proceeds for economic development, others

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have not. Empirical evidence from Sachs and Warner (2001), Sala-i Martin and Subramanian (2003) and Smith (2004) illustrates that economic growth in resource-rich developing countries tends to be lower compared to their resource-poor counterparts. What happens to these resource-dependant macroeconomies after an unexpected oil price shock? Can positive oil price shocks (unanticipated rise in prices) even be contractionary to small open developing oil exporters because of the increasing uncertainty about future prices or policy responses?

More recently, economists have focused on the asymmetric nature of oil price shocks, leading to new methodological and theoretical contributions. However, most of these studies focus on the developed countries. Furthermore, few studies that tend to examine the asymmetric nature of oil price shocks on output in developing countries are fraught with methodological flaws. Observing the stagnant growth of many developing oil-exporting countries in the face of volatile oil prices gives us a further impetus to examine the asymmetric effects of oil price on output employing unbiased methodologies. This is particularly relevant in emerging market countries, since these economies face unique vulnerabilities that make them very different from advanced economies.

Existing theory states that oil price changes can affect economic activities via direct and indirect supply and demand side mechanisms (see Kilian, 2014). Among these the direct channels tend to produce symmetric responses in output whereas the indirect ones can contribute towards asymmetry and amplification in the responses. The direct demand side effect illustrates the changes in aggregate demand caused by changes in purchasing power subsequent to oil price innovations (Baumeister and Kilian, 2017; Baumeister et al., 2017). Additionally, the direct supply side effect refers to the symmetrical changes in aggregate supply due to production cost changes, upon oil price innovations (Rotemberg and Woodford, 1996; Karaki, 2017).

On the other hand, the indirect demand side effect on output following an unexpected oil price shock can firstly arise due to the increased precautionary savings owing to heightened uncertainty (Bernanke, 1983; Edelstein and Kilian, 2009; Pindyck, 1991). Secondly, monetary policy responses to oil price changes can also generate asymmetric effects on output, as most central banks do not tend to react during oil price downturns but overreact when oil prices rise (Bernanke et al., 1997). Finally, unexpected oil price shocks, which are in essence relative price shocks, create allocative disturbances initiating sectoral shifts in consumption causing aggregate demand to change (see, e.g., Hamilton, 1988). In addition, the indirect supply side channel refers to the changes in unemployment/output due to costly reallocation of factors of production from the most affected to the least affected sector creating a mismatch in the factor market (Davis, 1987; Hamilton, 1988). The magnitude of this channel depends on the sectoral contribution from the oil-producing sector, labour market frictions, and on regional heterogeneities (Karaki, 2017). On the empirical front, in order to illustrate the impact of oil price changes on aggregate output, researchers have primarily relied on time series estimators, mainly vector autoregression (VAR) models. The first strand of literature employs the linear VAR/VECM framework to identify the oil price shocks and is only able to establish weak impacts of unexpected oil price changes on aggregate output (e.g. Hooker, 1996; Hamilton, 1996). One major shortcoming of this strand of work is that it lacks an ability to capture the asymmetric and nonlinear nature of oil price shocks (Kilian and Vigfusson, 2009). In order to address these inadequacies, subsequent studies by Mork (1989) and Hamilton (2003, 2009) employ different forms of censored oil prices in VARs. Results from this second strand of literature suggest strong asymmetric effects of oil prices on output.

However, the seminal work by Kilian and Vigfusson (2009) demonstrates that the censored

oil price VAR models are fundamentally misspecified, irrespective of whether the data generating process (henceforth DGP) being symmetric or asymmetric. Furthermore, based on the earlier work by Koop et al. (1996), they demonstrate that the structural impulses generated from the models are invalid as they do not take account of the history and size/magnitude of the shocks. Finally, they demonstrate that the previous results obtained from standard slope-based tests for asymmetry based on single-equation models are neither necessary nor sufficient for judging the degree of asymmetry in the structural response functions. Koop et al. (1996) resolve this problem by proposing a direct test which requires the model to be appropriately specified and the nonlinear responses to be correctly simulated. Results employing this methodology, however, tend to find no significant asymmetry of unexpected oil price changes on output (see Kilian and Vigfusson, 2009 and Herrera et al., 2011).<sup>7</sup>

Macroeconomic policy in oil-producing developing countries faces significant challenges arising from the characteristics of oil prices. The implications of oil price volatility require frequent adjustments of budgetary expenditure which are again costly due to factor reallocation and their impact on GDP depends on how the expenditure is financed to smooth out the fluctuations of revenue. The use of oil proceeds that attempts to provide stabilization reserves in periods of high revenue for future period of reduction in oil prices can have large effects on macroeconomic stability via the foreign exchange inflow channel. In addition, the sources from which an oil price shock originates when oil prices are measured in domestic currency are important especially in a small open economy. Oil price movements can be due to changes in international prices or due to movements in the exchange rate. Whether a positive (or negative) oil price shock is beneficial (or detrimental) to the real economy depends on the origins of the shock and also on the policy responses of the economy. The implications of the latter on GDP may become complicated depending whether the country is a primary goods exporter or a manufacturing goods exporter. These features may substantially amplify the effects of large external disturbances to the domestic economy.

Our main motivation is then to examine a plausible hypothesis that tracks the mechanism through which oil price shocks impact on long-term growth for oil-exporting developing countries. In particular, we focus on a possible candidate through which oil price shocks can indirectly affect the real economy: the role of fiscal spending that is designed to keep domestic demand stable in the face of fluctuating oil revenues. Can fiscal spending adjustments contribute to the response of output to oil price shocks (at least in the short-term), while monetary policy responses may be constrained because of the inflexibility of the exchange rate system and the need for reining in inflation? As noted, a common understanding is that institutional and political factors can also contribute to exacerbating the shock's procyclicality. The literature argues that, in the face of high uncertainty about oil prices, policy responses to oil price shocks have contributed more to the positive consequences than the shock itself. To this end, early studies, such as Bernanke et al. (1997), Hamilton (1996), Hamilton (2009) and Ferderer (1996) among others, have examined the policy transmission mechanism of oil sector shocks to the economy and the causes for nonlinearities.

Several recent theoretical and empirical studies have examined the effects of oil price increases in the context of oil-rich open economies focusing on the nature of monetary policy responses

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<sup>7</sup> See Table 1 that provides a detailed summary of the most recent and related studies investigating the macroeconomic effects of oil price shocks using similar methodologies and obtaining contradictory results.

and differences in modelling strategy. For example, the analysis of Algozhina (2016), Allegret and Benkhodja (2015), Bergholt and Larsen (2016) and Ferrero and Seneca (2019) prescribes that monetary policy reacts in a varied manner in terms of how it should respond to episodes of changing oil prices. Differences in how the prevailing exchange rate regime interacts with monetary policy and the extent of countries' dependence on oil have been offered as explanations for the mixed results reporting varied monetary policy responses to a positive oil price shock. Given the mixed time series patterns of oil price and monetary policy indicators, a number of interesting questions can be posed: how is fiscal expenditure associated with major oil price movements? What are the real effects of the oil price instabilities and their implied fiscal volatility?

Is the relationship between economic activity and oil prices asymmetric in small open oil-exporting emerging economies? How does the fiscal policy stance in these economies react to oil price increases and decreases? In this paper, we tackle these questions by testing and evaluating the premise on which the responses from unexpected changes in oil prices to GDP growth and adjustments of public expenditure are asymmetric using state-of-the-art techniques developed by Kilian and Vigfusson (2011a) building on censored-regressor nonlinear VAR models. Our test for asymmetries is a crucial first step not only in understanding the transmission channel of oil price shocks in major oil exporters, but in constructing theoretical models of the propagation of oil sector shocks for typical resource-rich emerging open economies. This is particularly important in countries where there are urgent needs for public investment in infrastructure, fiscal incentives to develop the industrial sector, and the adoption of generous welfare system. Thus, understanding the relationship between government spending and oil prices is important to evaluate how to address fiscal imbalances. Several hypotheses have resulted from the causal link of this relationship (see, for example, Fasano and Wang, 2002).

While there is a substantial body of literature devoted to understanding the nonlinear macroeconomic effects of oil prices using US data and data from developed economies, research focusing on a group of oil-producing emerging economies is, to our knowledge, non-existent.<sup>8</sup> In addition, developing countries are usually small open economies, which requires careful modelling of a mechanism that allows for the transmission of oil price shocks. Thus, building on these papers, this study aims at understanding how oil price changes affect macroeconomic volatility and fiscal spending asymmetrically, while gauging the empirical relevance of such asymmetry and the impact of shocks. By bringing our models to the data, we should be able to throw some light on the mechanisms by which the aggregate economy interacts with oil price shocks hitting the economy and provide an empirical assessment of the implications of the different types of oil price shocks considered here, for which there is scant empirical evidence in the literature for oil-exporting emerging economies.

In particular, this paper aims to provide an assessment on how the macroeconomic implications of oil price shocks may differ depending on the sign and size of the shock through the fiscal transmission factor. Indeed, to capture any abrupt changes in government fiscal stance in response to major oil fluctuations, this suggests a nonlinear application to describe the co-

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<sup>8</sup> A series of papers have separately addressed some of these issues, see, among others, Hamilton (1996), Hamilton (2003), Hamilton and Herrera (2004), Hamilton (2011), Herrera et al. (2011), Kilian and Vigfusson (2011a), Kilian and Vigfusson (2011b) and Herrera et al. (2015). Table 1 provides a summary. Such analysis however is yet to be carried out for emerging oil-producing economies and as a cross-country comparative study (except that Herrera et al. (2015) offers perhaps the closest analysis to our paper but in that the paper focuses on the OECD countries and does not address fiscal policy).

movements between oil prices and fiscal spending. Fiscal spending may fluctuate at a higher level and exhibit more persistence during an increase in oil prices, but stay at a relatively lower level, less persistent and more moderate during the period when the oil price falls sharply.<sup>9</sup> To this end, in addition to the Kilian and Vigfusson (2011a) approach, we estimate a univariate unobserved components model to obtain the slope parameter of our time series. Our analysis employs a battery of econometric tests and is closely related to Hamilton (2003), Kilian and Vigfusson (2011a) and Holm-Hadulla and Hubrich (2017) in that we make contributions by explicitly accounting for (1) specifications of nonlinearities in large oil-exporting economies; (2) time variation in the effect of shocks in cases where there are significant nonlinear dynamic patterns; (3) an assessment for the government fiscal stance in propagating the real effect of the shock.

In our empirical analysis, we find substantial evidence suggesting the asymmetric nature of oil price shocks in several countries, irrespective of the magnitude of the shocks. In addition, we explain how the output and fiscal responses to large oil price shocks are significantly different depending on country-specific characteristics and stabilization incentives. Our applications are able to uncover and describe the distinct co-movements between oil prices and fiscal spending which enable us to evaluate the implications for theoretical models of the transmission of oil price shocks and for policy responses to exogenous energy price fluctuations. By carefully examining a sample of emerging economies consisting of African, Asian and South American countries, our results and analysis can be used to motivate further investigation into the roles of oil price fluctuations and public expenditure cyclicity in understanding the growth process specific to developing oil-exporting countries.

The rest of the paper is organized as follows. Section 2 describes the data and estimation methodology. Section 2.2 presents the linear and nonlinear VAR models used for our statistical tests. Section 3 sets out the test results, model comparison and empirical properties. Section 4 focuses on the oil price shock and fiscal policy interactions. Section 5 concludes. Details of the algorithm designed to implement the test for asymmetry are set out in Appendix B. Our robustness checks are also appended to the paper.

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<sup>9</sup> Although there is always an incentive (at least for politicians) to follow a procyclical fiscal stance in developing countries, especially when there is a surge in the international oil price, because of the lack of central bank independence combined with weak governance, data in more recent years suggest that many oil producers use the reserved proceeds to sustain government increased spending even during the periods of oil price falls, in order to sustain growth in the real non-oil sectors for the period of economic downturn. For example, Nigeria experienced a widening of fiscal deficit and an increase in debt-to-GDP ratio during the recent episodes of oil price reversal but saw mixed movements in GDP and inflation.

Table 1: Summary of Relevant Literature

Author(s)	Subject of Research	Country	Sample	Variable	Methodology	Result
<a href="#">Hamilton (1996)</a>	Relationship between oil prices and the macroeconomy	US	1948Q1 – 1994Q2	Real GDP, T-bill rate, CPI, import price, oil price	SVAR/VECM, Chow stability and Granger causality tests	In contrary to the evidence reported in <a href="#">Hooker (1996)</a> , this early study finds a significant relationship between GDP and net oil price changes. However, it concludes that an increase in prices by 10% subsequent to a 20% decrease would have little effect on aggregate output
<a href="#">Hamilton (2003)</a>	Estimating nonlinear specifications between oil prices and GDP	US	1949Q2 – 2001Q3	Real GDP, nominal crude oil price (PPI)	Bayesian methods	The nonlinear regression model strongly rejects the null of linearity. If oil price increases or decreases after 3 quarters, the forecasting regression shows a slightly slower pace of GDP growth than if it had remained stable; although, oil price increases signify a detrimental effect than decreases
<a href="#">Hamilton (2011)</a>	Testing for non-linearity between GDP growth and oil prices	US	1949Q2 – 2007Q4	Real crude oil price, nominal oil price (RAC), real GDP	OLS slope-based tests	Based on a forecasting regression, an extended sample, different lags, measures of oil prices and adjustment, the study reconfirms the nonlinear relationship between oil prices and GDP growth
<a href="#">Herrera et al. (2011)</a>	Testing for nonlinearity between oil prices and industrial production	US	1947M1 – 2009M9	Real oil price, industrial production index, nominal oil price (RAC)	OLS slope-based test, IRF-based test based on censored-variable VARs	In consensus with the evidence reported by <a href="#">Hamilton (2011)</a> and <a href="#">Kilian and Vigfusson (2009)</a> , the study finds a nonlinear reduced-form relationship between oil prices and economic activity, rejecting the null of symmetric IRFs to oil price innovations

## 2. TIME SERIES PROPERTIES OF THE DATA AND METHODOLOGY

### 2.1 Data Description

Four observable variables at quarterly frequency for Bolivia, Brazil, Colombia, Ecuador, Indonesia, Malaysia, Nigeria and Tunisia are used to estimate the model parameters and impulse responses: real GDP, real government expenditure, real CPI-based oil price and nominal oil price measured in local currency. The data are obtained from the IFS Database of the IMF and available through the various central banks. The data series used in estimation include the percentage change in the real price of crude oil using the OPEC benchmark of Brent crude oil price, the growth rate of real GDP (except for the Nigerian GDP and the transformation of which is discussed in Appendix A), and the growth rate of real government expenditure. The oil price series is transformed and deflated using the nominal exchange rate and domestic CPI, while the



government expenditure variable is deflated using the domestic CPI.<sup>10</sup> The sample runs from the first quarter of 2000 to the first quarter of 2017.

Considering the lack of reliable data for many developing oil-exporting countries (and oil-importing ones), the paper constructs a database with quarterly data that encompasses 8 developing countries. These countries are oil exporters, non-OECD, developing and emerging economies, and have an average oil contribution to GDP of about 30%-40%. Despite of the relatively small sample size used, there is clear evidence of both positive and negative oil price shocks for the selected period under investigation (see Figure 4). We subject our data to a wide array of time series tests aimed at studying nonlinearity between oil prices and changes in government spending and GDP.

< Figure 4 >

The details of data sources and Nigeria's data transformation are given in Appendix A. The vector of observable variables that enters in the VAR models below consists of<sup>11</sup>

$$Y^T = \{x_t, y_t\}' = \{oil_t^{obs,real}, y_t^{obs}\}' \quad (1)$$

$$Y^T = \{x_t, y_t\}' = \{oil_t^{obs,real}, g_t^{obs}\}' \quad (2)$$

## 2.2 VAR Specifications and Methodology

To test for the presence of asymmetries, we first refer to the hypothesis that oil price shocks have nonlinear effects on output. In other words, we impose asymmetry in the estimation so that the DGP is asymmetric. For our relatively small sample, we consider the following nonlinear specifications for the censoring of the logarithm of oil price series including Mork (1989)'s oil price increase measure and the net oil price increase (NOPI) measure in VAR models as in Hamilton (1996, 2003). An alternative to the NOPI, proposed by Kilian and Vigfusson (2013), defines the net oil price change (NOPC) and has fewer censored observations of the oil price.

To introduce the setup, first consider a linear and symmetric bivariate VAR(p) as the DGP

$$x_t = a_{10} + \sum_{i=1}^p a_{11,i} x_{t-i} + \sum_{i=1}^p a_{12,i} y_{t-i} + \epsilon_{1,t} \quad (3)$$

<sup>10</sup>The real variables are seasonally adjusted with ARIMA X-12.

<sup>11</sup> As a robustness check, we also estimate our models and carry out our tests using the nominal oil price as an observable

$$Y^T = \{x_t, y_t\}' = \{oil_t^{obs,norm}, y_t^{obs}\}'$$

While it is correct to point out that the real price would be the relevant measure in theoretical models for the oil price shock transmission, it is possible that, as argues by Hamilton (1996) and Hamilton (2003), deflating it by a particular number such as the CPI introduces a new source of measurement error which could affect the forecasting performance. The check aims to access whether this increases (decreases) the evidence of nonlinearity and whether this does or does not reduce the power of our original tests. The results are appended to the results tables and no significant difference has been identified. A further check in Table 7 provides a comparison between different (competing) treatments of including contemporaneous regressors (i.e. between the Mork's and Wald tests).

$$y_t = a_{20} + \sum_{i=1}^p a_{21,i} x_{t-i} + \sum_{i=1}^p a_{22,i} y_{t-i} + \epsilon_{2,t} \quad (4)$$

where  $x_t$  is the log growth in the oil price and  $y_t$  is the log growth of real GDP.  $\epsilon_t \sim (0, \Sigma)$  is uncorrelated orthogonal white noise.

Suppose that the true response of  $y_t$  to  $x_t$  is asymmetric in positive and negative values. As demonstrated in Kilian and Vigfusson (2009), the key advantage of the following model is that the dynamic responses are consistently estimated regardless of whether the true DGP is symmetric or asymmetric. Consider now the DGP for each country's GDP series that allows for both oil price increases and decreases to have an effect, but to different extents, which also includes contemporaneous regressors of  $x_t$  and  $x_t^{cen}$

$$x_t = a_{10} + \sum_{i=1}^p a_{11,i} x_{t-i} + \sum_{i=1}^p a_{12,i} y_{t-i} + \epsilon_{1,t} \quad (5)$$

$$y_t = a_{20} + \sum_{i=1}^p a_{21,i} x_{t-i} + \sum_{i=1}^p a_{22,i} y_{t-i} + \sum_{i=0}^p b_{21,i} x_{t-i} + \epsilon_{2,t} \quad (6)$$

where we can test the null hypothesis that  $b_{21,0} = b_{21,1} = \dots = b_{21,p} = 0$ , as in the traditional approach using a Wald test including the contemporaneous regressor for  $x_t^{cen}$ .<sup>12</sup>  $x_t^{cen}$  is one of these nonlinear transformations of the oil price that provide the censoring of the oil price series

$$x_t^{cen} = OPI_t = \max(0, \ln(o_t) - \ln(o_{t-4})) \quad (7)$$

$$x_t^{cen} = NOPI_t = \max(0, \ln(o_t) - \max(\ln(o_{t-4}), \dots, \ln(o_{t-1}))) \quad (8)$$

where  $\ln(o_t)$  is the logarithm of the real oil price. In other words, in addition to a one-period increase (7), any increases that did not exceed the maximum price observed in the past 4 quarters (Hamilton, 1996) are also censored at zero – i.e. a change of oil price only affects the economy when it deviates substantially from its behaviour in the recent past. As noted, an alternative measure is the NOPC model proposed by Kilian and Vigfusson (2013)

$$x_t^{cen} = NOPC_t = NOPI_t + NOPD_t \quad (9)$$

$$NOPD_t = \min(0, \ln(o_t) - \min(\ln(o_{t-4}), \dots, \ln(o_{t-1}))) \quad (10)$$

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<sup>12</sup> The alternative slope-based test is Mork's test and involves tests of the symmetry of the slope coefficients with a predictive model (Mork, 1989):  $H_0 : b_{21,1} = b_{21,2} = \dots = b_{21,p} = 0$ . Both tests are carried out based on estimated single-equation regression models using Least Square.

By construction, models incorporating (9) have fewer censored observations of the oil price which is helpful for our relatively small sample size. Estimating the unrestricted simultaneous equations model (Equations (5) and (6)) nests specifications with symmetric and asymmetric effects of oil price shocks on GDP.

Following the work done by Karaki (2017) and Kilian and Vigfusson (2011a), two assumptions are made to identify the nonlinear oil price shocks. First, oil price shocks are assumed to be predetermined with respect to the real GDP growth rate. Second, real GDP growth is assumed to respond contemporaneously to oil prices. As the main purpose of the empirical exercise is to examine the nonlinear impact of oil prices on real GDP growth (and later on government expenditure) under these standard identifying assumptions, the inclusion of additional variables in the our models does not affect the asymptotic properties of the responses of the real variables to oil price innovations. However, we do admit it would be a concern for us if we had a very small sample in which case the accuracy of the responses may be affected<sup>13</sup>.

In what follows, we estimate and compare the three nonlinear configurations for the oil price increase, NOPI and NOPC, respectively, and the linear VAR model, for all the countries in our sample: Model OPI ( $x_t^{cen} = OPI_t^1$ ), Model NI ( $x_t^{cen} = NOPI_t^4$ ), Model NC ( $x_t^{cen} = NOPC_t^4$ ) and the linear model. In our testing procedure, we compare the both types of slope-based tests with the IRF-based test developed by Kilian and Vigfusson (2011a) (henceforth KV). The latter applies the simulation methodology computing and comparing the unconditional IRFs for real GDP growth to an oil price shock in the reduced form VAR model for one and two standard deviation (s.d.) oil price shocks. The null hypothesis is the VAR linearity that the IRFs are the same across regimes, i.e. the Wald test of the null of symmetric IRF can be computed as:  $H_0: IRF_Y(h, \delta) = -IRF_Y(h, -\delta)$ . Details of the algorithm are reported in Appendix B.

### 3 EMPIRICAL TESTS AND RESULTS

In this section, we use the models to test for two types of asymmetry, in particular, (i) whether positive and negative shocks have different effects on each country's output growth; and (ii) whether typical (measured by 1 s.d.) and large (measured by 2 s.d.) shocks have different effects on the GDP growth. The lag order  $p$  is set to capture the dynamic effects of oil price on the real economy and determined by performing residual diagnostic checks on each of the estimated models. Different lag orders have been applied for different countries as reported by the impulse response-based test p-values and this can be associated with the variation in the economic transmission across countries.

The choices of lag length of  $p = 6$  and  $p = 8$  are chosen based on the following motives. First, Hamilton and Herrera (2004) show that using smaller number of lags leads to underestimating the effects of oil price as the response of real GDP to these shocks is very sluggish. Second, for the results of the nonlinear models to be robust, sufficiently long lags are needed. Finally, linear information criteria such as AIC or BIC, which result in more parsimonious models, lead to misleading results in small samples and invalidate the inference from the nonlinear systems. Tables 4 and 5 report the corresponding p-values for the Wald Test statistics set out in Appendix B. Based on the statistics, there is mixed evidence reported as some countries (such as Malaysia, Indonesia, Tunisia and Nigeria) show strong statistical evidence of asymmetry (thus, rejecting

<sup>13</sup> See Kilian and Vigfusson (2011a) and Kilian and Lewis (2011).

the null hypothesis of symmetry) while others do not clearly show statistical evidence against the symmetry of the IRFs at 5% level (at least for a typical-sized shock).

< Tables 4 and 5>

Next we turn to some robustness checks because we need to know whether our test results may be dependent on using the traditional slope-based tests, the measure of oil prices (real vs. nominal prices)<sup>14</sup> and the magnitude of asymmetry across the projected horizons of our estimated IRFs. We compare the impulse response-based test statistics with two slope-based tests as shown in Table 7 as well as providing the cumulative mean square distance as shown in Table 8 in the following section.

First, from Table 7, it is expected that the Wald test should posit a more predictive power than Mork's test. Based on the statistics reported for the latter, there is no evidence against symmetry for Bolivia, Brazil, Colombia, Ecuador and Nigeria, whereas the Wald test shows the corresponding evidence with the exception of Bolivia, Brazil and Nigeria for which the test strongly rejects the null of symmetry at the 5% level of significance. The difference at this point can be related to Mork's test that exploits extra restrictions in the null hypothesis in the form of incorporating contemporaneous terms of  $x_t^{cen}$  due to the construction of a predictive model. On the other hand, countries like Indonesia, Malaysia, Tunisia and Nigeria show strong evidence of asymmetry further affirmed by the Wald test and in consensus with the IRF-based test statistics reported in the previous tables. The additional benefits of both the IRF-based test and the cumulative measure of asymmetry are that they allow us to quantitatively study the degree and effects of asymmetry in the response to a shock. The latter is what we turn to next.

< Table 7 >

### 3.1 Cumulative Measures of Asymmetry

Following Herrera et al. (2015), we further compute a measure of the difference between the responses to positive and negative innovations: the cumulative distance. Table 8 shows the magnitude of asymmetry depicted by countries by reporting the cumulative distance between the computed IRFs in terms of percentage points

$$d_H^m = \sum_{h=0}^H \left| [IRF_y^m(h, \delta)] - [-IRF_y^m(h, -\delta)] \right| \quad (11)$$

where  $d_H^m$  measures the distance between the impulse responses accumulated from  $h = 0$  to  $h = H$ .  $m$  is the model index.  $|[IRF_y^m(h, \delta)] - [-IRF_y^m(h, -\delta)]|$  stands for the Euclidean norm.

We present the cumulative of the Euclidean norm for the three nonlinear models as the horizon increases ( $H = 1, 4, 8, 12$ ). We can gain further understanding on (i) the difference of responses to positive and negative shock; (ii) how the cumulative of the Euclidean distance changes over time with the horizon after the shock hits the system, e.g., before and after a year.

< Table 8 >

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<sup>14</sup>The p-values are presented in parentheses and appended to Tables 4 and 5.

Based on the statistics reported, not surprisingly, the table shows that the cumulative differences between the one s.d. shock and two s.d. shock are quite large across all countries. Malaysia reports the largest cumulative distance between the responses to a positive and a negative shock generated by Models OPI and NI, which is again consistent with our results above based on the IRF test and the slope-based tests. With Models NI and NC, nearly all the countries are close to being economically insignificant in terms of their cumulative responses to the typical shock (i.e.  $d_H < 10$  percentage points). In almost all countries except for Brazil, the distance measures do not change very much as the horizon increases, suggesting that the degree of asymmetry decreases shortly after the shock for these countries.

Another notable finding from this exercise is that, apart from the NC specification, all our oil-exporting countries experience some significant degree of asymmetric responses, over the projected horizon, to a large oil price innovation. This is not surprising and becomes much clearer when we look at the estimated IRFs in the next section. Apart from Malaysia, the magnitude of the asymmetry seems to remain strong over time for Colombia, Ecuador, and Brazil where the effect is also amplified after 1 quarter. Intuitively, this could be explained by Figures 2 and 3, which show that these are the countries that depend heavily on oil in terms of either the production intensity or overall share in GDP.

### 3.2 Impulse Response Analysis for Output Growth

To further investigate the degree of asymmetry in response to a shock, in this section, we study the estimated impulse responses for the oil price shocks. As mentioned, we consider a typical shock of 1 s.d. and a larger shock of 2 s.d., and we depict the responses of a positive and negative oil price shock, respectively, from our estimated models. The variable of interest is the observable GDP growth (in %) in the estimation and each response is for a 12 period horizon (3 years). The aim of this exercise is two-fold. First, we can evaluate (a)symmetry in the response more closely across our three VAR models, vis-a-vis the linear responses, by understanding how the IRF trajectories may be affected by the magnitude of the shock and the types of the censored variable. Second, we are interested in assessing the impact of shocks (small and large) on the model dynamics so that we can investigate the importance of shocks to the output growth in order to gain a better understanding of the innovation and forecasting uncertainties and, thus, the model uncertainties faced by policymakers.

< Figure 6 >

Figure 6 depicts the mean responses corresponding to a positive/negative-, one/two-standard deviation of the shocks' innovations. A positive oil price shock has the usual negative impact on output (in terms of the level effects) for all the countries. Overall, there is a negative correlation between oil and economic growth such that an oil price increase leads to a decline in growth. For example, it shows that, after just over 1 year, the cumulative (growth) effect of a 1 s.d. positive innovation in oil prices results in an almost 1% contraction of GDP in Malaysia. However, for oil producers, when there is the supply-side effect depending on energy intensity in production (again according to Figure 3), oil production often responds with a lag to a positive shock, followed by production contraction in most countries. Nevertheless, this effect dies out relatively rapidly (less than 1 year) when affecting output for all the affected countries.

All oil-producing/exporting countries are also affected by the demand push factor that results in an initial increase in GDP with the lagged effect which again depends on the oil share in GDP (e.g., Ecuador). From the IRF dynamics reported by our estimation, any correlation between the presence or absence of asymmetry and the oil production share in GDP (according to Figure 2) appears to be much less notable. Finally, as expected, there are marked differences in IRFs when there are strong asymmetric effects (in line with the above tables of the statistical tests). The results from the estimated IRFs confirm our key findings discussed above, i.e., there is substantial evidence in the data to support the presence of asymmetry in the real effects of oil price shocks, which can be significantly magnified or altered, depending on certain country-specific characteristics that exacerbate their vulnerabilities to the shock. Such characteristics include high oil dependence, on-going economic structure changes and high fiscal volatility (Abdih et al., 2010, Barsky and Kilian, 2004).

The impact of oil price shocks on output is not homogeneous across oil-exporting countries for a number of reasons. Now we focus on the individual country and discuss evidence of (a)symmetry and their responses to the shock based on a number of country-specific characteristics (e.g., export volume, income group and sectoral decomposition of GDP). In the case of Malaysia, where, overall, we have seen the smallest p-values associated with oil price shocks, we try and examine closely the estimated IRFs, and discuss the possible reasons behind our results. Our figure shows that an unexpected positive shock tends to increase oil revenue but given that the export volume is small, this effect is small. At the same time, the large oil-dependent industrial sector (36% in Malaysia<sup>15</sup>) tends to be negatively affected. Also, as most of the people work in non-oil-producing sector, aggregate demand is likely to be negatively affected. Thus, the net effect of an oil price increase is contractionary over time. On the other hand, due to the small size of the oil-exporting sector, the impact on aggregate export revenue is negligible. Also, given that the large industrial sector depends on oil production, an oil price increase can promote aggregate demand and hence output (from the supply side). This may explain the initial expansion seen from the GDP responses which seems to be persistent for less than two quarters, as discussed above.

Another case exhibiting strong nonlinear effect of oil price shocks is Indonesia, in which oil-exporting as percentage of GDP is declining, accounting for about 8% of total exports. The economy is moving toward the service sector (about 45% of GDP). Given the small volume of oil exports, an oil price increase does not tend to play a significant role in improving current account surplus. Rather, due to the substantial industrial sector, an increase in oil price increases production costs. Also, as most of the labour force is employed in the non-oil sector, an oil price increase reduces aggregate demand. Thus, similar to Malaysia, the net effect shows a reduction in output. The effect is greater and more persistent when considering a large oil price shock.

Finally, we look at Ecuador, from which we find, on average, the largest p-values based on almost all our models, forms of tests, and sizes of shocks. The country has a relatively large oil sector in which oil contributes towards 40% of exports. An oil price increase improves its current account balance and pushes the exchange rate upwards which might negatively affect revenue from the agricultural sector. However, being the major producer of some of the agricultural commodities, this tends to give Ecuador the price setting power. As a result, agricultural revenue may not actually go down. The net effect on output may actually be positive (and persistent for over a year). As most of the people are employed in the service and industrial sectors, a decrease

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<sup>15</sup> The country-specific data and information presented in this section are obtained from the World Bank database.

in oil price also acts to boost aggregate demand, and hence, output. As expected, the positive and negative oil price shocks have symmetric effects on output growth.

#### **4. OIL PRICE UNCERTAINTY AND DISCRETIONARY FISCAL POLICY**

Oil price shocks can be associated with disrupting a country's fiscal positions for a number of reasons. Given the fact that many net oil-exporting countries (particularly in the Middle East and sub-Saharan Africa) are highly dependent on oil, this means that the resource sector provides a major source for the foreign exchange earnings and fiscal revenues. Thus, during the period of negative oil price shocks, it is evident that fiscal policy responses are usually procyclical, witnessed by a decline in government expenditure (unless there is availability of fiscal buffers) as government budgets are strained, hence hindering the long-run economic growth of the country (Lopez-Murphy and Villafuerte, 2010). The macroeconomic impacts of oil price disturbances have been found to be more severe in these economies exhibiting fiscal volatility and procyclicality (Abdih et al., 2010).

On the other hand, the effects of negative oil price shocks on oil-importing countries are perceived to be weaker in most cases. This implies that oil-importing countries are most likely to profit from the production cost decline and real income gains following the fall in oil prices. Savings made from oil import bills can aid the relaxation of government budgets (Baffes et al., 2015; Lopez-Murphy and Villafuerte, 2010). Notwithstanding, a global supply restriction, weak global demand and tight scope of monetary policy facilitation in these countries might stand as a bottleneck to these benefits (Baffes et al., 2015). Considering the high level of pre-tax fuel subsidies in most developing and emerging economies (Clements et al., 2014), the response to positive oil price shocks faced prior to the financial crisis of 2008-09 contributes to the pressure mounted on fiscal policy as some countries respond to this shock by increasing price subsidies on local fuels (Coady et al., 2007). Thus, in the phase of sharp oil price decline, it presents an opportunity to ease these subsidies as well as the removal of long-existing alteration attached to them.

Furthermore, in some oil-importing countries where falling oil prices are likely to decrease external financing burden as well as decreasing the medium-term inflation forecast below target, the central bank can intervene by further loosening of monetary policy, which, in turn, is able to support the country's growth. However, in the case of oil-exporting countries, a decline in oil prices given the low policy buffers (that can help hedge spending from the oil sectors fall in tax revenues) is likely to stimulate a sharp currency adjustment, contractionary fiscal policy measures, and re-pricing of sovereign and credit risk.

Therefore, how important is the nature of fiscal cyclicity for understanding the real effects of oil price shocks? Our results show that, for the oil exporters where strong asymmetry is found, a negative oil price shock episode has a negligible effect, even though these countries face a sharp revenue loss, negative impact on non-oil activity and an increased spending pressure. Asymmetric effect on output (i.e. larger output growth in response to a positive shock) seems to depend on the size of government spending even though many of our oil exporters currently have limited fiscal space. Following the sharp oil price reversal during 2008-09, these countries mobilize more government spending to mitigate the adverse effect. In the short run, there is increasing fiscal prudence and the size of the oil price drop may induce large fiscal responses. There are large fiscal responses (stimuli) to a large oil price drop (in the case of recovering from

crisis), especially the automatic stabilizer is less effective in our oil-exporters, although size of the fiscal response can depend on country-specific factors.

#### 4.1 Testing Asymmetry in Fiscal Responses

To investigate the relationship between the effects of oil price shocks and fiscal policy, we first run the simple univariate unobserved components model set out by the system (A.1)-(A.4). We conduct a preliminary analysis by comparing the slopes of the two variables to find the relationship between real government expenditure and real oil prices.<sup>16</sup> Among the countries analysed, Figure 5 shows that four countries (Malaysia, Indonesia, Colombia and Bolivia) tend to exhibit a negative relationship between real government expenditure and real oil prices over time.<sup>17</sup> This is a useful exercise for detecting any possible time series trend/breaks in our sample, and for understanding potentially what we may expect to find in terms of the asymmetric effect from an oil price shock. However, this relationship can be spurious as the methodology is susceptible to a few major criticisms. Firstly, the changes in the slope of real government expenditure can be attributed to various factors besides real oil prices. Secondly, from this preliminary analysis, we cannot draw any conclusion about any nonlinear relationship that may exist between the variables. Thus, to fulfill these pitfalls, we turn to the Kilian and Vigfusson (2011a) method for identifying and estimating the IRFs next.

< Figure 5 >

We use the same bivariate VAR model for the three different nonlinear specifications to test (i) whether positive and negative shocks have different effects on each country's spending growth; and (ii) whether typical (measured by 1 s.d.) and large (measured by 2 s.d.) shocks have different effects on government spending. We focus on explaining the transmission of the oil price shocks to the real economy. Table 9 reports the corresponding p-values for the Wald Test statistics set out in Appendix B.

< Table 9 >

Based on the statistics, there is clear evidence of asymmetry of the IRFs at 5% level for Bolivia and Brazil with other countries (Colombia, Ecuador, Indonesia and Malaysia) depicting no statistical evidence of asymmetry and thus showing evidence of fiscal co-movements with the oil price. This means that, for Bolivia and Brazil, a large, positive oil price shock has a significant effect on government spending whereas a negative shock has a negligible effect. Interestingly, this is mostly in line with the above results that most of the countries displaying the clear time series patterns for a negative relationship between the two variables are the ones where no evidence of nonlinearity is found. However, despite the shock that increases government spending financed by oil revenues that in turn boosts economic growth, there is still a fear of the

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<sup>16</sup> The slopes have been obtained from an unobserved component model (local linear trend model with a deterministic cycle).

<sup>17</sup> In this analysis, we do not include Nigeria and Tunisia due to the problem with data availability for these two countries.



economy to suffer from negative growth in the long run. We examine the responses of each country in more details.

## 4.2 Impulse Response Analysis for Government Spending

We repeat the exercise conducted in Section 3.2 for government spending. Figure 7 depicts the mean responses. Indeed, a positive oil price shock has the negative impact effect on government expenditure following an increase in government revenue for half of our sample countries except for Ecuador, Indonesia and Malaysia. Overall, there is a negative correlation between oil prices and government spending such that an oil price increase leads to a decline in government spending in Brazil and Malaysia (exhibiting evidence of a countercyclical fiscal regime when observing the output responses). For instance, the evidence shows that, just after 1 year, the cumulative (growth) effect of a typical shock's (1 s.d.) positive innovation in oil prices results in approximately 1% to 2% contraction in government spending for these countries, exacerbating the effects on output. It is evident that some governments (for example, Malaysia) can restrict fiscal expansion during price booms thus presenting a useful scenario for joint monetary policy evaluation and counterfactual simulations. Not surprisingly, this is again consistent with the result explained in Section 3.2 for Malaysia given its economic diversification from the oil sector, and improved financial sector and institutions.

< Figure 7 >

Our IRF results reveal an interesting finding for Ecuador. There is clear evidence that it follows laissez-faire fiscal policy, especially when there is a surge in the international oil price following its 2 s.d. innovation. It is interesting to compare with its significant decline in GDP growth after about 4 quarters shown in Figure 6. For Ecuador, the effect of the positive shock is expected to pose a positive impact on the economy, as initially, the country's revenue is likely to rise (Bjornland, 2009; Jimenez-Rodriguez and Sanchez, 2005). As a result, the magnitude of investment and consumption is expected to increase and then boost productivity in the service and goods sectors as well as reducing unemployment rate. However, this era of growth is likely to end given the emergence of demand-driven inflation. Examining the demand side effect of oil price shock in oil-exporting developing countries such as Ecuador and the possible reason for the linearity in responses found in these countries can be linked to government's extreme role and its size in their economies. For example, the recent studies of Tazhibayeva et al. (2008) and Frankel (2010) find that the fiscal policy in these countries is often procyclical rather than countercyclical as a positive oil price shock forces governments to engage in excessive spending on investment projects and social programs that may not necessarily contribute (or have little to contribute) to economic growth.

A similar case is Colombia. Likewise, the economy is on the verge of battling a higher inflation rate resulting from the excessive investment action taken by the government which is more than the economy's absorptive capacity. Moreover, when these countries are faced with a negative oil price shock, most of their state-backed economic activities fail due to the lack of adequate support. This puts their economy under additional pressure as many capital-intensive investment projects are left uncompleted and the government results in running a huge budget deficit financed by borrowing from abroad and respective central banks in order to mitigate any form of

political or social unrest and meet any recurrent cost obligations. Such procyclical fiscal spending can further exacerbate the output volatility.

As a result of the fiscal inflexibility, our results demonstrate the typical symptoms of the so-called Dutch disease which can lead to a non-Pareto-efficient outcome, i.e., a positive shock in the oil market may have a detrimental long-term effect on the growth rate. There are clear observations that these two oil-rich exporters tend to experience more macroeconomic instability and clearly this can be partially attributed to weak institutions and the lack of central bank/policy independence. Some studies have explained the effect of oil sector shock on oil-exporting countries using different transmission approaches (such as the quality of institutions and access to credit markets). For example, Sala-i Martin and Subramanian (2003) finds that natural resources have a significantly negative effect on the quality of institutions, which in turn can determine the shifts in the cyclical behavior of fiscal policy, and Van der Ploeg and Arezki (2008) shows that fiscal policies adopted in these resource-rich emerging market countries have indeed performed poorly in terms of stabilizing economic cycles.

Observing the short term fiscal policy responses to oil price shocks for oil exporters operating an oil-based economy implies the need to act and focus on increasing government expenditure temporarily through available policy buffers (by tapping into their net borrowing, liquid assets, and grants). In cases where this action proves unachievable, the government can also look into re-balancing their expenditure as a way to provide relief to non-essential current expenditure where fiscal multipliers are reasonably low. Furthermore, the government can decide to look into generating more resources by removing the energy subsidies that might not be necessary for the maintenance of stable retail energy prices.

However, it is important to also note that the nature and size of fiscal policy response differs across countries as oil exporters can be classified into diverse groups, including the levels of income and economic development. Therefore, the magnitude of fiscal policy response is dependent on country-specific factors, including the availability of policy buffers, level of fiscal space in line with the country's debt sustainability, weight of oil income loss and other macroeconomic policy responses (especially monetary policy that is sometimes restricted as a result of exchange rate (in)flexibility).

On the other hand, considering the medium term, despite the subsiding of the event related to the negative oil price shock (for example, the recent global pandemic - COVID-19), oil exporters need to brace for the continued period of volatile prices as well as their future consequence. For example, in a case where the oil price disturbances are prolonged, the government might need to adopt a medium term fiscal policy response to further brace for upcoming events; this must be guided by strongly upholding a long term objectives towards stabilization, availability and sustenance of financial buffers.

### **4.3 Fiscal Expenditure with Decreasing Oil Prices**

In line with the recent trend among emerging economies, many central banks are considering the adoption of inflation targeting, an examination of this regime operating in conjunction with a particular fiscal framework will be of particular interest. Based on the estimated models, Table 2 shows evidence of some simulated patterns for the fiscal spending in response to a regime of large decline in oil prices analogous to those of 2008-09 (less persistent) and from the more recent 2013-16 oil episode (prolonged). Our results below suggest an explanation for some notable fiscal responses, given that monetary policy can be unconstrained, as intended, to tackle

the heightened inflationary pressure from the exchange rate pass-through to domestic prices, following a severe negative supply shock.

Table 2: Signs of the  $t = 0$  Impact IRFs of  $g^{obs}$  and  $y^{obs}$  to a Large Negative Shock

	Bolivia	Brazil	Colombia	Ecuador	Indonesia	Malaysia
2 s.d. Shock to $g^{obs}$	+	–	–	–	–	–
2 s.d. Shock to $y^{obs}$	–	–	–	–	–	–
Asymmetry in $g^{obs}$ IRFs	Y	Y	N	N	N	N
Asymmetry in $y^{obs}$ IRFs	Y	Y	N	N	Y	Y

**Note:** The blue responses in Figure 7 measure  $-\left[\text{IRF}^{\eta}(h, -\delta)\right]$ .

Two results are worth noting. First, Bolivia appears to be an interesting case here. With the accumulated budget surpluses, there seems to be an increase in deficit that comes about through a rise in government purchases. The fiscal policy is ‘active’ for demand stabilization, although this is not an abrupt change in fiscal stance, as the increase stays at a relatively low level, less persistent and more moderate during the period when the oil price falls sharply. This is clearly a case where the country is able to sustain government increased spending even during the periods of oil price falls, in order to sustain growth in the real non-oil sectors for the periods

of economic downturn. If the negative shock is large but not persistent, it seems likely to have negligible output effects (confirmed by our tests summarized in Table 2), the unconstrained monetary policy is active as intended, then the risk of stagflation is relatively low.

Second, Brazil seems to experience a similar scenario except that the impact of fiscal spending falls slightly and rises moderately and subsequently to accommodate the monetary stance. This would require these countries to diversify towards non-oil exports and industrialization, and to manage to separate government expenditure from oil revenue therefore reducing the dependence on oil exports. Finally, the countries that seem to have symmetrically followed the net oil export inflows are the ones that procyclically cut fiscal spending after the large price fall (e.g. Ecuador). Apart from the temptation or political pressures to adjust spending proportionately, there are several key determinants of cyclicity for explaining procyclical government spending in emerging and developing countries which are identified as financial market imperfections, low degree of financial integration and depth, and weak institutions (Frankel et al., 2013; Fernandez et al., 2021). Our models and applications are able to uncover and describe the distinct co-movements between oil prices and fiscal spending which enable us to evaluate how to address fiscal imbalances and cyclicity. However, their impact on GDP depends on how the expenditure is financed to smooth out the fluctuations in revenue and requires further empirical investigations. This is beyond the scope of the present paper and we leave this for future research.

## 5. CONCLUSIONS

Are the real effects of unexpected oil price changes asymmetric and empirically relevant in emerging market oil-exporting economies? How can fiscal spending cyclicity be associated with the asymmetric and macroeconomic response of output to oil price shocks in these economies? In this paper, we tackled these questions by developing and estimating several VAR models based on the censored-variable assumptions for a selection of eight oil-exporting

emerging economies. We found ample econometric evidence of asymmetry for three countries and some evidence for a number of other countries in our sample. This is a new result in the empirical literature focusing on testing for null of joint symmetry and nonlinearity in VAR systems coming from global oil price innovations. We carried out a procedure that thoroughly examined the evidence in the data and showed that our tests based on the identified impulse responses and the more conventional slope-based hypothesis testing produced similar results, but the former provided us with a closer inspection on the dynamic responses to an oil price shock and some theoretical explanations for the transmission and magnitude of responses.

Our second contribution focused on studying an explicit role for the government fiscal policy stance in propagating the real effect of the shocks of different magnitudes and under different states of the economy. The main empirical results from the VAR and impulse response analysis withstood various robustness checks. The main check involved the use of the nominal oil price in place of the real price in the VAR specifications. In all cases, this did not affect the main findings. The other extended checks involved the comparison of an exclusive range of models including 3 nonlinear VAR specifications, a linear model, a metric to measure the square distance from responses, and 2 OLS slope-based regressions.

The issue of potential endogeneity in our estimation needed to be taken into consideration because three countries in our sample are either members or former members of OPEC (Ecuador, Indonesia and Nigeria). Historical series of exogenous OPEC events may affect oil prices, for example, the civil unrest in Venezuela in 2002-03 led to a drop in oil production. The potential issue would then be that the assumption of endogeneity may be too strong and one needs to control for the oil-supply shocks driven by OPEC (political) events. This in turn has implications on the measure of oil price shocks that considers price disruptions due to these events. Our simple answer to this is that the individual economies we consider here are all small open economies and the most recent variation in oil prices may be mainly due to changes in aggregate demand. Indeed, given the size of the economy, the issue of endogeneity for the case of the US has been studied by Kilian (2009) which decomposes innovations of oil prices into three components such as oil supply shocks, aggregate demand shocks, and oil-specific demand shocks for the unexpected fluctuations in prices. As another robustness test to assess the possible effect of OPEC oil production, our future work will consider the alternative approach by using Kilian (2009)'s exogenous oil production shock series.

Our results imply that the effectiveness of policy (fiscal and exchange rate policy for example) should depend on the premise that GDP responses are asymmetric in nature after an oil price shock and should be carefully analysed especially considering large oil price shocks. Our empirical findings are robust enough to be relevant for the study of propagation of energy price shocks in open (developing) oil exporters and can help make a clear recommendation for the empirical researchers studying macroeconomic dynamics in resource-rich emerging economies.

Our results and analysis motivate further investigation into the roles of oil price fluctuations, foreign exchange inflows and government expenditure cyclicity in understanding the growth process specific to oil-exporting open economy emerging countries.

Discretionary fiscal policy is a key transmission channel for the oil price movements to the real economy, especially for the oil-dependent countries which can benefit from the windfall profits and fiscal revenues from the previous price hikes. The question of whether fiscal stabilization (or the output effects of fiscal policy) is state-dependant is left unanswered. Future work will consider a different way of modelling the nonlinear relationships using a parametric nonlinear VAR to capture the asymmetric fiscal transmission of oil price shocks when fiscal adjustment

happens. In particular, we can take into consideration the distinct size of fiscal multipliers, i.e. exogenous variations in government spending on aggregate output in distinct macroeconomic episodes for an oil-dependent country, and construct an identified smooth transition VAR incorporating regime-switching based on major oil price fluctuations that needs to identify the government spending shock so that it provides distinct IRFs for the macroeconomic implications (see, e.g., Auerbach and Gorodnichenko, 2012, Fazzari and Panovska, 2015).

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## APPENDIX

### A. Data Sources

The quarterly dataset used in this paper has been extracted from the International Financial Statistics (IFS) for real GDP growth, Consumer Price Index (CPI), and the Nominal Exchange Rate; the Federal Reserve Bank of St. Louis (FRED) for Brent crude oil price; country's Central Banks for government spending; while Nominal and Real Crude oil price, and real Government expenditure are manually computed. All these data are collected for 8 countries that include

Bolivia, Brazil, Colombia, Ecuador, Indonesia, Malaysia, Nigeria, and Tunisia. The series description are provided in Table 3.

Table 3: Variable Description

Variable	Definition	Measurement	Source
$y_t^{obs}$	Real GDP growth rate	$100 \log(GDP_t/GDP_{t-1})$	IFS
$o_t$	Brent crude oil price	USD per barrel	FRED
$g_t^{obs}$	Government expenditure	Billion National currency	Central Banks
$e_t$	Nominal exchange rate	National currency per USD	IFS
$oil_t^{obs,norm}$	% change in nominal price	Log growth of $(o_t/e_t)$	Authors' compilation
$oil_t^{obs,real}$	% change in real price	Deflated by $CPI_t$	Authors' compilation
$CPI_t$	Consumer price index	All items (2010=100)	IFS
$o^{cen}_t$			

The data for Nigeria are obtained from the Central Bank of Nigeria (CBN). The Nigerian GDP data contains breaks/innovations (See Figure 1). Hence, without taking proper account of breaks in our nonlinear VARs may nullify the stability of the system and also make the results biased. Due to the existence of the breaks, using a simple growth rate may be biased as they may contain the innovations unless shift dummies are incorporated in the VARs. However, this curtails the degrees of freedom if the number of breaks is high. A simple alternative way to obtain a better approximate of the growth rate would be to run a univariate unobserved components model, such as one proposed by Harvey (2006) containing a trend component ( $ut$ ), a cyclical ( $\omega t$ ) and an irregular component ( $\epsilon t$ ) from which we can obtain the slope parameter of the series (via filtering)

$$y_t = u_t + \omega_t + \epsilon_t \quad (A.1)$$

$$u_t = u_{t-1} + \beta_{t-1} + \eta_t \quad (A.2)$$

$$\beta_t = \beta_{t-1} + \tau_t \quad (A.3)$$

$$\begin{bmatrix} \omega_t \\ \beta_t \end{bmatrix} = \rho \begin{bmatrix} \cos \lambda_c & \sin \lambda_c \\ -\sin \lambda_c & \cos \lambda_c \end{bmatrix} \begin{bmatrix} \omega_{t-1} \\ \beta_{t-1} \end{bmatrix} + \begin{bmatrix} k_t \\ k_t^* \end{bmatrix} \quad (A.4)$$

where  $\epsilon_t \sim NID(0, \sigma^2)$ ,  $\eta_t \sim NID(0, \sigma^2)$  and  $\tau_t \sim NID(0, r)$ ;  $\rho$  is the damping factor,  $\lambda_c$  is the frequency in radians, and  $k_t$  and  $k_t^*$  are uncorrelated white noise disturbance terms.



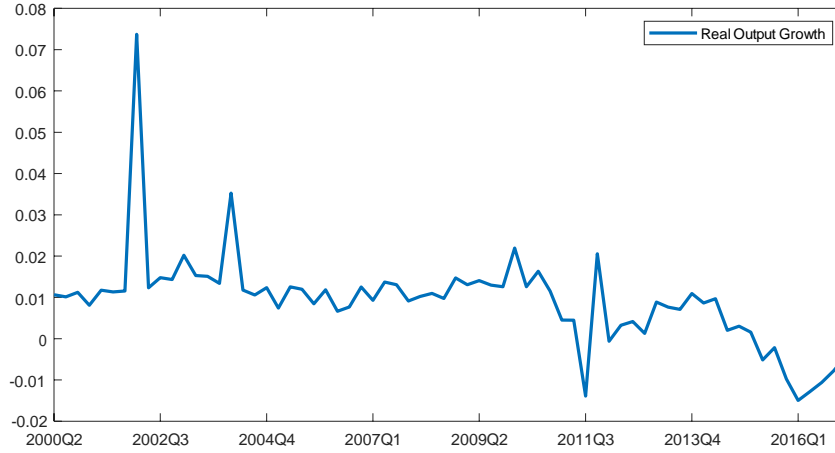


Figure 1: Real GDP Growth in Nigeria 2000Q2 - 2017Q1

## B. Impulse Responses-based Test for Asymmetry

Kilian and Vigfusson (2011a), Herrera et al. (2011), Herrera et al. (2015) and Herrera and Karaki (2015) apply the simulation methodology computing and comparing impulse response functions (IRF) for real GDP growth for an oil price shock in the reduced form VAR model for one and two s.d. oil price shocks. The null hypothesis is the VAR linearity that the impulse response functions are the same across regimes (i.e. across the NOPI and non-NOPI regimes do IRFs exhibit (a)symmetry). Following closely the online Appendix of Herrera et al. (2011); Kilian and Vigfusson (2011a), we describe the implementation of KV's IRF-based test. The following steps compute structural IRFs ( $IRF_y(h, \delta, \mathbb{I}_t)$ ) from estimating the above nonlinear models, where  $h$  is the IRF horizon,  $\delta$  the size of the shock (one or two s.d.) and  $\mathbb{I}_t$  the history of  $x_t$  and  $y_t$ . Due to the censored variables, IRFs depend on  $\delta$  and  $\mathbb{I}_t$ . Then, we average over all the histories to obtain the unconditional  $IRF_y(h, \delta)$  and construct a Wald test of the joint null hypothesis of symmetric response up to  $h = 0, 1, 2, \dots, H$  (the test has an asymptotic  $\chi^2$  distribution):

$$IRF_y(h, \delta) = -IRF_y(h, -\delta)$$

where  $IRF_y$  measure the reaction of  $y_t$  at  $t + h$  to a shock of the disturbance vector of  $\delta$  conditional on the information available at  $t$  which is the set of lagged dependent variable vectors up to lag order  $p$ :

$$IRF_y(h, \delta, \mathbb{I}_t) = E[y_{t+h} | \delta_t, \mathbb{I}_t] - E[y_{t+h} | \mathbb{I}_t] \quad (\text{B.5})$$

In particular, the test proceeds as follows:

1. We estimate the model set out by equations (5) and (6) using ordinary least squares and obtain the estimated coefficients  $\hat{A}_1$ ,  $\hat{A}_2$ , the residual standard deviations  $\hat{s}_1$ ,  $\hat{s}_2$ , and the residuals  $\epsilon_1$  and  $\epsilon_2$
2. Take a block of  $p$  consecutive values of  $x_t$  and  $y_t$  to define a history:

$$(x_{t-1}, \dots, x_{t-p}; y_{t-1}, \dots, y_{t-p}) \in \mathbb{I}_t$$

3. For a given  $h$ , conditional on  $\mathbb{I}_t$  and the shock size  $\delta = (\hat{\delta}_1, 2\hat{\delta}_1)$  at  $t$ , we compute the conditional IRFs  $IRF_y(h, \delta, \mathbb{I}_t)$  by first simulating two time paths of  $x_t$  the oil price variable as follows

$$\begin{aligned} x^1 &= \hat{A}_1(1, \mathbb{I}_t) + \delta \\ x^2 &= \hat{A}_1(1, \mathbb{I}_t) + \epsilon_{1,t} \end{aligned}$$

where  $\epsilon_{1,t}$  is resampled from  $\hat{\epsilon}_{1,t}$ ;

4. Given  $x^1$  and  $x^2$ , and the updated information sets including the censored variables, simulate two paths of  $y_t$  the log GDP growth:

$$\begin{aligned} y_t^1 &= \hat{A}_2(1, x_t^1, \mathbb{I}_t, x_t^{1,OPI}, x_{t-1}^{OPI}, \dots, x_{t-p}^{OPI}) + \epsilon_{2,t} \\ y_t^2 &= \hat{A}_2(1, x_t^2, \mathbb{I}_t, x_t^{2,OPI}, x_{t-1}^{OPI}, \dots, x_{t-p}^{OPI}) + \epsilon_{2,t} \end{aligned}$$

where  $x_t^{1,OPI}$  and  $x_t^{2,OPI}$  are defined by any of the nonlinear measures from (7) – (9). The values of  $\epsilon_{2,t}$  is resampled from  $\hat{\epsilon}_{2,t}$  – the same value is used to generate  $y_t^1$  and  $y_t^2$ .

5. We generate new information sets incorporating the generated artificial series  $x_t^1$  and  $x_t^2$  and  $y_t^1$  and  $y_t^2$ ;

$$(\mathbf{x}_{t-1}, \dots, \mathbf{x}_{t-p+1}; \mathbf{y}_t^i, y_{t-1}, \dots, y_{t-p+1}) \in \mathbb{I}_{t+1}$$

6. We simulate two time paths of  $x_{t+1}$  that are given by
- 7.

$$\begin{aligned} x_{t+1}^1 &= \hat{A}_1(1, x_{t-1}^1, \dots, x_{t-p+1}^1; y_t^1, y_{t-1}, \dots, y_{t-p+1}) + \epsilon_{1,t+1} \\ x_{t+1}^2 &= \hat{A}_1(1, x_{t-1}^2, \dots, x_{t-p+1}^2; y_t^2, y_{t-1}, \dots, y_{t-p+1}) + \epsilon_{1,t+1} \end{aligned}$$

note that the same value is used as  $\epsilon_{1,t+1}$  to generate  $x_{t+1}^1$  and  $x_{t+1}^2$  at this stage

8. Again, given  $x_{t+1}^1$  and  $x_{t+1}^2$ , stimulate two future paths of  $y_{t+1}$  as above ;
9. Repeat Steps 6 and 7  $H + 1$  times and find time paths of  $x_{t+h}$  and  $y_{t+h}$ .  
For example,  $H = 10$  is for an IRF trajectory of 10 periods;
10. After repeating Steps 2-8  $R$  times, the condition IRF is generated as:

$$IRF_y(h, \delta, \parallel_t) = \frac{1}{R} \sum_{r=1}^R y_{t+h,r}^1 - \sum_{r=1}^R y_{t+h,r}^2 \quad (B.6)$$

for  $h = 0, 1, \dots, H$  and the above condition (B.6) is valid according to equation (B.5) if  $R \rightarrow \infty$  (e.g. we set  $R = 10,000$ ).  $y_{t+h,r}^1$  is the time path of  $y_t$  after the shock  $\delta$  while  $y_{t+h,r}^2$  is the time path of  $y_t$  after  $\epsilon_{1,t}$ ;

11. The unconditional IRF  $IRF_y(h, \delta)$  is then generated by repeating the whole process for all possible histories  $\parallel_t$ ,  $t = 1, 2, \dots, T$  and taking the mean over  $T$ :

$$IRF_y(h, \delta) = \sum_{t=1}^T IRF_y(h, \delta, \parallel_t) \quad (B.7)$$

Similarly, we can generate  $-IRF_y(h, -\delta)$ , where the shock to the oil price is negative;

12. Finally the Wald test statistic of the  $H_0$  of symmetric impulse responses of  $y_t$  to positive and negative oil price shocks of the same magnitude ( $\delta = (\hat{s}_1, 2\hat{s}_1)$ ), for  $h = 0, 1, \dots, H$ , is computed as<sup>18</sup>:
- 13.

$$H_0 : IRF_y(h, \delta) = -IRF_y(h, -\delta)$$

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<sup>18</sup> The variance-covariance matrix of the vector sum of IRFs  $[IRF_y(h, \delta), IRF_y(h, -\delta)]$  can be estimated by bootstrap simulation. Given  $\hat{A}_1, \hat{A}_2, \hat{s}_1, \hat{s}_2, \hat{\epsilon}_1$  and  $\hat{\epsilon}_2$ , the system is used to generate artificial series of the same length of the data, given an arbitrary chosen history  $I^n$ ; repeat all steps to get  $n$  the unconditional IRFs, both for  $\delta$  and  $-\delta$ , from which the variance covariance matrix  $V$  is computed that has a size of  $2(H+1) \times 2(H+1)$ .

$$W = (\mathbf{R}\widehat{\mathbf{I}}_y)'(\mathbf{R}\widehat{\mathbf{V}}\mathbf{R}')^{-1}(\mathbf{R}\widehat{\mathbf{I}}_y) \sim \chi_{H+1}^2$$

where

$$\widehat{\mathbf{I}}_y = \begin{bmatrix} IRF_y(0, \delta) \\ \vdots \\ IRF_y(H, \delta) \\ -IRF_y(0, -\delta) \\ \vdots \\ -IRF_y(H, -\delta) \end{bmatrix}_{2(H+1) \times 1} \quad \mathbf{R} = \begin{bmatrix} 1 & \dots & 0 & 1 & \dots & 0 \\ \vdots & \ddots & \vdots & \vdots & \ddots & \vdots \\ 0 & \dots & 1 & 0 & \dots & 1 \end{bmatrix}_{(H+1) \times 2(H+1)}$$

## C Tables and Figures

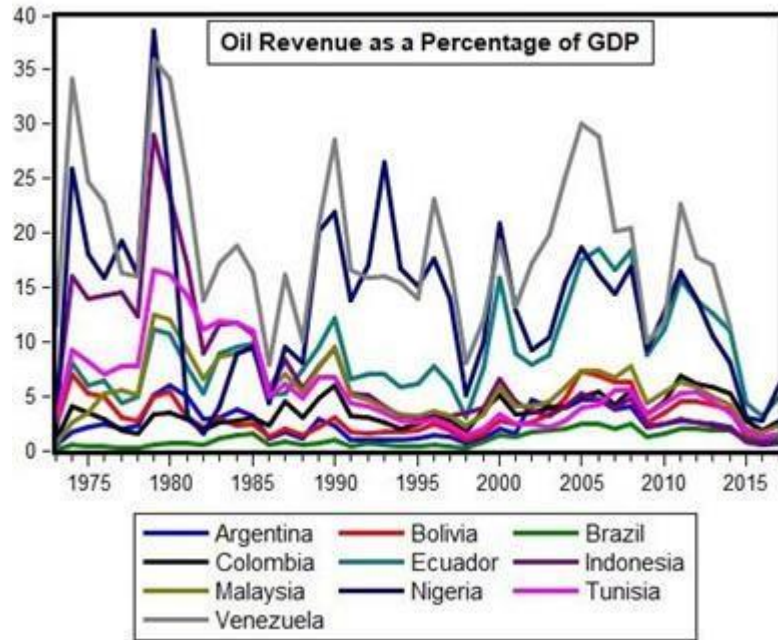


Figure 2: Oil Contribution to GDP by Countries (Author's compilation with data sourced from World Bank)

Table 4: KV IRF-based Test for Asymmetry

Bolivia Lag=8							Brazil Lag=6					
Horizon	Typical Shock			Large Shock			Typical Shock			Large Shock		
	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC
1	0.19 (0.15)	0.08 (0.17)	0.96 (0.87)	0.25 (0.12)	0.06 (0.02)	0.51 (0.28)	0.22 (0.11)	0.11 (0.08)	0.86 (0.49)	0.36 (0.23)	0.10 (0.10)	0.96 (0.67)
2	0.13 (0.22)	0.08 (0.20)	1.00 (0.93)	0.10 (0.20)	0.01 (0.00)	0.81 (0.55)	0.47 (0.27)	0.14 (0.16)	0.94 (0.54)	0.66 (0.49)	0.10 (0.19)	1.00 (0.81)
3	0.09 (0.14)	0.14 (0.33)	1.00 (0.98)	0.01 (0.02)	0.01 (0.00)	0.84 (0.69)	0.12 (0.02)	0.07 (0.01)	0.93 (0.70)	0.23 (0.09)	0.01 (0.01)	1.00 (0.92)
4	0.13 (0.21)	0.24 (0.49)	1.00 (1.00)	0.01 (0.02)	0.03 (0.01)	0.91 (0.83)	0.17 (0.04)	0.11 (0.02)	0.64 (0.38)	0.29 (0.15)	0.02 (0.01)	1.00 (0.75)
5	0.21 (0.31)	0.36 (0.63)	1.00 (1.00)	0.02 (0.04)	0.05 (0.02)	0.93 (0.90)	0.12 (0.04)	0.14 (0.03)	0.77 (0.43)	0.09 (0.03)	0.01 (0.01)	1.00 (0.79)
6	0.30 (0.43)	0.47 (0.75)	1.00 (1.00)	0.03 (0.01)	0.08 (0.04)	0.95 (0.94)	0.16 (0.06)	0.20 (0.04)	0.84 (0.54)	0.11 (0.03)	0.02 (0.01)	1.00 (0.86)
7	0.32 (0.48)	0.56 (0.82)	1.00 (1.00)	0.01 (0.02)	0.05 (0.01)	0.95 (0.97)	0.19 (0.06)	0.26 (0.07)	0.89 (0.66)	0.06 (0.02)	0.01 (0.01)	1.00 (0.92)
8	0.41 (0.59)	0.65 (0.88)	1.00 (1.00)	0.01 (0.03)	0.07 (0.02)	0.97 (0.98)	0.27 (0.10)	0.35 (0.10)	0.90 (0.76)	0.10 (0.03)	0.02 (0.01)	1.00 (0.96)
9	0.51 (0.68)	0.70 (0.92)	1.00 (1.00)	0.01 (0.04)	0.06 (0.02)	0.98 (0.99)	0.35 (0.14)	0.44 (0.15)	0.94 (0.78)	0.14 (0.05)	0.04 (0.01)	1.00 (0.98)
10	0.58 (0.77)	0.78 (0.95)	1.00 (1.00)	0.02 (0.06)	0.09 (0.04)	0.99 (0.99)	0.44 (0.19)	0.52 (0.20)	0.96 (0.85)	0.19 (0.08)	0.06 (0.02)	1.00 (0.99)
11	0.67 (0.83)	0.84 (0.97)	1.00 (1.00)	0.03 (0.06)	0.13 (0.05)	0.99 (0.99)	0.53 (0.25)	0.61 (0.27)	0.98 (0.90)	0.26 (0.11)	0.08 (0.04)	1.00 (1.00)
12	0.74 (0.88)	0.89 (0.99)	1.00 (1.00)	0.04 (0.09)	0.17 (0.07)	1.00 (0.99)	0.61 (0.28)	0.69 (0.34)	0.98 (0.92)	0.33 (0.15)	0.12 (0.06)	1.00 (1.00)
Colombia Lag=6							Ecuador Lag=6					
Horizon	Typical Shock			Large Shock			Typical Shock			Large Shock		
	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC
1	0.02 (0.02)	0.13 (0.11)	0.91 (0.61)	0.05 (0.03)	0.04 (0.01)	0.87 (0.37)	0.30 (0.44)	0.02 (0.00)	0.13 (0.06)	0.50 (0.60)	0.01 (0.00)	0.37 (0.15)
2	0.05 (0.03)	0.22 (0.12)	0.85 (0.55)	0.12 (0.06)	0.11 (0.04)	0.92 (0.46)	0.11 (0.15)	0.04 (0.02)	0.28 (0.14)	0.35 (0.33)	0.02 (0.00)	0.66 (0.34)
3	0.11 (0.06)	0.27 (0.21)	0.95 (0.74)	0.22 (0.11)	0.20 (0.07)	0.98 (0.66)	0.22 (0.28)	0.10 (0.04)	0.39 (0.26)	0.54 (0.52)	0.04 (0.00)	0.78 (0.52)
4	0.11 (0.08)	0.39 (0.29)	0.95 (0.82)	0.20 (0.12)	0.33 (0.13)	0.99 (0.80)	0.28 (0.36)	0.14 (0.06)	0.41 (0.41)	0.66 (0.63)	0.04 (0.00)	0.89 (0.68)
5	0.17 (0.14)	0.41 (0.37)	0.98 (0.86)	0.27 (0.18)	0.26 (0.11)	0.99 (0.89)	0.37 (0.44)	0.23 (0.11)	0.55 (0.55)	0.77 (0.73)	0.08 (0.00)	0.95 (0.81)
6	0.25 (0.21)	0.53 (0.49)	0.99 (0.89)	0.39 (0.27)	0.26 (0.15)	1.00 (0.93)	0.40 (0.41)	0.32 (0.17)	0.64 (0.66)	0.76 (0.64)	0.13 (0.01)	0.98 (0.88)
7	0.31 (0.30)	0.56 (0.56)	0.99 (0.86)	0.47 (0.37)	0.33 (0.21)	1.00 (0.91)	0.51 (0.50)	0.37 (0.24)	0.75 (0.77)	0.83 (0.70)	0.13 (0.02)	0.99 (0.93)
8	0.39 (0.37)	0.65 (0.65)	0.99 (0.92)	0.58 (0.47)	0.43 (0.29)	1.00 (0.94)	0.62 (0.60)	0.48 (0.33)	0.83 (0.85)	0.90 (0.79)	0.19 (0.03)	1.00 (0.96)
9	0.49 (0.47)	0.74 (0.74)	1.00 (0.95)	0.67 (0.57)	0.53 (0.38)	1.00 (0.97)	0.71 (0.70)	0.58 (0.42)	0.88 (0.89)	0.94 (0.86)	0.26 (0.05)	1.00 (0.98)
10	0.58 (0.57)	0.81 (0.82)	1.00 (0.97)	0.76 (0.66)	0.62 (0.47)	1.00 (0.98)	0.79 (0.78)	0.65 (0.50)	0.92 (0.92)	0.97 (0.91)	0.32 (0.06)	1.00 (0.99)
11	0.67 (0.65)	0.87 (0.87)	1.00 (0.99)	0.82 (0.74)	0.71 (0.56)	1.00 (0.99)	0.85 (0.80)	0.73 (0.59)	0.95 (0.95)	0.98 (0.94)	0.40 (0.09)	1.00 (1.00)
12	0.75 (0.73)	0.91 (0.92)	1.00 (0.99)	0.88 (0.81)	0.78 (0.64)	1.00 (1.00)	0.90 (0.89)	0.80 (0.67)	0.97 (0.97)	0.99 (0.97)	0.48 (0.13)	1.00 (1.00)

*Notes:* This table reports the p-values (at 5%) for the Wald test statistic set out in Appendix B. For simulating paths of  $x_t$  and  $y_t$ , we use 10,000 draws of simulations for computing the IRF given the history. For the number of bootstrapping draws over the model, our simulations are based on 10,000 bootstrapped pseudo-series using the estimated coefficients. The lag order is selected for all our models by carrying out residual diagnostics. While including additional lags could result in a reduction in test power, omitting extra lags can give rise to the test outcome of nonlinearity.

Table 5: KV IRF-based Test for Asymmetry - Contd.

Indonesia Lag=8							Malaysia Lag=6					
Horizon	Typical Shock			Large Shock			Typical Shock			Large Shock		
	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC
1	0.56 (0.85)	0.96 (0.88)	0.87 (0.82)	0.76 (0.99)	0.68 (0.94)	0.82 (0.93)	0.15 (0.14)	0.03 (0.07)	0.33 (0.15)	0.33 (0.22)	0.06 (0.06)	0.38 (0.23)
2	0.01 (0.08)	0.84 (0.92)	0.84 (0.92)	0.01 (0.05)	0.44 (0.90)	0.91 (0.96)	0.00 (0.00)	0.06 (0.11)	0.61 (0.35)	0.00 (0.00)	0.03 (0.03)	0.68 (0.45)
3	0.01 (0.06)	0.85 (0.73)	0.95 (0.90)	0.00 (0.02)	0.46 (0.85)	0.98 (0.77)	0.01 (0.00)	0.13 (0.22)	0.52 (0.42)	0.00 (0.00)	0.07 (0.07)	0.81 (0.62)
4	0.02 (0.10)	0.78 (0.63)	0.99 (0.90)	0.00 (0.01)	0.37 (0.50)	0.99 (0.87)	0.00 (0.00)	0.12 (0.19)	0.69 (0.54)	0.00 (0.00)	0.02 (0.02)	0.90 (0.71)
5	0.04 (0.17)	0.87 (0.72)	1.00 (0.95)	0.00 (0.03)	0.50 (0.56)	1.00 (0.93)	0.01 (0.01)	0.19 (0.28)	0.81 (0.67)	0.00 (0.00)	0.04 (0.03)	0.96 (0.82)
6	0.07 (0.25)	0.93 (0.81)	1.00 (0.98)	0.01 (0.04)	0.56 (0.53)	1.00 (0.96)	0.02 (0.02)	0.27 (0.40)	0.89 (0.76)	0.00 (0.00)	0.04 (0.04)	0.98 (0.88)
7	0.06 (0.22)	0.93 (0.77)	1.00 (0.97)	0.00 (0.00)	0.17 (0.20)	1.00 (0.98)	0.03 (0.04)	0.37 (0.49)	0.92 (0.85)	0.00 (0.00)	0.05 (0.05)	0.99 (0.93)
8	0.09 (0.29)	0.95 (0.80)	1.00 (0.99)	0.00 (0.00)	0.02 (0.03)	1.00 (0.99)	0.05 (0.05)	0.47 (0.56)	0.94 (0.91)	0.00 (0.00)	0.08 (0.09)	1.00 (0.96)
9	0.13 (0.37)	0.97 (0.87)	1.00 (1.00)	0.00 (0.00)	0.01 (0.02)	1.00 (0.99)	0.07 (0.09)	0.52 (0.56)	0.97 (0.95)	0.01 (0.01)	0.12 (0.13)	1.00 (0.98)
10	0.18 (0.46)	0.97 (0.88)	1.00 (1.00)	0.00 (0.00)	0.02 (0.03)	1.00 (0.99)	0.11 (0.13)	0.61 (0.65)	0.98 (0.97)	0.01 (0.01)	0.16 (0.17)	1.00 (0.99)
11	0.24 (0.55)	0.96 (0.92)	1.00 (1.00)	0.00 (0.00)	0.03 (0.04)	1.00 (1.00)	0.15 (0.18)	0.69 (0.74)	0.99 (0.98)	0.02 (0.02)	0.22 (0.23)	1.00 (1.00)
12	0.30 (0.64)	0.97 (0.95)	1.00 (1.00)	0.00 (0.00)	0.04 (0.07)	1.00 (1.00)	0.20 (0.23)	0.77 (0.80)	1.00 (1.00)	0.04 (0.02)	0.29 (0.30)	1.00 (1.00)
Nigeria Lag=6							Tunisia Lag=6					
Horizon	Typical Shock			Large Shock			Typical Shock			Large Shock		
	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC
1	0.00 (0.01)	1.00 (0.91)	1.00 (1.00)	0.04 (0.09)	1.00 (0.80)	1.00 (1.00)	0.11 (0.23)	0.02 (0.02)	0.49 (0.20)	0.30 (0.41)	0.03 (0.03)	0.61 (0.36)
2	0.00 (0.03)	1.00 (0.98)	1.00 (1.00)	0.10 (0.25)	1.00 (0.94)	1.00 (1.00)	0.02 (0.04)	0.04 (0.03)	0.54 (0.29)	0.11 (0.16)	0.07 (0.07)	0.65 (0.42)
3	0.02 (0.08)	1.00 (0.98)	1.00 (1.00)	0.20 (0.43)	1.00 (0.79)	1.00 (1.00)	0.03 (0.03)	0.09 (0.05)	0.53 (0.36)	0.18 (0.27)	0.11 (0.13)	0.80 (0.59)
4	0.03 (0.16)	1.00 (0.98)	1.00 (1.00)	0.26 (0.60)	1.00 (0.86)	1.00 (1.00)	0.03 (0.03)	0.11 (0.06)	0.66 (0.52)	0.12 (0.17)	0.11 (0.10)	0.91 (0.75)
5	0.02 (0.09)	1.00 (0.97)	1.00 (1.00)	0.09 (0.40)	1.00 (0.92)	1.00 (1.00)	0.04 (0.04)	0.12 (0.06)	0.78 (0.66)	0.13 (0.17)	0.03 (0.02)	0.96 (0.86)
6	0.02 (0.07)	0.10 (0.98)	1.00 (1.00)	0.07 (0.26)	1.00 (0.95)	1.00 (1.00)	0.02 (0.03)	0.11 (0.05)	0.86 (0.71)	0.01 (0.01)	0.00 (0.00)	0.98 (0.89)
7	0.03 (0.08)	1.00 (0.94)	1.00 (1.00)	0.03 (0.17)	1.00 (0.87)	1.00 (1.00)	0.02 (0.03)	0.16 (0.08)	0.91 (0.80)	0.00 (0.00)	0.00 (0.00)	0.99 (0.94)
8	0.05 (0.11)	1.00 (0.81)	1.00 (1.00)	0.06 (0.24)	1.00 (0.88)	1.00 (1.00)	0.03 (0.05)	0.21 (0.12)	0.95 (0.87)	0.01 (0.01)	0.00 (0.00)	1.00 (0.96)
9	0.07 (0.16)	1.00 (0.91)	1.00 (1.00)	0.09 (0.32)	1.00 (0.86)	1.00 (1.00)	0.04 (0.08)	0.27 (0.18)	0.97 (0.92)	0.01 (0.02)	0.00 (0.00)	1.00 (0.98)
10	0.10 (0.21)	1.00 (0.93)	1.00 (1.00)	0.13 (0.40)	1.00 (0.93)	1.00 (1.00)	0.07 (0.11)	0.27 (0.18)	0.99 (0.95)	0.02 (0.02)	0.00 (0.00)	1.00 (1.00)
11	0.14 (0.27)	1.00 (0.96)	1.00 (1.00)	0.18 (0.48)	1.00 (0.98)	1.00 (1.00)	0.10 (0.15)	0.35 (0.22)	0.99 (0.97)	0.03 (0.04)	0.00 (0.00)	1.00 (1.00)
12	0.17 (0.32)	1.00 (0.90)	1.00 (1.00)	0.23 (0.57)	1.00 (0.99)	1.00 (1.00)	0.13 (0.21)	0.40 (0.26)	1.00 (0.98)	0.04 (0.06)	0.01 (0.00)	1.00 (1.00)

*Notes:* This table reports the p-values (at 5%) for the Wald test statistic set out in Appendix B. For simulating paths of  $x_t$  and  $y_t$ , we use 10,000 draws of simulations for computing the IRF given the history. For the number of bootstrapping draws over the model, our simulations are based on 10,000 bootstrapped pseudo-series using the estimated coefficients.

Table 6: KV Test Cumulative Effect For Shock Magnitude

Horizon	Typical Shock		Large Shock	
	Model OPI	Model NI	Model OPI	Model NI
Bolivia	83.91	67.68	184.96	151.35
Brazil	93.15	91.83	112.23	168.03
Colombia	91.26	59.41	71.13	80.43
Ecuador	64.25	85.07	34.2	119.58
Indonesia	138.93	27.00	261.68	132.25
Malaysia	167.93	86.13	224.3	139.53
Nigeria	129.26	109.63	107.83	181.58
Tunisia	161.92	114.72	171.00	213.22

Table 7: Slope-based Tests for Symmetry

Country	Mork's Test	Wald Test
<b>Bolivia</b>	0.33	0.02
<b>Brazil</b>	0.64	0.03
<b>Colombia</b>	1.00	0.99
<b>Ecuador</b>	0.91	0.56
<b>Indonesia</b>	0.02	0.00
<b>Malaysia</b>	0.01	0.00
<b>Nigeria</b>	0.56	0.00
<b>Tunisia</b>	0.00	0.00

*Notes:* This table reports the p-values (at 5%) for the Wald test statistic of the joint significance of the  $\text{lag}_t^s$  of  $x^{cen}$  in Equation 6. For Mork's Test:  $H_0 : b_{21,1} = \dots = b_{21,p} = 0$ ; For Wald Test:  $H_0 : b_{21,0} = \dots = b_{21,p} = 0$ .

Table 8: Cumulative Mean Square Distance For Output Responses

<b>h=1</b>							<b>h=4</b>						
Typical Shock				Large Shock			Typical Shock				Large Shock		
Countries	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI
Bolivia	0.04	0.04	0.01	0.46	0.45	0.11	0.05	0.03	0.01	0.66	0.43	0.17	0.17
Brazil	0.06	0.08	0.02	0.47	0.79	0.02	0.13	0.09	0.04	1.13	1.24	0.04	0.04
Colombia	0.17	0.06	0.02	1.38	0.89	0.05	0.16	0.05	0.02	1.37	0.62	0.05	0.05
Ecuador	0.09	0.08	0.07	0.71	1.02	0.27	0.11	0.06	0.06	0.86	1.00	0.22	0.22
Indonesia	0.04	0.00	0.00	0.37	0.11	0.02	0.07	0.01	0.00	0.64	0.10	0.02	0.02
Malaysia	0.21	0.10	0.04	1.41	0.90	0.19	0.25	0.07	0.08	1.80	0.92	0.33	0.33
Nigeria	0.02	0.01	0.00	0.27	0.21	0.01	0.02	0.02	0.00	0.21	0.26	0.01	0.01
Tunisia	0.16	0.05	0.06	1.07	0.53	0.25	0.17	0.06	0.04	1.15	0.60	0.18	0.18

<b>h=8</b>							<b>h=12</b>						
Typical Shock				Large Shock			Typical Shock				Large Shock		
Countries	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI
Bolivia	0.05	0.03	0.01	0.64	0.45	0.18	0.04	0.02	0.01	0.59	0.40	0.16	0.16
Brazil	0.14	0.09	0.04	1.20	1.05	0.04	0.11	0.07	0.04	1.08	0.88	0.03	0.03
Colombia	0.13	0.03	0.02	1.14	0.51	0.08	0.10	0.03	0.02	0.93	0.43	0.09	0.09
Ecuador	0.09	0.05	0.04	0.72	0.79	0.17	0.08	0.04	0.04	0.60	0.67	0.14	0.14
Indonesia	0.06	0.01	0.00	0.59	0.33	0.02	0.05	0.01	0.00	0.51	0.31	0.02	0.02
Malaysia	0.18	0.06	0.06	1.34	0.73	0.29	0.14	0.04	0.06	1.10	0.61	0.24	0.24
Nigeria	0.02	0.01	0.00	0.20	0.20	0.02	0.07	0.06	0.02	0.52	0.57	0.06	0.06
Tunisia	0.14	0.07	0.05	0.96	0.62	0.18	0.11	0.06	0.04	0.82	0.56	0.15	0.15

Table 9: KV Test of Fiscal Asymmetry

Bolivia Lag=8							Brazil Lag=6							Colombia Lag=6						
Typical Shock				Large Shock			Typical Shock				Large Shock			Typical Shock				Large Shock		
Horizon	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC		
1	0.88	0.81	0.63	0.93	0.77	0.44	0.21	0.00	0.30	0.45	0.00	0.68	0.28	0.47	0.90	0.46	0.43	0.98		
2	0.03	0.74	0.49	0.00	0.69	0.51	0.13	0.02	0.57	0.30	0.00	0.89	0.21	0.31	0.99	0.46	0.04	0.97		
3	0.06	0.89	0.66	0.00	0.86	0.70	0.02	0.04	0.77	0.04	0.00	0.97	0.27	0.50	1.00	0.55	0.08	0.99		
4	0.11	0.90	0.81	0.00	0.63	0.81	0.03	0.03	0.89	0.02	0.00	0.99	0.42	0.59	1.00	0.71	0.14	1.00		
5	0.17	0.73	0.90	0.00	0.11	0.78	0.04	0.03	0.95	0.01	0.00	1.00	0.48	0.66	1.00	0.77	0.20	1.00		
6	0.24	0.56	0.95	0.00	0.06	0.85	0.06	0.05	0.97	0.01	0.00	1.00	0.59	0.74	1.00	0.85	0.16	1.00		
7	0.31	0.64	0.98	0.00	0.03	0.91	0.09	0.07	0.99	0.02	0.00	1.00	0.70	0.81	1.00	0.91	0.09	1.00		
8	0.41	0.69	0.99	0.00	0.03	0.95	0.14	0.10	1.00	0.03	0.00	1.00	0.79	0.88	1.00	0.95	0.13	1.00		
9	0.51	0.78	1.00	0.00	0.05	0.97	0.20	0.14	1.00	0.05	0.00	1.00	0.86	0.87	1.00	0.98	0.19	1.00		
10	0.59	0.82	1.00	0.00	0.06	0.98	0.25	0.20	1.00	0.08	0.00	1.00	0.91	0.90	1.00	0.99	0.25	1.00		
11	0.68	0.85	1.00	0.00	0.08	0.99	0.31	0.26	1.00	0.12	0.01	1.00	0.95	0.94	1.00	0.99	0.31	1.00		
12	0.75	0.90	1.00	0.00	0.12	0.99	0.38	0.32	1.00	0.15	0.01	1.00	0.97	0.96	1.00	1.00	0.39	1.00		

Ecuador Lag=6							Malaysia Lag=6							Indonesia Lag=6						
Typical Shock				Large Shock			Typical Shock				Large Shock			Typical Shock				Large Shock		
Horizon	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC	Model OPI	Model NI	Model NC		
1	0.38	0.01	0.34	0.51	0.01	0.66	0.61	0.48	0.51	0.79	0.68	0.49	0.66	0.99	0.97	0.78	0.95	0.84		
2	0.14	0.03	0.25	0.20	0.01	0.77	0.25	0.66	0.73	0.53	0.50	0.77	0.59	0.98	1.00	0.80	0.99	0.97		
3	0.27	0.06	0.38	0.35	0.02	0.87	0.42	0.84	0.89	0.74	0.68	0.86	0.05	1.00	1.00	0.22	1.00	0.99		
4	0.41	0.12	0.52	0.50	0.03	0.94	0.54	0.93	0.96	0.83	0.82	0.94	0.06	1.00	1.00	0.25	1.00	1.00		
5	0.38	0.20	0.66	0.37	0.04	0.97	0.67	0.97	0.98	0.91	0.91	0.97	0.08	1.00	1.00	0.25	1.00	1.00		
6	0.40	0.28	0.78	0.37	0.07	0.99	0.57	0.99	0.99	0.87	0.95	0.99	0.02	1.00	1.00	0.00	1.00	1.00		
7	0.28	0.34	0.86	0.12	0.09	1.00	0.28	0.99	1.00	0.48	0.97	1.00	0.04	1.00	1.00	0.00	1.00	1.00		
8	0.37	0.43	0.91	0.17	0.11	1.00	0.37	1.00	1.00	0.58	0.99	1.00	0.06	1.00	1.00	0.00	1.00	1.00		
9	0.47	0.52	0.95	0.24	0.16	1.00	0.44	1.00	1.00	0.68	1.00	1.00	0.09	1.00	1.00	0.00	1.00	1.00		
10	0.56	0.60	0.97	0.32	0.22	1.00	0.54	1.00	1.00	0.77	1.00	1.00	0.12	1.00	1.00	0.01	1.00	1.00		
11	0.64	0.67	0.98	0.40	0.28	1.00	0.63	1.00	1.00	0.83	1.00	1.00	0.17	1.00	1.00	0.01	1.00	1.00		
12	0.72	0.74	0.99	0.47	0.36	1.00	0.71	1.00	1.00	0.88	1.00	1.00	0.22	1.00	1.00	0.02	1.00	1.00		

*Notes:* This table reports the p-values (at 5%) for the Wald test statistic set out in Appendix B for the case of government spending. For simulating paths of  $x_t$  and  $y_t$ , we use 10,000 draws of simulations for computing the IRF given the history. For the number of bootstrapping draws over the model, our simulations are based on 10,000 bootstrapped pseudo-series using the estimated coefficients.



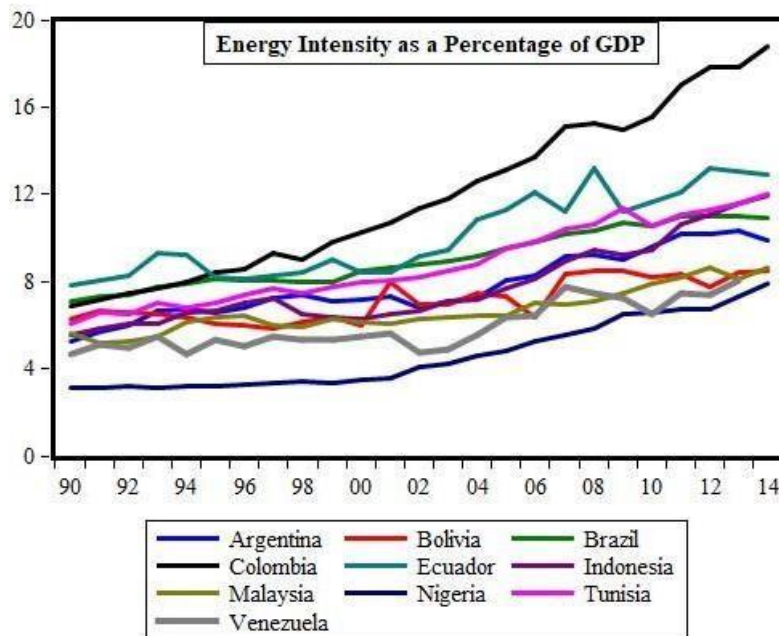


Figure 3: Energy Intensity Level by Countries  
(Author's compilation with data sourced from World Bank)

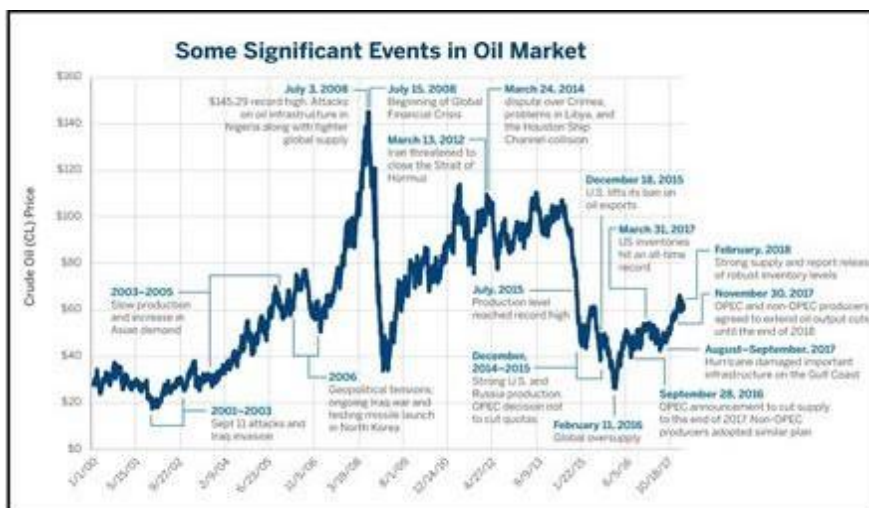


Figure 4: Oil Shocks Identification  
(Source: Adapted from Chicago Mercantile Exchange (CME) Group (2018))

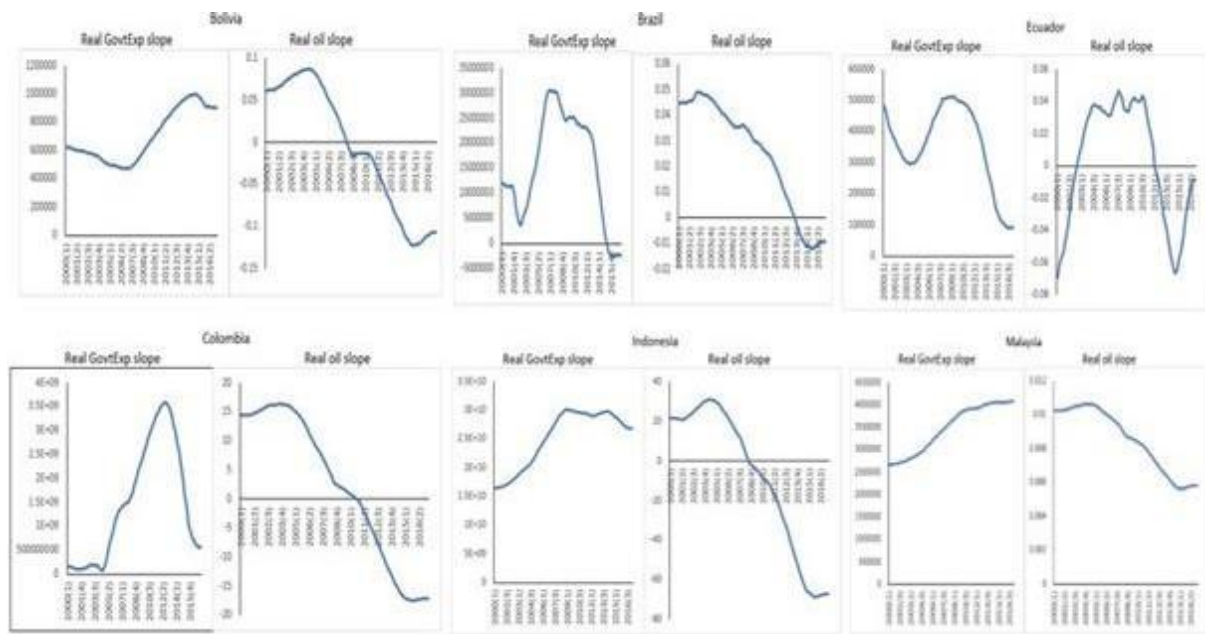


Figure 5: Fiscal Slope Test

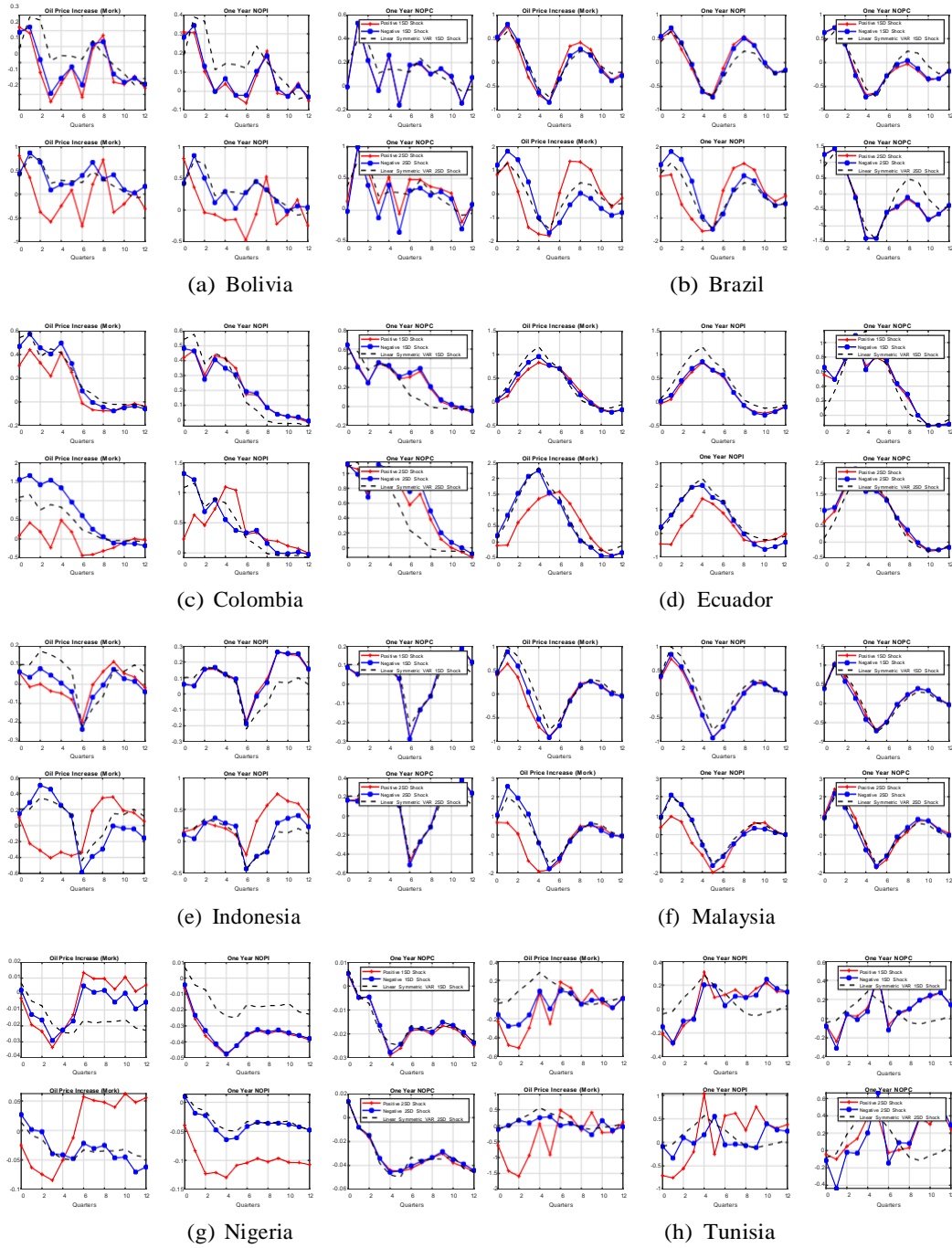


Figure 6: Impulse Response Functions of GDP Growth

*Notes:* Each panel plots the mean response corresponding a one and two standard deviation of the shock's innovation. Each response is for a 12 period (3 years) horizon and is the percentage deviation.

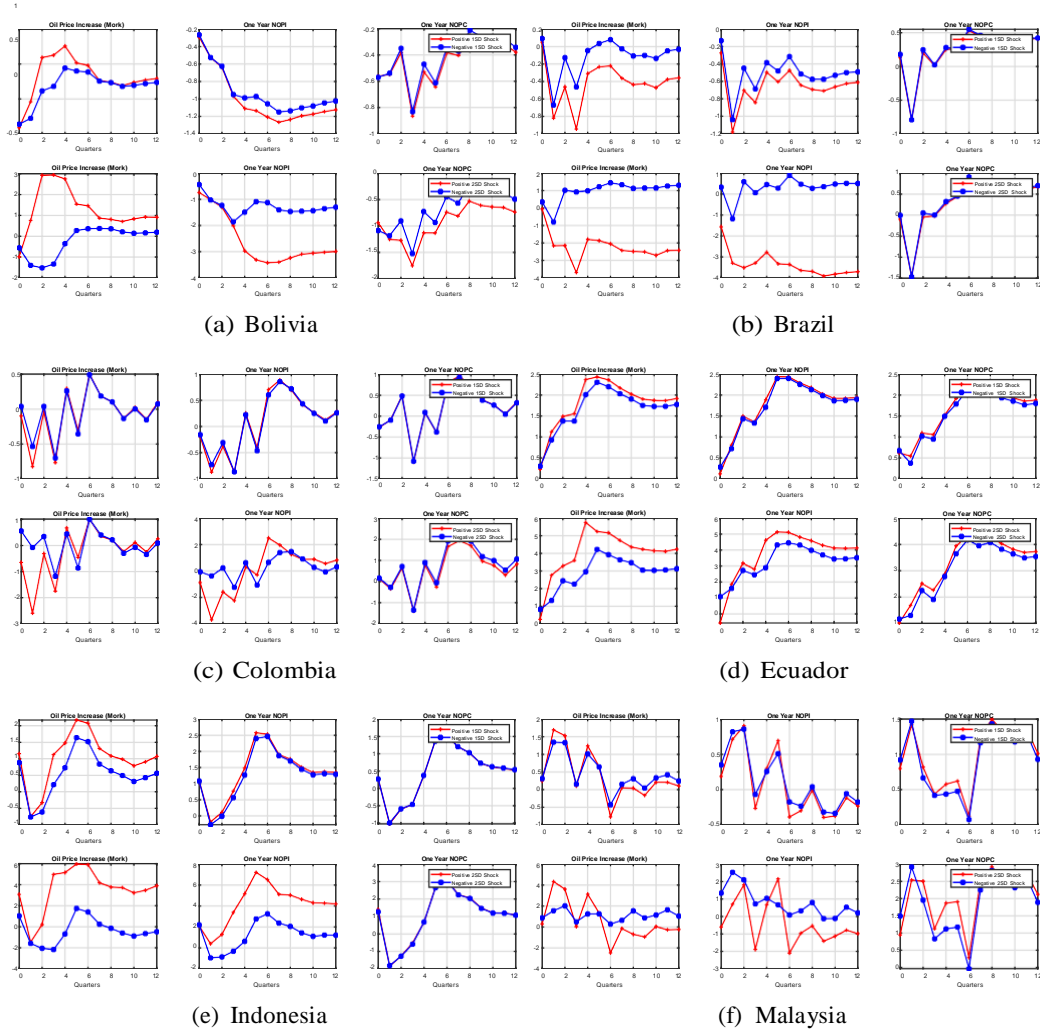


Figure 7: Impulse Response Functions of Government Expenditure

*Notes:* Each panel plots the mean response corresponding a one and two standard deviation of the shock's innovation. Each response is for a 12 period (3 years) horizon and is the percentage deviation.

# THE IMPACT OF COVID-19 ON THE FINANCES OF LOCAL SELF-GOVERNMENT (FOLLOWING THE EXAMPLE OF BULGARIA)

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## ABSTRACT

*The global spread of coronavirus infection has put strong pressure on all social and political systems. Concomitant restrictions have led to a decline in economic and social activity, which in turn has put public finances to the test. Municipalities in Bulgaria are highly dependent on subsidies from the central government and in this regard, there is a research hypothesis that local government finances are also affected. The aim of the present study is to identify possible negative effects on local self-government as a result of the macroeconomic impact of COVID-19 and in this regard to derive some author's views on the recovery and rehabilitation of municipalities in Bulgaria. Therefore, the research formulated in this way, will again raise the issue of the current state of decentralization in Bulgaria. It is necessary to complete the reform of local self-government and the municipalities to actually work as sustainable and efficient cores of public administration. The strong fragmentation of local self-government is one of the main reasons for the manifestation of some shortcomings, which call into question the demands for effective local government. The local administration is closest to the local communities and it should know best the needs and desires of the people and in this regard the development of the right policies in the field of decentralization will improve the quality of life and strengthen local self-government in dealing with problems of different nature, including those caused by pandemic processes.*

**Key words:** *Decentralization, Local self-government, Local finances*

## INTRODUCTION

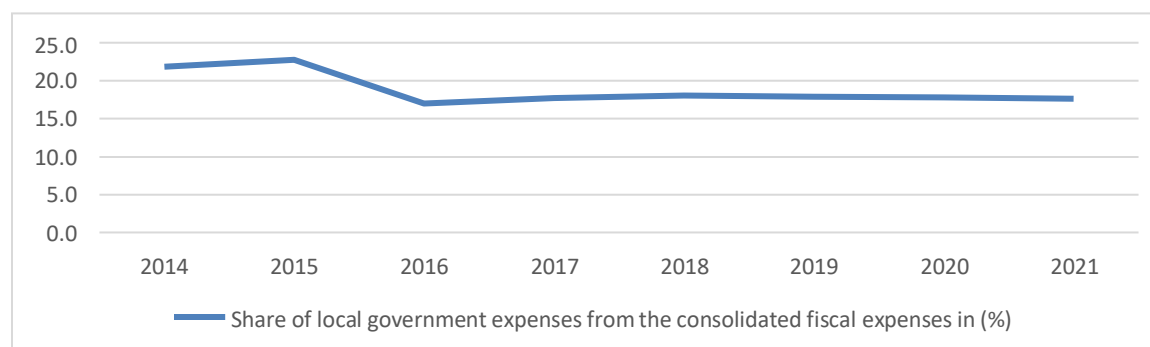
Until now, the scientific world has mainly focused on the biological and medical aspects of the pandemic coronavirus spread. Research that examines the impact on social and financial systems is still growing. The scientific community carefully examines the implications of health actions and measures and formulates its conclusions. The main focus is on public finances, however at the macro level. Local self-government seem to remain out of the interest of researchers. Some authors argue (Maher et al., 2020, p.644-650) that from the perspective of local public organizations, this pandemic is unprecedented. They offer a framework for navigating the fiscal effects of Covid-19 and draw on recent research to assess the response

strategies of local governments now trying to understand their financial situation moving into the next budget cycle. The literature emphasizes (Dzigbede et al., 2020, p. 633-643) that local governments must cooperate for community benefits and that state fiscal support is necessary for them. It is necessary to reduce fiscal disparities and social inequalities, paying special attention to small local authorities with limited capacity. Some generalized explanations are also sought regarding the effects of the health crisis and the scale of impact on local finances. For example, in a report of the European Committee of the Regions, the so-called scissors effect (Alessandrini, Bosch, Kubeková, Fiorillo, 2021, pp. 7-17). An imbalance is formed between falling revenues and increased public spending, which is presented as a pair of scissors. The authors are looking for possible explanations why this gap is more open in some municipalities and more closed in others. The reasoning is related to the structure of the regional economy, the different impact on different sectors and segments of the labor market, the specifics of individual regions (size, population, etc.), the proportions of distribution of fiscal powers, etc.

A specific fiscal situation is observed in Bulgaria. The local self-government was not able to successfully complete the decentralization process. The dynamic decentralization processes in the period 2000-2010 were gradually replaced by institutional stagnation. The regulatory framework, in its entirety, preserved the concept whereby the central government seizes significant public resources and then, through budgetary mechanisms, begins to redistribute them to local governments. This fiscal algorithm is somewhat justified, since the political processes in our country are underdeveloped and this leads to some weaknesses in the local administration. The excessive development of this centralized suction inevitably developed the dependence of most of the municipalities on the budgetary flows of the central government. These dependencies, in combination with high inter-municipal differences, cause significant challenges for experts in the field of regional politics.

Fig. 1 presents the dynamics of development in the share of municipal expenditures as a share of consolidated fiscal state expenditures. It is clear from the figure that less than 1/5 of the total public expenditure under the consolidated fiscal program goes through the local budgets. In 2015-2016, a kind of decline was noted, which is related to the limitation of public spending. This limitation is more significant for local government than for aggregate state finances. The low levels of municipal spending were mainly influenced by cuts in government transfers and reductions in capital spending.

**Fig. 1. Share of local government expenses from the consolidated fiscal expenses of Bulgaria**



**Source: Ministry of Finance of the Republic of Bulgaria**

According to some Bulgarian analysts (Ganev, Alexiev, 2018, p.7) "The movement of local budgets clearly shows that the degree of absorption of European funds is not directly linked to the stability of municipal budgets. On the contrary, in the better years for municipal budgets (2016 and 2017), there is a huge drop in European funds. European funds do not bring stability to municipal finances, but capital expenditures at the local level depend almost entirely on them. For example, the drop in capital expenditures under local budgets for 2016 compared to 2015 is nearly BGN 2.9 billion. This is a period in which the state of municipal budgets has slightly improved, but at the local level there is almost no investment due to complete dependence from the grants from the European budget."

These temporary fiscal states have a rather logical explanation of an operational and administrative nature. The situation is completely different after 2020. Health restrictions have limited almost all economic activities not only in our country, but also around the world. This situation is the basis of the research hypothesis that the coronavirus infection causes shocks in public finances and, more specifically, in the finances of municipalities. In order to prove or reject such an assumption, two essential questions should be answered:

1. What is the degree of elasticity between municipal revenues and the results of the local economy?
2. Has there been a reduction in the amount of state transfers from central government to local self-government?

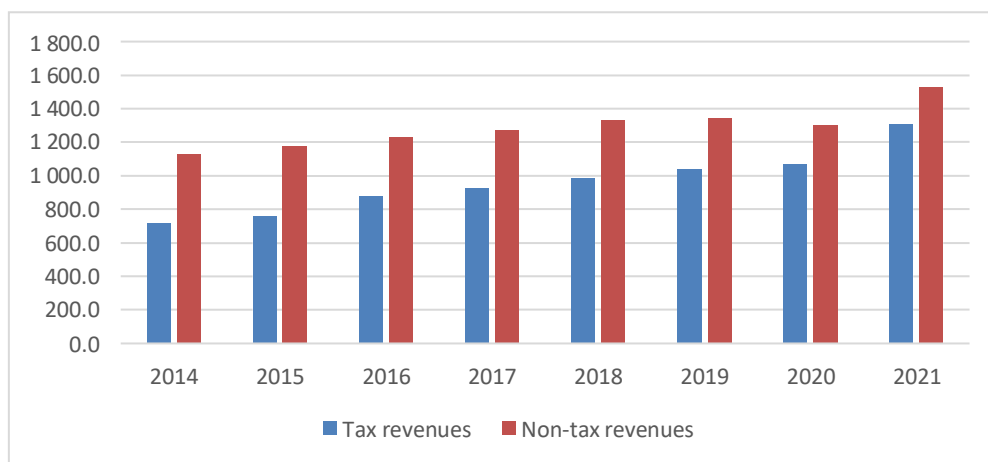
The research hypothesis is that due to unsatisfactory levels of decentralization, there is a lack of a direct and definite link between fiscal shocks (caused by health and social restrictions) and the financial sustainability of municipalities. The central government with its subsidies is able to compensate the local government to continue the provision of public services at the local level.

## **METHODOLOGY**

Regarding the first question, the answer is clear. The Bulgarian legislation has removed from the palette of municipal revenue sources those tax and non-tax seizures that are a direct result of the local economic system. In fig. 2 shows the changes in municipal revenues for the period 2014-2021.

**Figure 2. Dynamics of tax and non-tax revenues of municipalities in Bulgaria for the period 2014-2021.**

**Source: Ministry of Finance of the Republic of Bulgaria**



**Source: Ministry of Finance of the Republic of Bulgaria**



It is clear from the figure that there are no negative manifestations in tax revenues. Non-tax revenues saw a slight decline of 4% in 2020, which can be explained by the negative effects of health restrictions. This decline was overcome in 2021.

Corporate and income taxes are mainly aimed at the republican budget, and this determines the lack of a direct connection between the state of municipal finances and the activity of economic units. There are, of course, also some municipal seizures, which can be a sort of litmus test for regional economic activity. Such an example is the tourist tax under Article 1 paragraph 1 item 7 of the Law on Local Taxes and Fees. This tax has the potential to transform any "dwarf" municipality into a municipality with enviable fiscal capacity. There are quite a few examples in our country - mainly the municipalities along the Black Sea, the developed mountain resorts, etc.

Table 1 presents the change in the municipal revenues of some resort municipalities on the Bulgarian Black Sea coast.

**Table 1. Changes in the municipal (own) revenues of selected municipalities**

Municipality	Municipal revenues in BGN (million) for the third quarter of 2019	Municipal revenues in BGN (million) for the third quarter of 2020	Municipal revenues in BGN (million) for the third quarter of 2021
Primorsko	9,6	8,5	9,8
Sozopol	11,7	10,1	13,7
Nesebar	41,9	28,5	45,3

**Source: Ministry of Finance, Municipal Finances, Municipal Financial Indicators**

The data in the table shows the fiscal collapse that took place in 2020. Here, attention should be directed to the drop in tourist tax collections, which is the result of unrealized overnight stays in municipalities during the tourist tax. However, it can be seen that in 2021 the positions return again, even surpassing the values of the year considered as a base - 2019. Overall, for the whole country, the drop in municipal revenues is only BGN 82 million, which is a kind of drop from 4.4%. This value deserves attention, but cannot serve as evidence of a deterioration in the fiscal position of local self-government.

Regarding the second question, the situation is as follows. Since the 2016 crash, central government has created a steady trend of increasing transfers to local government. Table 2 presents information on the absolute amount of transfers from the central government to municipalities in Bulgaria.

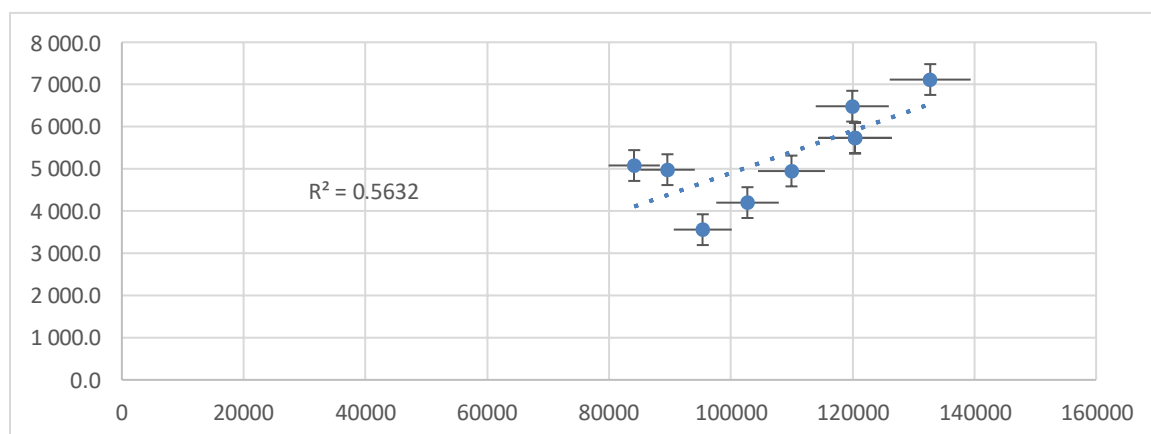
**Table 2. Absolute amount of transfers to local budgets**

Year	Transfers from the central government to local budgets in BGN (billion)
2018	4,95
2019	5,74
2020	6,49
2021	7,12

**Source: Ministry of Finance, Municipal Finances, Municipal Financial Indicators**

Of additional research interest is the hypothesis that there is a direct linear relationship between GDP growth and transfers to municipalities. This relationship is logical because the share of seizures does not change and the increase in GDP in BGN thousand (X) will lead to higher collection in the republican budget, and from that public expenses will also increase, including transfers to municipalities in BGN thousand. (Y).

**Figure 3. Regression between the change in GDP in BGN (thousand) and the change in transfers from the central government to the municipalities**



**Source: Processed data Excel, Data Analysis**

Table 3 presents the details of the regression analysis performed.

**Table 3. Initial data from the performed regression analysis**

#### SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.750458
R Square	0.563188
Adjusted R Square	0.500786
Standard Error	773.2955
Observations	9

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	5396934	5396934	9.025185	0.019824
Residual	7	4185902	597986		
Total	8	9582836			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-100.89	1821.859	-0.05538	0.957385	-4408.9	4207.122	-4408.9	4207.122
X Variable 1	0.049997	0.016642	3.004195	0.019824	0.010644	0.08935	0.010644	0.08935

**Source: Processed data Excel, Data Analysis**

The data show that there is no definite significant relationship between the growth of the national economy and the vertical transfer flows to the municipalities in Bulgaria. Mainly, political and other decisions matter here, rather than macroeconomic ones. The data in the period 2014-2016 are particularly clear, when the national economy is growing (nominal and real GDP growth is noted), and transfers to municipalities are decreasing. Other explanations can be sought here, such as e.g. that some investment costs (financed by EU funds) are delayed due to technical and other reasons.

## CONCLUSION

The unprecedented health crisis did not manage to seriously affect the municipalities in our country. Tax and non-tax collections, which are in direct relation to economic activity, are mainly concentrated in the central government, and the decline in the collection of budgetary funds is valid mainly for the central budget. The government adopted an adequate policy and did not introduce fiscal restrictions on resource vertical flows. Such a move could lead to tangible limitations in the provided municipal services, both in their quantity and in their quality. In this way, the budget deficits were dragged to the highest hierarchical level and the local government kept its positions. This is also important because we have municipalities that are in a chronically poor financial condition. The state continues its recovery policy with the legally defined mechanisms. The municipal financial crisis, combined with cuts in central transfers, could have a catastrophic impact on local government functions in some municipalities.

The fact that there are no clear negative effects on the state of local self-government does not mean that some recommendations cannot be generalized that can strengthen the finances of municipalities in our country. Such recommendations are:

- Since the health crisis may last longer than expected, the state should consider differentiating and adapting support to municipalities, taking into account their diverse territorial needs.
- The state should consider reforming its tax systems, rethinking fiscal rules, equalization formulas, etc. In this case, the municipalities in our country benefited from not collecting direct taxes. However, this does not mean that the local government does not need them.
- The impact of local economic specialization should be addressed and taken into account in the design and implementation of recovery plans. Plans should be implemented in close partnership with local governments and focus on local economic needs, challenges and priorities
- The central government should not withdraw its support too quickly. The expectations are that the negative effects on local finances will be a threat even after 2023. It is necessary to clarify the connection between the positive development of the national economic system and the vertical resource flows to the municipalities.
- Public investments at the local level must be activated. European funds are a powerful catalyst for capital expenditure at local level, but in parallel the targeted transfers received from central government should not be underestimated
- It is necessary to strengthen the emphasis on the social activities of the municipal government in order to eliminate the consequences of the health crisis on the local community.
- Low levels of decentralization have had a beneficial effect on municipalities because the health crisis has a negative impact mainly on the fiscal responsibilities and appropriations of the central government. This is a kind of paradox, which is proof that decentralization processes

can develop effectively in public systems with sustainable levels of local self-government. This sought-after sustainability should once again raise the issue of reform in the number and scale of municipalities in Bulgaria

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# **ANALYSIS OF INTERNATIONALIZATION STRATEGIES LEADING TRANSACTION PLATFORM COMPANIES APPLY**

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## **ABSTRACT**

*The paper starts with identifying the internationalization level of the top-22 transaction platform companies selected by Cusumano, Gawer, Yoffie in the book “The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power”. Its focus is to analyse what strategies and entry modes the selected companies apply and why. It is a qualitative research applying methods of synthesis, a case study, a qualitative comparison and statistical data analysis.*

**Keywords:** *platform company, internationalization strategies, drivers of internationalization, digital maturity, digital platform strategy.*

## **INTRODUCTION**

The immense application of a platform business model by businesses has risen the need to explain what strategies, including the entry mode, the leading companies apply. There is a big question if both the strategy and the entry mode differ with regard to the platform business model companies apply and network effects it helps to generate. The paper briefly describes the geography and market capitalization level of the leading platform companies, namely 22 transaction platforms and provides a case analysis of the selected companies' level of internationalization by means of a model including a) type of company's product and network effect boundedness to the location of assets producing and storing this product in the country of origin, b) type of network effects (within-country and/or cross-country), c) internationalization level (number of countries and regional distribution), d) an entry mode and form, e) a strategy type by Bartlett & Ghoshal's matrix, f) foreign market choice, g) probability of leaving the foreign market. The paper finishes with the findings of Stallkamp & Schotter's hypotheses' approval with regard to the international strategies platform companies shape.

## **MATERIALS AND METHODS**

The subject of the study, namely leading transaction platforms, determined the material that is mainly papers on the internationalization strategies firms apply. The analytical part of the paper is sourced from the ranking by Cusumano, Gawer, Yoffie in their book “The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power”.

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## RESULTS

To analyze internationalization strategies, the subject of the study – platform companies – should be defined. It was preliminary investigated what rankings monitor platform companies and what their metrics are. The research proved that due to the inconsistency and a number of omissions Top 100 Digital MNEs by UNCTAD, Top 100 Platforms and Platform Fund by Holger Schmidt have (Balanova, 2021), it was feasible to source the authored ranking of 43 platform companies selected for research by Cusumano, Gawer, Yoffie, authors of the book “Business Platforms: Strategy in the Era of Digital Competition, Innovation and Power”. The ranking analyzes 22 transaction platform companies, 8 hybrid companies and 16 innovation platforms on the principle of companies publicly listed from 1995 to 2015 and based on the analysis of 4 indicators (sales, profits, assets and market value) (Cusumano, Gawer, Yoffie, 2019). The former 22 transaction platform companies – *Airbnb, Alibaba, Amazon Marketplace, Apple App Store, Baidu, Facebook Social Network, Google Play, Instagram, JD.com, LendingClub, LinkedIn, Match.com, Pinterest, Rakuten, Salesforce Exchange, Snapchat, Steam, TripAdvisor, Twitter, Uber, WeChat, Windows Store* – were defined as the subject of the research due to their higher tendency to internationalization and greater potential to generate network effects(Fig. 1).

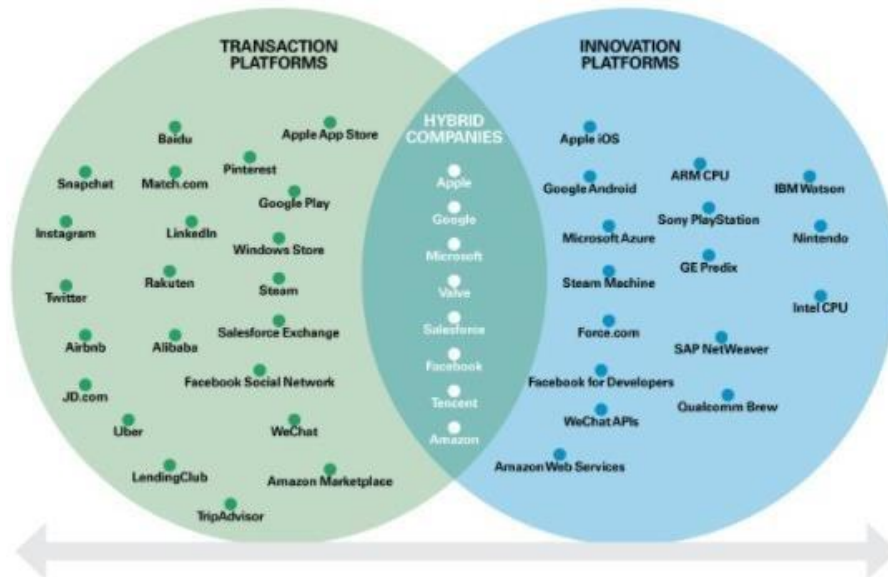


Fig. 1. 43 platform companies for Cusumano, Gawer, Yoffie (Cusumano, Gawer, Yoffie, 2019)

Upon analyzing their level of capitalization according to the Ranking of Largest Companies by Market Cap (Companiesmarketcap, 2021) it was discovered that

- The country of origin of most platform companies is the United States (17 American platform companies, 4 Chinese, 1 Japanese);
- Top 5 companies with the highest level of internationalization are *Airbnb, Alibaba, Apple App Store, Pinterest, TripAdvisor*;
- The leading companies in terms of market capitalization for 2021 are
  - *Apple App Store* (in particular its parent company *Apple*; 1<sup>st</sup> place in the global CompaniesMarketCap ranking);
  - *Windows Store* and *LinkedIn* (in particular their parent company *Microsoft*; 2<sup>nd</sup> place);
  - *Google Play* (in particular its parent company *Google (Alphabet)*; 4<sup>th</sup> place);

- *Amazon Marketplace* (in particular its parent company Amazon; 5<sup>th</sup> place).

In view of the dominant virtual, online way of the activities platform companies do, there is a misconception that it is easier for these firms to enter foreign markets and they do not need to acquire assets overseas to enter a new foreign market. However, as noted earlier in the work of Stallkamp (2019), they face a number of difficulties when entering foreign markets, namely:

1. The need for local adaptation (e.g. to meet local tastes, preferences, or regulatory requirements);
2. The need to implement sales and customer support in the local language;
3. The need to open regional offices or branches due to the “material nature” of the product sold through a platform company to provide sales, marketing and customer service functions, to build relationships with stakeholders and solve unforeseen problems on the spot (p.14).

The main objective of this work is to analyze strategies of platform companies’ internationalization dominating on the global and/or regional market. To analyze international strategies, the approach of Stallkamp and Schotter (2019) was used in building an international strategy for platform companies, namely:

1) Determining the way of entering the foreign market (a) export, b) non-equity methods (contract manufacturing, services outsourcing, contract farming, licensing, franchising, management contracts, concessions, strategic alliances and contractual joint ventures) or, c) direct entry mode abroad (WIR, 2011, p. 128);

2) Defining the strategy of international companies according to Bartlett and Ghoshal’s matrix (Bartlett & Ghoshal, 1989);

3) Choosing a foreign market;

4) The likelihood of leaving the foreign market.

According to Stallkamp & Schotter (2019), the strategies platform companies choose to go overseas result from direct and indirect network effects that are key firm specific advantages (FSAs) for platform companies. Network effects are ‘*the incremental benefit gained by an existing user for each new user that joins the network*’ (Johnson, 2018). There are other terms synonymous to network effects, e.g. ‘network externality’ or ‘demand-side economies of scale’. In simpler words, network effects is a phenomenon of the platform value increase, which depends on the growth of platform users and complementors. According to Stallkamp & Schotter (2019), they can be

a) within-country and cross-country (p. 8);

The boundaries between these types are rarely expressed in practice and complement the classical typology of network effects (direct and indirect). The lack of boundaries can be explained primarily by the fact that a company can improve or differentiate its product(-s) or take over local companies in a foreign market.

b) location-bound (as in the case of platform companies specializing in food delivery, providing taxi, car-sharing or carpooling services) and non-location-bound (for example, mobile operating systems, online ticket booking platforms, etc.) (p. 10).

Stallkamp & Schotter claim that depending on the type of boundedness to assets location network effects have, platform companies choose different internationalization strategies. This paper serves the outcome of the results on Stallkamp & Schotter’s hypotheses’ approval by means of the analysis of 22 platform companies.

## **Internationalization strategies of platform firms forming non-location-bound network effects**

### ***Hypothesis 1***

*A) If cross-country network effects (direct or indirect) appear when the platform is launched, a large-scale user base (in the country of origin or in other countries) allows the platform company to generate*

*FSAs that are non-location-bound to the assets in the country of origin (Stallkamp, Schotter, 2019, p. 10). B) Platform companies generating cross-country network effects are likely to enter the overseas market with the direct entry mode. C) Platform companies generating cross-country network effects are likely to adopt a global strategy when entering overseas market(-s) (Stallkamp, Schotter, 2019, p. 12).*

FSAs in the form of network effects that are not bound to the location of assets are more likely to enter the global market almost without hindrance, but with a competent study of the external business environment abroad and choosing the most effective strategy depending on the nature of the product being sold. In this case, companies traditionally enter new markets on their own. Companies with FSAs in the form of location-bound network effects typically operate in a specific country(-s) market and use strategic alliances or partnerships as a way to enter a foreign market.



**Table 1. Analysis of internationalization strategies of platform companies with non-location-bound network effects**

Company name, country of the parent company	Type of product, NE's boundedness to the location of assets producing and storing the product in the country of origin	Network effect type	Internationalization level	Entry mode, form	Strategy type by Bartlett & Ghoshal's matrix	Foreign market choice	Probability of leaving the foreign market
Airbnb (USA)	Tangible – real estate; no boundedness	Direct within- and cross-country + indirect within- and cross-country	191 countries (Adamiak, 2019)	Direct entry mode; subsidiary companies	Global	High probability of selecting countries that are close in terms of culture and with existing socio-economics	Unlikely
Alibaba (China)	Tangible – goods (machinery, equipment, clothing, souvenirs, etc.); no boundedness	Direct within- and cross-country + indirect within- and cross-country	All countries except India, North Korea (Republicworld, 2020)	Export and direct entry mode; storage warehouses for vendors' needs	Global	Global. Company's vision – “build future infrastructure for trade” (Alibaba Group, 2021)	Unlikely
Amazon Marketplace (USA)	Tangible – goods; no boundedness	Direct within- and cross-country + indirect within- and cross-country	18 countries (Wikipedia, 2021a)	Direct entry mode; storage warehouses and pick-up points	Global	High probability of selecting countries that are close in terms of culture and with existing socio-economics	Unlikely
Apple App Store (USA)	Intangible – applications; no boundedness	Direct within- and cross-country + indirect within- and cross-country	All countries except Cuba, North Korea, Sudan, Syria (Time, 2014)	Export and licensing – entry modes of Apple Inc. – a firm producing gadgets applying Apple iOS and App Store	Global	Global	Unlikely
Facebook Social Network (USA)	Intangible – communication (including business), advertising; no boundedness	Direct within- and cross-country + indirect within- and cross-country	All countries except China, Iran, North Korea, Syria (Wikipedia, 2021c)	Direct entry mode; acquisition of Instagram, patent deals with Microsoft and IBM (Wikipedia, 2021d)	Global	Global	Unlikely
Google Play (USA)	Intangible – applications; no boundedness	Direct within- and cross-country + indirect within- and cross-country	130 countries (Wikipedia, 2021e)	Licensing	Global	Global	Unlikely
Instagram (USA)	Intangible – communication (including business), advertising; no boundedness	Direct within- and cross-country + indirect within- and cross-country	All countries except China, Iran, North Korea, Syria (Wikipedia, 2021c)	Direct entry mode	Global	Global	Unlikely
JD.com (China)	Tangible – goods (consumer electronics, equipment, clothing, souvenirs, etc.); no boundedness	Direct within- and cross-country + indirect within- and cross-country	Over 200 countries and regions (Joybuy, 2021)	Export; partnership agreement and cross-bordering with Ulmart, partnership agreements with SPSR, VKontakte, Facebook, Yandex.Direct, Yandex.Money, Qiwi, PayPal,	Global	High probability of selecting countries that are close in terms of culture and with existing socio-economics	Unlikely

LendingClub (USA)	Intangible– lending between individuals; no boundedness	Direct primary within- and sometimes cross-country + indirect primary within- and sometimes cross-country	USA	Google, Microsoft(with Russia) (NewRetail, 2015); Acquisitions of Springstone Financial; strategicalliance with Union Bank; partnershipagreement with Google, BancAlliance, HomeAdvisor and Sam’s Club (inUSA), Alibaba.com (in China) (Wikipedia, 2021f)	Home replication	North America	Likely
Pinterest (USA)	Intangible– communication, photos andimages stock, advertising; noboundedness	Direct within- and cross-country + indirect within- and cross-country	All countries except Bangladesh, China (Quora, 2018)	Acquisitions of Livestar, URX, Jelly Industries(in USA)	Global	Global	Unlikely
Rakuten (Japan)	Tangible– goods (consumer electronics, equipment, clothing, souvenirs, etc.); noboundedness	Direct within- and cross-country + indirect within- and cross-country	30 countries (Rakuten, 2021)	AcquisitionsofBuy.com, Priceminister (inFrance), Ikeda (in Brazil), Tradoria (in Germany), Play.com (in Great Britain), Wuaki.tv (In Spain) andKoboInc.	Global	High probability of selecting countries that are close in terms of culture and with existing socio-economicities	Unlikely
Salesforce Exchange (USA)	Intangible– applications + search for cloud consulting partners; noboundedness	Direct within- and cross-country + indirect within- and cross-country	AllcountriesexceptCuba, Iran, North Korea, Syria, Republic of the Crimea (Salesforce, 2021)	Partnership agreementwithBluewolf, Accenture, Cloudfreach (Wikipedia, 2021i)	Global	Global	Unlikely
Snapchat (USA)	Intangible – communication (including business); noboundedness	Direct within- and cross-country + indirect within- and cross-country	Allcountriesexcept China, India, Iran, North Korea, Qatar, Saudi Arabia UAE (DigitalInformationWorld, 2018; Quora, 2019)	Acquisition of Bitstrips (in Canada) (TheGlobe and Mail, 2016)	Global	High probability of selecting countries that are close in terms of culture and with existing socio-economicities	Unlikely
Steam (USA)	Intangible– computer games + communication; no boundedness	Direct within- and cross-country + indirect within- and cross-country	Allcountries. Exception - gift products purchased in Armenia, Belarus, Georgia, Kazakhstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan, Ukraine can be redeemed by users from these countries (Steam, 2021).	Partnership agreementwithLionsgate (in USA), direct entry mode to China –SteamChina beta-version launch (Wikipedia, 2021j).	Multidomestic	Global	Unlikely
TripAdvisor (USA)	Intangible–information on attractions, lodging, restaurants, entertainment,	Direct within- and cross-country + indirect within- and cross-	All countries except China (Wikipedia, 2021k)	Acquisition ofHolidayWatchdog, holidaylettings.co.uk, Tripod (inUK); IAC/InterActiveCorp,	Global	Global	Unlikely

	airlines and cruises; no boundedness	country		SmarterTravelMedia, TheIndependentTraveler, WhereI'veBeen, Wanderfly, Jetsetter, LateGuru, Oyster.com, Citymaps.com, DoorDash, VacationHomeRentals, Viator ( <i>in USA</i> ); Kuxun.cn ( <i>in China</i> ); Jens, SeatMe ( <i>in Netherlands</i> ); BestTables ( <i>in Portugal</i> ); Dimmi ( <i>in Austria</i> ); Bokun ( <i>in Iceland</i> ); LaFourchette ( <i>in France</i> ); Mytable ( <i>in Saudi Arabia</i> ) (Wikipedia, 2021k).			
Twitter (USA)	Intangible– news, microblogging, communication; no boundedness	Direct within- and cross-country + indirect within- and cross- country	All countries except China, Iran, North Korea; intermittent blocking in Egypt, Iraq, Turkey, Turkmenistan, Venezuela (Wikipedia, 2021l)	Acquisition of Summize, Values of n, Mixer labs, etc. ( <i>in USA</i> ); We Are Hunted ( <i>in Australia</i> ); Mesagraph ( <i>in France</i> ); SecondSync ( <i>in UK</i> ); ZipDial ( <i>in India</i> ); Fastlane ( <i>in Austria</i> ); Revue ( <i>in Netherlands</i> ).	Global	Global	Unlikely
WeChat (China)	Intangible– communication; no boundedness	Direct within- and cross-country + indirect within- and cross- country	All countries except India and North Korea (Wikipedia, 2021n).	Partnership agreement with Burberry, L'Oréal China (Wikipedia, 2021n)	Global	Global	Unlikely; exception - India
WindowsStore (USA)	Intangible– apps, games, movies, desktop themes; no boundedness	Direct within- and cross-country + indirect within- and cross- country	38 countries (Cnet, 2012)	Direct entry mode	Global	Global	Unlikely

A) Platform companies (17 out of 18), whose network effects are non-location-bound to the location of assets producing and storing a product in the country of origin, are increasing within- and cross-country network effects. The exception is *LendingClub* that has failed internationalization due to the challenging external institutional environment, namely separate legal systems of the countries differently regulating the activities of lending online services there. Therefore, it generates primarily within-country network effects.

*Examples: Airbnb, Alibaba, Amazon Marketplace, Apple App Store, Facebook Social Network, Google Play, Instagram, JD.com, Pinterest, Rakuten, Salesforce Exchange, Snapchat, Steam, TripAdvisor, Twitter, WeChat, Windows Store.*

B) Part b of hypothesis referring to platform companies generating cross-country network effects is fully confirmed. Most companies do enter the market on their own (for example, *Airbnb, Alibaba, Amazon Marketplace*, etc.). Most companies (17 out of 18) do enter the market on their own or use a mixed way (both a direct entry mode + non-equity methods or exporting). However, *JD.com* is applying exporting as a way to enter foreign markets.

C) Part c of the hypothesis is confirmed. 16 out of 18 companies of this type use a global strategy. The exceptions are the American platform company *Steam*, which focuses its product – games, applications and films – on buyers of a particular region and, therefore, implements a multidomestic strategy. *LendingClub* applies a home replication strategy and is considered as an exception as well.

## **Internationalization strategies of platform firms forming location-bound network effects**

### **Hypothesis 2**

*A) Within-country network effects (direct or indirect) appear when the platform is launched, a large-scale user base allows the platform company to generate FSAs that are primarily location-bound to the assets in the country of origin (Stallkamp, Schotter, 2019, p. 10). B) Platform companies generating primarily in-country network effects are likely to enter the foreign market by means of acquisitions or alliances (Stallkamp, Schotter, 2019, p. 12). C) Platform companies that generate primarily in-country network effects are likely to use a multinational strategy (Stallkamp, Schotter, 2019, p. 13).*

**Table 2. Analysis of internationalization strategies of platform companies with location-bound network effects**

Company name, country of the parent company	Type of product, NE's boundedness to the location of assets producing and storing the product in the country of origin	Network effect type	Internationalization level	Entry mode, form	Strategy type by Bartlett & Ghoshal's matrix	Foreign market choice	Probability of leaving the foreign market
Baidu (China)	Intangible– search engine (as well as an online encyclopedia, a video portal, a social network, a referral service, electronic maps, a system for entering hieroglyphs (Wikipedia, 2021b); boundedness( <i>platform interface language</i> )	Direct primary within- and sometimes cross-country + indirect primary within- and sometimes cross-country	Mainland China, Hong Kong, Macau and some countries outside Chinese jurisdiction (Brazil, Egypt, Indonesia, Malaysia, Thailand) (Wikipedia, 2021b)	Acquisition of Peixe Urbano (PU) (in Brazil);	Home replication	High probability of selecting countries that are close in terms of culture and with existing socio-economics	Unlikely. Exception – Vietnam and India (RBK, 2019; BBC news, 2020)
LinkedIn (USA)	Intangible– staff recruiting; boundedness( <i>human resources</i> )	Direct primary within- and sometimes cross-country + indirect primary within- and sometimes cross-country	150 countries (Wikipedia, 2021g)	Acquisitions of mspoke, SlideShare, Pulse, Bright.com, Lynda.com and other 13 companies (in USA), Careerify (in Canada)	Global	Global	Unlikely
Match.com (USA)	Intangible– dating and communication; boundedness ( <i>human resources</i> )	Direct primary within- and sometimes cross-country + indirect primary within- and sometimes cross-country	50 countries (Wikipedia, 2021h)	Partnership AOL and MSN, acquisition of Hyperconnect	Multidomestic	High probability of selecting countries that are close in terms of culture and with existing socio-economics	Unlikely
Uber (USA)	Intangible– taxi search; boundedness( <i>human resources</i> + <i>taxi station functioning in a separate country</i> )	Direct primary within- and sometimes cross-country + indirect primary within- and sometimes cross-country	69 countries (Wikipedia, 2021g)	Acquisition of Careem (in UAE); Postmates, Otto (in USA)	Global	High probability of selecting countries that are close in terms of culture and with existing socio-economics	Unlikely; exceptions – Vietnam, Cambodia, China, Malaysia, Myanmar, Philippines

A) Platform companies, whose network effects are location-bound to the assets in the country of origin, increase predominantly within-country network effects (4 out of 4). However, according to the study, this did not affect the success and scale of the internationalization of companies compared to those whose network effects are non-location-bound to the assets. *Baidu* is an example of a company whose network effects are not tied to asset location, but tied to a product type — a monolingual search engine primarily targeting the Chinese-speaking population.

*Examples: Match.com, LinkedIn, Uber.*

B) Part b of the hypothesis applied to platform companies generating primarily within-country network effects is fully confirmed – companies use partnership agreements or acquisitions as ways of both conquering the domestic market and entering foreign markets.

*Examples: Match.com, Baidu, LinkedIn, Uber.*

C) Part c of the hypothesis is partially approved as the results show. 1 out of 4 companies of this type – *Match.com* – uses a multidomestic strategy. *Baidu* has chosen a home replication strategy, which has little in common with either a global or transnational strategy, what made it possible to consider *Baidu* confirming the proposition. However, the other 2 platform companies, namely *LinkedIn* and *Uber*, apply a global strategy.

## DISCUSSION

Deeper research of traditional drivers in terms of theory of internationalization (local customer needs, critical mass, in-house competencies, synergy advantages, economies of scale, multinational corporate accounts, first-mover advantages, internationalization of competitors) (Ohlen, 2002) shows that the former are accompanied by another key driver applied to platform companies, namely a digital maturity, especially efficiency of the digital platform strategy. This driver is the crucial source for company's viability and competitiveness primarily on the national market and overseas. This is also confirmed by Stallkamp & Schotter (2021) who note that platform companies should consider the development and internalization perspectives of FSAs other than solely network effects, but core activities in terms of strategy that create value (e.g. platform interface control, R&D, customer analytics, technical support services, and partner interactions). This allows underlying the relevance of further detailed study of works dedicated to the concept "digital platform strategy" in the scientific community, as well as its components, and design and use a model for a comparative analysis of the complexity and advancement of digital platform strategies companies have up to date. In addition, national and international interests among countries, the state of economic and mutual regulatory rights and privileges towards each country, as well as cultural proximity are indispensable factors influencing the decision of a business where and how to internationalize. Besides, it is feasible to check if the structure of the assets platform companies own (asset light, mixed or heavy by Evans & Gawer (2016)) influence their entry mode choice. It should also be noted that although American, Chinese, and Japanese companies are indeed very competitive, this does not mean that their market entry mode, choice, in particular, can be applied to platform businesses originating from other countries. Therefore, it is feasible to test all three propositions on the platform companies originating from other countries, developing in particular and less developed in terms of digitalization.

## CONCLUSION

Indeed, the case study of 22 transaction platform companies demonstrates that platform companies set their internationalization strategy depending on the nature of network effects (within-country

and/or cross-country and location-bound and non-location-bound). Platform companies, whose network effects are non-location-bound to the location of assets producing and storing a product in the country of origin, are increasing within- and cross-country network effects, use majorly a direct entry mode or rarely exporting and implement mainly a global strategy. It is of note that most firms use a mixed entry mode (both a direct entry mode + non-equity methods or exporting) depending on the market they enter, its proximity, and the depth of its risks and opportunities knowledge, which is an important implication to hypothesis 1. Platform companies, whose network effects are location-bound, increase predominantly within-country network effects, use partnership agreements or acquisitions as entry mode. However, such companies go beyond hypothesis 2 and apply either a multidomestic, home replication or global strategy.

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# ALBANIAN BANKING INDUSTRY PATHWAY TO SUSTAINABLE DEVELOPMENT

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## ABSTRACT

*The emergency of Covid-19 has increased the awareness of most businesses, including banks, regarding their policies and practices toward sustainability. Their efforts have now been transferred from the simple practices of social responsibility to active steps toward compliance with the ESG (Environmental, Social, and Governance) principles. The Albanian banking sector, as one the most important in the local economy is about to face this challenge and needs to take appropriate steps and measures to adopt the framework as an unavoidable action to comply with international regulations and to continue and be competitive in the international markets. As part of international banking groups, some banks have already “walked through this path” and they have changed their focus toward sustainability by exploring the potential impact of the ESG framework, altering their business practices, and establishing new policies or practices in their investment decisions. The aim of this paper is to explore what banks in Albania have done in this regard and to analyze the changes in their strategy, implementation, and alternation of business models derived from the potential influence of ESG principles.*

**Keywords:** Banking Industry, ESG principles, Sustainability

**JEL CLASSIFICATION CODES** G21, G38

## INTRODUCTION

One of the latest elements given prominence worldwide, especially after Covid-19, has been the environmental social, and governance principles. Yet the attempt to make companies aware of their social responsibility started in the 60s and gained the most attention in 1992 from the Earth Summit in Brazil (Meka, 2019). Later on, in 2011 a large emphasis has been given by the European Commission to corporate social responsibility as a way to enable businesses to be closer to society and ensure their longevity (Meka, 2019). In the next organized attempt of the United Nations Environment Programme (UNEP) Inquiry and the Principles for Responsible Investment Directive (PRI) in 2015, there were introduced 17 sustainable development goals (SDGs) regarding the environmental (E) issues related to the natural environment and systems, the social (S) issues related to the community, and governance (G) issues related to the corporate governance (Bruno & Lagasio, 2021). During these decades the philanthropic role of corporations has been transformed into specific strategies that focus on long-term success and business continuity through the acknowledgment of responsibility and partnership with the wider society.

In 2016, the European Commission developed a detailed EU sustainable finance strategy that committed to long-term inclusive development and making investment decisions that would foster environmental, social, and governance of financial institutions (Bruno & Lagasio, 2021). The goals of sustainable finance strategy go along with the European Green Deal that has arisen to improve people's well-being and create a healthier future for the next generations (EU Green Deal, 2019). The current regulatory framework imposed by the European Banking Authority (EBA) includes the ESG disclosure obligations of the banks in the non-financial statement regulatory. Nevertheless, there is an incoherence between the regulatory framework of EBA and the national legal framework for different European when it comes to ESG factors.

In the turmoil of these fast developments and trying to catch up with the latest requirements, the banks in Albania, as part of international groups and as businesses that embrace new practices in the progress of the economy, have adapted their reporting of social responsibility and have tried to comply with the sustainable development goals in terms of procedures and products. Since 2015 they are reporting on a yearly basis to the Albanian Association of Banks (AAB) the type and the amount that they dedicate to activities linked with the completion of the SDGs as well as the number of products dedicated to fulfilling a specific goal. The Corporate Social Responsibility Report has become an annual report where investors can create an idea of how banks are involved in social life and how they contribute to achieving no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action and partnerships for the goals.

This study identifies that there exists a gap between the actual Albanian legal framework in the implementation of ESG policies compared to European peers; even though attempts to report the activities have started since 2014. Next, it makes an overview of how the banks have been investing in the completion of the SDGs, how they've changed their policies, and what products they've been inventing to support those goals in the time frame of 2015-2021. Using the Annual Corporate Social Responsibility Reports and analyzing the data, we're able to see which goals are gaining the most attention from banks and which banks have been more active in completing these goals. The results seem promising and are creating new areas for further research for the author.

## **THE DEVELOPMENT OF THE ALBANIAN BANKING SYSTEM**

It is of one's interest to overview how the transformation of the banking system has emerged in the last 15 years and to understand the money flow and the events that shaped the banking system into today's situation.

In September 2007, the Bank of Albania approved the sale of Popular Bank, which belonged to 32 Albanian shareholders, to Societe Generale Bank. So, Popular Bank became part of Societe General Group. In December 21, 2007, the American Bank of Albania announced the merger with Italian-Albanian Bank. Both banks were reformed under 'Intesa San Paolo Bank, Albania'. These banking sector consolidation trends continued in 2008 when it was approved the purchase of share capital of the Union Bank from the European Bank of Reconstruction and Development. By the end of 2007, the number of commercial banks was lowered to 16.

The bankruptcy of Lehman Brothers in September had a huge impact on the global financial crisis in October 2008. Although the Albanian banking system was not directly linked to

international financial markets, trade and economic relations with other countries contributed to the rise in uncertainty thus making the world's financial crisis have spillover effects in Albania. Albania had lots of transfers from emigrants which accounted for 800 million euros per year. Deposits were affected by the crisis where the interest rates were lowered by 12.4 %. These changes in the deposits were a direct consequence of the perception of the uncertainty that this crisis could affect the Albanian economy. Banks met each withdrawal request by being convinced again that the money will be restored after a few months in the system. And this happened. By April 2009, deposits began to rise again. In 2009, the influential participation of Calik Holding A.S. Turkiye (indirect shareholder) had increased from 25.4 % to 45.6 % in the equity capital of the National Trading Bank. The same year, Dardania Bank changed its' name to Veneto Bank.

Periodic changes in legislation were made to reinforce the legal framework and regulate the banking system. These changes have been accompanied by increased demand for bank licenses, but after the global crisis, the interest of foreign banks in the Albanian banking system fell.

In 2012 National Bank of Greece changed its name to NBG Bank of Albania. Alpha Credit Bank of Albania renamed itself Alpha Bank Albania. Both banks were previously acting as foreign branches of the respective Greek banks. The name changes also revised their status as Banks according to the local legislation, which obligated them to align with the local legal requirements defined by the Bank of Albania. On June 14, 2012, Credit Agricole announced the acquisition of Emporiki Bank. Three years later, on May 12, 2015, Credit Agricole Bank decided to sell its Albanian affiliate. This decision seemed to be related to the group's policies and strategies to lower the exposure to Central and South-Eastern Europe. Shares were transferred to "Tranzit" sh.p.k, a non-bank financial institution, which was later on transformed into ABI Bank.

The banking sector was reduced to 14 banks, as these events happened. On June 29, 2017, Intesa San Paolo Bank and Veneto Bank announced the merger agreement between them. 100 % of Veneto's capital has passed to Intesa Sanpaolo in December 2017. The absorption of Veneto Bank came after the union of the parent company in Italy. After the acquisition, Intesa Sanpaolo Bank was expected to be the third largest bank in the country, with 11.8 % of the total, after BKT and Raiffeisen Bank.

On February 2, 2018, ABI bank and NBG signed the agreement for the sale of shares between the two parties. On June 6, 2018, ABI (American Bank of Investments) announced the successful closing transaction for the acquisition of NBG. NBG has been operating in Albania since 1996.

Based on the Greek restructuring plan following the public debt crisis of 2015, Tirana Bank, part of Pireaus Group was also on sale. On August 7, 2018, Piraeus Bank announced its entrance into an agreement for the sale of shares of its subsidiary with the Balfin Group and the Komercijalna Banka. On November 2018, Union Bank has bought the International Commercial Bank known as ICB. The Malaysian bank was licensed in January 1997, before the collapse of pyramid money scams in Albania. Banks were operating separately till the acquiring process was completed. The same year Credit Bank of Albania was out of the market. The latest event of 2018 in the banking industry was the announcement between OTP and Societe Generale Albania. OTP declared that would acquire Societe Generale Albania on December 22nd, 2018. Hungary's OTP planned to expand in Albania through acquisition by buying the Albanian branch of Societe Generale Bank. OTP's deputy CEO said: "We had the opportunity to buy, not the largest bank, but a good quality bank, with good growth prospects, and of course, we do not exclude that after a few years on this basis, we (might) acquire another bank." (Hungary's OTP Bank eyes expansion after buying SocGen's Albanian unit, 2019). This saying has not waited

long before it became a reality with OTP following its expansion policy in the banking sector. By the end of 2018, the number of commercial banks operating in Albania was decreased to 14 banks.

In 2019, Eurosig ShA, one of the groups that previously offered in buying NBG Bank, bought the stocks of UBA by consequently winning 21% of the total equity of the Bank. In the meantime, OTP has consolidated its position in the market and prepared itself for a new acquisition that was announced in December 2021, that of Alpha Bank. The deal is completed recently in July 2022.

The banks currently operating in Albania and considering the latest developments are 11: the American Bank of Investments (ABI), National Commercial Bank (BKT), Credins Bank, FiBank Albania, OTP (includes also Alpha Bank lately taken over), Tirana Bank, Intesa Sanpaolo Bank Albania, United Bank of Albania (UBA), Raiffeisen Bank Albania (RZB), Union Bank, Procredit Bank. The adjustment of the expansion policies different international groups had after the crisis of 2015 has decreased also the foreign capital invested in the banking market. By the first quarter of 2021, the Albanian capital in the banking sector has more than doubled from less than 14% to 30% of their equity holding as part of the overall equity. The acquisitions made in 2018 have had high and fast returns for the investors, who have also attempted the next buying moves and completed the second acquisition. The high returns on the other hand are also accompanied by a stable level of competition in the market, which shows that the acquired banks were not effective and competitive, as such their absorption has not created any reduction in the competition. Additionally, the new consolidation waves have been proven a challenge from the regulatory part, which has never rested first by creating the legal framework on the privatization, then on licensing, in continuance on competition and finally on mergers and acquisition and it does not end there.

Understandably, such a flourish in the banking system would require at least regulation and monitoring from the authorities, to keep the system and the economy safe. The Bank of Albania had to deal with a lot of circumstances where fast and relevant regulations had to be prepared and rule the banks to keep control and ensure soundness.

Referring to the reports of the Bank of Albania for 2021, 12 banks are operating in the Albanian market, owned by foreign and local shareholders with an operating network of 421 branches and agencies. Foreign capital is distinguished in 8 of them, while 4 banks have a majority of capital owned by local investors. Of the 8 owned primarily by foreign investors, 6 belong to EU countries, 1 to Turkiye, and 1 to Saudi Arabia. What is also important to note here is that the Albanian financial market has also had an increase in the licensing of non-banking institutions and exchange offices, while the Saving- Credit Union has just remained one and most of the Credit-Saving Companies have been closed and their license revoked.

It is important to pinpoint also some of the main characteristics of the banking sector in terms of assets and equity to understand their specifics.

The banking sector's total assets consist of 93.84% of the GDP (Gross Domestic Product) and have reached an amount of 14.78 billion euros (approximately) by the end of 2021. The total loans by the end of December 2021 were around 5.32 billion euros approximately, of which 34% consists of retail loans and 63% of business loans. The total deposits of the sector reached 11.94 billion euros of which 80.05% were retail deposits and the remaining were business deposits. It seems fair that the intermediation role of the banks in the local market has been exactly to transfer funds from the household to the firms.

According to the Bank of Albania report over the year 2021, the largest increase in loans around 33.6% was in the type of overdraft to businesses, while next to it with 14.4% was the increase over the year of the mortgage loans for individuals. The highest percentage of loans was noted in the wholesale and retail trade sector followed by the energy sector. The retail loans were mainly oriented to completing the buying of residences (24.9%) and followed by loans given to businesses to buy real estate (19.1%). Next to it with a percentage of 18.7% are the loans given to the business for “equipment and machinery” and 18.5% were given as “overdrafts” for businesses. The deposits have faced an increase of 10.25% compared with the previous year and are concentrated in the largest banks of the sector, with 41.1% of them being in local currency.

The equity capital of the sector having as the main element the shareholders’ equity has followed also an increasing trend of 6.96%, reaching the level of 1.46 billion euros. The shareholders’ equity represents 10% of the total assets. The capital adequacy ratio of the sector was 18.02% and the Return on Equity (ROE) and Return on Assets was equal to 12.89% and 1.31% respectively with a slight increase from 2020. Non-performing loans ratio of the sector has noted a decrease from the previous year reaching 5.65% at the end of 2021, while the liquidity ratio has reached 391% from the one the regulator has set. Finally, the net income of the sector was positive and had reached 180 million euros approximately by the end of 2021, which was slightly higher than last year.

It is obvious from the above that finally Albania has a structured banking sector, well-regulated by the Bank of Albania, monitored periodically, and always under control. The banks play the most important role in the economic growth of the country and they have a very important role in the intermediation of the market. The central bank aims for a sound system and controls every aspect of it in detail and publishes the annual reports achieving transparency to the investor and depositor’s basis.

## **THE CHALLENGES OF THE NEAR FUTURE AND THE PATH TO SUSTAINABILITY**

The above was a summarized testimony of what the banking sector has gone through, and how it was affected by social, economic, political, and other factors throughout history. With remarkable intentions of foreign investors to dominate the market and the economy, a non-discussing ruling of the dictatorship for more than half a century, and a struggling transition period over the last 30 years, we’re now facing a consolidated banking sector, with an adequate capital level, acceptable profitability, and a healthy portfolio. The sector’s importance is shown in its high level of representation as a percentage of the GDP, but also its non-discussable role in the intermediation of funds and formalization of the economy. Boosting the banking system means a boost in local development and an increase in entrepreneurship and its value in the economy.

Nowadays, the Albanian banking sector has to additionally deal with:

1. Consolidation waves: there are still some skeptics considering that 11 banks are more than what the market can obtain. So, we’re expecting the next merger and acquisition.
2. Increased liquidity: banks are not offering alternative ways of investing the deposits, with a liquidity ratio being 3 times the required one and more than 80% of the assets comprised by deposits. It is time that money is channeled differently into alternative investments that most probably investors will value more.

3. Competition: keeping the competition unharmed through the changes that are expected to happen can only be achieved through diversification or expansion. Most of the banks are commercial banks, while investment banks are inexistent.
4. Bad loans and informality: the economy is still facing a high level of bad loans (even though managed and reduced over the years). While being cash economy informality exists with no specific measure to define its level.
5. Education: financial education is still at low levels among the general public, which also creates an obstacle for the banks to introduce new products, invest in plastic money, or offer new digital products to a wide range of consumers.

Besides the above, which seem very specific to the Albanian banks, there are also world challenges that banks need to be aware of, such as:

1. Pandemics, wars, and other unexpected shocks that bring with them increased inflation, uncertainty in the investors' basis, reduced investments, and generally increased risk.
2. Global issues such as climate change, that forces to ensure sustainability and transform into a cyclical economy.
3. Social and corporate responsibility policies that put the banks at the center of discussion on implementation and measures that are taken.
4. Technologic aspects of cyber security that involve new systems and increased awareness of cybernetic wars.
5. Crypto currencies and new fintech technologies that step toward a new reality.

With regard to the challenges referring to global issues and social and corporate responsibility it is found that there exists a gap between the regulations in Albania and the framework set by the European Banking Authority (EBA). The disclosure requirements for ESG under the current European Regulatory framework mandate taxonomy regulation, capital requirement regulation, and sustainable finance disclosure regulation. All three of them have as the main focus to classify the activities according to their environmental sustainability, to measure the risk related to ESG factors and the mitigation policies, and to disclose the financial resources of the sustainable development as well as to make them more comparable and accessible for the investors' basis (Bruno & Lagasio, 2021). Even though these mandates have been differently applied in different European countries it is no doubt that the Albanian banking system has by so far not applied any of these mandatory frameworks for the local banks.

The Corporate Social Responsibility Report is produced as a product of the self-awareness and self-motivation of banks, guided and organized by the Albanian Association of Banks, who have responded to the 2030 Agenda of the UN on the 17 goal developments. These annual reports make the reader aware of the goals themselves, how they can be applied, how banks have contributed to them, and to what amounts. It gives an overview of the "humanistic" profile of the sector and how active they are in the society, as well as it makes them aware of what are the main areas in need of further investment and support in the country.

The contribution of the banking sector in the accomplishments of their social responsibility has increased by 170% from 2015 till 2021, referring to table 1. Banks are more active year to year and more inclusive in the number of goals that they participate in. With an exception during the pandemic, where major uncertainties made banks reluctant in their spending and contribution towards the sustainable goals, in all other years there is a tendency to increase the amounts spent. In 2016 there is a special year, when one of the banks has donated a building to become a school and in this year funds spent on education have the highest percentage compared to others. This

spending only includes the real expenses banks have made regarding the goal accomplishment, but besides in specific activities. But bank have also worked extensively in offering products and services designed in respect to the goal accomplishment. As such sustainability is achieved in embracing new products and procedures from the banks perspective, but also from the consumer's point of view, who use those products. As such a synergetic value is achieved between the banks as intermediates and households and business to achieve a more sustainable future.

**Table 1. The aggregate amount spent on CSR on yearly basis in euro**

<b>YEAR</b>	<b>CONTRIBUTION OF THE SECTOR</b>
2015	1,075,800.00
2016	4,279,800.00
2017	1,048,550.00
2018	1,187,000.00
2019	2,379,201.11
2020	1,604,249.29
2021	2,910,603.43

Source: CSR, AAB, calculations of the author

From year to year, the importance of goal fulfillment has changed reflecting the necessities of society. Looking at table 2 for example, in 2015, most of the funds have been spent on achieving good health, industry innovation and infrastructure, and building sustainable cities. In 2016 there has been spent a large amount (81%) in education, with one of the banks donating a building for a school. In 2017 funds spend included health, education, industry innovation and infrastructure, and sustainable cities, while in 2018 besides the above some percentages of funds are spent on responsible consumption production and partnerships for achieving the goals. During 2019 on focus were education, building sustainable cities, responsible consumption production, and making partnerships for goal achievement. During the pandemic year, 2020 funds have been assigned to health, education, work and economic growth, and responsible consumption production. Finally, in 2021 most of the funds (41%) have been spent on the “no poverty” goal accompanied by education, industry innovation, infrastructure, and for the first time some funds have been used for climate action.

**Table 2. The % amount spent on SDGs on a yearly basis**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>GOAL 1 NO POVERTY</b>	6.97%	0.33%	1.81%	2.53%	1.10%	3.53%	41.24%
<b>GOAL 2 ZERO HUNGER</b>	3.90%	0.75%	2.48%	0.67%	0.11%	3.28%	0.40%
<b>GOAL 3 GOOD HEALTH</b>	17.48%	3.50%	14.21%	4.55%	8.60%	23.81%	4.55%
<b>GOAL 4 QUALITY EDUCATION</b>	6.23%	81.78%	35.38%	12.13%	10.32%	12.11%	12.12%



<b>GOAL 5 GENDER EQUALITY</b>	0.60%	0.09%	0.95%	8.42%	0.76%	0.71%	0.02%
<b>GOAL 6 CLEAN WATER &amp;SANITATION</b>	0.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>GOAL 7 AFFORDABLE&amp; CLEAN ENERGY</b>	0.19%	0.00%	0.00%	0.84%	0.00%	0.13%	0.00%
<b>GOAL 8 WORK &amp; ECONOMIC GROWTH</b>	1.39%	0.23%	8.68%	1.68%	0.96%	16.14%	2.84%
<b>GOAL 9 INDUSTRY INNOVATION INFRASTRUCTURE</b>	21.84%	5.37%	11.64%	21.31%	7.00%	4.04%	14.22%
<b>GOAL 10 REDUCED INEQUALITIES</b>	1.14%	0.47%	2.38%	3.37%	2.41%	2.77%	1.31%
<b>GOAL 11 SUSTAINABLE CITIES</b>	27.89%	3.27%	15.35%	16.85%	19.98%	8.58%	5.69%
<b>GOAL 12 RESPONSIBLE CONSUMPTION PRODUCTION</b>	2.23%	0.12%	0.02%	0.00%	27.52%	18.16%	1.33%
<b>GOAL 13 CLIMATE ACTION</b>	1.58%	0.75%	0.60%	14.32%	4.03%	3.53%	15.64%
<b>GOAL 14 LIFE BELOW WATER</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>GOAL 15 LIFE ON LAND</b>	0.00%	0.47%	1.05%	0.93%	0.00%	2.83%	0.34%
<b>GOAL 16 PEACE AND JUSTICE</b>	0.00%	0.54%	0.38%	0.00%	0.00%	0.00%	0.00%
<b>GOAL 17 PARTNERSHIP FOR THE GOALS</b>	7.62%	2.34%	5.05%	12.38%	17.20%	0.38%	0.31%

Source: CSR, AAB, calculations of the author

In their major activities to achieve the goals of no poverty, zero hunger and good health banks have included donations of money and food to families or children in necessity, to orphanages, to elder's homes, donations to buy medical equipment for hospitals or renovation of hospital buildings, fund raising for specific research on diseases (down syndrome, autism, people with

special needs), blood donations, marathons, organizing activities for special categories in need etc. In the education goal, the support has been on organizing training activities for financial education, providing paid internships for students, providing scholarships and fellowships to students, supporting with teaching and didactic material, renovating (even donating) buildings for schools, involving students and pupils in activities, creating programs and curricula that serve the sector. In the infrastructure and innovation and building infrastructure the banks have contributed in building streets, parks, entertainment areas, supporting new business with hubs etc. In their accomplishment of the goal for sustainable cities, banks have again been very innovative introducing ways of reducing energy consumption, paper and participating in international projects by constructing partnerships towards the goals fulfillment.

But beside their contribution through examples, numerous have been the banks products linked with agricultural loans, loans for new businesses and SMEs, loans for green investments, loans for businesses run by women, loans for securing renewable energy towards the sector, loans for building highways and infrastructure, loans for electric term centrals for energy production, loans for students and loans for single parents, deposits for children, credit cards for all categories etc. This tremendous support that extends beyond just doing business and making profits not only shows us the fact that bank work for a better society, but they are considering their role very essential and seriously undertaking all necessary action for a better economy, society and climate. They are the front line in what all other businesses should do and follow.

Along with the good facts of banks being involved in the process of sustainability actions, there are still a lot of goals that have very low or almost no funds involved like gender equality, clean water and sanitation, affordable and clean energy, life below water, life on land and peace and justice. These goals are almost left aside from the banks. This shows the fact that they have been mostly concentrated on the immediate necessities of the economy and society like poverty, health, education and infrastructure. For many years the country has been among the poor countries of the world and in some cases poverty has been the main problem of the society. With the years passing the focus has been extended to other dimensions of the society as well. Building the infrastructure and offering decent health services continue to be one of the most important areas that needed major investing. And finally the education has been and continues to be one of the major areas that the need for funds is again tremendous.

Anyhow after covid-19 almost everyone has understood that there is another very important need for the humanity: to remain aware of the changes in the climate, land and water that may be accompanied with pandemics, natural disasters and threat for the humanity. We believe that Albania and banks in Albania soon will become very alert on the matter and will start investing in other goals too. But this needs a more inclusive society and more educated people that understand the importance of the recent developments and certainly more funds dedicated. The role of sustainable finance is gaining tremendous importance in our country too. We believe that very soon the regulator (Bank of Albania) will adopt the EBA framework and then banks will be evaluating better their options towards sustainable finance.

## CONCLUSIONS

The Albanian banking system has gone through a very difficult pathway to find the form and obtain the importance that has today. It is quite obvious that to have a strong country and economy it is necessary to have a healthy and stable financial system that serves the interests of the country and the people. The Albanian banking system today has 11 banks, from which 25% of equity is concentrated in local investors and 75% in foreign investors. The Bank of Albania serves as the main regulator of commercial banks monitoring and supervising them. At the same time, the Bank of Albania serves the local government and applies monetary and fiscal policies trying to be in harmony with the further legal framework that EU countries have. The intermediary role of the banking sector has contributed a lot to the reduction in money laundering and corruption and at the same time has built trust in the general public. The significance of the banking sector is also depicted by the high percentage of its total assets in terms of GDP. Yet the banks not only need to face the challenges of the competition in the local market, but need to be aware of the global and international challenges and need to prove their flexibility accountability in applying the new ways of sustainable finance. Initial attempts of the banks are shown through the Corporate Social Responsibility Reports, where facts and figures show us that there is an increased importance in the accomplishment of Agenda 2030 of the UN on the sustainable development goals. Banks have been concentrating their efforts in areas where economy and society needs most. Our estimation is that in continuance they'll be investing more in other areas that are linked with the environment, climate, water and land as a result of global trends and the necessity to remain competitive.

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# THE ECOLOGICAL APPROACH TO THE PRODUCT IN THE OPINION OF CONSUMERS FROM GENERATION Z

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## **ABSTRACT:**

*A responsible approach to the future is based on the goals of sustainable development. The natural environment, which is one of the pillars of the triple foundation concept, is of particular importance in this area.*

*Nowadays, we fight global warming, pollution of the planet, water, and air pollution. This leads to the destruction and contamination of natural raw materials from which commercially available products are later made. In response to the problem that has arisen, more and more consumers consciously expect brands to have an ecological approach to the products they offer. The problem seems particularly important from the point of view of young people entering adulthood, in whose hands the future of the planet is. They are particularly sensitive to environmental problems from an early age and aware of the consequences of unsustainable consumption.*

*The presented work focuses on the ecological conditions for the use of marketing tools as BIO and ECO certification. The main aim of the study is to assess generation Z consumers' perception of organic certification. In addition, the level of demand for organic products on the Polish and Belarusian markets will be determined.*

*In order to implement the assumptions made, it was decided to conduct quantitative research among the Z generation living in Poland and Belarus. The data collection method used will be the Computer-Assisted Web Interview method, using a survey questionnaire.*

*Based on the conducted research, it will be possible to determine the demand of consumers on the market for ecological goods. The research results will help propose green marketing solutions for brands that will help strengthen the green and competitive economy.*

**Keywords:** *ecological goods, green marketing, sustainable consumers.*

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## INTRODUCTION

Ecology enriches our world and is crucial for human wellbeing and prosperity. It provides new knowledge of the interdependence between people and nature that is vital for food production, maintaining clean air and water, and sustaining biodiversity in a changing climate.

When products are signed as “produced organically” it means respecting the rules of organic producing organically means respecting the rules of organic farming. These rules are designed to promote environmental protection, maintain the biodiversity of Europe and build consumer trust in organic products. These regulations govern all areas of organic production and are based on a number of key principles, such as: prohibition of the use of GMOs; forbidding the use of ionizing radiation; limiting the use of artificial fertilizers, herbicides, and pesticides; prohibiting the use of hormones and restrict the use of antibiotics and only when necessary for animal health. This means that organic producers need to adopt different approaches to maintaining soil fertility and animal and plant health including:

- crop-rotation;
- cultivation of nitrogen-fixing plants and other green manure crops to restore the fertility of the soil;
- prohibition of the use of mineral nitrogen fertilizers;
- to reduce the impact of weeds and pests, organic farmers choose resistant varieties and breeds and techniques encouraging natural pest control;
- encourage the natural immunological defense of animals;
- in order to maintain animal health, organic producers need to prevent overstocking(European Commission, 2021).

The term bio-based product refers to products wholly or partly derived from biomass, such as plants, trees, or animals. Some of the reasons for the increasing interest in bio-based products lay in their benefits concerning depletion of resources and climate change. Bio-based products could provide additional product functionalities, less resource-intensive production, and efficient use of all-natural resources. Nevertheless, companies, governments, and consumers are confronted with numerous uncertainties. These may limit new products and technologies from growing into full-scale commercial applications. In this context, European Standards have been identified as essential elements in aggregating demand of existing and new bio-based products. (European Committee for Standardization, 2021)

Eco-labelling, recognized as one of the processes of Environmental Management in the enterprise, consists in giving organic products a special quality label showing that it is an environmentally friendly product. The ecolabel may therefore be awarded to products or services which meet the relevant environmental requirements. These criteria are developed by bodies such as the International Audit Chamber, the Council of the European Union, or the Global Ecolabelling Network (Każmierczak-Piwko, 2017).

This work is about ecological conditions for the use of marketing tools as BIO and ECO certification. The main aim of the study is to find out the attitude of generation Z to organic certification and the products labeled as BIO or ECO. Moreover, this research shows us the demand for organic products on the market in Poland and Belarus. The research results will help propose green marketing solutions for brands that will help strengthen the green and competitive economy.

## ECO TRENDS IN CONSUMPTION AND PRODUCTION

Due to the growing popularity of topics related to ecology, consumers and producers are expressing more and more interest in practicing this idea. There is a growing interest in a healthy lifestyle among consumers. It entails more willingness to choose products labeled as "eco" or "bio", in the hope that it is a better choice for our body, that it is healthier. Additionally, in recent years the popularity of vegetarianism, veganism, zero waste movement, or minimalism has undoubtedly contributed to a more conscious selection of products by consumers (Kaminski et al., 2020). To meet the needs of customers, manufacturers offer new options with information about ecological properties. There is an increasing availability of such products not only in specialist stores, which until recently could only be found in large cities and additionally offered a limited range but also more and more supermarkets and hypermarkets, such as Lidl or Carrefour, offer organic products. This often involves the sacrifice of an entire department, aisle, or at least a few shelves with the aforementioned assortment. A popular solution for lovers of ecological products is also online stores, which are becoming more and more popular (Żakowska-Biemans, 2017)

A big step in the care for the environment was encouraging consumers to use reusable shopping bags, introducing paper bags e.g. by clothing stores, using recycled plastic for the production of bottles (Jalil, Mian, Rahman, 2013). Producers see changes in society caused by current ecological trends. To maintain interest in their brand, they propose newer and attractive solutions that will satisfy even the most strict consumers.

## **ECOLOGICAL CERTIFICATES**

The use of certificates regulating the environmental performance of a given product is a confirmation to the consumer that the manufacturer has taken care not only of the quality of the product but also its confirmation by units that check legal and ethical regulations.

“Eco-label determines an increase of the product's perceived quality and leads consumers to believe that the product organic labeled is more environmentally friendly unlike products bearing no eco-label” (Atănăsoaie, 2013).

The most recognizable certificates include:

- **Fairtrade Certificate**

Fairtrade is one of the Fair Trade certification systems that is changing the situation for agricultural producers in Latin America and the Caribbean, Africa, Southeast Asia, and Oceania. Fairtrade works for higher purchase prices, decent working conditions, and fairer trading conditions for small farmers and workers (Fairtrade Polska, 2021).

- **Ecological Certificate “Euro-leaf”**

In the EU, there is a "Euro-leaf" logo, which is mandatory on prepackaged food products containing at least 95% organic ingredients (European Commission, 2020).

- **Ecocert**

ECOCERT is an international association specializing in the control and certification of organic products (including organic cosmetics). The criteria for product control are no synthetic fragrances, dyes, PEG emulsifiers, artificial fats, oils, silicone, and no testing on animals (Group Ecocert, 2021).

- **OCS Certificate**

Organic Content Standard (OCS) is an international, voluntary standard that verifies the supply chain of materials from a farm certified according to recognized national organic

standards. The standard is used to verify organic raw materials from the farm to the final product (Almeida, 2015).

- **GOTS certificate**

“These standards aim to define requirements to ensure organic status of textiles, from harvesting of the raw materials, through environmentally and socially responsible manufacturing up to labeling to provide a credible assurance to the end consumer” (International Working Group on Global Organic Textile Standard, 2008).

- **recycling sign**

It is a conventional symbol, meaning more or less "material is recyclable". It does not specify the type of material and is not legally conditioned.

- **seeding sign**

This sign says that the packaging is biodegradable. It is recognizable and used throughout the EU. The product or packaging marked in this way meets the international standards for compostability: EN 13432/14995, ISO 17088, and ASTM 6400.

- **FSC certificate**

The "FSC 100%" label means that the wood the product is made of comes only from FSC certified forests. The "FSC Mix" label signifies that the wood within the product is derived from FSC-certified, recycled, or controlled wood. The "FSC Recycled" label signifies that all wood or paper in a product is derived from reclaimed materials (FSC, 2021).

- **Bio-Siegel**

Bio-Siegel was founded in Germany in 2001 and is still the most widely used symbol for labeling organic food (Logona, 2021).

- **USDA Organic**

“For products of single ingredient such as organic fruits and vegetables, the label "USDA Organic." For products containing less than 70% organic ingredients, it is possible to mention what ingredients are organic but cannot have USDA labels. On the label shall include the name and contact details of the certification company.” (Atănăsoaie, 2013)

## **GENERATION Z AS CONSUMERS**

Generation Z was born between the early 1990s and early 2000s. They are people who have always known the Internet, so their requirements as to product quality and access to information are very high. (Wood, 2013) Representatives of this generation appreciate when consumption is ethical. Seventy percent of Gen Z respondents say they try to purchase products from companies they consider ethical and about 65 percent try to learn the origins of products they buy - where, how, and what it is made from. (Francis, Hoefel, 2018). Gen Z undoubtedly changes the market and forces companies to adapt to their needs. This generation is eager to look for information, investigate the sources, truth, and origin of products. They are rough consumers, but their attitudes will change the world for the better.

There is no doubt that it is a result of the right marketing strategy based on the behavior of Generation Z. It values authenticity and “realness.” Peer acceptance is very important to Generation Z, they need to belong. Their self-concept is partially determined by the group to which the Tween belongs. They are a global and diverse generation who come from a wider mix of backgrounds with different experiences and ideas. Generation Z values security more than ever. They are ready to be on a mission, confident, and very optimistic. They believe that they can impact the world and can visualize changing places with someone else and can project

possible behaviors. They quite possibly are the most imaginative generation and they think more laterally (Williams, Page, 2011). Consumers of the Z generation, due to their strong connection with the Internet, base their purchase decisions on the recommendations of people followed via social media (Tabassum, Khwaja, Zaman, 2020). Despite the large influence of social media, purchasing decisions are also guided by their personal values. This is especially true of decisions made for the sake of the environment and ethical choices. This generation is strongly influenced by increasing health, environmental, and appearance consciousness but also the need for uniqueness. (Ahmad, Omar, Rose, 2015).

## **RESEARCH METHODOLOGY**

Due to the growing interest in environmental awareness and the active search for information, thanks to the developing possibilities of the Internet, consumers of Generation Z are undoubtedly sensitive recipients of consumer content. To test their interest in certifying ecological products, research was carried out to analyze these markets in Poland and Belarus.

The conducted research was to prove the truth of the following hypotheses:

- Products that are labeled "eco" or "bio" are considered by 50% of respondents to be more attractive than a regular product.
- Less than 30% of respondents check the presence of certificates on the product, while 70% of respondents are more likely to buy products with certificates.
- Over 80% of respondents are able to pay extra for a product marked with a certificate

The research was carried out using the CAWI method. The first questionnaire for respondents from Poland collected 117 responses (94 women, 22 men, 1 other), while the questionnaire for respondents from Belarus collected 49 responses (40 women, 9 men). It took a week to collect the survey results.

## **GENERATION Z AND THE MARKET OF ECOLOGICAL GOODS.**

More than 66% of respondents from Poland and 54% of respondents from Belarus indicated that they consciously choose products marked as organic / bio or it happened in the past. This means that organic products are popular among respondents from Generation Z.

Among the responses, 52% of respondents from Poland as well as from Belarus noted that products signed as "Eco" or "bio" are more attractive than ordinary products. Probably, it is the result of green marketing that means the process of promoting products or services based on their environmental benefits. These products or services may be environmentally friendly in themselves or produced in an environmentally friendly way. Moreover, public opinion polls consistently show that consumers would prefer to choose a green product over one that is less friendly to the environment when all other things are equal, those "other things" are rarely equal in the minds of consumers (Hackett, 2000). Also, it could be a result of the increased use of green marketing literally everywhere and that is why people are used to thinking that it is more likely to be a better product. There are five possible reasons why green marketing becomes more and more popular (Polonsky, Mintu-Wimsatt, 1995):

- organizations perceive environmental marketing to be an opportunity that can be used to achieve its objectives (Keller, 1987),
- organizations believe they have a moral obligation to be more socially responsible,
- governmental bodies are forcing firms to become more responsible,

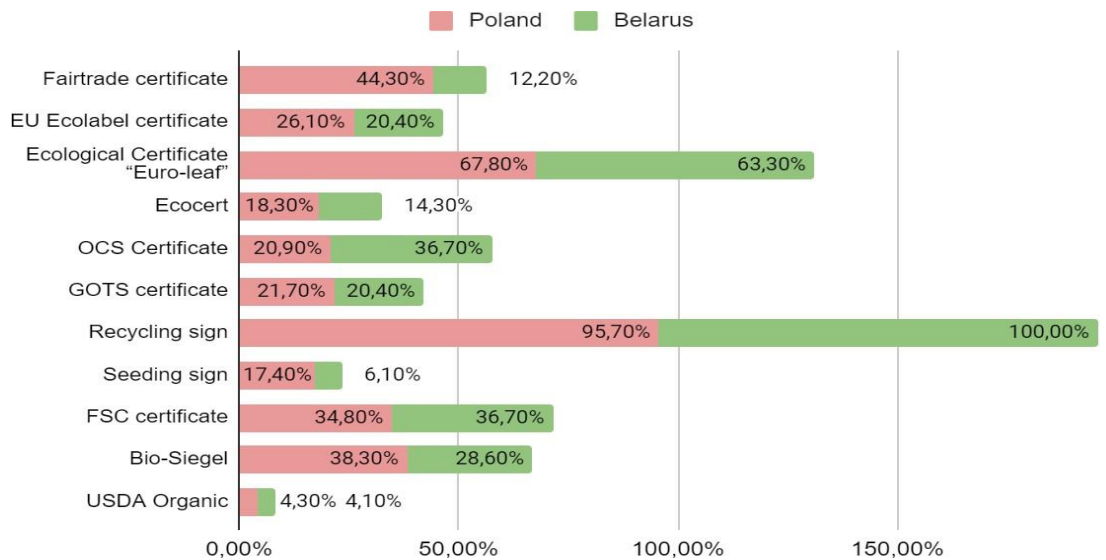


- competitors' environmental activities pressure firms to change their environmental marketing activities (Davis, Joel, 1992).
- cost factors associated with waste disposal or reductions in material usage forces firms to modify their behavior (Keller, 1993).

Moving on to the next topic about BIO and ECO certification, in the case of Belarusian responders, only 24% of them check the presents of the certificate on the product they buy, while in the case of Polish responders, 36% of them check these certificates. That shows that Generation Z in Poland is more aware of the certificates of organic products, about their importance and also they are unlikely to buy the product because of the advertising only. Whereas 53% of Polish responders and 61 % of Belarusian responders are more likely to buy a product that is certified as a BIO or ECO than a product without such certification. It is an interesting observation and it makes us think about how to make people check the presence of certification on a product to buy products that really have natural components and the production of them is not harmful to the environment. To prove that people are convinced that products signed as certified are better than those without the certificate, we asked them about it. As a result, we have 54% of Polish responders and 77% from Belarus who are sure about the quality of certified products.

In connection with the conducted research, it was possible to obtain information that as many as 93% of respondents from Poland and 100% of respondents from Belarus are able to pay extra for a bioproduct marked with a certificate. 39% of the Polish respondents and 37% of Belarussians replied that they could pay extra from 6% to 15% of the initial price for such a product. Only 1% indicated the range from 51% to 100% as feasible. The obtained results indicate that the respondents are willing to pay more for a certified product, which means that the value of a product enriched with a certificate increases in their opinion.

Among the Polish respondents as well as Belarussian, the most famous certificate was the Ecological Certificate "Euro-leaf" with the result of 68%. In addition, almost 96% of Polish and 100% of Belarussian respondents indicated that they know the mark denoting a packaging/product suitable for recycling. The results are shown in Graphic 1 below.



Graphic 1. Awareness of Polish and Belarusian respondents about different certificates.

## CONCLUSION

The aim of the study was to investigate whether the use of certificates as a marketing tool is an attractive treatment in the perception of consumers of Generation Z. In addition, the study was to indicate that products labeled as BIO or ECO are more attractive to respondents than ordinary products.

Understanding the needs of Gen Z consumers is a key factor in creating an attractive sales offer tailored to their needs. In this case, they expect pro-ecological activities from companies, including using certificates and marking them.

Table 1. verification of the validity of the hypothesis

Hypothesis	Result
Products that are labeled " eco " or " bio " are considered by 50% of respondents to be more attractive than a regular product.	Hypothesis confirmed
Less than 30% of respondents check the presence of certificates on the product, while 70% of respondents are more likely to buy products with certificates.	Hypothesis not confirmed
Over 80% of respondents can pay extra for a product marked with a certificate	Hypothesis confirmed

Based on the conducted research, it is recommended for companies to use the ecological certifications of products. 53% of Polish responders and 61 % of Belarusian responders are more likely to buy a product that is certified as a BIO or ECO than a product without such certification. In addition, over 90% of respondents can pay extra for special certification on the product. Studies say that “Implementation of principles of ecological certification is one of the main market tools which significantly increases the level of competitiveness of enterprise’s production.” (Pozdnyakova, U. A., et al., 2015). It is additional confirmation that companies and brands should use this kind of marketing tool to be a great competitor for others,

The ecological approach to the product in the opinion of consumers from Generation Z is a wide topic for research. At present, this study is only the start of the investigation of how it can influence the awareness of generation Z about ecological literacy and at the same time to build a competitive business environment.

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# SOCIAL ENTREPRENEURSHIP IN NORTH MACEDONIA

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## ABSTRACT

*This research paper is created with the purpose to analyze the different types of business models of social entrepreneurship, with the intention of making a difference between commercial and social entrepreneurship. Next, we analyze the need of social entrepreneurship in North Macedonia and additionally we refer to the challenges of social enterprise development in our country. Our findings indicate that North Macedonia is in the beginning stages of development of the concept itself, but the number of social enterprises as well as social activities does need to increase to help with the issues the country is faced with.*

*The concept of social entrepreneurship is crucially important if we take into consideration high levels of unemployment and poverty. In our country approximately 30 social businesses are active, at the moment. The challenges for their development are adequate marketing strategies, human resources and level of financial support.*

*This research also aims to break down the traditional boundaries between the nonprofit and traditional profit sectors and draws definition to this new hybrid model that is part business, part social mutually creating the social enterprise. In doing so, the research paper explores how institutions have combined a mix of social values and goals with commercial business practices in different types of hybrid organizations, the different income and capitalization strategies each of those hybrids use, and how each of them aims to create a social value.*

*However, the current state of practice indicates that social enterprises are often executed and treated in isolation (as a short term project or activity). However, this is not the true nature of the concept and is not sustainable in the long term.*

**Key words:** *entrepreneurship, finance, social businesses, sustainability.*

## INTRODUCTION

The term social entrepreneurship was first introduced in the 1980's and 1990's. But as time went by its definition started to evolve and change. Until this day, the term does not still have one

official definition. However, the characteristics that put a barrier between the traditional businesses and social ones are the following:

- *Social value* - creating social impact via solving and alleviation of social issues;
- *Entrepreneurial approach* - using various business techniques, entrepreneurship, innovation, marketing and strategic orientation;
- *Social dimension* – focus on public goods and governance .

Although the characteristics that define a social business are specific and evident there is a constant misunderstanding of the concept. This type of model is sustainable in the long term and is not focused on creating profit, more so on creating a social impact.

With that we also focus on the current state of social entrepreneurship in Macedonia. Right now there are around 25 to 30 social enterprises that are active and the need for development of social business in this country is beyond evident, taking into account the deep rooted social issues it is facing such as inequality, poverty, pollution and so on and so forth.

For the future trajectory and development of social enterprises a more systematic approach needs to be implemented, which will actively include a bigger portion of the stakeholders. Furthermore, for dynamical rates of growth and development of this sector is essential to include financial sector with higher rates of financial intermediation.

## **SOCIAL BUSINESSES COMPARED TO TRADITIONAL BUSINESS**

The key characteristic that sets the difference between social and traditional entrepreneurship is the triple bottom line, this includes the 3 P's - profit, planet, people. A business that is based on the 3 P's achieves sustainability and demonstrates how traditional forms of business can transfer to social and sustainable ones. With that transformation, the business can achieve a higher impact on social and ecological issues.

Another way social businesses differ from the traditional form is the endpoint. For the traditional business that is profit, but for the social one is solving a social problem. That does not mean that it is entirely different, it still has the elements of a traditional business, only with a different end goal.

### **Social business as a hybrid organization**

In the past, social activities were not sustainable in the long term. The only way to achieve impact on issues was through philanthropic activities. However, those activities do not reinvest profits into the business and are active as long as funding is available.

That concept worked somewhat well in the beginning, while companies started to be held accountable by stakeholders and started to take interest in this kind of activity. However, as the global economic crisis struck and that decreased the ability to finance these types of activities.<sup>21</sup>

In addition to that, there is insecurity on behalf of the investors towards social enterprises. The reason for that is the high risk they include and the financial uncertainty that comes with that.

This forces social businesses to become self-sustainable and self-generate profits to achieve the social mission. As a result that the hybrid business model is created, combining philanthropy and traditional business.<sup>22</sup>

### ***The hybrid model***

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<sup>21</sup> Kickul J., Thomas S., Lyons (2016) *Understanding Social Entrepreneurship: The Relentless Pursuit of Mission in an Ever-Changing World*, Routledge, pg. 262-265

<sup>22</sup> Wilson F., Post J. (2013) *Business models for people, planet (& profits): exploring the phenomena of social business, a market-based approach to social value creation*, Small Business Economics, Springer, pg. 715-737

Philanthropic activities were no longer suitable and that initiated a shift in stakeholder expectations of nonprofit organizations. The aim was to enlarge the scale social impact while also diversifying their funding, not only to work from capital that is donated to the company. The financial aspect has a major factor in the creation of the “nonprofit hybrid”.<sup>23</sup>

Furthermore, this developed into a spectrum of models that organizations can implement to create both social and economic value. This spectrum also contains the social business model amongst others.

On the right-hand side of the spectrum are for-profit organizations that are focused on creating social value. However, the main motives are profit-making and distribution of profit to shareholders.

Contrary to that, the left side of the spectrum are strictly nonprofits with commercial activities that generate economic value to fund social programs but whose main motive is mission accomplishment as dictated by stakeholder mandate.<sup>24</sup>

*Table 1 Comparison between philanthropic, hybrid and traditional business models*

Model	Philanthropy	Hybrid	Traditional
Motive	Goodwill	Combined motives	Accomplishing personal interest
Methods	Mission oriented	Both mission and market oriented	Market oriented
Goals	Creating social value	Creating social and economic value	Creating economic value
Source of capital	Donations and grants	Uses both donations and market-rate capital or alternatively below-market capital	Market-rate capital

<sup>23</sup> Reis, T. (1999) *Unleashing New Resources and Entrepreneurship for the Common Good: A Scan, Synthesis, and Scenario for Action*. W.K. Kellogg Foundation.

<sup>24</sup> Etchart, N. and Lee, D. (1999) *Profits for Nonprofits*, NESsT.

Destination on profit	Reinvested towards activities aimed to achieve the social mission	Reinvested towards activities aimed to achieve the social mission, growing the business and covering operational costs	Distributed among shareholders
Work force	Volunteers	Both volunteers and paid workers	Paid workers

*Source: Dees J. G. (1998) Enterprising Nonprofits, Harvard Business Review, pg. 60*

But foremost, before implementing the hybrid model certain questions need to be answered. That includes:<sup>25</sup>

1. What is the social mission of the organization ?
2. What is the social impact that it aims to achieve ?
3. Which resources are necessary to achieve said impact ?
4. What activities are necessary to accomplish the mission of the organization ?
5. How will the business generate financing ?
6. What is the most appropriate legal structure ?

Answering these questions beforehand helps to establish and determine the most appropriate model. The key element is establishing a balance between economic sustainability and social impact. It is crucial to distribute the finance more efficiently and generate a constant stable income. That will assist the entrepreneur with choosing a model for growing and sustaining the business itself. Greater income means greater social impact, as proven through research.<sup>26</sup>

A study done by Wilson and Post proves the hybrid model to be more efficient and sustainable in comparison to the philanthropic model. This is based on the financial sustainability and redistribution of its resources with the purpose to create a model that will create impact in the long term and at a higher level.<sup>27</sup>

### **Elements of the hybrid model**

The hybrid model is a spectrum of organizations that are balanced between the two models. Some lean more towards the philanthropic side, some lean more towards the traditional business side. However, all of the elements in the hybrid specter can not be purely defined as one of the

<sup>25</sup> Paulami M, Kickul J., Lisa K., Gundry J. (2019) *The Rise of Hybrids: A Note for Social Entrepreneurship Educators*, International Review of Entrepreneurship, pg. 120

<sup>26</sup> Kickul J., Gundry L., Paulami M., Berçot L. (2018) *Designing With Purpose: Advocating Innovation, Impact, Sustainability and Scale in Social Entrepreneurship Education*

<sup>27</sup> Wilson F., Post J. (2013) *Business models for people, planet (& profits): exploring the phenomena of social business, a market-based approach to social value creation*, Small Business Economics, Springer, pg. 715-737



above, but a mix of both, just with different proportions. The hybrid spectrum includes four different elements as shown below.



*Figure 1 Hybrid spectrum elements*

*Source: Etchart, N. and Lee D. (1999) Profits for Nonprofits, NESsT*

Primarily it is important to distinguish social enterprises from traditional non-profit organizations.

These two terms are often confused, however, that is not the case because they have different characteristics. The reason for the confusion is the fact that the social enterprise could be, but does not always have to be non-profit. The majority of social businesses are non-profit, but that does not always have to be the case.<sup>28</sup>

Social businesses generate income through selling goods and/or services. For those reasons, nonprofits choose to transform into social organizations and become more sustainable. The main difference that distinguishes traditional from social business is the endpoint for the profit whether it will be redistributed amongst the shareholders or reinvested into the social program.

The four elements of the hybrid spectrum are the following:

1. Nonprofits with income generating activities, represent organizations that include some sort of work activities that generate income. Those activities are not divided as a separate business, but are integrated into the organization itself. The income that is generated is not used to benefit the shareholders, more so to cover the costs for the activities of the organization itself. Moreover, the income that is generated from these activities is not used to return the initial amount of the investment to the investor, which does not apply to social businesses. In social businesses, the initial investment is returned but just in the initial invested amount.

2. Social enterprise is defined as a business investment acquired to solve a social problem and generate social value. In addition to that, it includes the financial aspects and innovation.<sup>29</sup> Characteristics that define a social enterprise are social value, entrepreneurial approach, and social dimension.

Social enterprises can be structured as a: department in the organization or a separate legal entity (profit or nonprofit). They can also be divided by the mission orientation and the degree of integration between the social programs and business activities.

3. Socially responsible businesses is the segment of profit organizations that have a dual purpose: generating profit for the shareholders and aiding in social issues.

<sup>28</sup> Bielefeld, Wolfgang (2009) *Issues in Social Enterprise and Social Entrepreneurship*, Journal of Public Affairs, pg. 69–86

<sup>29</sup> Alter K. (2004) *Social Enterprise Typology*, Virtue Ventures, LLC, pg. 5

As a method of social responsibility more often some of the profits are used for a social purpose which is included in the organizations mission. However, the amount of funds is chosen by the organization itself, as well as the activities.

In some cases, the socially responsible business can be considered as a social enterprise, specifically when the activities of the organization are focused towards a social mission.

4. Corporations practicing social responsibility are for-profit companies with activities that are led by financial motives, but include some aspects of philanthropy. Including those parts helps companies to maximize profit and market share, while at the same time helping solve social issues.

Activities that this type of social responsibility includes are: grants, sponsorships, volunteering of employees, and getting involved in community activities. With that, the company reputation is increased followed by sales, the loyalty of consumers, and employee satisfaction. These factors combined indirectly increase the profit of the company.

Corporations practicing social responsibility are not classified as social businesses, however, the philanthropic activities it undertakes do have a social impact.

### **Financial implications of the hybrid model on social enterprises**

The hybrid model emphasizes how social enterprises achieve sustainability through earned income. However, even social enterprises have different models of generating income, and methods of achieving the financial objectives differ among organizations. The income that is generated is used to cover the cost of the activities the organization partakes in.

Social enterprises do not need to be profitable to be sustainable, the minimum amount of profit only needs to be able to cover the operational costs of the organization. They can improve the efficiency and effectiveness of the organization by reducing the need for donated funds, providing a more reliable, diversified funding base, or enhancing the quality of programs by increasing market-based promotion.<sup>30</sup>

### **NEEDS OF SOCIAL ENTREPRENEURSHIP IN NORTH MACEDONIA**

North Macedonia is in desperate need for a higher number of social enterprises. The numerous social issues that is faced with leave a high number of individuals in difficult living situations. To add to that there are also environmental issues that this country is faced with. Especially in the past month, facing the issue of wildfires that unfortunately left some families without a home.

As we know social enterprises and social entrepreneurship in general differ from commercial enterprises and entrepreneurship in the social dimension and tendency to solve social problems (poverty, unemployment etc.). In our country unemployment rate have a declines trend, but is on high level. Component of youth unemployment is higher and in 2019 before pandemic is 35.55%.<sup>31</sup>

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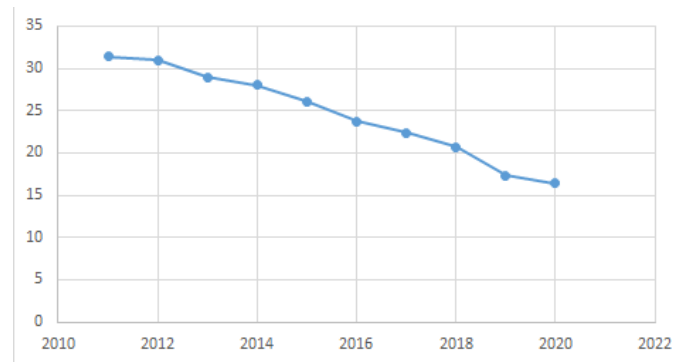
<sup>30</sup>Dees, G. (1998) *Enterprising Nonprofits*, Harvard Business Review

<sup>31</sup><https://www.macrotrends.net/countries/MKD/north-macedonia/youth-unemployment-rate>

*Table 2 Poverty rate of population in North Macedonia (%) Source: State statistical office*

Year	Poverty rate % of population
2017	22.2
2018	21.9
2019	21.6

*Source: State statistical office*



*Figure 2 Rate of unemployment in North Macedonia*

*Source: NBRM*

The crisis induced by the Covid-19 pandemic, points that youth unemployment is more fragile, taking into consideration its nature and gaps in the labor market. For solving these problems, a more adequate push-up mechanism can be social entrepreneurship.

## **CHALLENGES OF SOCIAL ENTERPRISES IN NORTH MACEDONIA**

Social entrepreneurship in our country is at an initial level of development. In our country, there are currently approximately 25 to 30 active social enterprises.<sup>32</sup> Empirical analysis and studies indicate that one of the challenges is adequate marketing program. In this context is an important marketing program to be designed as a balance mechanism of business needs and interests of stakeholders linked with social mission. Furthermore, equally as important for the development and growth of social enterprises are adequate human resources (Filipovska, 2017). On a sectoral level, significant for development of social entrepreneurship is labor market supply, labor force with entrepreneurial skills in social enterprises, but crucial for development of social enterprises is the financial component. Some of the already existing social enterprises include people with high barriers to employment such as disabled, homeless, at-risk youth, and ex-offenders in the workforce (example “Lice v lice”).

Theoretically, grants, credits, social bounds, and crowdfunding are any instruments for financing social entrepreneurship. One of the instruments of access in our country is the management plan of the European Investment Fund. This instrument for issuing guarantees is active since the year 2015. With this instrument, European Investment Found offers guarantees with a framework anda contra guarantees of financial intermediaries who will applicate on this call and which will be grouped from the European Investment Found.This mechanism provides risk diversification

<sup>32</sup> A list of all the operational social enterprises is available at <https://sen.mk/socijalni-pretprijatija>

between European Commission (European Investment Fund) and financial intermediaries and provides financial providers to the extent the portfolio of enterprises that can be financed. As a financial institution in our country that supports social entrepreneurship is „Sparkasse Bank Macedonia” as a supporter of the event „Reward for social entrepreneurship” in 2015. In this context, an important factor in our country is the development of mechanisms for financing the projects of social entrepreneurship (Despotovski, 2019).

There is also an increasing number of organizations created with the sole purpose of aiding the development of social enterprises in the region. These types of organizations usually help with: research on the topic, introduction, and education into the concept of social entrepreneurship, mentoring social entrepreneurs, organizing events for generating and supporting social business ideas, and so forth.

Bottom line the main issue we are faced with is the familiarity with the concept of social entrepreneurship and how it can help solve social issues while being sustainable in the long term. Another issue that is yet to be solved is the legal framework of the concept. In North Macedonia, there is not a clear legal definition of what a social enterprise is, a set criteria that it needs to follow, all the benefits that come with it.<sup>33</sup>

## CONCLUSION

Social entrepreneurship is important for sustainable development and for creating social value-added in our society. It is the key solution to solving crucial social problems while moving the economy forward.

A clearer frame for the term needs to be set and entrepreneurs need to be made aware that almost any kind of traditional business can be transformed into a social enterprise if the right model is used.

Additionally, policymakers should focus on developing a supply of financial instruments for supporting the social business growth on the one side, and develop instruments for improving their capacities for access to financial resources.

Furthermore, for sustainable development of the social entrepreneurship sector, institutions should support their marketing operations for better competitiveness. For cohesion of supporting system of social entrepreneurship, basis in creating the framework of social enterprise support should be different types of business models of social enterprises.

The business models should be a trajectory for development supporting programs for social enterprise.

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<sup>33</sup>More information on the legal framework is available at [https://ener.gov.mk/default.aspx?item=pub\\_regulation&subitem=view\\_reg\\_detail&itemid=28943](https://ener.gov.mk/default.aspx?item=pub_regulation&subitem=view_reg_detail&itemid=28943)

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#### Links:

[https://www.mtsp.gov.mk/programa-easi-ns\\_article-mikrofinansiranje-i-socijalno-pretpriemnishtvo.nspix](https://www.mtsp.gov.mk/programa-easi-ns_article-mikrofinansiranje-i-socijalno-pretpriemnishtvo.nspix) (Last open on 10/08/2021)

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# INVESTIGATING CHARACTERISTICS OF PEOPLE WHO SUPPORT PROTECTION OF THE ENVIRONMENT

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## ABSTRACT

*In the 21st century protection of the environment is a huge international government and market challenge. Environmental problems require a large scale of actions and transformation of people's behaviour, the way of thinking and perception should be changed to handle this challenge. This article aims to investigate common patterns which are inherent in people who are sustainability-oriented to unfold the list of the most important values which can raise awareness on sustainable development, especially the environmental issues. Mathematical and statistical methods are used in the study: the article reviews World Values Survey Wave 7 (2017-2020) using descriptive statistics and regression models in the Stata software. Results contain common values of an eco-friendly person emphasizing Europe citizens' patterns.*

**Keywords:** *Environmental support, Life Satisfaction, Personal traits, World Values Survey*

## INTRODUCTION

Environmental problems are one of the most urgent and relevant which humanity has faced in modern times. In August 2021, the United Nations published a report of its experts on global climate change. It claims that in about ten years, the temperature on Earth is likely to exceed the level of consumption that world leaders have tried to prevent (IPCC, 2021). In such a context, attempts to recognize the patterns which are the drivers of the ‘pro-environmental individual’ who demonstrate a pattern of pro-environmental action across many different domains (e.g., energy use, water consumption, transportation, waste reduction) have a high relevance and also an interest among researchers. The purpose of the paper is to study whether there are common characteristics of people who support the environment in investigating factors which make people take care of the environment.

The relationship between a person's values and environmental concern were supported with relatively consistent theoretical and empirical support of previous studies, however, this topic remains controversial due to a complex set of influences which is hard to control during the analysis of possible factors which make a person take care of the environment. This research aims to investigate underlying mechanisms of personal attitude towards environmental protection based on the World Values Survey dataset which contains a large number of respondents and variables both on people's values and environmental concern, however, this data has never been used in this research topic yet. The study focuses on the Southern and Eastern Europe and Baltic Sea region. Results obtained from the research are expected to give a clue on the direction of values and qualities to evolve for reaching sustainable development goals.

## LITERATURE REVIEW AND HYPOTHESIS FORMULATION

According to Soutter, Bates and Möttus (2020) *pro-environmental attitudes* can be defined as one's tendency to exhibit a degree of favor toward the natural environment (e.g., one's connection to nature, defining oneself as an environmentalist, environmental awareness, intention to recycle).

The strategies for defining social and psychological factors which are linked with the pro-environmental attitude have different perspectives in the scientific world. Some researchers, for example, used such psychological models in their studies as theory of planned behavior and value-belief-norm model to explain the relationship between pro-environmental attitudes and behaviors (Stern et al., 1999; Harland et al., 1999). Also, researchers often assess this relationship in the framework of the Big Five Personality trait model (Goldberg, 1990), which contains five broad domains: Openness to new experiences, Neuroticism, Agreeableness, Extraversion and Conscientiousness. According to the study of Milfont and Sibley (2012) environmental supporters have high levels of such traits as Agreeableness (cooperativeness, compliance, and caring for others), Conscientiousness (carefulness, organization, and responsibility), and Openness to new experiences, while low levels of Neuroticism (depression, anxiety, anger, and insecurity).

It is important to mention that there are several contradictions in the studies on the topic of pro-environmental attitudes. For example, some authors found that altruism is an important underlying motivator of pro-environmental action, while others suggest this quality to have relatively little to do with the performance of environmental supporters (Markowitz et al., 2012). The further discussion of the mechanisms behind the relationships of personal traits and willingness to support the environment should be addressed.

The first mechanism of this study is based on the described above research findings which prove that the relationship between personal traits and environmental engagement exist, and attention to the core personal values should be drawn therefore to investigate characteristics of a pro-environmental individual. Considering these findings, we can formulate the following mechanism: people have patterns of traits => people with similar traits have similar attitudes towards different aspects of life => protection of the environment is supposed to be treated well by people with similar traits' patterns.

The next study suggestion is to analyze whether there is a tendency of religious people to support the environment. Any religion suggests a codex of moral ethics which guides spiritual people in their daily lives. The priorities of the ecological aspects of nature depicted in different confessions are not expressed in the same way, but the presence of a humanistic component in all religions anyway should contribute to a greater environmental friendliness of the consciousness of the people of the earth. Moreover, there is a number of authors who assume that religion is valuable and necessary for the higher environmental cause. For example, the Harvard Forum on Religion and Ecology which is now based at Yale University uses religion explicitly in its publications: "The moral imperative and value systems of religions are indispensable in mobilizing the sensibilities of people toward preserving the environment for future generations" (Tucker & Grim 1999).

Based on this assumption, it is reasonable to build the following mechanism: religions have values concentrated on environmental support => in daily life spiritual people follow the norms of their religion in line with these values => religious people tend to be concerned about environmental problems.



Considering two mechanisms described above, Hypothesis 1 is: among pro-environmental individuals there are common traits which are also related to religion.

The final mechanism of the study is based on the suggestion that people with the pro-environmental attitude tend to be more life-satisfied than others. A great number of researchers were investigating different factors which make the most important contribution to the happiness level. In recent years, environmental economic study actively investigates this topic (Biedenweg et al. 2017; Welsch and Ferreira 2014) proving that a person's attitude to the environment plays a significant role in determining one's life satisfaction level (Li et al. 2014). Researchers consider that life satisfaction has a positive correlation with the choice of supporting the environment. For example, Wang and Kang (2019) argue that people's life satisfaction indeed spurs their motivation to support the environment. Also, there is a line of research which suggests that the pro-environmental attitude appears when basic material needs are met and that individuals and societies that are postmaterialist in their values are more likely to exhibit pro-environmental behaviors (Dietz et al., 2005). The mechanism for this study can be proposed as the following: people who are satisfied with life have a better quality of life => they have more motivation to support the environment. Therefore, Hypothesis 2 is: the more life-satisfied a person is, the more pro-environmental he or she is.

## RESEARCH METHODS

The data used for the research was collected by the World Values Survey. It is a global network of social scientists studying changing values and their impact on social and political life, led by an international team of scholars, with the WVS Association and WVSA Secretariat headquartered in Vienna, Austria. Each country and wave have a principal investigator responsible for the survey conducted in his or her country. The survey procedure is a personal face to face interview.

The WVS seeks to help scientists and policy makers understand changes in the beliefs, values and motivations of people throughout the world. The data is used to analyze such topics as economic development, democratization, religion, gender equality, social capital, and subjective well-being etc. The main purpose is to demonstrate that people's beliefs play a key role in economic development, the emergence and flourishing of democratic institutions, the rise of gender equality, and the extent to which SDGs are implemented across the globe.

The WVS launched Wave 7 data covering the 2017-2021 wave which is used for this study. The WVS consists of nationally representative surveys conducted in 80 countries which contain almost 90 percent of the world's population. With 80 countries around the world and more than 76,000 respondents, this is the latest resource made available for the research community.

To answer the research question, the analysis of the data in Stata Software was divided into several steps. Firstly, preparing the dataset of the World Values Survey was initiated by concentrating only on countries of Southern and Eastern Europe and Baltic Sea region. The dataset includes the following countries: Denmark, Germany, Poland, Latvia, Estonia, Russia, Finland, Sweden, Bulgaria, Czech Republic, Hungary, Slovakia, Ukraine, Greece, Italy, Portugal, and Spain. Secondly, dependent and independent variables for building statistical models were chosen.

The most reasonable variable to be dependent is the following survey question. Thus, the person who chooses the first answer is considered to be environmentally oriented in the study: **“Here are two statements people sometimes make when discussing the environment and**



**economic growth. Which of them comes closer to your own point of view?** (*Read out and code one answer*): 1. Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs. 2. Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent.”

For the role of independent variables, the following questions are chosen:

1) **“Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five!** Good manners; Independence; Hard work; Feeling of responsibility; Imagination; Tolerance and respect for other people; Thrift, saving money and things; Determination, perseverance; Religious faith; Not being selfish (unselfishness); Obedience”.

2) **“Do you believe in God? Yes/ No”.**

3) **“All things considered, how satisfied are you with your life as a whole these days? Using this card on which 1 means you are “completely dissatisfied” and 10 means you are “completely satisfied” where would you put your satisfaction with your life as a whole? (Code one number)”.**

Control variables are **age** and **gender**, as they have an influence on the person's position towards protecting the environment according to several studies (Clayton, 2021).

Additionally, demographic variables such as **age square**, **educational attainment**, **health**, **occupation**, **marital status**, **number of children**, **household income** were used in the models as control variables. To control for the assumption that **attitude to authority** and **political involvement** can influence the decision on the choice between environment and economic growth, these variables are also added to the models as explanatory.

## DESCRIPTION OF THE RESULTS

A list of top-5 especially important qualities which children can be encouraged to learn at home in the opinion of the environmental supporters are the following: Feeling of responsibility - 69%, Good manners - 68%, Tolerance and respect for other people - 63%, Hard work - 61% , and Independence - 59%.

Interesting notion is that imagination is the most rarely mentioned quality among environmental supporters, but the same trend takes place in the group of those who do not consider environmental protection to be a priority too.

Speaking about religion, according to Fisher's exact test there is an association between believing in God and willingness to be an environmental supporter on any confidence level (the p-value = 0.000). Based on this finding the model of logit regression was built with the control variables described in the research methods section. The coefficient of the chosen variable scaling the belief in God appeared to be negative and significant (p-value =0.000) which means that, ceteris paribus, there are lower chances that a religious person will support the environment (please, see Appendix 1 for the whole regression table results).

**Table 1.** Logit model: the relationship between religion and the environmental concern

Variable		Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
Believe in God		-.2131266	.0555006	-3.84	0.000	-.3219058    -.104347

Number of observations = 8,193

Therefore, it can be clearly seen that pro-environmental individuals have common traits, however, religion according to the built model is not a factor which positively influences the pro-environmental attitude according to the obtained results. Hypothesis 1 is rejected.

Speaking about the satisfaction with life and its link to environmental concern, Fisher's exact test shows that there is an association between the satisfaction and support for the environment (the p-value = 0.000). Logit model's results depict a statistically significant coefficient for satisfaction with life level in the model (p-value=0.000) with a positive sign. It can be concluded, ceteris paribus, that with an increase of the satisfaction with life chances that a person will support the environment are higher, Hypothesis 2 is accepted. The regression model also includes control variables described in the research methods section (please, see Appendix 1 for the detailed table results).

**Table 2.** Logit model: the relationship between life satisfaction and the environmental concern

Variable		Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
Life Satisfaction		.0580109	.0143312	4.05	0.000	.0299221    .0860996

Number of observations = 8,193

## LIMITATIONS

Self-reported data can contain several potential sources of bias. As the research is based on people's opinions and all people had to go through the survey, there can be errors because some people are willing to choose an alternative "middle" variant in a question, and they create an uncertainty to the study doing this. Also, omitted variable bias is one of the limitations. The models does not fully include various explanatory variables due to a complex set of influences which is hard to control during analysis of possible factors which make a person to have a pro-environmental position. In the social sciences, where it is hard to specify such modes, low R-square values are often expected (Ferenc Moksony, 1999).

## PRACTICAL AND THEORETICAL CONTRIBUTION

Despite limitations, the study provides valuable insight on the qualities of a pro-environmental person in the Southern and Eastern Europe and Baltic Sea region which touches upon a very relevant issue of ecological economics and implementation of new policies and education programs that are strongly linked to reducing environmental degradation.

The research investigated several common patterns of people who have an environmental concern in the Southern and Eastern Europe and Baltic Sea region. Such qualities as responsibility, good manners and respect for other people are highly appreciated by pro-environmental individuals. Educational institutions should pay attention to the development of these traits for taking steps towards sustainable development. Results of the study also showed that with an increase of happiness level chances that a person will support the environment are higher. These findings indicate that environmental policy would find support at the citizen level in developed countries where people's life satisfaction is high. Also, policymakers nowadays are referring to the social sciences with a high interest to develop strategies for the solutions of the global environmental problems such as climate change (Maki et al., 2018). An understanding of the psychological factors is crucial for such policies to be effective and eliminate personal attitude barriers to desired goals. It is a valuable material to study research like this for the policymakers, and future studies can examine the possible ideas and ways of targeting these personality domains through policies and strategies.

Results of the research also revealed that the residents who have religious beliefs are less environmentally oriented. There is a lot of future scientific work to be done to figure out what explains this relationship which was also obtained by previous researchers of this topic (Konisky, 2018). In fact, most religious citizens of the Southern and Eastern Europe and Baltic Sea region are Christians. Christianity is one of the human-centered religions, while for the Eastern religions, Hinduism and Buddhism, nature is held as sacred and humans are not more significant than any other living thing (Szűcs et al., 2012), so this feature can be the reason why economic growth and creation of jobs is seen as more important than environmental protection for Christians. Further research may concentrate on revealing these differences between religions in terms of a pro-environmental behaviour. Also, the less concern about the environment by religious people can be explained by the fact that religious institutions cover and promote the topic of sustainability to a little extent. For example, Pew Research Center reports that just 6% of U.S. adults in the 2010 survey said religious beliefs have had the biggest influence on what they think about environment (more respondents stated that the biggest influence on their views has been education (28%), the media (24%), personal experience (18%), or something else). This gap needs to be considered by religious institutions.

Also, current research became a pioneer at using the World Values Survey dataset to investigate factors concerning the pro-environmental attitude. Further, that can be a valuable notion for scientists to develop their suggestions on the topic of the pro-environmental attitude using this relevant international Survey.

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## APPENDICES

### Appendix 1. Logit model on the effect of religion and life satisfaction on the environmental concern

Variable	Coefficient	Standard Error
Satisfactionwithyourlife	0.0580***	(0.0143)
Believein: God	-0.213***	(0.0555)
Age	0.0426***	(0.0103)
Age2	-0.000394***	(0.000098)
Sex	0.188**	(0.0625)
<i>Income</i>		
A - 1st decile (base cat.)	0	(.)
B - 2nd decile	0.191	(0.160)
C - 3rd decile	0.0650	(0.151)
D - 4th decile	0.176	(0.148)
E - 5th decile	0.209	(0.147)
F - 6th decile	0.124	(0.144)
G - 7th decile	0.0233	(0.145)
H - 8th decile	0.307*	(0.147)
I - 9th decile	0.291	(0.154)
J - 10th decile	0.357*	(0.156)
<i>Health</i>		
Verygood (basecat.)	0	(.)
Good	-0.106	(0.0680)
Fair	-0.0759	(0.0793)
Poor	-0.109	(0.120)
Verypoor	0.0831	(0.240)
<i>Job</i>		
Armed Forces Occupations (base cat.)	0	(.)
Chief Executives, Senior Officials and Legislators	0.564	(0.393)
Administrativeand Commercial Managers	0.731*	(0.370)
Production and Specialized Services Managers	0.982**	(0.349)
Hospitality, Retail and Other Services Managers	0.644	(0.391)
Science and Engineering Professionals	0.761*	(0.328)
Health Professionals	0.667*	(0.332)
TeachingProfessionals	1.041***	(0.315)
Business and Administration Professionals	0.872**	(0.330)
Information and Communications Technology Professionals	0.906*	(0.369)
Legal, Social and Cultural Professionals	1.009**	(0.336)
Science and Engineering Associate Professionals	0.849**	(0.329)
Health AssociateProfessionals	0.647	(0.335)
Business and Administration Associate Professionals	0.704*	(0.313)
Legal, Social, Cultural and Related Associate Professionals	1.081**	(0.380)
Information and Communications Technicians	0.709	(0.443)
General andKeyboardClerks	0.860**	(0.331)
Customer Services Clerks	0.581	(0.368)
Numerical and Material Recording Clerks	0.614	(0.340)
OtherClerical Support Workers	0.733*	(0.368)
Personal Services Workers	0.628	(0.322)
Sales Workers	0.389	(0.311)
Personal Care Workers	0.912**	(0.332)
Protective Services Workers	0.269	(0.343)
Market-oriented Skilled Agricultural Workers	0.284	(0.328)
Market-oriented Skilled Forestry, Fishery and Hunting Workers	0.341	(0.608)
Subsistence Farmers, Fishers, Hunters and Gatherers	0.426	(0.626)
Building and Related Trades Workers (excluding Electricians)	0.337	(0.315)
Metal, Machinery and Related Trades Workers	0.467	(0.316)
HandicraftandPrintingWorkers	1.539**	(0.490)
Electrical and Electronics Trades Workers	0.619	(0.345)
Food Processing, Woodworking, Garment and Other Craft and Related Trades Workers	0.343	(0.329)
Stationary Plant and Machine Operators	0.533	(0.338)
Assemblers	0.901*	(0.457)
Drivers and Mobile Plant Operators	0.290	(0.311)

Cleaners and Helpers	0.618	(0.346)
Agricultural, Forestry and Fishery Labourers	0.406	(0.400)
Labourers in Mining, Construction, Manufacturing and Transport	0.337	(0.334)
Food Preparation Assistants	0.305	(0.535)
Street and Related Sales and Services Workers	0.407	(1.062)
Refuse Workers and Other Elementary Workers	0.343	(0.382)
ISCO could not be applied to response given	0.668	(0.404)
<i>Attitude to authority</i>		
Good thing (basecat.)	0	(.)
Don't mind	-0.0693	(0.0599)
Bad thing	0.162*	(0.0651)
<i>Education</i>		
Less than primary (base cat.)	0	(.)
Primary	-0.271	(0.321)
Lower secondary	-0.141	(0.305)
Upper secondary	-0.131	(0.302)
Post-secondary nontertiary	-0.0612	(0.316)
Short-cycle tertiary	-0.133	(0.312)
Bachelor or equivalent	0.417	(0.312)
Master or equivalent	0.146	(0.309)
Doctoral or equivalent	0.470	(0.406)
<i>Number of children</i>		
No child (basecat.)	0	(.)
1 child	-0.302***	(0.0886)
2 children	-0.187*	(0.0833)
3 children	0.0149	(0.102)
4 children	-0.0525	(0.133)
5 children and more	-0.195	(0.162)
<i>Politics involvement</i>		
Very interested (basecat.)	0	(.)
Somewhat interested	-0.0532	(0.0766)
Not very interested	-0.0954	(0.0824)
Not at all interested	-0.256**	(0.0988)
Constant	-1.356*	(0.528)
Observations	8193	
Prob > chi2	0.0000	
Pseudo R <sup>2</sup>	0.0457	

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

# INCREASING THE SECURITY OF ANDROID OS MOBILE DEVICES

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## ABSTRACT

*In the recent years the usage of mobile devices has increased exponentially. These devices are widely used by normal people for a variety of purposes but recently they have become one of the most attractive tools for increasing the business profits. But there are some downsides. The malware writers have pointed the mobile devices and specifically they are focused on the Android OS. The detection of the malwares is one of the biggest issues concerning the technical community.*

*This paper proposes a method of how to detect the mobile malware in the Android OS by monitoring the anomalies of the system calls usage.*

**Keywords :** *Android malware, Security, static malware analysis, dynamic malware analysis, system calls*

## INTRODUCTION

Created by Andy Rubin as the open-source alternative to iPhone and Palm OS, Android quickly became the favorite operating system in 2010. Even though Android continues to grow in active users, the rate of phone changes slowed in the mid-2010s. Android yearly shipments peaked in 2018, when OEM partners sold 1.33 billion units. [1] Currently Android has 2.8 billion active users and as the following picture shows, it has 71.54 % of market share. IOS only 27.81%. [2]

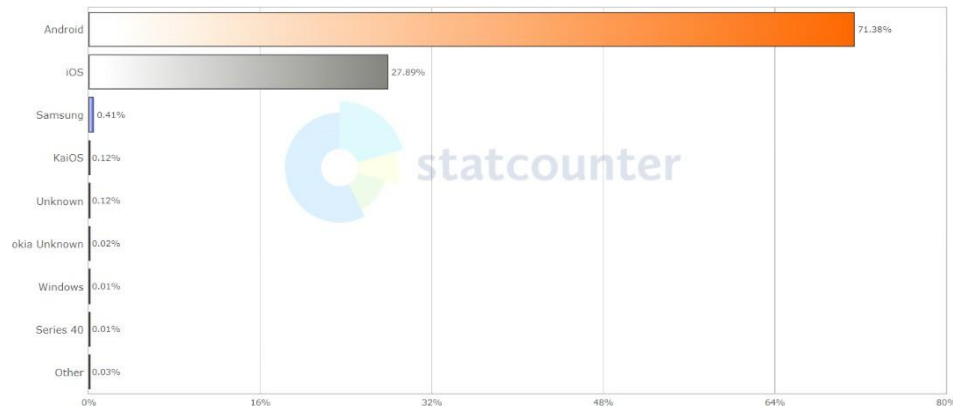


Fig 1. Mobile OS market Share

Only in US, UK, IOS has more users and dominates the market share. [1]

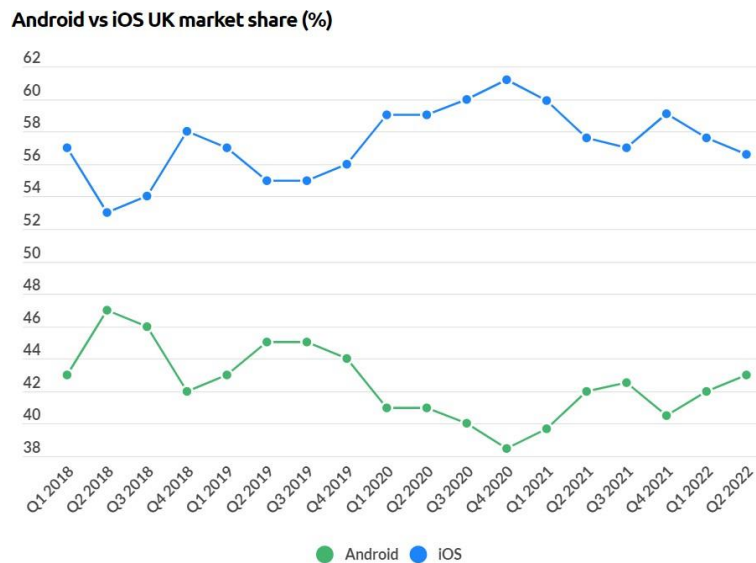


Fig 2. Android vs IOS market share in UK [1]

This huge use of Android devices is one of the reasons that it users has been always in great risk. The number of malwares has increased exponentially. According to McAfee threat report the total number of mobile malwares that were detected till the 4'th quarter of 2020 was more than 40.000.000. [3]



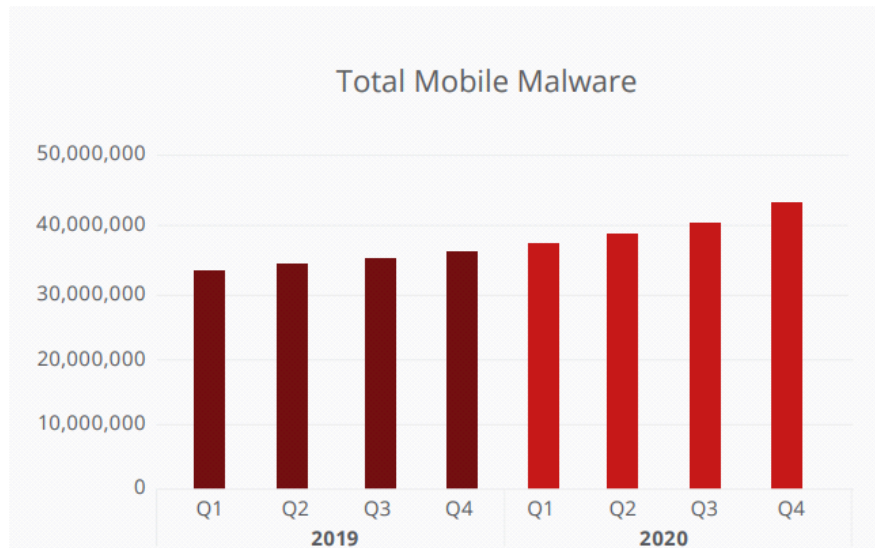


Fig. 3. Total mobile malware detection

These statistics are one of the reasons that there has been a lot of effort by a lot of parties to try to mitigate the security problems. In this paper we try to give an approach of how there concerns might be solved and the security of the Android OS increased.

The rest of this paper is organized as follows. In section 2 we present the Related works on this topic. Section 3 presents the malware analysis techniques. In section 4 we demonstrate our approach of these issue might be solved and in the last section are the conclusions on this paper.

- **Related work**

There have been a lot of work in this field due to the extended usage of the mobile devices. Some of the most recent ones are the following. [4][5]

Dhalaria [6] presents a review of the literature on Android malware detection techniques that uses machine learning. Here you can find tools and techniques for analyzing the Android malware in different ways. (static/dynamic). It also has listed different research gaps on the mentioned literature.

Talukdar [7] describes the techniques and tools for detecting and analyzing the malwares on Android OS. On his analysis he says that malware families share same patterns of behavior. He used these patterns to classify the malware into their known family. For that he used machine learning techniques.

Kouliaridis [8] made a survey on machine learning techniques to detect Android malwares using machine learning techniques. They say that existing work utilize different metrics and models and so they have gathered different approaches and categorize them on different metrics.

Hou et al. [9] has presented a dynamic analysis method that executes each routine of the Android apps as completely as possible. After extracting the system calls, they built the weighted graphs, that will be used by a deep learning framework in order to detect the android malwares. Their

system, called Deep4MalDroid had also been integrated into a commercial antimalware software.

Vidal [10] has made a proposal for monitoring only the system calls during the boot process of the recent installed applications installed. This reduces the information that will be used in analysis. They proposed a system that uses pattern recognition with three processing layers: monitoring, analysis and decision making. They have made experiment on different datasets and presented their experimental results and proving that their approach is good when compared with analogous proposals.

- **Malware analysis techniques**

Malware, or “malicious software,” is an umbrella term that describes any malicious program or code that is harmful to systems. Hostile, intrusive, and intentionally nasty, malware seeks to invade, damage, or disable computers, computer systems, networks, tablets, and mobile devices, often by taking partial control over a device’s operations. Like the human flu, it interferes with normal functioning.[11] The key benefit of malware analysis is that it helps [incident responders](#) and security analysts [12]:

- Pragmatically triage incidents by level of severity
- Uncover hidden indicators of compromise (IOCs) that should be blocked
- Improve the efficacy of IOC alerts and notifications
- Enrich context when [threat hunting](#)

The malwares can be detected by examining their code or monitoring their behavior after execution. Exists different ways to do that, but Static and Dynamic Analysis are the most quoted and they are going to be explained in detail in the following sections.

- **Static Analysis**

Static analysis deal with the malicious program without running it. [5] This type of analysis can find if a program file is malicious [13]. Pan et al says that the static analysis can be divided in different categories, which are Android Characteristics, opcode, program graph and symbolic execution [14]. For the Android Characteristics method they mention Feizollah et al. [15] that uses the intents to identify the malicious software and Yerima et al. [16] that uses machine learning combined with static analysis to improve the accuracy of malware detection. Opcode method we have Jerome et al. [17] uses machine learning models combined with n-grams to classify malware. Program graph method is mentioned Artz et al. [18] that uses the system calls to build data flow graphs and after use different graph techniques for Android malware detection. Flowdroid Tasman [19] uses symbolic execution for malware detection. According to [20] the newest malware has developed mechanisms to avoid static analysis detection by using obfuscations techniques. For that matter the authors have proposed a new method that uses kernel learning and vector machine classifier. Another worth mentioning techniques technique is proposed by Arora [21] called Permpair. IT constructs and compares the graphs of the malware behavior and not infected behavior (also called normal behavior), by using the permissions pairs of an application. Their accuracy goes to 95.44%. [5]

- Dynamic analysis

Analyzing the behavior of a malicious program while it is being executed is called Dynamic Analysis. The malicious program is monitored in a simulator or sandbox [5]. One of the downsides of the dynamic analysis is the resources consumption, as the malware needs to be executed for a specific period of time in order to gain some data out of it. Exists different tools and techniques for performing the Dynamic analysis that are mentioned in the literature and we will try to mention some of them. Some tools are Norman Sandbox [22], Threat Expert [23] and Cukoo Sandbox [24]. These generate reports in order to understand the malware behavior. The last one is of the best open-source sandboxes that automates malicious analysis for different OS. Some of the techniques are mentioned in [6] are Network Traffic [25], User Interaction [26], System calls [27]. We have always to take in mind that everything in life evolves, even the malwares, do the same. New samples are detected every day that are not part of the common families or that we don't have a running history. For these cases is needed not only the automated tool but also human analysis. Also, it is really recommended that ML should be included, as an ultimate tools for dynamic detection of the malwares. [5]

- Approach

In this paper we introduce a method that monitors the usage of the mobile device. By monitoring the phone OS usage, we try to identify any not normal behavior. The key element that we use to do the monitoring are the system calls of different applications. We train the system to identify the normal usage and also to flag anything what is "new". In the next subsection we will to present our main feature of monitoring, the system calls, and after that the mathematical tool for analyzing and detecting the threats in the Android OS.

- System calls

A system call, or syscall or short, is a method used by application programs to communicate with the system core. In modern operating systems, this method is used if a user application or process needs to pass information onto the hardware, other processes or the kernel itself, or if it needs to read information from these sources. This makes these calls a link between user mode and kernel mode, the two key access and security modes for processing CPU commands in computer systems. [28]

There are 5 different categories of system calls [29]:

- **Process control** is a running program that needs to be able to stop execution either normally or abnormally. When execution is stopped abnormally typically, a dump of the memory is taken to be examined by a debugger.
- The **file management** system calls include create(), delete(), read(), write(), reposition(), or close(). In addition, there is a need to determine the file attributes – get and set file attribute. Often the OS provides an API to make these system calls.
- The **device management** process requires several resources to execute, if these resources are available, they will be granted, and control returned to the user process. These resources are also thought of as devices. Some are physical, such

as a video card, and others are logical, such as a file. User programs *request* the device, and when finished they *release* the device. Like files, we can *read*, *write*, and *reposition* the device.

- The **information management** system call exists for transferring information between the user program and the operating system. An example of this is *time*, or *date*. The OS also keeps information about all its processes and provides system calls to report this information.
- The **communication** system call exists in two models of interprocess communication, the message-passing model and the shared memory model.
  - Message passing uses a common mailbox to pass messages between processes.
  - Shared memory use certain system calls to create and gain access to regions of memory owned by other processes. The two processes exchange information by reading and writing in the shared data

In this paper we are going to monitor one specific category of system calls: file management. In this category, we have chosen to monitor and after analyse open (), read (), write ()/

- Mathematical model

We have used the same model in [4]. Mathematical modeling is a discipline that aims to transfer problems that arise within a certain scientific field or technological field to mathematical languages, so that the theoretical and numerical analyzes performed on these problems provide better information. Mathematical modeling is simply a representation of the problem in mathematical terms of a given idea. Essentially, they are characterized by making assumptions about variables (characteristics that change), parameters (characteristics that do not change), and functional relationships between variables and parameters that govern the dynamics of variables. Thus, mathematical models include hypotheses for the systems studied and allow us to compare these hypotheses with empirical data. Then it is necessary to express the working model in mathematical terms. To achieve this, we need to define the equations whose solutions describe it. The execution of this model allows us to perform simulations from which results and conclusions can be drawn. Interpreting such results and comparing them with the empirical data obtained from the observation of the real phenomenon will allow us to determine the efficiency of the mathematical model developed. If it is found that the predictions match what is happening, we can assert that the model is appropriate, if not, it is necessary to start the modeling process again to get a more refined product. Most mathematical models are based on the use of ordinary differential equations or partial derivative differential equations because they are important pillars in Mathematical Modeling. Mathematical models developed to explore the behavior of viruses (malwares) are based on models designed to study the behaviors of infectious diseases. This is because of the somehow similarity between the behavior of biological viruses and those of malware (computer viruses). Undoubtedly, the pillars on which the models are based on differential equations are the Kermack [30] and McKendrick models or as it is known for short the SIR model where is the stock of susceptible population, is the stock of infected, is the stock of removed population (either by death or recovery) and is the sum of these three. The use of

differential equations allows us to make a detailed mathematical analysis of the model in question. We can solve the model analytically or numerically using MATLAB or MAPLE software. WE will use this model for malwares



Fig. 4. SIR Following

In this model, the infection rate is  $\beta$ , which is the probability of transmitting disease between a susceptible and an infectious individual.  $\gamma$  is the recovery rate.  $N$  is defined as population and is equal to  $N = S + I + R$ . [31]

Most of the applications require internet access, and consequently, they are exposed to the effects of malware. Consequently, as in the case of computer networks, predicting the behavior of mobile malware is very important. The model based on systems of differential equations is a mathematically coherent model, which provides a detailed study of the main characteristics of their dynamics: stability, equilibrium, etc. We will give more details in a second paper when we have the real data for the validation of the theory. S I R [4]

## CONCLUSIONS

Mobile devices are widely used in such a way that we can hardly consider living without them. As a direct result of this usage, these devices are exposed to different threats. In this paper we showed that the number of mobile malwares has increased exponentially over the past years. They have found different ways to infect and damage the mobile OS. To try to mitigate the threats that came with the malwares the first thing is to try to detect the viruses that are in you OS. In this paper we present a technique that monitor the system calls of the applications. Here we assume that the device will behave not normally when it is under attack. The system call usage will show us that. Also we present the mathematical method that we use to analyse the system call, in order to detect the abnormalities in the device usage. AS future work we plan to validate this method with real world data.

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# **BENEFITS AND EMPLOYEE DEMOGRAPHICS RELATIONSHIP. INSIGHTS BEFORE AND AFTER COVID-19**

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## **ABSTRACT**

*Human Resources are considered a valuable resource for the company, and as such contribute to increasing its performance. The compensation function of Human Resources is very crucial, for both the employee and the company. If not offered the right package, then the company will have additional costs. The aim of this study is to identify how demographic factors affect the desired compensation type. A questionnaire is used to collect the data before the pandemic, while semi-structured interviews are being conducted to investigate the impact of Covid-19. The empirical data are analyzed through descriptive and inferential statistics. The findings of the study showed that the most received benefits are medical insurance, followed by year-end bonuses and bonuses. Moreover, findings confirmed that demographic factors like gender, age group, marital status, and having or not having children affect the preference of employees toward the received benefit types.*

**Keywords:** *Benefits, remuneration, HR, demographics, Covid-19*

## **I. INTRODUCTION AND RESEARCH OBJECTIVES**

Attracting and keeping the best employees possible means developing and implementing strategic human resources plans, among which is the Benefits Package (Portolese, 2018) or remuneration Package as called in the body of knowledge. Remuneration includes all forms of pay and benefits going to employees and arising from their employment, besides their regular wages or salaries (Dessler, 2019). Studies conducted on the correlation between benefits offered and employee performance have implied there is a positive relationship between pay for performance and job performance (Gerhart & Fang, 2014).

A survey of the Society of Human Resources Management (SHRM) (2018) showed important correlations between:

1. *Remuneration and job satisfaction:* 92% implied the benefits were critical to their job satisfaction
2. *Remuneration and employee retention:* 29% indicated that the package of benefits offered would affect their choice of looking for another company to work for, while 32 % stated that the reason why they loved working in the company was exactly the benefits and compensation they received.

While, Eriksson and Kristensen (2010) Hedonic Compensation model showed that individuals value very differently fringe benefits and that indeed, as the model claimed, there are big

compromises made between the two variables, with a clear variation between demographic groups. Female workers whose children were less than 6 years old, and senior employees preferred to work with flexible hours, compared to having a higher wage.

The pandemic changed the future of work. According to Kristie et al. (2020) compensation and benefits area that will be impacted by lost revenue and increased costs because of the pandemic is employee benefits. While, Kilgour (2020) says that public-sector pension plans, other authors such as Baskin and her colleagues preface the review with consideration of employment trends leading into 2020, including modifications to the traditional 40-hour, adjustments in minimum and subminimum wage, and growth in the gig economy. Furthermore, they examine the response to the COVID-19 pandemic in the US, summarizing legislation have examined the opportunities of suggesting intervention opportunities for HRM professionals concerning the traditional workweek, worker classification, employee benefits, and workplace safety.

The *research objectives* aimed by our study are:

- RO1: To investigate the impact of Demographics on the preference of benefit types.
- RO2: To investigate the impact of the Covid-19 pandemic on the remuneration package.

## **II. THEORETICAL FRAMEWORK**

Many studies have emphasized the strategic importance of Human Resources in an organization. As the working force is considered the most valuable asset, organizations aim to hire the most talented candidates in the labor market and keep them satisfied and engaged. The benefits or remuneration play a crucial role in achieving such an aim.

Going back to the study of Hong et al.(1995), showed that there are differences in the preferred benefit type between men and women and between single and married employees. Women favored maternity leave, flexible working time, commuting subsidies, and vehicles, while men favored getting additional education and training, loans, and dividends.

Single employees were motivated more by benefits that increased their self-actualization, for example, additional education and training, whereas married ones emphasized child education subsidies, daycare opportunities, and pensions. Eriksson and Kristensen (2010) conducted another study to verify how the Hedonic Compensation model works in practice. They chose to do an online survey with 3,094 people, with the criteria of being educated beyond high school. The results showed that individuals value very differently fringe benefits and that indeed, as the model claimed, there are big compromises made between the two variables, with a clear variation between demographic groups. Females, workers whose children were less than 6 years old, and senior employees preferred to work with flexible hours, compared to having a higher wage.

Tetrick et al. (2018) wanted to prove if older workers would consider more substantial retirement plans compared to the younger generation and if single employees would prefer more paid time off from work than married ones. Their outcomes exhibited no correlation between age and benefit preferences. On the other hand, it was proven that married employees would better have a

higher wage and more defined pension plans, compared to non-married ones, who wouldn't mind not receiving such contributions from the company.

Duda (2016) found a difference between men and women in what type of compensation they prefer. While women wanted benefits related to their children (children's nurseries and kindergartens) and annual bonuses, men chose to receive worker stocks, a share of profits, and utilize the business vehicle.

In 2017, Torsvik conducted a study to see the linkage between preferred bonus plans and performance in a firm where employees work in teams and their bonus depends on the productivity of the individual and team.

According to many studies, low-performance individuals would choose to work in teams, in order to compensate for their shortcomings (or free-ride). But this particular research found that men who underperform choose to get paid as an individual. The only reason the author found for this phenomenon was that they want to avoid peer pressure and bad group evaluation.

Researchers who studied the relationship between demographic characteristics and benefit preference came to the same conclusion: there are differences in the preferred benefit type between men and women and between single and married employees. Female employees favor maternity leave, flexible working time, commuting subsidies, and vehicles, whereas men favor getting additional education and training, worker stocks, a share of profits, loans, and dividends. Single employees were motivated more by benefits that increased their self-actualization, for example, additional education and training, whereas married ones emphasized child education subsidies, daycare opportunities, and pensions.

### III. RESULTS

#### *Correlation between Gender and Benefit types*

The study revealed a significant relationship between Gender and commissions, entertainment equipment and activities.

Furthermore, the related Cramer's V values show small to medium strength of the correlation: 0,17 for entertainment equipment and activities and 0,20 for commissions and mileage reimbursement.

#### *Correlation between Age and Benefit types*

Considering the relationship between age and benefits, the study showed a significant relationship. Respective Cramer's V values (0,30; 0,34; and 0,32), show that the strength of the correlation is medium.

#### *Correlation between Marital Status and Benefit types*

The results show that there is a significant relationship between marital status and daycare service, child education benefits, home/laptop computers, employee discounts on company products and services, and private pension funds.

The related Cramer's V values were 0,19 for day-care service, 0,33 for child education benefits, 0,26 for home/laptop computers, 0,18 for employee discounts on company products and services, and 0,27 for private pension funds, so the strength of the correlation is mostly small to medium,

except for the strength of the correlation between marital status and child education benefits, which is medium.

#### IV. CONCLUSIONS

This study revealed a significant relationship between demographics and different types of benefits. The most attractive benefit to female employees were year-end bonuses and flexible working hours. While, male participants similarly preferred to receive bonuses, medical insurance, year-end bonuses, and a private pension fund. They also favored receiving funding for additional education and training and utilizing the business vehicle. Regarding the age group characteristic, people who are at a young age do not think about the future very much. They would prefer to receive benefits that provide them with more money in a short period of time. When they reach a certain age, they begin to think more about saving their incomes. They still want to make money, hereafter the preference for different types of bonuses, but they also prioritize private pensions. Despite the marital status and having or not having children, employees are favored to receive medical insurance and different types of bonuses. Whereas married participants with children chose to receive a private pension fund, the ones who were single and had no children preferred flexible working time and funding for further education and training.

Regarding the impact of Covid-19, some preliminary findings of semistructured interviews conducted post-pandemic show that not much has changed in the Albanian benefits package, besides the “Flexible working time” mentioned by all the interviewees.

Concluding, no previous studies related to employee benefits in the Albanian labor market exist. Due to the significant role of employee recruitment, retention and engagement, further studies need to be conducted in this field.

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# **PREPARING THE LIST OF EMPLOYEES AND WORKSTATIONS HOSTED IN DISASTER RECOVERY INFRASTRUCTURE AS PART OF BUSINESS CONTINUITY PLAN: CASE STUDY IN THE BANKING SECTOR**

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## **ABSTRACT**

*In this study, the analysis of business processes is done in a second level bank in Albania. The paper shows how to identify the employees and in the same time the workstations that should be planned by the retail banks to be part of the disaster recovery site. Also in the paper is described the methodology that will be used for identifying the key employees that will be part of the disaster recovery site, and how to define the proper working station for each of these employees, equipped with the required systems and applications in order for them to operate normally even when they will be located in disaster recovery site. A questionnaire has been prepared with a dedicated session for the employees and workstation used during the normal business time and during the disaster events.*

*The business line responsive employee in charge of the business continuity management plan are interviewed. Additionally, it is the duty of these personnel to notify the business continuity manager of any updates in case anything is changed in their regular operations. All the personnel needed to complete each business procedure have been listed by the correspondent employee. A final table is created when the material from the interviews has been analyzed.*

**Keywords:** *recovery time objectives, business continuity management, disaster recovery*

## **INTRODUCTION**

Employees are the most important and valuable assets of an organization. In any emergency, in addition to its systems recoveries, the organisation will rely on its employees to recover normal business operations in the minimum amount of time. Organisation will also rely on their main suppliers of critical goods and services to continue to support recovery of the business operations through to normal operating mode.

The Disaster Recovery Plan and the BCP will rely principally on key members of management and staff who will provide the technical and management skills necessary to achieve a smooth business recovery process. These key members of management or staff will be hand picked and will be responsible for the implementation of the BCP in the event of an emergency. A well-organized and structured approach will avoid the unexpected crisis deteriorating into chaos.

Specific sections of the BCP will contain information on who should be contacted in the event of an emergency, and how to contact key suppliers and also key staff, and other employees.

## BACKGROUND

A Crisis Management System allows the entity to respond to a crisis. Its purpose is to put in place resources as quickly as possible to minimize the impact of the crisis.

In order to prevent all types of crises, a crisis management system must be set up

A better representation of how employees are managed when an incident hits an organization normally is covered by crisis management procedure, which normally is a set of technical and organizational resources that enable an organization to deal with a crisis.

A crisis is defined as an event that directly or indirectly affects the activities of a company and disrupts the smooth running of the company.

A crisis management system enables companies to respond to crises. The goal is to provide resources as soon as possible to minimize the impact of the crisis. In order to prevent all kinds of crises, it is necessary to develop a crisis management procedure.

Management of employee health is one of the most important aspect especially during the pandemic situation.

In operational terms, management of employee health is the responsibility of the HR departments. It requires an anti-pandemic management system (pandemic crisis management units) dealing with health issues, and a staff communication system. This management system will incorporate measures put in place by the public authorities, along with the instructions given to companies by the public authorities, i.e.:

- to take responsibility for vaccinations
- to implement various prophylactic measures

Management of the crisis in the economic and banking system is a must and for sure will inevitably accompany the pandemic. This is the responsibility of the Management Board's crisis unit, which will also monitor work done by the aforementioned crisis unit.

HR should appoint a single person responsible for reporting to the public authorities and the Ministry for Health, and to the medical representative for their protection zone.

This employee is in charge of staff questions and HR administration, and has been appointed by HR as the person responsible for avian pandemic in the organization.

Each employer entity must:

- Appoint a person responsible for the employer entity
- Set up its pandemic crisis management unit
- Devise and put in place the required organization and equipment
- Select a co-ordinator and determine the role of occupational health officers
- Design a method for mass communication with employees (emergency telephone etc.)

## METHODOLOGY



The information necessary for identifying the list of employee that should be part of the disaster recovery site was collected by conducting interviews with all departments of the organization. About 25 interviews were conducted and the complete list of interviewed departments is listed in the table 2 of this paper.

In order for the collected information to be as complete and as accurate as possible, a well-structured questionnaire was used, part of this questionnaire that is related with the purpose of this article is shown in table 1 and 2.

The construction of this questionnaire is based on many years of experience of some of the best security specialists in the field of building business continuity plans. The final version of this questionnaire was decided after a long process of selection and consultation of many advanced practices related to this topic.

It is also necessary to know the number of staff that must have a dedicated workplace in the environment created the disasters recovery (Disaster Recovery Site), compared to the number of staff needed to perform work in the MainOffices during normal days of work.

Other important information that should be collected through this questionnaire is the list of essential applications that must be active in the disaster recovery environment (Disaster Recovery Site), list of application installed in every computer in Disaster recovery site and also the number of users. This is because many of the applications may require licensing on a per-user basis.

Other necessary information is the number of telephones, fax machines, printers, scanners and other specific equipment that should be part of the environment created for dealing with disasters (Disaster Recovery Site), against the number of these equipment needed for carrying out of work in the central offices during normal working days.

*Table 3. Business process list for each unit.*

Order of priority	Process description	Implementation time	Action: protective measures or alternative procedures

*Table 2. Staff and workstation required in DR site.*

	Primary	T+4	D	D+1	D+2	D+5	D+10	D+N
Staff								
Position								

For each process the business line responsible employee has indicated all the information as requested above.in Table 3 are listed all departments and positions of the employees interviewed in the bank, and the respective dates.



Table 3. Plan of the interviews with departments and employee position. Source: Vukatana & Mulla, (2022)

Unit	Department	Date of interview	Position
Compliance	Compliance	09/05	SM
Human Resources Office (HRO)	HR	10/05	CHRO
Legal Office	Legal	11/05	CLO
Risk Management Office	Risk and Permanent Control	12/05	CRO
Marketing & Bank Products Office	Products section	13/05	CPO
Operational Office	Head Operational Office	02/06	COO
	Finance	16-18/05	CFO
	Head IT Office	17/06	CTO
	IT Office / Systems	15/06	SM
	IT Office / Applications	16/06	SM
	Payments and Correspondent Banks	19/05	SM
	Treasury / Intermediary Office	20/05	CHO
	Credit Administration	23/05	SM
	Problem Loans and Legal Litigation	24/05	SM
	Administrative Support	25/05	SM
	Director of Recovered Assets Management	26/05	SM
	Treasury	27/05	SM
	Debt Recovery and Negotiations Sector	31/05	SM
	Cards & ATM	01/06	SM
	VAULT	02/06	CHO
Retail Office	Direct and Alternative Sales	03/06	CRtO
	The region of Tirana	06/06	SM
	Business Center Office	09/06	SM
Enterprise Office	Division of Enterprises	10/06	SM

Enterprises Sector Alpha	13/06	SM
Enterprises Sector Beta	14/06	SM
Enterprises Sales	15/06	SM
Investments	17/06	SM

The information collected from this interviews by filling the above mention questionnaire was considerable, manual processing of this data can normally lead to results that are not completely accurate. In order to solve this problem, a software has been developed in order to process the information in an automated way.

For this purpose has been built a program in VBA (Visual Basic for Applications), which processes the information collected by forming the summary tables that are part of the BIA (Business Impact Analysis).

In order to generate all the information for the construction of the BIA, the program processes the information received from the questionnaires filled in by the business representatives. These questionnaires were previously converted to an Excel document. Using several key words, information is collected from different parts of the questionnaires in order to be summaries in tables.

The application generates all the output that that is required at the end of this process.

In the following table, not all the recorded processes are given as they constitute confidential information. Only some general processes are given which best illustrate the generated result and at the same time, being general processes, do not violate the principles of confidentiality.

## RESULTS AND DISCUSSION

In Table 4 is shown the number of employees for each department that must be transferred to the disaster recovery environment, in order to put all the critical processes of this department into operation. Also, from the table below, it can be seen that with the extension of the effect of the disaster, the number of employees who must be physically present in the environment for disaster recovery increases.

*Table 4. Partial example of systems and applications*

Business Line	Prim		T+4		D		D+1		D+2		D+5		D+n	
	Pos	Pers	Pos	Pers	Pos	Pers	Pos	Pers	Pos	Pers	Pos	Pers	Pos	Pers
<i>Main Vault</i>	2	4	1	1	1	1	1	1	1	1	2	2	2	2
<i>Cards and ATMs Sector</i>	3	3	1	1	1	1	1	1	1	1	2	2	3	3
<i>IT Systems</i>	9	9	9	9	9	9	9	9	9	9	9	9		

<i>Loan Administration</i>	6	6	2	2	2	2	2	2	2	2	2	2		
<i>DAM</i>	2	2	0	0	0	0	0	0	0	0	0	0		
<i>Workout and Foreclosure</i>	3	3	0	0	0	0	0	0	0	0	0	0		
<i>Retail Collections and Negotiations Sector</i>	6	6	3	3	3	3	3	3	3	3	3	3		
<i>TreasuryBack Office</i>	2	2	1	1	1	1	1	1	1	1	1	1	2	2
<i>Payment Sector</i>	5	5	3	3	3	3	3	3	3	3	3	3		
<i>Administration</i>	13	13	4	4	4	4	4	4	4	4	4	4		
<i>Compliance</i>	2	2	0	0	1	1	1	1	1	1	1	1	2	2
Operations Total	53	55	24	24	25	25	25	25	25	25	27	27	9	9
Percentage			45.28 %	43.64 %	47.17 %	45.45 %	47.17 %	45.45 %	47.17 %	45.45 %	50.94 %	49.09 %	16.98 %	16.36 %
<i>Retail Unit</i>	11+2 + 1	11 +2 + 1	4	4	4	4	4	4	4	4	6	6		
Retail Total	14	14	4	4	4	4	4	4	4	4	6	6		
Percentage			28.57 %	28.57 %	28.57 %	28.57 %	28.57 %	28.57 %	28.57 %	28.57 %	42.86 %	42.86 %		
<i>Enterprise</i>	14	14	2	2	2	2	2	2	2	2	2	2		
Enterprise Total	14	14	2	2	2	2	2	2	2	2	2	2		
Percentage			14.29 %	14.29 %	14.29 %	14.29 %	14.29 %	14.29 %	14.29 %	14.29 %	14.29 %	14.29 %		
<i>Treasury</i>	3	3	2	2	2	2	2	2	2	2	2	2		
<i>Finance Division</i>	14	14	5	5	5	5	5	5	5	5	7	7		
<i>Marketing and Communications</i>	6	6	0	0	0	0	0	0	0	0	0	0		
<i>Risk and Permanent Control</i>	7	7	3	3	3	3	3	3	3	3	3	3		
<i>HR</i>	7	7	3	3	3	3	3	3	3	3	3	3	3	3

<i>Audit</i>	3	3	1	1	1	1	1	1	1	1	1	1	1	1
<i>Legal</i>	7	7	0	0	0	0	0	0	2	2	2	2	2	2
Other Total	47	47	14	14	14	14	14	14	16	16	18	18	6	6
Percentage			29.79 %	29.79 %	29.79 %	29.79 %	29.79 %	29.79 %	34.04 %	34.04 %	38.30 %	38.30 %	12.77 %	12.77 %

<b>Grand total</b>	128	130	44	44	45	45	45	45	47	47	53	53	15	15
<b>Overall percentage</b>			34.38 %	33.85 %	35.16 %	34.62 %	35.16 %	34.62 %	36.72 %	36.15 %	41.41 %	40.77 %	11.72 %	11.54 %

Table 4 presents in a summaries way the number of employees and the respective workstations that are required in DR site in order for the organization to keep the main business processes up and running.

## CONCLUSION AND FUTURE WORK

By creating the right questionnaire, and by conducting the interviews with all the business lines of the bank, it was possible to identify the number of employees and the number of workstations required in the disaster recovery site for keeping up and running all the business processes that are critical for the organization. The results show the number of employees and working stations used by the bank that consist in 44 employees and 44 workstation in the first day of disaster.

The future work related to this paper will be the research on how to create a disaster recovery site, in order to host not only the processes that are critical for the organization, the applications and systems that are used to support these critical systems but also to host the employees and the respective working station that are required to keep the critical business processes up and running.

Organizations that have already built a security plan must constantly improve them, to increase its effectiveness. The improvement of this plan is done with periodic, complete and comprehensive testing. Also, the lessons learned from the tests should be reflected in order to improve the plan.

All organizations must have personnel with sufficient knowledge to build a security plan to protect critical or sensitive processes and information as such a plan ensures business continuity in the event of a disaster.

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# ALTERNATIVE FINANCIAL MECHANISMS TO SUPPORT BUSINESS GROWTH AND ACCESS TO FINANCE OF TOURISTIC HOST CHAIN ENTITIES

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## ABSTRACT

*The article is introducing a new point of view of using insurance products as an alternative financial mechanism. Insurance represents a new way out of recovering impacts of post Covid19 by assuring a more predictable future through risk mitigators of unexpected events businesses and/or individuals will face ahead. I will show an analysis of current situation of tourism operators on access to finance and reliability. The ambiguity of the future and the “trauma” effect of Covid19, made them more sceptical and fearing more the future. Insurance products as public & professional liability, agribusiness insurance for the whole food chain are financial mechanisms to boost operators ‘credibility. This implies for Albania be more reliable, competitor in the region among other countries to be chosen as a destination for EU, Eastern EU citizens and more. Insurance covers financial unexpected expenses, which improves the business owners’ behaviours toward the future, desire and courage to extend investments. It provides a strong “collateral” to access finance leading at more extended “business growth breath” contributing to a larger extend on leveraging this industry and welfare of the country. Insurance products represent an additional “guarantee” for the safety of tourists when spending their holidays in a place considering a wide range of unexpected and unwanted events. In now days this is a unique selling preposition and differentiation feature for the hosted countries, entities and tourists ‘operators across the world.*

**Keywords:** Access to finance, Credibility, Competition, Growth, Insurance products, Reliable

## INTRODUCTION

Tourism is one of the main core development pillars for Albania. As stated at the National strategy for sustainable Tourism Development 2019 – 2023 (Ministry of Tourism, n.d.):

*“Tourism gives a direct contribution of 8.5% to GDP and an indirect added value of 26.2%.*

*Tourism is also the sector with the highest employment potential, where 93,000 individuals were directly employed, while in overall there were 291,000 employed in the sector during 2017. Meanwhile, the sector's contribution to the economy is projected to grow significantly over the next 10 years, with the tourism sector expected to account for only 8.8% of the GDP in the next 2-3 years, while by 2028, the sector may reach 9.3% of the GDP. Thus, taking into account this upward trend, it is projected that by 2028 the direct and indirect effect of the tourism sector will reach approximately 1/3 of Albania's total GDP.”*

Considering this vision there are many initiatives to boost tourism in Albania including internal actions as infrastructure improvements<sup>34</sup> (roads, accommodation entities), regulatory frames about touristic operators (Travel agencies, HORECA entities) and intensive marketing communication campaigns.

On the communication strategy looks that a great part of it has been covered on the “testimony approach” technique. High government bodies have weighted the strength of the promo message as Prime Minister, Minister of Tourism on social media and other digital channels. International influencers are used as “country brand ambassadors” like Dua Lipa (famous singer), Leonardo DiCaprio (famous actor). There are journals which gave space to Albania tourism promotion like Zeit journal “Albanische Riviera” from Victoria Morasch 15/08/2022; Paul Bradbury CEO of Total Croatia News, “It’s time to talk about Albania” 17 August 2022. Albania has been host for International events like UEFA EU Conference League Final football match, Tirana European Youth Capital for 2022 that have amplified the name of Albania into the international arena, raise awareness and push foreigners’ curiosity to come in Albania.

## OVERVIEW

Let’s have a short overview to some statistics on the current situation of tourists and tourism in Albania according to INSTAT<sup>35</sup> to evaluate how these efforts and actions have been reflected so far at increased trends of tourism in Albania.

During June 2022 there were 1.359.501 people coming in Albania which represents an increase of 44,6 % compared to June 2021. Foreigners count 876.056 people that represents an increase of 45 %, compared to June 2021. Same trends are reflected even on semiannual figures with an increase of 51.3% of foreigners coming in Albania (Table 1).

Period	June 2021	June 2022	Annual change (%)	January- June 2021	January- June 2022	Annual change (%)
<b>Total Arrivals</b>	<b>939,872</b>	<b>1,359,501</b>	44.6	<b>3,172,440</b>	<b>4,813,233</b>	51.7
Albanian	335,491	483,445	44.1	1,484,458	2,259,486	52.2
Foreign	604,381	876,056	45.0	1,687,982	2,553,747	51.3
<b>Total Departures</b>	<b>873,582</b>	<b>1,262,925</b>	44.6	<b>3,210,305</b>	<b>5,009,065</b>	56.0
Albanian	371,750	498,857	34.2	1,703,123	2,519,533	47.9
Foreign	501,832	764,068	52.3	1,507,182	2,489,532	65.2

Source: General Directorate of State's Police, INSTAT calculations

Table 1

<sup>34</sup> Important strategic decisions are made on: building Kukes Airport (North Albania for low cost flights), extension of the main capital airport in Rinas, additional airports in South (Vlora and Saranda) to create faster access to coast area, Rail way from Prishtina to Dures, Dures yachts bay to attract wealthy tourists.

<sup>35</sup> INSTAT – Institute of Statistics

During June 2022, there was an increase in the number of non-resident arrivals by 34 %, compared to June 2021. The South Region marked the highest increase of 45.5 %, which is supported by the following data of 66% of them being accommodated in coastal areas. A very interesting fact is the increased trend of “camping grounds, recreational vehicle parks and trailer parks” representing the early signals for a new tourist typology coming in Albania although still 94% of them are accommodated in hotels and similar facilities. (Table 2)

	Resident			Non-resident		
	June 2020	June 2021	June 2022	June 2020	June 2021	June 2022
<b>Regions</b>						
Northern region	5,143	15,380	17,489	1,298	23,675	31,180
Center region	3,925	16,082	20,913	4,795	34,976	45,442
Southern region	32,576	31,366	33,958	8,694	17,287	25,161
<b>Type of location close to the sea</b>						
Coastal area	33,688	42,475	41,470	13,162	57,834	67,323
Non-coastal area	7,956	20,353	30,890	1,625	18,104	34,460
<b>Type of accommodation</b>						
Hotels and similar accommodation	41,001	59,328	68,012	14,519	73,027	95,704
Holiday and other short-stay accommodation	509	3,076	3,184	268	2,700	3,594
Camping grounds, recreational vehicle parks and trailer parks	134	424	1,164	-	211	2,485
<b>Total</b>	<b>41,644</b>	<b>62,828</b>	<b>72,360</b>	<b>14,787</b>	<b>75,938</b>	<b>101,783</b>

Table 2

Foreigners traveling to Albania for vacations purposes shows an increase of 47.7% for June 2022 vs June 2021 while as semiannual an increase of 52.6% (Table 3)

Period	June 2021	June 2022	Annual change (%)	January- June 2021	January- June 2022	Annual change (%)
<b>Arrivals foreign citizens</b>	<b>604,381</b>	<b>876,056</b>	<b>45.0</b>	<b>1,687,982</b>	<b>2,553,747</b>	<b>51.3</b>
I. Personal	594,088	868,307	46.2	1,644,191	2,502,453	52.2
1. Holidays, visit to relatives, etc.	575,593	850,410	47.7	1,579,483	2,409,819	52.6
2. Health treatment	147	40	-72.8	913	498	-45.5
3. Religious	53	69	30.2	246	244	-0.8
4. Tranzit	18,295	17,788	-2.8	63,549	91,892	44.6
II. Business and professional	10,293	7,749	-24.7	43,791	51,294	17.1

Source: General Directorate of State's Police, INSTAT calculations

Table 3

According To INSTAT, the ways people traveled to Albania were distributed as shown in the table below. There is an increased trend of people traveling by air 19.7% June 2022 vs 15% in June 2021 in exchange of traveling by land that was 76% in June 2022 vs 81,6% on June 2021. This reflects the impact of Kukes airport and gives positive hints for the upcoming years in the effects of improved infrastructure. (Table 4)



Period	Total Arrivals			Total Departures		
	Air	Sea	Land	Air	Sea	Land
June 2021	143,247	29,854	766,771	115,446	19,292	738,844
June 2022	268,123	56,449	1,034,929	234,892	45,824	982,209
<b>Annual change (%)</b>	<b>87.2</b>	<b>89.1</b>	<b>35.0</b>	<b>103.5</b>	<b>137.5</b>	<b>32.9</b>
January- June 2021	385,684	122,942	2,663,814	366,032	107,315	2,736,958
January- June 2022	1,043,172	183,883	3,586,178	1,044,552	181,659	3,782,854
<b>Annual change (%)</b>	<b>170.5</b>	<b>49.6</b>	<b>34.6</b>	<b>185.4</b>	<b>69.3</b>	<b>38.2</b>

Source: General Directorate of State's Police, INSTAT calculations

Table 4

Road accidents have caused 141 injured and 14 died persons. The main cause of them on 90,8 % of the cases is “driver attitude” (Table 5) by which 27.6% are caused by drivers at the age of 25-34 years old (Table 6)

Period	Accidents by		Killed persons by	
	Behavior of the driver	Behavior of the pedestrian	Behavior of the driver	Behavior of the pedestrian
July 2021	109	5	13	0
July 2022	92	13	6	0
<b>The annual change (%)</b>	<b>-15.6</b>	<b>-38.1</b>	<b>-57.1</b>	<b>-</b>
January-July 2021	662	123	104	14
January -July 2022	600	86	89	6
<b>The annual change (%)</b>	<b>-9.4</b>	<b>-30.1</b>	<b>-14.4</b>	<b>-57.1</b>

Source: General Directorate of State's Police, INSTAT's calculation

Table 5

### Road Accidents by Drivers

Period	0 - 24 years old	25- 34 years old	35- 44 years old	45-59 years old	60+ years old	Left the accident scene
July 2021	25	31	19	19	10	10
July 2022	18	28	21	20	13	5
<b>The annual change (%)</b>	<b>-28.0</b>	<b>-9.7</b>	<b>10.5</b>	<b>5.3</b>	<b>30.0</b>	<b>-50.0</b>
January-July 2021	172	212	145	136	72	48
January -July 2022	140	178	129	132	71	36
<b>The annual change (%)</b>	<b>-18.6</b>	<b>-16.0</b>	<b>-11.0</b>	<b>-2.9</b>	<b>-1.4</b>	<b>-25.0</b>

Source: General Directorate of State's Police, INSTAT's calculation

Table 6

Europe<sup>36</sup> is the main source of tourists visiting Albania taking up a volume of about 92.4% of all tourists while recently tourists from the United States of America, or Asia, and especially China, have shown a significant increased interest. They consume both mountains and seaside tourism through a full exploring tour of wild places with virgin natural beauty as north mountains (Tropoje, Theth) and canoe adventures in Vjosa River, well known and promoted by Leonardo di Caprio for its unique characteristic worldwide, Fierza lake.

In reference of the safety indicators, according to “Legatum Prosperity Index” Albania is ranked at the 69th in the overall Prosperity Index rankings and specifically has done improvements at Safety and Security component<sup>37</sup>. Albania is ranked green as “normal security precaution” considering mostly the crime, burglary parameters and not the frequency of unexpected events related to financial cost for health issues or material damages caused by these events. The latest value from 2022 is 4.5 index points’ vs 10 points the highest according to Global economy index (Global Economy, n.d.)

## **I. DECISION MAKING DRIVERS ANALYSES FOR TOURISTS**

I would like go into a different angle of analyses and see which are the decision-making drivers for people when choosing to travel a destination. By knowing the decision-making drivers of tourists, we can build strategies and perform actions on effecting and channeling that demand toward Albania.

The Covid19 and all viruses’ varieties afterward, kept the unsecured healthy situation at alert mode. This has been reflected at a huge change of decision-making drivers to choose a destination for the current year and beyond!

According to Alex Wieteska at her article for travel tips “9 Factors to Consider When Choosing a Travel Destination during Covid-19” at Vacayou Magazine on top is mentioned “Safe” with the consideration of countries measures to keep tourists safe and what accommodation entities operate toward post Covid19 situation. (Wieteska, 2022)

Expedia’s research highlights the importance of safety and financial security as key factors driving travel behaviour. They state on their research results that: *“4 out of 5 travellers base their accommodation decisions on pandemic measures for health and hygiene and a safe stay a top priority. Financial security (the ability to receive a full refund) and flexibility (the option to change booking dates) are also a major consideration with nearly a quarter of families ranking this important in their decision-making. The travel landscape is still unpredictable so give your guests peace of mind and build guest loyalty by ensuring them that safety”*

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<sup>36</sup> Chart no 1 at Appendix

<sup>37</sup> The Legatum Prosperity Index™ is an annual ranking developed by the Legatum Institute. The ranking is based on a variety of factors including wealth, economic growth, education, health, personal well-being, and quality of life. Index is based on 104 different variables analyzed across 149 nations around the world. Source data includes Gallup World Poll, World Development Indicators, International Telecommunication Union, Fragile States Index, Worldwide Governance Indicators, Freedom House, World Health Organization, World Values Survey, Amnesty International, Centre for Systemic Peace. The 104 variables are grouped into 9 sub-indexes, which are averaged using equal weights.

Ariane Gorin of the Expedia Group<sup>38</sup> says: “As vaccination rates rise and borders open across the globe, people are ready and eager to travel. However, the months of uncertainty are weighing on their travel decisions and shifting the conventional belief that price is the top driver of bookings. These insights show people want to book with trusted travel providers that will deliver on their experiences, keep them safe, and protect their financial investments”.

## II. AREAS OF OBSERVATIONS

Based on the above customers’ behavior features I will focus only at two main areas that would influence the increase of tourists toward Albania (Group, n.d.):

1. Improving accommodation and range of tourism products and services
2. Assuring safety and security of tourists

On the regulatory frame actually, there are mandatory criteria for licensing, monitoring and controlling the activities of travel agencies and accommodation entities. These rules have implied a clear set of criteria to be fulfilled on the logistic conditions of accommodation entities and on the liabilities coverage these stakeholders must comply with<sup>39</sup>.

To match those criteria and be competitive, touristic business chain requires investments to upgrade their accommodation premises and/or building new ones. This is why they ask access to get financed by Banks and Microfinance Institutions.

As according to Bank of Albania there is a positive trend on the level of demand for tourism purposes (accommodation and food service, art and entertainment, including insurance), reaching approximately 290 million euro or 26% growth compare to 2021. Tourism is the 4<sup>th</sup> most credited sector of the economy with an increased demand for upgrading current premises to be classified as 4-5 stars hotel and get fiscal benefits of this ranking status. Another important point to be mentioned is that there is no any seasonality trend for this kind of loans, which means that demand for access to finance from these clients is inelastic. Anyhow what is obvious also, is the low level of weight this loan purpose portfolio takes to the total sectorial lending portfolio; for the accommodation and food service vary 4-8%, Insurance 1-3%; entertainment not more than 1%. (Albania, n.d.) (figure 9; 10; 11 at Annexes). To get a deeper understanding of this observation let see how the main actors of this process have been engaged into the lending process to drive the access to finance for this sector.

Government has offered support with 11 milliard Lek Sovereign Guarantee for Banks<sup>40</sup> in order to support the access to finance for businesses effected by Covid19 specifically tourism entities as the most effected sector by Covid19. This guarantee could be used as collateral for loans

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<sup>38</sup> The Experian Group Traveler Value Index was created to understand the impact of the COVID pandemic on travel and the mindset of travelers, providing property managers with industry-specific insights into the shifting travel and booking behaviors resulting from the pandemic” (Xplorie, 2021)

<sup>39</sup> Businesses are referred as all entities that perform an activity linked with hospitality of tourists as for definitions stated on the Law 93/2015 “For Tourism”; Law no 114/2017 “About some additional on the Law 93/2015”

<sup>40</sup> Minister Council Decision (VKM) no 277/2020

issued by second tiers Banks to these businesses in order to share financial risk with Government. This way Government was contributing to soften the unsecured business environment for both; banks and businesses.

According to Albanian Bank Association, touristic businesses were skeptical to new investment because of the uncertainty of the business trend continuity and unpredictable costs they might occur as for Covid19 implications. This was explaining their attitude toward the “Sovereign guarantee” which was not used as option from them to access finance from Banks. Banks on the other side were more demanding on their risk mitigators requirements.

On various interviews with Chief Executive Officers and Chief Risks Officers of the main Banks in Albania, was very interesting to see their narrow view of requirements focused on tangible collateral, to define “a safe, healthy lending”. This way they believe to control the provisions expenses and return of investment. They stated as the main reason of loan issuance restriction, to be the highly unpredictable income projection flow of the businesses which implies difficulties on calculating risk taking level on lending.

The situation is a vicious cycle of concerns:

- Lenders wants the security of cash flow generation from businesses
- Businesses wants security not to be disrupted on financial sources from unexpected and unpredictable events.

The solution to address this cycle is Insurance, which by definition responds both above-mentioned concerns.

“Insurance” means the transfer of a potential risk, financial lost or a material damage from insurer to the insurance company as for terms and conditions of the policy insurance<sup>41</sup>.

“Compulsory Insurance” means Insurance for which it exists a “by Law” obligation<sup>42</sup>.

“Voluntary Insurance” means Insurance for which it does not exist a “by Law” obligation<sup>43</sup>.

“Risk” means potential lost from an unexpected event in the future, which causes damage to the insurer.

Risk areas covered by insurance products<sup>44</sup> are as below:

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<sup>41</sup> According to the Law: 9267/2013 “Insurance, Reinsurance and Insurance & Intermediaries” and Law 52/2014 “About Insurance and Reinsurance Activity; Clause 3 “Definitions” point 1

<sup>42</sup> Law: 9267/2013 “Insurance, Reinsurance and Insurance & Intermediaries”, pg 1, paragraph 2

<sup>43</sup> Law: 9267/2013 “Insurance, Reinsurance and Insurance & Intermediaries”, pg 1, paragraph 3

- Health and Accidents Insurance
- Motor Insurance
- Marine and Goods in Transport Insurance
- Aviation Insurance
- Property Insurance
- Liability Insurance
- Credit and Bonds Insurance
- Life Insurance

In simple words, Insurance means to have a tool in your hand that in case of any disruptive unexpected event that cause financial and/or material damages, businesses will collaborate to overcome that situation by an insurance company that will cover expenses occurred by the event leaving financials of the business “untouched” by the consequences. This means:

- Psychological comfort to the business owners and administrators on having a solution for the unexpected bad surprises life and business activity can bring ahead
- Sustainability of their projected cash flow and specifically expenses as long as they will not have to pay costs of damages occurred
- Reliability to lenders and investors feeling safe on their investments as long as business interruption causes are addressed immediately.

This is why Insurance represent the Financial Leverage for every business to face every unusual, unexpected situation, keep going sticking to their development plans, and achieve their goals and objectives on improving, extending and/or building their touristic premises at a competitive level with other countries especially the neighborhood ones.

The other area to be focused is assuring safety and security of tourists<sup>45</sup>. As stated above at the Expedia’s research one of the fundamental requirements of tourists in nowadays is “*Financial security (the ability to receive a full refund in case of any defaulted event happening), trusted travel providers that will deliver on their experiences, keep them safe, and protect their financial investments*”.

*By Law, there are compulsory requirements for:*

- *travel agencies to be equipped with Professional Liability Insurance (error and omission coverage) which covers all the costs related to discrepancies on terms and conditions fulfilment of the contract tour operators have with their clients, including payment capability, bankruptcy, and all obligations.*<sup>46</sup>

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<sup>44</sup> As listed Law: 9267/2013 “Insurance, Reinsurance and Insurance & Intermediaries”, clause 7 pg 7, paragraph B

<sup>45</sup> This thesis will define the safety and security from the point of Warrantees to support Tour operators and HORECA entities’ trustworthy, reliability on what they offer or commit to deliver to their customers.

<sup>46</sup> *Law of Customer Protection; Law no 93/2015 “For Tourism” (clause 55 and 9); Law 10081 23/02/2009 “For Licensing, Authorization, and Permissions in Republic of Albania)*

- Touristic HORECA entities to have All Risks Property Insurance and General Third-Party Liability Insurance/Public Liability Policy<sup>47</sup>

The above legal frame assures tourists or counterparts' travel agencies to give trust to each other as long as the insurer assures them on this commercial relationship, meaning more confidence from foreign tour operators to cooperate with Albania. In Albania there are 12 insurance companies. Four of them have majority ownership from EU Insurance companies as Uniqa Group Austria (Sigal Uniqa Group Austria and Sigal Life Uniqa Group Austria) and Vienna Insurance Group (SIVIG and Intersig) which position our country at the level of offering trustworthy credibility on the insurance area and unified insurance products with EU expectations.

Nevertheless, if a google search about accommodation entities or hotels in Albania is performed, the only information publicly shared by these entities is about logistic equipment while there is no single word about Insurance. Some few hotels are publishing general rules of Covid19 as hand cleanings but there is no any telling or showing any Insurance term on Public Liability of tourists staying at their premises and Covid19 Insurance which has been developed by two Insurance companies Sigal Uniqa Group Austria and SIVIG Albania.

Public Liability Insurance covers all damages (bodily injury and material damage) caused to other people (public) as consequence of the Insured's business activity happened at its premises. Covid19 insurance covers medical expenses in case of Covid19 examination during the staying in Albania.

This means that Albania might be losing tourists only because advertisement has stayed at the prior Covid19 approach. This approach leaves potential tourists be driven by their own assumptions on the country safety level or in the worst scenario, stopping them to come in Albania. The missing information exactly on the topic that today drives decision making of tourists to choose destinations especially if they are new and surrounded by well-developed touristic countries as Albania, could let opportunities apart and/or not used properly as they come.

Those foreign tourists that came in Albania and had healthy issues or incidents during their holiday's adventures in the landscape's tours in North, seaside in South, food poisoning, were hospitalized in Albania. According to Minister of Health there were around 33.000 foreign tourists assisted with medical care for personal accidents. They got medical care free at our hospitals considering expenses as well made for their transportation (helicopter, army involvement).

This means:

- Budget expense for Albania government (medical care expense increase)

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<sup>47</sup>Regulation "On requirements for registration and classification of the hotels, accommodation entities and touristic restaurants" Clause 16 page 8 paragraph 4

- No expense for the Foreign Insurance companies that have issued health insurance for their clients as long as there are no medical invoices claimed by their clients. Albanian Government cannot claim any expense to be paid by the health insurance of the tourists because it is not stated as part of the insurance policy at the issuance moment of it.
- Tourists benefit from “bonus-malus” feature of insurance policy. This means they get a lower insurance price on the renewal moment, as long as they have not caused any expense to their insurance company.

### III. CONCLUSIONS AND RECOMMENDATIONS

The scope of this paper is to incentivize all researchers across the world to see more deeply at the Insurance Industry and explore the ways how insurance products can make a differentiating feature among travel destinations of tourists.

Covid19, War in Ukraine and Global Warming are showing human society that unexpected; unpredictable and ambiguity events will be the “normal” of life path across the world. This means that we have to be supported psychologically, financially, and morally by means as Insurance in order to overcome fears and move toward light at life tunnel. Now, the challenges ahead are not just how to overcome the consequences of this unusual, unprecedented situation, but most importantly how we can get prepared for any possible one in the future.

Albania was taken as country for analyses to show that emerging countries aspiring tourism development should play smarter toward mature markets and/or new competitive ones. Unique selling proposition cannot be focused only on beautiful landscapes or existence of logistics, customer service because these are already explored and well-developed areas. The differentiation will belong to those who will offer security, liability, and trustworthy commitment. Being equipped with Insurance products from legal prospective means that the Insurer has already a “partner” who will guarantee to cover his liabilities as for the events of defaulted. In the eyes of clients and specifically of tourists, this is a testimony proof of their reliability.

According to the findings on Albania situation considering the aspiration of developing tourism at the scale of being by 2028, the sector contributing 9.3% of the GDP or approximately 1/3 of Albania's total GDP, some recommendations would be as follow. Some of these recommendations would be needed to get tested with respective stakeholders which will be content for near future research papers on these topics.

- Smarter advertising strategies by HORECA entities highlight and point out visually Insurance products they have, especially those related to Public Liability Insurance and Covid19 Insurance. This will assure:
  - websites viewers and visitors not missing this valuable information
  - unique advertising tactic and being different on marketing communication from other countries around with well-established tourism market (Greece, Italy, Montenegro).
  - marketing efforts efficiency by matching the decision driver of today customers (security and safety) with the priority feature advertised by HORECA entities.

- be positioned “different” at customers ‘perception and getting more attention and assure higher probability of being destination of choice of tourists.
- Smarter Advertising strategy from Albania Government apply 20/80 Principle by focusing marketing communication to markets as Germany and Grand Britain. These tourists are wealthy and “explorer” profile which means there is a good opportunity they choose Albania as a new country with very similarities to Greece and Italy (same coast and natural beauty), matching safety expectations of them. They are eager, curious for countries with a warmer climate than theirs are and with a great food quality range while are wealthy tourists that spend on their holidays. They come from countries with higher living standards compare to Albania which means in relative terms their spending is “normal” to their budget, while “upper level” customers ‘budget for Albania. This way with 20% of marketing communication budget expense Government can get 80% of the total value on the revenues coming by foreign tourists. Attracting new tourists is only the first milestone to the road of long-term tourism development but it is the most crucial one as “there is no any second chance to make first impression”. The “mouth to mouth” and “testimony” marketing communication tactics are powerful to assure sustainable inflow of tourists in the upcoming years to make worthy all the investments made by all tourism stakeholders.
- Smarter advertising from Insurance companies consists on their mass communication strategies, including digital marketing channels, are mostly based on informative approach of product features. In a market where Insurance knowledge is really at the very early stages, the language of promoting Insurance Products must be by simplifying the explanations of the product focusing more at “What’s in it for me” from client’s perspective. This way the value added of each insurance product will be better understood and absorbed from clients and increase the insurance products purchases. In other words, communication strategy must change from “product centric” to “customer centric”.
- Intensify at borders the advertising (in person is more effective) of travel insurance products which provides additional services as S.O.S in case of car accidents apart of those related to health and legal advisory.
- Health Insurance, Personal Accidents Insurance, Covid19 Insurance must be compulsory to be provided by Albanian Insurance Companies, because this will:
  - Help Albanian Government not to have increased medical care expenses for foreigners being hospitalized in Albania during their stay.
  - Insurance companies increase their turnover, meaning increase of GDP contribution from this sector
  - Tourists to have appropriate medical care coverage while accommodation entities less stress on handling unpredictable events of defaults of their clients.
- Government must be a proactive formal source of displaying “touristic entities” certified respectively for their activity. Ministry of Tourism must provide an open to public website info with the list of certified tourist entities to channel flow of tourists local and foreigners into the right ones. This will assure tourist get proper services in Albania and this way they can be “ambassadors” for Albania a destination of choice to tourists creating bases for a sustainable-repeated customers’ flow. This should be promoted as well in visual formats at entry borders of the country to catch even adventures clients. On the other hand, creates “peer pressure” for the rest of the businesses to meet customer



service standards and be part of that list. This “certified” chain approach will give possibilities to better access finance funds (private, international programs of EBRD, EU etc.) to enlarge the business investments. In addition, Financial Supervisory Authority (FSA) can display at their website all tourists service providers insured with compulsory insurance policy of Public Liability Insurance in order to give a formal assurance to tourists about their safety and security on serviced provided to them in Albania.

➤ Insurance companies’ products on the areas of tourism development:

- Agri Insurance Products. This goes along with country development strategy of being member of EU while on tourism approach supports safety food providers on the HORECA entities. The products can be integrated with the EU certified programs for food ingredients (vegetables, fruits, dairy products, meat etc.) to complete the chain of guarantees offered in Albania related to food security requirements. If the farmers and/or wholesalers of food (vegetables, meat, milk) are certified with international and/or local food security standards then these products can be accompanied by “product liability” insurance which will guarantee the hotels or supermarkets that in case of any default, all the costs will be covered by the insurance while they will keep the correct position in front of their clients without having costs on their financials.

- Marine Insurance (Protection and Indemnity) Products: this goes in alignment of coast area entertainment services and strategic development of yacht bay in Durres expecting a different tourist profile from what is currently visiting Albania. Get prepared for the near future means being ready not to miss any opportunity since at the moment it occurs! On the other hand, it addresses the recent accidents happened in the seaside to cover life insurance events for tourists on these areas.

As a final closing statement, Insurance is the mechanism designed to address unexpected events by sharing costs of the damages and respective consequences in many various ways to make people feel more comfortable psychologically on looking forward and dare to move ahead and overcome traumas like Covid19 pandemic situation. Insurance responds to “Fears” of lost by smoothing the negative impact of the unusual situations financially and psychologically, making it the perfect financial leverage to boost businesses moving ahead and people living happily.

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Non-residents arrivals by country of residence (%)

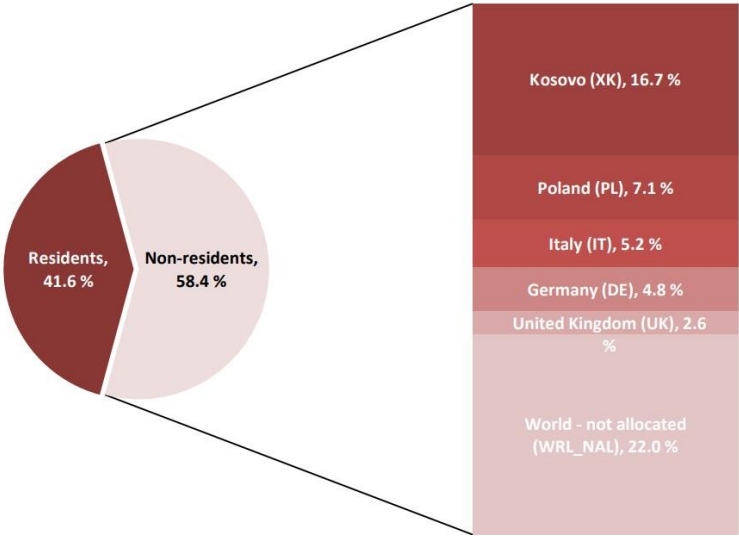


Chart 1

## THE LEGATUM PROSPERITY INDEX™ 2021

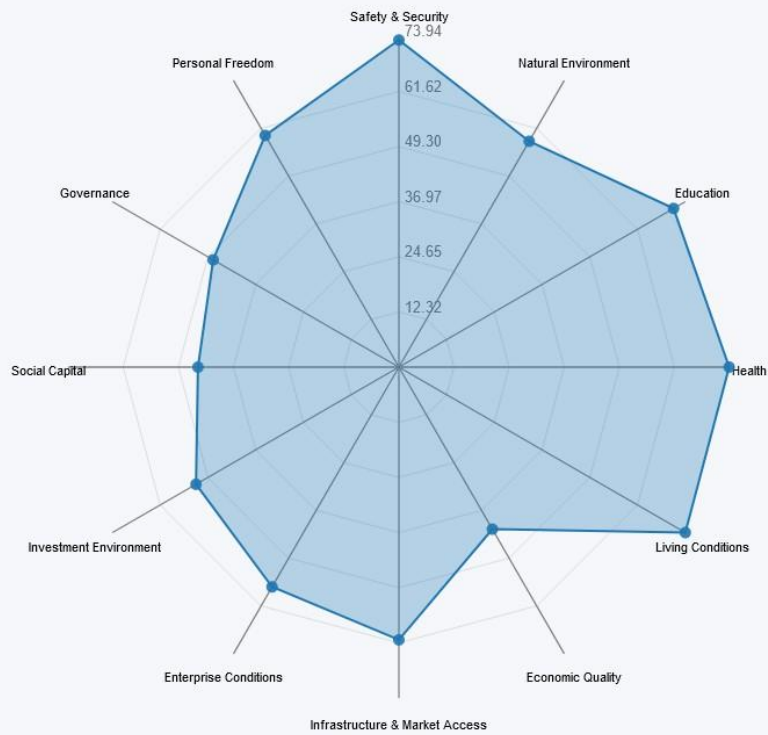
Creating the Pathways from Poverty to Prosperity



✖ Albania

Selected countries

■ Albania



How to read this graph:

When comparing multiple countries on a spider chart, data points that appear further away from the center represent a better performance to the points that are closer to the center.

Chart 2

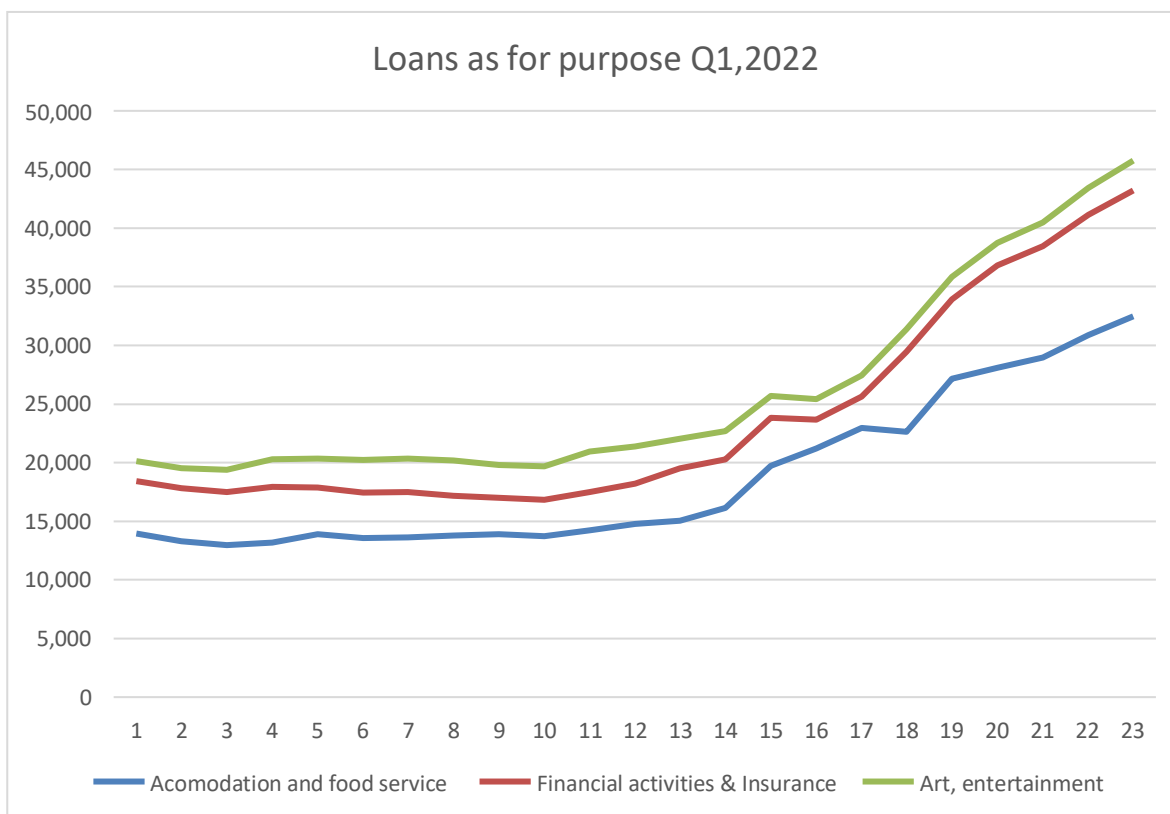


Chart 3

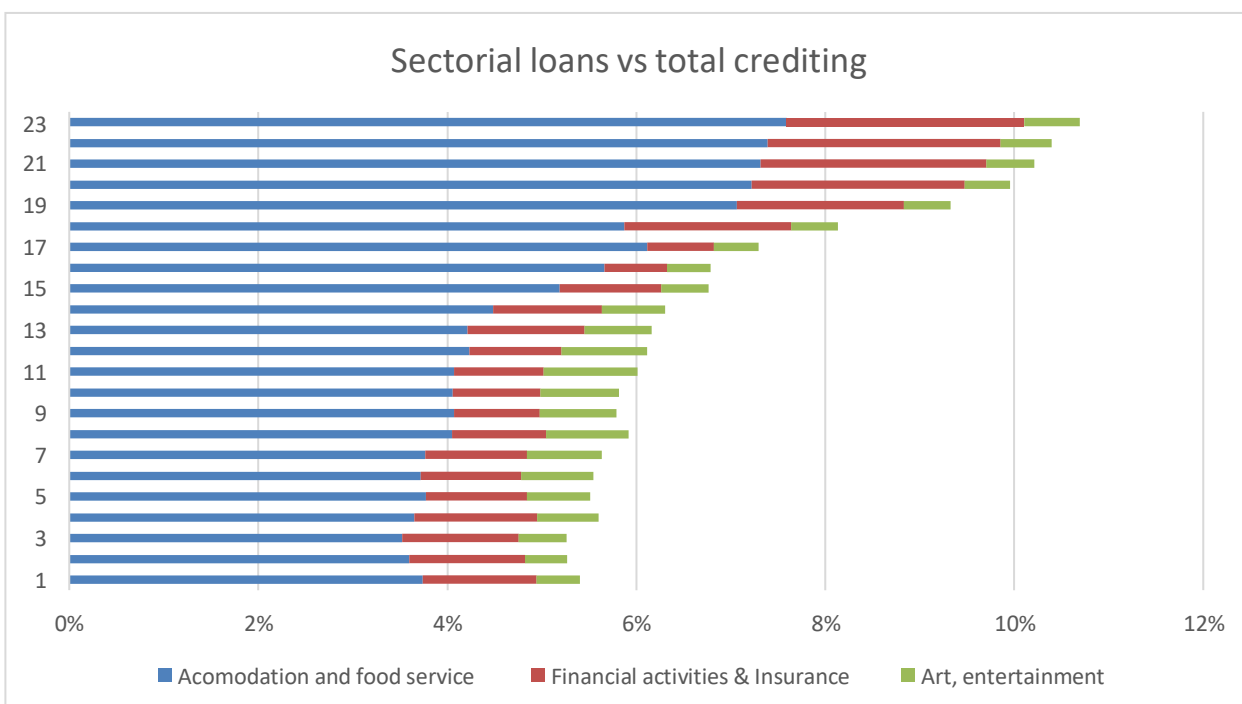


Chart 4

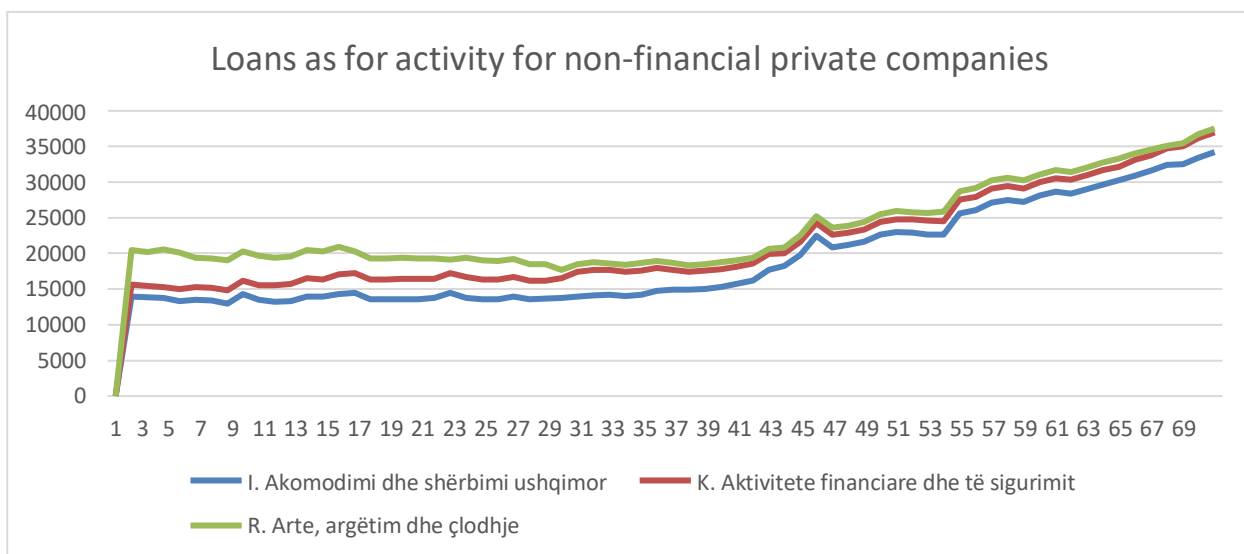


Chart 5

# **LIMITATION OF FUNDAMENTAL RIGHTS AND FREEDOMS DURING THE PANDEMIC. FREEDOM OF MOVEMENT**

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## **ABSTRACT**

*The (Covid 19) pandemic has forced the governments of many countries, including the Albanian government, to take restrictive measures to prevent the spread of the infection, with the argument of protecting public health. These measures have restricted some of the fundamental rights and freedoms guaranteed by the Constitution and the European Convention on Human Rights, including freedom of movement. According to Article 17, paragraph 1, of the Constitution, restrictions can be only established by law, for the public interest, or for the protection of the rights of others. The restriction must fulfill the proportionality test. Are the restrictive measures proportionate to the pandemic situation?*

*This paper aims to conduct a legal analysis of the compatibility of restrictions on freedom of movement during the pandemic with Article 17 of the Albanian Constitution. Furthermore, it will be scrutinized whether the Minister of Health and Public Protection Order<sup>48</sup> is compatible with Article 17 of the Constitution.*

*The methodology entails qualitative research on the constitutionality of the restriction of freedom of movement. To accomplish this investigation, the paper is based on documentary research such as the Constitution, the European Convention on Human Rights, legislation, and normative acts. Other relevant sources are case law of the European Court of Human Rights and the Constitutional Court of Albania.*

**Keywords:** *fundamental rights and freedoms; freedom of movement; public authorities; restriction; jurisprudence; pandemic.*

## **1. INTRODUCTION**

The coronavirus outbreak has been declared a global epidemic by World Health Organization since January 30, 2020, and the pandemic on March 11, 2020, due to the alarming level of spread and severity.<sup>49</sup>

In order to tackle this global emergency, the governments of many countries, including the Albanian government, established restrictive measures to prevent the spread of the infection, with the argument of protecting public health.

Consequently, on March 11, 2020, the state the of Covid-19 epidemic was issued by Order nr.156/2<sup>50</sup> of the Minister of Health and Social Protection. Following, Normative Act no.3, dated

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<sup>48</sup> Order no. 168 dated 12.03.2020 "On the prohibition/restriction of the movement with means of transport"

<sup>49</sup> World Health Organization

<https://www.who.int/europe/emergencies/situations/covid-19#:~:text=The%20first%20cases%20of%20novel,pandemic%20on%2011%20March%202020.>

15 March 2020<sup>51</sup>, of the Council of Ministers, “On special administrative measures taken during the period of infection caused by COVID-19” was enacted.

On March 24, 2020<sup>52</sup>, the Albanian Government announced the state of natural disaster caused by the covid-19 epidemic. As a result, the free movement inside or outside the country in accordance with the needs dictated by the natural disaster was restricted.<sup>53</sup>

Before the declaration, restrictions on freedom of movement and assembly, such as quarantine, lockdown, the mandatory wearing of masks, and contact tracing were imposed to protect public health. For instance, by Order no. 168/2 of 18 March 2020<sup>54</sup>, of the Ministry of Health and Social Protection, the Government of Albania prohibited the movement of private or state vehicles, except in fieldwork-related cases.

The movement of private cars has been restricted to traveling to work, with a maximum of two passengers applying protection measures, limited to the time of 5:30 to 8:00 am and 16:00 to 17:30, and only upon approval by the authorities (police/e-Albania).

Also, by Order no. 193<sup>55</sup> of the same Ministry, dated 20 March 2020, the Government of Albania has limited the circulation of citizens, allowing circulation only during a certain period per day, from 5:00 to 13:00 hrs.<sup>56</sup>

Under these pandemic circumstances, the constitutional issue of restriction arises. Can sub-legal acts (orders) establish restrictions on a constitutionally protected human right? This research question aims to study the compatibility of the orders with the provisions of Article 17 of the Constitution. Consequently, this paper focuses on a legal analysis of the compatibility of restriction of freedom of movement, based on the Albanian legislation, the European Convention of Human Rights (ECHR), and the relevant jurisprudence of the Constitutional Court and the European Court of Human Rights (ECtHR).

The methodology entails qualitative research on the constitutionality of the restriction of freedom of movement. To accomplish this investigation, the paper is based on documentary research such as the Constitution, the ECHR, legislation, and normative acts. Other relevant sources are case law of the ECtHR and the Constitutional Court of Albania.

## **2. TEST OF COMPLIANCE**

Freedom of movement is endorsed in the Albanian Constitution.<sup>57</sup> Likewise, Protocol no. 4 of the European Convention of Human Rights states “Everyone lawfully within the territory of a

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<sup>50</sup> <https://shendetesia.gov.al/wp-content/uploads/2020/03/Urdher-156.2-Shpalljen-e-Gjendjes-se-Epidemise-nga-Infeksioni-COVID-19.pdf>

<sup>51</sup> Normative act no. 3/2020 “On special administrative measures during the period of infection caused by COVID-19”

<sup>52</sup> Decision no. 243, dated 24.3.2020.

<sup>53</sup> Decision no. 243, dated 24.3.2020, 6ç.

<sup>54</sup> On Restricting the Movement with Private or Public Administration State Vehicles Point 1.

<sup>55</sup> On Closure or Restriction of Movements in the Republic of Albania, Point 1.

<sup>56</sup> Point 1.



State shall, within that territory, have the right to liberty of movement and freedom to choose his residence.”<sup>58</sup>

According to Article 17, para.1 of the Albanian Constitution, restrictions can be imposed only **by law**, for the **public interest**, or the **protection of the rights of others**. The limitation shall be in **proportion** to the situation that has dictated it.”

Human rights and freedoms are not unrestricted as long as they are consistent with constitutional laws, Convention norms, and the European Court of Human Rights. Freedom of movement is not an absolute right, as defined in Article 2(3) of Protocol 4 of the Convention, “the exercise of these rights cannot be subject to other restrictions from those **provided by law** and **necessary in a society democratic** for national security or public safety, maintaining order public, prevention of criminal offenses, **protection of health** or morals, or the protection of the rights and freedoms of others.” The restriction must meet the abovementioned requirements. Let’s dwell on the assessment of whether a constitutional right can be restricted by sub-legal acts.

#### **a. Restriction by law**

According to the Albanian Constitutional Court, the purpose of this criterion is to provide the most complete guarantees in the case of restrictions, and for this reason, only the legislative body is competent.<sup>59</sup>

The phrase "only by law" signifies that if it is necessary to limit a constitutionally guaranteed right or freedom, this evaluation is made exclusively by the legislator and not by other bodies, including the Council of Ministers.<sup>60</sup> The context of the term "only by law" does not allow for a broad interpretation.<sup>61</sup>

This legal reserve creates the possibility that the concrete issue partially regulated by law can be further detailed by sub-legal acts, adhering to the principles and limits defined by law. Only in this way, the authorization of the legislator to restrict by-laws (sub-legal acts) can be considered implemented within the limits of constitutionality.<sup>62</sup>

Moreover, article 118 of the Albanian Constitution sanctions that sub-legal acts are issued on **the basis and for the implementation of the laws** by the bodies foreseen in the Constitution. The law shall authorize the **issuance** of sub-legal acts, designate the competent body, the matters that are to be regulated, as well as the principles based on which these sub-legal acts are to be issued.

The order (sub-legal act) of the Ministry of Health and Public Protection is based on law no. 15/2016, dated 10.03.2016 "On the prevention and fight against infections and infectious diseases". Article 4 provides the **principles** for the prevention and elimination of infections and infectious diseases. Article 7 authorizes the minister responsible for health to approve by order special measures to protect the population from infectious diseases that have a great impact on

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<sup>57</sup> Article 38/1 “ Everyone has the right to choose his/her place of residence and to move freely to any part of the territory of the state.”

<sup>58</sup> Article 2/1.

<sup>59</sup> Decision no. 11 date 9.3.2021 of the Constitutional Court of Albania, para.44.

<sup>60</sup> Decision no. 20, date 11.07.2006 of the Constitutional Court of Albania

<sup>61</sup> Decision no. 20, date 11.07.2006 of the Constitutional Court of Albania.

<sup>62</sup> Decision no. 11 date 9.3.2021 of the Constitutional Court of Albania.

their health, including the **limitation or prohibition of travel to the country where the epidemic of these diseases has spread; restriction or prohibition of circulation in infected or endangered regions**; closure of non-public or public activities; cancellation of mass gatherings in closed or open places; restriction of movements within the country.

As a result, we can claim that the legislation has given the discretion to government to take extraordinary measures to avoid the virus's harmful impact and safeguard the population's health. In contrast, even if the restriction was imposed to protect public health, if authorization is not provided by law, it would violate the Constitution and the standards of the European Convention on Human Rights.

Limitations in no case may exceed the limitations provided for in the European Convention on Human Rights.

Conferring to article 2/3 of Protocol no.4 of ECHR, the restriction of freedom of movement shall be in accordance with law.

“No restrictions shall be placed on the exercise of these rights other than such as are in accordance with law and are necessary in a democratic society in the interests of national security or public safety, for the maintenance of ordre public, for the prevention of crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.” Paragraph 3 of Article 2 sanctions 3 cumulative conditions under which the freedom of movement can be restricted. They are in accordance with law, a necessity in a democratic society and proportionality between the legitimate aim pursued and the measure.

## **b. Protection of public interest**

ECHR in Article 2 para.3, Prot.4, lists the "legitimate aims" that an "intervention" that limits the freedom of movement must fulfill, which are: public safety or national security, protection of order or prevention of crime, the protection of health or morals, or the protection of the rights and freedoms of others.

COVID-19 posed a major threat to public health, and understanding of the virus's features and dangers was limited at the start of the pandemic; as a result, states had to respond quickly to minimize its impact. Furthermore, there had been competing interests at stake in the very complex circumstances of the pandemic, especially about the positive obligation of the States Parties to the Convention to protect the lives and health of the persons within their jurisdiction.<sup>63</sup> Article 2 para.1 enjoins the State not only to refrain from the intentional and unlawful taking of life but also to take appropriate steps to safeguard the lives of those within its jurisdiction.

Constitutional Court of Albania states that humans and their life are the most valuable assets to the state. This is the foundation of all rights, and its denial results in the abolition of all other human rights. Human life, when viewed as such from its inception, rises above all other values protected by the Constitution. This is also the purpose of our Constitution, as stated in the Preamble and many other provisions.<sup>64</sup>

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<sup>63</sup> Communauté genevoise d'action syndicale (CGAS) v. Switzerland - 21881/20, Judgment 15.3.2022 [Section III].

<sup>64</sup> Decision no. 65, dated 10.12.1999 of the Constitutional Court.

The extent of the virus's spread, its effects on people's health and lives, on the one hand, and the unknowns, on the other, that not only public authorities but also individuals faced, brought to the forefront the urgency, uncertainty, and need for intervention, which manifested in new and strict restrictions.<sup>65</sup> The lack of actions by the authorities to take extraordinary measures to limit the spread of the virus in the population would have irreversible consequences on the right to life, and the right to health.<sup>66</sup>

According to article 2/3 of Protocol No.4 of the European Convention of Human Rights, the protection of health entails a legitimate aim for the restriction of the freedom of movement. European Court of Human Rights, interference will be considered **“necessary in a democratic society”** for a legitimate aim if it answers a **“pressing social need”** and, in particular, if it is proportionate to the legitimate aim pursued and if the reasons adduced by the national authorities to justify it are **“relevant and sufficient”**<sup>67</sup>

At the same pace as the decision of the Constitutional Court the prevention of the spread of this virus constitutes an "urgent social need" and therefore, the measures taken, including the minister's order, are related to this objective, within the obligations and responsibilities of the state authorities for the protection of the population from infectious diseases.<sup>68</sup>

### c. Proportionality

The principle of proportionality is central to the Constitutional Court and European Court of Human Rights' jurisprudence. The limitation of a fundamental right must be justified by the circumstances. As a result, intervention in a democratic society must be justified in order to protect a legitimate interest.

The principle of proportionality implies the use of the least harmful means for subjects whose rights and freedoms are violated and the legislator's intervention to restrict a certain right or freedom is done with appropriate means that respond to the aim that is intended to be achieved.<sup>69</sup> Subsequently at the core of the principle of proportionality lies the fair balancing of interests, their objective evaluation, as well as the avoidance of conflict through the selection of the appropriate means for their realization.<sup>70</sup>

For the above, the Ministry of Health has pursued a "legitimate aim", namely that of "protecting the health of the population from an infectious disease with a large impact", which is included in the concept of public interest, in the sense of Article 17 of the Constitution.<sup>71</sup>

To justify a general prohibition, the state must show that there is a real danger that cannot be prevented by other less coercive measures.<sup>72</sup>

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<sup>65</sup> Decision of the Constitutional Court of Albania no.11, date. 9.3.2021, para.56.

<sup>66</sup> Decision of Terhes v.Romania, no. 49933/20, 13 April 2020.

<sup>67</sup> Khlyustov v. Russia - 28975/05, Judgment 11.7.2013, 2013, para. 84.

<sup>68</sup> Decision of the Constitutional Court of Albania no.11, date. 9.3.2021, para.64.

<sup>69</sup> Decision of the Constitutional Court of Albania no.11, date. 9.3.2021, para.59.

<sup>70</sup> Decisions no. 16, dated 01.03.2017; no.1 dated 06.02.2013; No. 52, dated 05.12.2012 of the Constitutional Court of Albania.

<sup>71</sup> Decision of the Constitutional Court of Albania no.11, date. 9.3.2021, para.57.

In the current situation, the restriction meets the requirements of the proportionality principle because the potential risk, the spread of the virus, cannot be avoided through other means.

The citizens' circulation was restricted during a specific time period per day, from 5:00 to 13:00 hrs, and of private to work travel, from 5:30 to 8:00 am and 16:00 to 17:30, and only with the approval of the authorities (police/e-Albania). These precautions were necessary to prevent the virus's spread and to protect citizens' lives and health.

Also, the movement of private cars has been restricted to traveling to work, with a maximum of two passengers applying protection measures, limited to the time of 5:30 to 8:00 am and 16:00 to 17:30, and only upon approval by the authorities (police/e-Albania).

### **3. CONCLUSION**

The paper provided a general overview of the freedom of movement situation during an emergent situation such as the Covid-19 pandemic. It detailed the government's legal activity and the measures it enacted. The purpose of this paper is to determine the constitutionality of the Minister of Health Orders (no.193, no.168/2) under Article 17 of the Constitution by investigating restrictions on freedom of movement in Albania during the COVID-19 pandemic.

It stated that the restriction of freedom of movement in this emerging situation complied with Article 17 (prescription by law, public interest, and proportionality principle) and the European Convention of Human Rights standards.

The restriction served a legitimate purpose, such as protecting people's lives and health, and was therefore necessary in a democratic society.

The failure of the authorities to take extraordinary measures to limit the spread of the virus in the population would have serious consequences for the right to life and the right to health.

As a result, the infringement satisfies the proportionality principle requirements because the potential risk, the spread of the virus, is proportional and a less intrusive measure would not achieve the same effect.

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# AN ANALYSIS OF THE FUNDING CHALLENGES IN THE COVID-19 ERA: A CASE STUDY OF ALBANIAN SME-S

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## ABSTRACT

*The pandemic of Covid-19 has changed significantly the way in which many things function. The way in which many businesses operated changed completely, to get adapted to the "new" situation. This "new" situation brought out challenges for many businesses, but also opportunities for others. One of the biggest problems that they have had to face during this time was related to funding. The aim of this research paper is to make an analysis of the funding challenges and our work will be focused on Albanian SME-s. Throughout the whole study we will make an analysis of the access of SME-s on different funding opportunities. This will help us find out which are some of the main differences between the period before the pandemic and during the pandemic situation so we can see the main changes caused by the pandemic. All this analysis will help us also see which are some of the challenges that SME-s are facing related to funding, but our main attention will be mainly on those challenges that have been caused by the pandemic (not caused by other factors). Our analysis found out that SME-s have faced challenges related to the access in certain funding opportunities, difficulties in repaying the money borrowed, etc., which for many of them was really critical and might have pushed them towards their "destruction". We don't get surprised to see this results, by knowing that the pandemic brought to the surface many problems of businesses, especially the financial problems.*

**Keywords:** *access to finance, financial institutions, funding, pandemic, SME*

## 1. INTRODUCTION

Businesses plays an important role in the economy of a country. If we would take into consideration different categories of businesses, we can say that all the businesses are important in terms of their contribution to the economic development of the country. In this research paper we would like to focus our attention on Small and Medium Enterprises. SME-s are key actors in many countries, by giving a significant contribution in creating jobs, helping in fighting or alleviating poverty as well as serving as the growth driver for the country. Their impact is even more significant in developing countries, in countries with low levels of income, where issues like poverty and unemployment are even more evident.

If we would get back and see the way in which businesses and their way of doing business has changed over the time, we can understand how drastically things have changed. Technology is

one of the factors that has given a great contribution in the transformation of many things related to the way in which businesses operate. We have to take into consideration the fact that a great impact in this transformation has played the environment in which businesses operate, which in some cases might have forced them to accept the need to change. There are many factors related to the environment (external and internal) that have a great impact in the way businesses operate. Some of these factors may bring opportunities that may help the business to keep growing, but there are also factors/changes that may threaten even the existence of it. One of the best examples of a change like this is the current situation of the pandemic of Covid-19.

The pandemic has served as a great way to really test the strength of the businesses, or better said their resilience. Many of them had to completely change the way they were used to operate, in order to be able to survive. We have to mention the fact that changes like these are not negative for everyone and for all businesses, because we had the opportunity to see many businesses worldwide to turn this challenge into an opportunity, which lead to many successful initiatives. At the same time there was a great number of businesses that could not handle this challenge and ended up closing their doors, while others are so close to this, they are just trying to survive.

One of the factors that had a great impact on the success or failure of many businesses during the pandemic has been the access to finance (among other factors). If we would make a comparison between large enterprises and SME-s, one of the factors that may make more difficult the abilities of SME-s to survive and especially when they are impacted by different shocks, like economic crises, pandemics, disasters, etc, is related to the access that SME-s have in finance. In comparison to large enterprises, SME-s have more restricted opportunities to find the funds needed to get out of the situation created by different shocks, which will result in an increased inability to recover and get back to normal after experiencing such events. This will further result in a higher rate of failure of SME-s in comparison to large enterprises.

It is important to mention the fact that just like SME-s may have some disadvantages in comparison to large enterprises, they have also their advantages, but since this analysis is not the main scope of our study, we are not making a more detailed analysis about it. The aim of this research paper is to make an analysis of the challenges that SME-s have faced in getting the funds that they needed to go on with their activity during the pandemic. Even though the above mentioned details tend to create the idea that SME-s have found it difficult to cope with the pandemic, we have to say that there have also been many cases of successful SME-s that have not only reached to survive, but have used it as an opportunity and have resulted successful in their initiative.

In the focus of our research paper are the SME-s in Albania. We have had the opportunity to see even prior to starting to work on this research how many SME-s in Albania struggled to handle the negative impact that the pandemic of Covid-19 had and "surrendered" since the first moment in which the pandemic "attacked" them. We have seen how many companies closed the doors of their business during the first lockdown and didn't have the opportunity to get back to start their activity again. There were other enterprises that, despite the challenging situation, found a way to get through the situation, which gave them the opportunity to survive with the hope that in the coming years they could hope to get back to their normal activity. On the other side, there were enterprises which were able to get adapted so quickly, to change many things related to the way they were used to operate, to quickly find ways so they could be in touch with their customers, to change the products that they offered (sometimes the changes were really drastically), and these made them thrive through the storm.

Throughout our research paper we will try to examine the different channels that SME-s have used to finance their activity, to see how easy/difficult it has been for them and at the same time to what lessons they have learnt from the situation of the pandemic. Besides this, we will have a look also on the role that the government has played in helping SME-s get through these challenges. Since government plays an important role, we aim to give also some suggestions about possible policy measures that the government may take into consideration in the future in order to be able to facilitate the access of enterprises in finance (About factors that can be controlled by the government).

## **2. LITERATURE REVIEW**

If we take into consideration SME-s, they have often been part of research work from many academics. Different papers have been focused in different aspects of SME-s, but since our focus is their access to finance (with a special focus during the pandemic), we have tried to select some of the previous researches that have had this in focus. The coming material makes a brief summary of some of the main facts that the review of existing literature has found out.

Germinah ECP., Mathipa ER., (2021) in their research have been focused on the analysis of the challenges that SME-s in South Africa have faced during the pandemic of Covid-19. One of the key factors that has had a great impact in the ability of SME-s to survive and even to thrive during the pandemic has been their access to finance. They also emphasize the significant impact that debt relief has in assisting small businesses that have experienced financial challenges because of the pandemic of Covid-19.

Kitching J., Smallbone D., Xheneti M., (2009) studied the impact that the global financial crisis had in small businesses in UK. They found out that different SME-s have a different experience during a recession. There are companies that may experience a decrease in sales, while others may enjoy reaching higher sales and profits. The same can be said about the response of businesses during a recession. The diversity of business responses can be related to certain internal and external factors, like the resources available and capital market conditions. Some of the actions undertaken by small businesses during the pandemic of Covid-19 regarding finances include also increased debt financing, which emphasizes again the fact that financing remains one of the main problems of businesses when adverse unexpected events happen.

Beck T., Kunt DA., (2006) found out that banks see SME-s as profitable potential clients, so almost all the banks have SME clients. Even though this is seen from the point of view of a bank this suggests that SME-s have an opportunity to use banks as a funding opportunity. They emphasize the fact that even though there may be significant differences in some factors, like lending practices or obstacles in accessing finance in the case of SME-s of developed vs. developing countries, there are not significant differences in the access to finance that SME-s have in comparison to larger companies.

Gourinchas OP., Özcan K Ş. Penciakova V., Sander N., (2020) researched the impact that the pandemic of Covid-19 had on SME-s in different countries. They found out that the failure rate of SME-s during the pandemic has increased significantly, and also the fact that the governments haven't given enough support to SME-s during this period. They suggest that direct support would have a significant impact in reducing the rate of business failure, but at the same time this would be accompanied by significant fiscal costs.

Amuda JY., (2020) in his research work about the impact the Covid-19 has had in Nigerian SME-s, found out that SME-s leaders were worried about the negative impact that the pandemic



had on their business. One of the most important factors they are "afraid" of is the lack of financial support, in difficult times like this. According to him, the government support can play a key role in difficult times. He suggests that the government shall provide strategies for accessing grants and loans from international community; it shall provide financial support for the diversification of various aspects of SME-s, like agriculture, manufacturing, etc.; providing financial support for existing business transactions and loans for new businesses, etc.

### **3. AIMS AND METHODOLOGY**

This research aims to make an analysis of the challenges that Albanian SME-s have faced during the pandemic, with a special focus on the difficulties that they have faced in funding their activity. The impact that the pandemic had on Albanian businesses was really significant and evident, because the way in which the pandemic "hit" the economy, did not have an impact only on businesses, but in the whole "actors" that are part of an economy. Each one of us had the opportunity to see how businesses got shocked by what the pandemic brought, and this is what inspired us to have a deeper look on this issue, but having a closer look on what happened to the opportunities or challenges that Albanian SME-s encountered while dealing with the pandemic. This is where our work and analysis will be focused on, we want to know how was for all these enterprises to try to "chase" opportunities to find the money that they needed to survive during this unpredicted situation. Our research will be mainly based on secondary information, which will be extracted from some of the public institutions in Albania, like INSTAT, Bank of Albania, etc. Our research combines both qualitative and quantitative information. Some of the main objectives of this study are:

- ✓ To find out some of the main challenges that Albanian SME-s have faced during the pandemic of Covid-19
- ✓ To find out some of the reasons why SME-s have not faced funding challenges during the pandemic
- ✓ To find out key factors that have negatively affected SME-s, in terms of funding
- ✓ To give some recommendations about actions that SME-s shall take into consideration in the future, to avoid facing similar challenges
- ✓ To bring out some of the best examples on how to turn a challenge into an opportunity (in terms of funding)

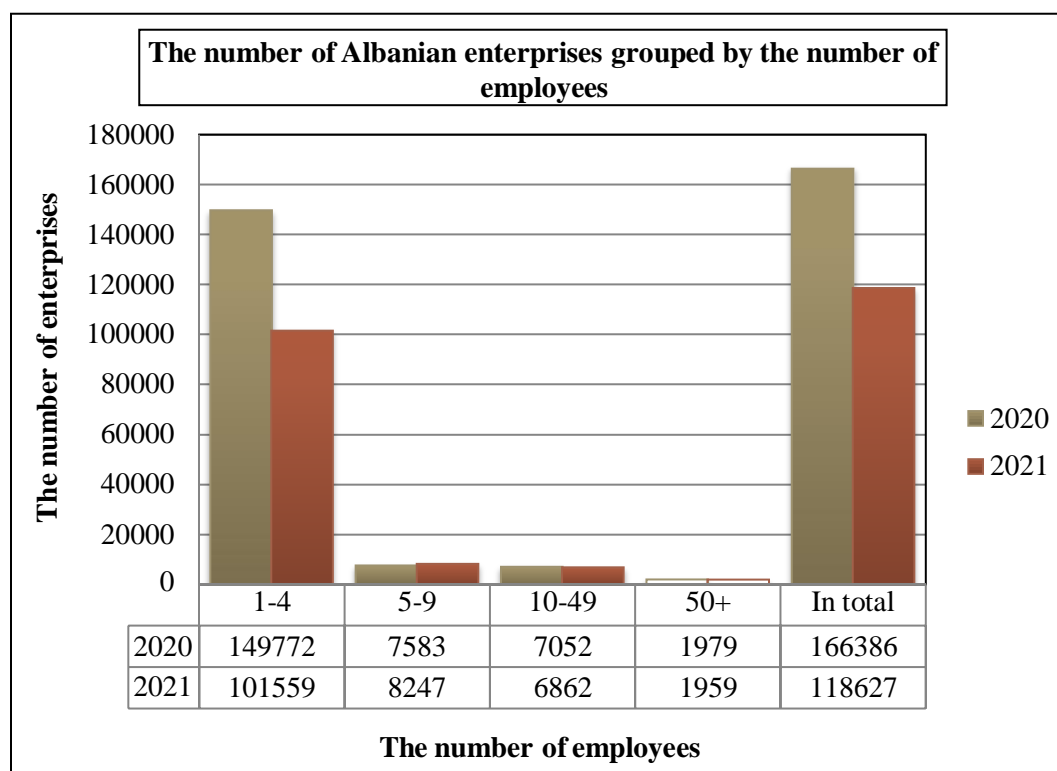
### **4. SME-S IN ALBANIA**

Like we previously mentioned, SME-s play an important role in the economy of many countries. This is true also in the context of Albanian economy. According to the definition of European Commission, a SME is an enterprise with 250 or less employees. In the coming sections we will represent some of the key facts related to funding of the Albanian SME-s.f

Figure 1 contains some statistics regarding the number of Albanian enterprises grouped by the number of employees during the period of the 2020-2021. It offers us the opportunity to have a look at the impact the pandemic of Covid-19 has had in the number of enterprises that could not cope with the difficulties that the pandemic brought up. What can be clearly be seen in this figure is the significant decline of the number of the enterprises with 1-4 employees. If we take into consideration also the changes in the total number of the enterprises from one year to the other, we can see the same results. This difference is 47759, but we have to mention something as we

talk about it. The first evident fact that it reflects, is related to the great number of the companies that have disrupted their activity (with the pandemic as one of the key factors). But besides this, we have to acknowledge the fact that just like many companies had no other option, rather than closing their doors, for other companies the pandemic offered a great opportunity to expand their activity.

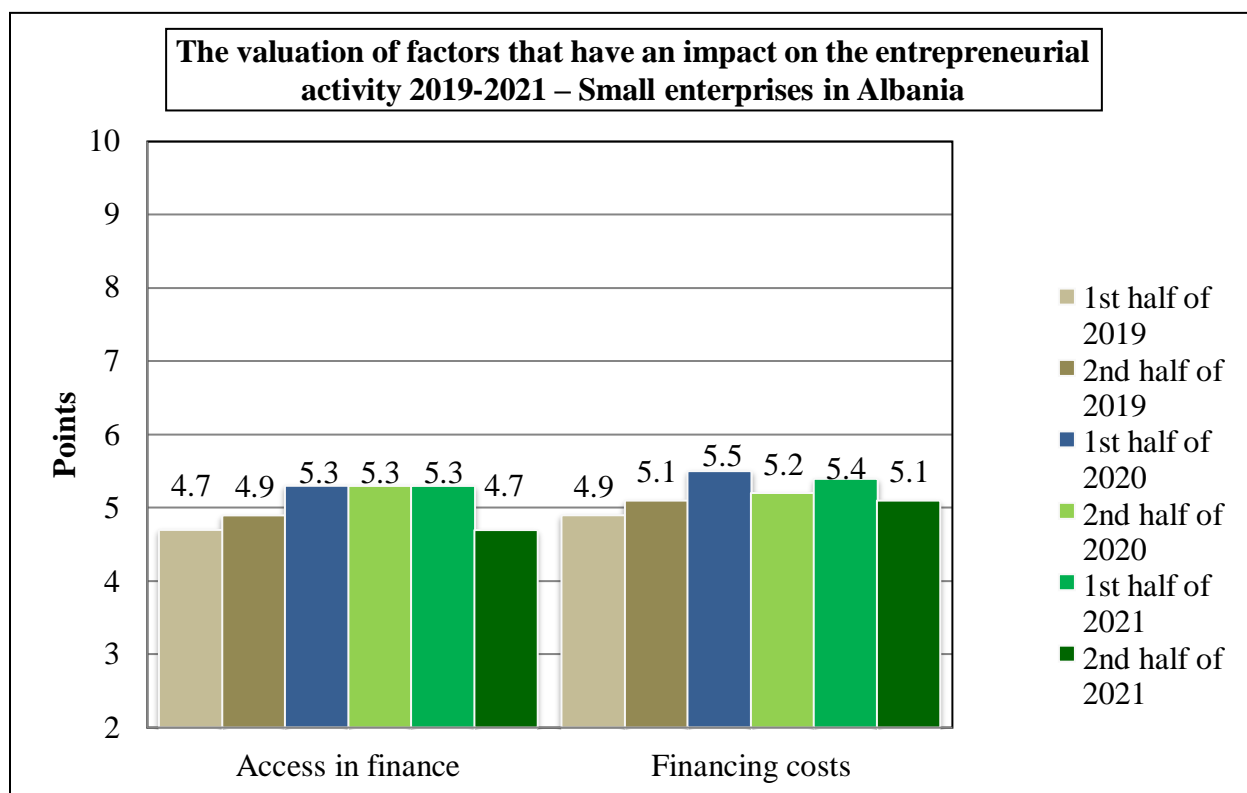
Many new companies started running their activity, many others had to change completely the way they were operating and even the products/services that they were offering to their clients. This means that not for everyone the pandemic was a negative unexpected event. This fact is worth to be mentioned, in order to clarify that the difference of 47 759 enterprises that we mentioned above is not accurate, because it is a sum of the companies that failed and the ones that started their activity during this period.



Source: INSTAT

Figure 1. The number of Albanian enterprises grouped by the number of employees

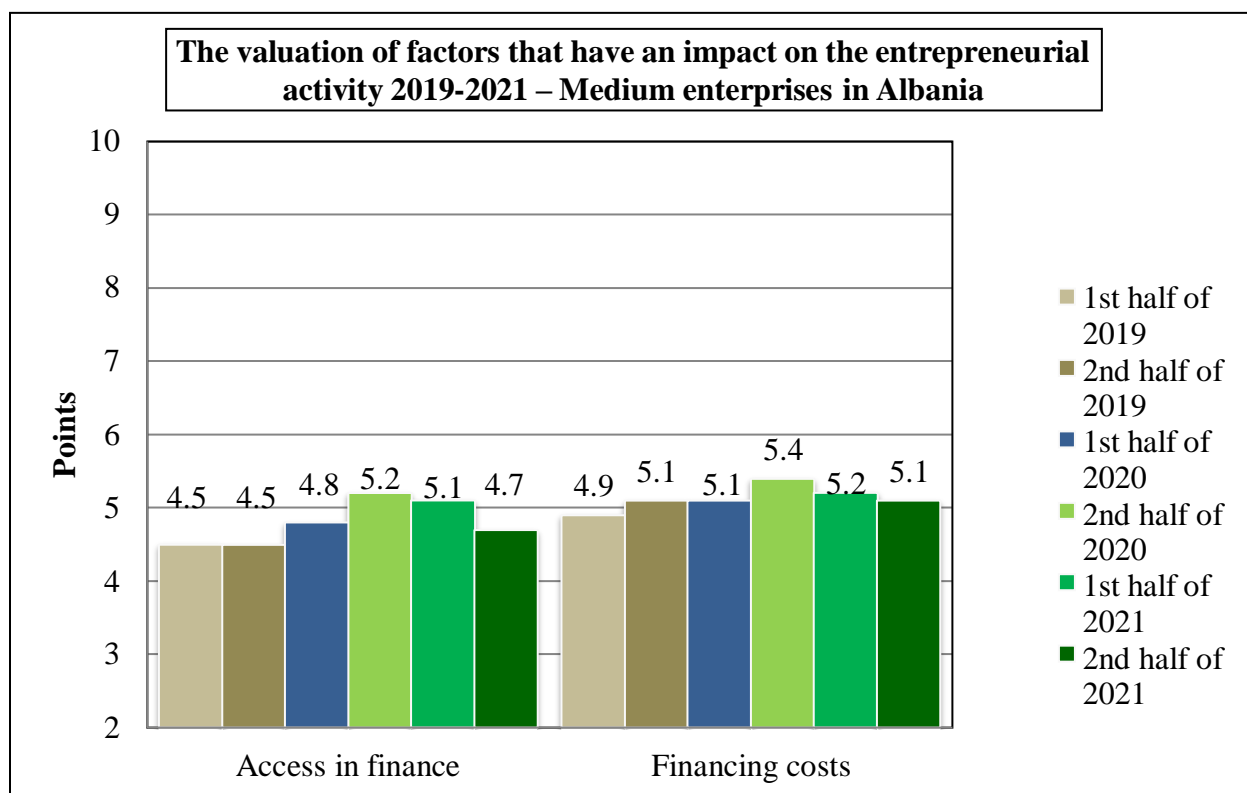
Figure number 2 is a graphical presentation of the information related to the factors that had an impact on the entrepreneurial activity from 2019 to 2021 in Albanian small enterprises. Two of the factors that are included in this graph are financing costs and access to finance. If we carefully see the evolution of this valuation from one period to the other we can see that there is no great difference from one period to the other. This means that the issues related to having access to finance and financing costs are not too different during the pandemic in comparison with the period prior to the pandemic.



Source: Bank of Albania

Figure 2. The valuation factors that have an impact on the entrepreneurial activity in Albanian small enterprises, from 2019 to 2021

Figure number 3 describes a similar situation like the one in figure number 2, but for the medium enterprises, for the same period. As the graph shows, there is not a significant change in the impact that access to finance and financing costs have had on medium enterprises in the period before and after the Covid-19 pandemic. If we compare the results of this graph with the previous one, we can see that the size of the company is not a factor that changes the impact that these factors have of entrepreneurial activity. We need to emphasize here that this conclusion includes only small and medium sized enterprises and does not include the large ones.



Source: Bank of Albania

Figure 3. The valuation factors that have an impact on the entrepreneurial activity in Albanian medium enterprises, from 2019 to 2021

Borrowing enterprises according to their size	The number of enterprises			The weight as a percentage of the group		
	6MII 2019	6MII 2020	6MII 2021	6MII 2019	6MII 2020	6MII 2021
<b>Small</b>	53	86	76	22.8%	32.1%	28.8%
<b>Medium</b>	74	81	77	39.6%	40.1%	41.2%
<b>Large</b>	283	299	323	41.0%	45.6%	48.1%
<b>In total</b>	<b>410</b>	<b>466</b>	<b>476</b>	<b>37.0%</b>	<b>41.2%</b>	<b>42.4%</b>

Source. Bank of Albania

Table 1. The distribution of the enterprises based on their size and borrowing

From the official information published by Bank of Albania, we had the chance to find some information about the borrowing activity of the enterprises according to their size. A part of this information is represented on the above table. The numbers show that there is a similar tendency,

in terms of borrowing during the period of 2019-2021. The moment in which the pandemic started (2020) has brought an increase in the number of the enterprises that have borrowed money, while in 2022 the numbers of the enterprises that have borrowed money have decreased. This may be a sign that in 2021 a part of the enterprises started to partly recover and go on with their activity, which made possible for them to generate a higher level of revenues in comparison with 2020. That may reflect the fact that companies needed less "external" funding, because their activity started to change for the better. Something important to be kept on mind is that while we tend to generalize what we are saying, these conclusions are not true for all the cases and all the enterprises.

If we see more carefully the funding channels that small and medium sized enterprises have used (According to Bank of Albania), the main source for borrowing money for SME-s has been from bank. If we compare the numbers from 2019 to 2021, we see that 86.7% in 2019, 84.5 % in 2020 and in 2021 84.5% of the small enterprises have chosen banks as a primary borrowing opportunity. And in the case of medium enterprises these numbers are 84.4%, 87% and 92.8% for 2019, 2020 and 2021 respectively. These numbers show how dependent SME-s are on borrowing money from banks and how vulnerable they may be if they do not find it easy to have access on them.

Another important factor related to the funding challenges of SME-s is related to the help that the government can offer to them, especially in difficult times like the Covid-19 pandemic. During this time the government has chosen several options to help SME-s get through the pandemic, but the results show that it has not been enough to help them get out of the difficult situation that they have faced. Even the measures taken to help them with dealing or renegotiating the existing loan terms taken by financial institutions (during the pandemic) seem to have been not enough and not efficient, because many enterprises did not have a real benefit from it.

## CONCLUSIONS

The aim of this study was to make an analysis of some of the funding challenges that Albanian SME-s have faced during the Covid-19 pandemic. As we expected when we started this research, the pandemic has not been an easy situation for Albanian small and medium sized enterprises. Below we are making a brief summary of some of the main conclusions that came up from our analysis.

The pandemic of Covid-19 has put Albanian SME-s in a very difficult in terms of funding. It is interesting the fact that the problems in accessing finance have been more evident for small than medium enterprises. This shows that large companies may be more able to cope or get through difficult times and maybe can be more resilient in terms of finances, while smaller enterprises find it more difficult to deal with unexpected events, to handle them and also find it more difficult to find ways to get out of the "struggles". This may be true for many organizational aspects and for finances as well. As the pandemic showed, small and medium sized enterprises are more "fragile" and they tend to face more challenges in getting funds in difficult times.

An important fact that this study revealed is related to the role that government plays in these situations. The measures that the government has taken to ease the access of SME-s in finance need to be reviewed and it shall work to develop policies and strategies to facilitate SME-s access in finance. As we mentioned SME-s play a vital role in the economy, so they deserve to have the right support from the government as well so they can keep helping the overall economy of a country.

To conclude, we want to say that it is true that the Covid-19 pandemic has had many negative consequences in enterprises and many of them have failed, but there are many successful examples as well. Just like many enterprises may fail, many others may learn to navigate through the storm and thrive. A great part of their success or failure depends on the enterprise itself and on how prepared it is to deal with challenging times. If it is prepared to deal with the unexpected will thrive, otherwise will simply fail.

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# THE IMPACT OF ONLINE LEARNING ON PRE-UNIVERSITY EDUCATION STUDENTS

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## ABSTRACT

*Restrictions during the pandemic period necessitate the development of distance learning (online). This found both, government and educational institutions unprepared. During the period March - July 2020, teaching was conducted entirely online and with electronic platforms selected by educational institutions, according to their capabilities. During the school year 2020 - 2021, teaching took place in combination (online and in class). Online learning was organized on a unified platform, academia.al. The lessons in school, in accordance with the decisions taken by the Technical Committee of Experts for respecting social distance, was held in 2 shifts (4 shifts in schools that even before the pandemic worked in 2 shifts) and consequently part-time. We are all aware of the shortcomings that accompanied distance or combined teaching, conditioned by the pandemic situation. Now that we returned to normality, it is important to understand and analyze what the real consequences are in teaching and learning. Through this descriptive-analytical study we aim to analyze the impact of distance learning (or combined) on students of pre-university education. The analysis will be conducted through interviews with teachers, parents and students in pre-university education in Korca region. Analysis is important, in order to take immediate action, to avoid long-term consequences in education.*

**Keywords:** *education, online learning, influence, students in pre-university education*

## INTRODUCTION

The pandemic caused by Covid-19 turned online learning into a necessity for every pupil, student, teacher in most countries of the world. The pandemic situation found most governments, educational institutions and academic staff unprepared. When in March 2020 the decision was made to close educational institutions, students and teaching staff faced numerous challenges such as; *the internal legislative framework, which did not provide for such forms of teaching, weak technological infrastructure in pre-university education institutions, citizens' access to internet networks and the use of devices that enable the benefit of services from this network, the level of knowledge and skills for the use of technology by the teaching staff, the differentiation of*



*pupils and students who come from different layers of society, in the opportunities for benefited from distance learning.*<sup>73</sup>

During the period March - July 2020, teaching was conducted entirely online and with electronic platforms selected by educational institutions, according to their capabilities. Different modalities were used for distance teaching, such as RTSH school, RTSH school - application, distribution of didactic materials on the Facebook page of MASR, through messages or phone calls, social networks, digital classes (google classroom, google meet) video - conference. In the first survey for online learning developed by MASR itself, it stated that two main forms of learning were applied: lectures filmed and broadcast on Albanian Radio Television (RTSH) and work between students and teachers through social networks or different platforms that enable creating virtual classrooms (such as google classroom, zoom, edmodo, etc.), whatsapp was the most used online communication by teachers, with 96.4% of them.<sup>74</sup>

The impossibility of access to computer tools (or smart phones) or the internet service led to the exclusion from education of a category of students from families in economic and social difficulties. *Children from low-income families, children living in rural areas with poor infrastructure, children from ethnic and linguistic minorities, children with disabilities, migrant and refugee children, children in conflict with the law, children outside the school system and young people, boys and girls who otherwise lived in difficult circumstances or abusive homes were already facing significant barriers to participation in education and learning* – highlighted in the 2020 UNICEF report.<sup>75</sup>

Access to online learning is only one aspect, and although difficult to quantify, it is not as difficult as measuring the quality and effectiveness of online learning. The speed with which the events happened and the decisions were taken, neither the state nor the educational institutions were given the opportunity to prepare their teaching staffs. Online learning requires good digital skills, professional training and increased efforts by teachers to design the lesson, to find the tools and methods for teaching, which for the same subject, cannot be the same as classroom teaching. However, it is not enough to simply replace a physical textbook with an online version. What matters is whether the teacher can capitalize on the tool or resource through improved instruction to give the student an improved learning experience.<sup>76</sup> *It is clear that tools in themselves are not enough. Their use depends on the skill and ingenuity of the people using them. What really matters for student learning is "the interactions among educators, learners, and educational materials".*<sup>77</sup> On the other hand, online learning requires self-discipline on the part of students to engage in learning and fulfill their obligations, as well as self-regulation skills related to goal setting.

Parents and teachers were asked about the quality of learning in online learning, in the survey of the Ministry of Education, Sports and Youth (MASR) state: about 43.6% of parents answered that this type of learning has the same quality as the learning process in the classroom, while

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<sup>73</sup> Erlis Çela, *Edukimi online në erën e Covid -19; diferencimi dixhital dhe sfidat e mësimi në distance*

<sup>74</sup> MASR, ASCAP, *Sondazhi i mësimi online*, (Mars 2020) [online] i disponueshem ne <http://www.arsimi.gov.al>

<sup>75</sup> UNICEF për Evropën dhe Azinë Qendrore, *Ngritja e Sistemeve Arsimore të Qëndrueshme pas Pandemisë COVID-19:Konsiderata për vendimmarrësit e institucioneve arsimore në nivel kombëtar, vendor dhe shkolle*, (Gjeneve 2020) 4

<sup>76</sup> Vegas E. & Winthrop, R. (2020). *Beyond reopening schools: How education can emerge strong that before COVID-19, Report*. [online] i disponueshem ne <https://www.brookings.edu/research>

<sup>77</sup> Centre for Educational Research and Innovation and Organisation for Economic Co-operation and Development, 2008; Cohen and Ball, 1999; OECD, 2010

32.2% are partially agree and 14.4% disagree. On the other hand, the teachers' perception of the effectiveness of online learning results was: 37.8% of teachers state that online learning is of the same quality as school learning, while 36% of teachers partially agree with this statement<sup>78</sup>. In professional schools, due to their special nature, the difficulties in teaching and learning were greater. The survey with students and teachers of professional schools shows that the main challenges identified by students during distance learning are: difficulty in understanding the teacher's explanation by 42% of students and difficulty in following the lesson from a mobile phone, while 89% of them follow the lesson via mobile phone, while the main challenge identified by teachers during distance teaching is the lack of digital materials.<sup>79</sup>

As the end of the school year approaches, on May 18, 2020, the MASR instructed the non-organization of the assessment of the achievements of elementary primary education students<sup>80</sup> (examination of the fifth grade of primary education) and the national exams of basic education<sup>81</sup> (release exams, nine grade) for the school year 2019 – 2020. MASR also decided that *in cases where students have not been able to engage in online learning due to the lack of technology, their assessment will be based on the grades and notes that the teacher has kept until the stay-at-home period... the primary purpose of assessment should be student well-being and not assessment of subject knowledge... the two types of assessment most recommended were continuous assessment and e-portfolio assessment*<sup>82</sup>. Aware of the difficulties and weaknesses of online learning, MASR also decided to exclude from the orientation course programs for State Matura exam (of that year) the part of the program that was developed with online learning<sup>83</sup>.

The reopening of schools in September 2020 required immediate measures and actions. Guidance from the World Bank recommended the following sequence during reopening: *use the first few days after reopening to focus on well-being, re-establishing normalcy and rapport to be followed by classroom diagnostic testing, formative assessment of students' progress in the period of learning recovery, and finally, potentially, summative assessment*.<sup>84</sup> Based on the documents of international institutions and the epidemiological situation in the country, in the instructions for the beginning of the 2020-2021 school year, the Ministry of Education, Sports and Youth decided:

*- In all subjects and classes during the first two weeks of school, repetition hours are planned for the main knowledge developed during the learning period in home conditions (March-May*

<sup>78</sup> MASR, ASCAP, *Sondazhi i mësimit online*, (Mars 2020) [online] i disponueshem ne: <http://www.arsimi.gov.al>

<sup>79</sup> Ministria e Financave dhe Ekonomise, Agjensia Zviceriane për Zhvillim dhe Bashkëpunim, Swiss contact, *Sa po funksionon mësimi në distancë, perceptimet e mesuesve dhe nxenesve ne shkollat publike profesionale* (Tirane 2020), 5

<sup>80</sup> MASR, Udhëzim 12, datë 18.05. 2020, *Për mosorganizimin e vlerësimit të arritjeve, të nxënësve të arsimit fillor viti shkollor 2019 – 2020 për shkak të gjendjes së fatkeqësisë natyrore të shkaktuar nga pandemia e COVID 19*

<sup>81</sup> MASR, Udhëzim 13, datë 18.05. 2020, *Për vlerësimin me notë të nxënësve që nuk do t'u nënshtrohen provimeve kombëtare të arsimit bazë viti shkollor 2019 – 2020 për shkak të gjendjes së fatkeqësisë natyrore të shkaktuar nga pandemia e COVID 19*, Pika 1

<sup>82</sup> MASR, ASCAP, *Udhëzues për vlerësimin e nxënësve gjatë mësimit në distancë dhe për mbylljen e vitit shkollor 2019-2020*, (Maj 2020)

<sup>83</sup> MASR, Urdher 114, datë 18, 05, 2020, *Rregullore e Posacme për MSh 2020, në Republikën e Shqipërisë, për shkak të gjendjes së fatkeqësisë natyrore të shkaktuar nga pandemia e COVID 19*, Pika 4

<sup>84</sup> World Bank, World Development Report 2020: Trading for Development in the Age of Global Value Chains 2020b [online] i disponueshem ne: [worldbank.org](http://worldbank.org)

2020). *Review topics were designed by ASCAP for each subject, but could vary depending on the specifics each teacher has, regarding student needs.*

*- During the year, according to the circumstances that arise, the teacher can make changes to the initial lesson plan. The teacher may decide to progress more slowly than anticipated when he notices that his students are struggling. In this way, the teacher plans based on the progress of the students and the difficulties encountered in the previous periods, focusing on the achievement of key competencies and the subject.*<sup>85</sup>

In the guide, three possible scenarios for the development of the learning process were foreseen: learning at school; combined learning (at home and at school); learning at home (online). This third variant was excluded in the appendix of the guide, in November 2020, with the improvement of the epidemiological situation. During the school year 2020 - 2021, teaching took place in combination (online and in class). Online learning was organized on a unified platform, *academia.al*. The lessons in school, in accordance with the decisions taken by the Technical Committee of Experts for respecting social distance, were held in 2 shifts (4 shifts in schools that even before the pandemic worked in 2 shifts) and consequently with reduced hours.

At the end of the 2020 - 2021 school year, orientation programs for assessing student achievements were drawn up by ASCAP and tests were drawn up by the Center for Educational Services, which were developed by ZVAPs and DRAPs in schools, to identify difficulties and the students' shortcomings in the main subjects, which dictated, according to MASR, the need to repeat, reinforce and improve the students' results.

With the improvement of the epidemiological situation, in September 2021, it was decided that in the new school year, teaching would take place normally. By order of MASR, at the beginning of the school year, in all educational levels (in pre-university education) for four weeks, consultations would be held to improve student achievement. The consultation was conducted with guidance and an orientation program from MASR and ASCAP, but it was left up to schools and teachers to adapt it to the needs of students.

Distance teaching and learning everywhere in the world had difficulties and shortcomings, which required immediate action. In the UNICEF report, key priorities in medium-term planning for building sustainable education systems after the pandemic were identified: *assessment of learning gaps, curriculum adaptation, development of online learning environments and blended learning approaches, teachers and schools support professional development and staff support, learning support programs for students, guidance for schools on learning recovery and assessment practices, teacher workload management.*<sup>86</sup>

*Despite swift measures across the region, school closures and less effective forms of distance learning will inevitably lead to learning losses and widen the gap in equality of learning opportunities... Learning losses can have long-term consequences for students, parents and the whole society in social and economic terms... When children lose out on education, they lose out on future opportunities, including economic benefits such as additional earnings, with far-*

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<sup>85</sup> MASR, ASCAP, Udhëzues për fillimin e vitit shkollor 2020-2021 (Gusht, 2020), 11 – 12

<sup>86</sup> UNICEF për Evropën dhe Azinë Qendrore, *Ngritja e Sistemeve Arsimore të Qëndrueshme pas Pandemisë COVID-19: Konsiderata për vendimmarrësit e institucioneve arsimore në nivel kombëtar, vendor dhe shkolle*, (Gjeneve 2020) 21

*reaching consequences*.<sup>87</sup> While schools and learning are back to normal, measuring student learning difficulties is undoubtedly the most important and challenging issue.

## METHODOLOGY

The purpose of this study is to explore and describe the concerns of parents and teachers regarding the gaps in science knowledge acquisition of pre-university students caused by online learning and combined learning (at home and at school) during the period of quarantine and social distancing caused by the period of the COVID 19 pandemic.

The findings from this study are expected to help identify the needs of students and teachers. These findings can serve policy makers, educational leaders, teachers to take measures, before it is too late, to meet the needs of students and improve learning outcomes.

This study used exploratory research design, descriptive phenomenological research approach was used. The instrument used for data collection was semi-structured questionnaires. 223 questionnaires were developed, of which 106 with parents and 117 with teachers. The questionnaire for teachers, in its first part, asked for information about the teacher, the educational level where he teaches, and the profile of the subject he teaches. In the second part, the teachers evaluated the difficulties and deficiencies they felt in working with students during the 2021-2022 school year. Through the Likert scale (with five levels), they evaluated the difficulties and the extent of their spread. In the third part, the teacher was asked about the measures that were taken by the school to fulfill the excesses and the measures that should be taken in the short and medium term to avoid long-term consequences for students, parents and the whole society. The questionnaire for parents was also built in 3 parts; in the first part, information was requested about the children and the educational level where they learned; in the second part, the parents evaluated the difficulties that the children felt in the learning process during the school year and in which subjects they felt these difficulties the most; in the third part, parents were asked about how they helped their children to overcome difficulties and the measures that should be taken, according to them, in order not to feel long-term consequences.

The condition for participating in the study was that teachers and parents, at the time of the interview and during the pandemic period, were involved or had children in public and non-public pre-university education institutions, in grades 1-12. The study was conducted in 9-year schools and high schools in the Korca region (ZVAP Korçe - Pustec, ZVAP Maliq, ZVAP Kolonje and ZVAP Devoll). Sampling in this study was chosen through the stratified random method, aiming to get opinions from teachers of elementary education, lower secondary education, higher secondary education, in schools in the city and in the countryside, as well as for parents. During the contact, the participants were informed about the purpose of the study, their participation was voluntary and anonymous. The data collection process lasted from May to September 2022, at the end of the 2021-2022 school year, which took place under normal conditions and it was possible to understand the needs and shortcomings of online learning in the

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<sup>87</sup> World Bank Western Balkans Regular Economic Report: Fall 2022, [online] i disponueshem ne: <https://www.worldbank.org/eca/wbrer>

conditions of the pandemic. caused by COVID 19. Questionnaires were completed in electronic format through Google form and data processing was done in the SPSS 26 program.

*- Demographic data of respondents*

Of the 106 parents who answered the questionnaire, 41.5% of them have their children in upper secondary education, 52.8% in lower secondary education and 5.7% in primary education.

**Table 1.** Which educational level do your children follow?

Answer	Frequency	Percent
Elementary education	6	5.7
Lower secondary education	56	52.8
Higher secondary education	44	41.5
<b>Total</b>	<b>106</b>	<b>100</b>

Of the 116 teachers who answered this question, 23 (19.8%) of them teach in primary education, 33 (28.4%) in secondary education and 60 (51.7%) teach high education. 64 of the teachers teach social profile subjects, 36 of them natural profile subjects, 17 teach arts, physical education or primary education subjects.

**Table 2.** In which educational level do you teach?

In which educational level do you teach?	Frequency	Percent
Elementary education	23	19.8
Lower secondary education	33	28.4
Higher secondary education	60	51.7
<b>Total</b>	<b>116</b>	<b>100.0</b>

**Table 3.** Which profile are the subjects you teach

The profile of the subjects you teach	Frequency	Percent
Elementary education	7	6.0
Arts	2	1.7
Physical education	8	6.8
Social profile subjects	64	54.7
Natural profile subjects	36	30.8
<b>Total</b>	<b>117</b>	<b>100.0</b>

## QUESTIONNAIRE RESULTS

*- Questionnaire for teachers*

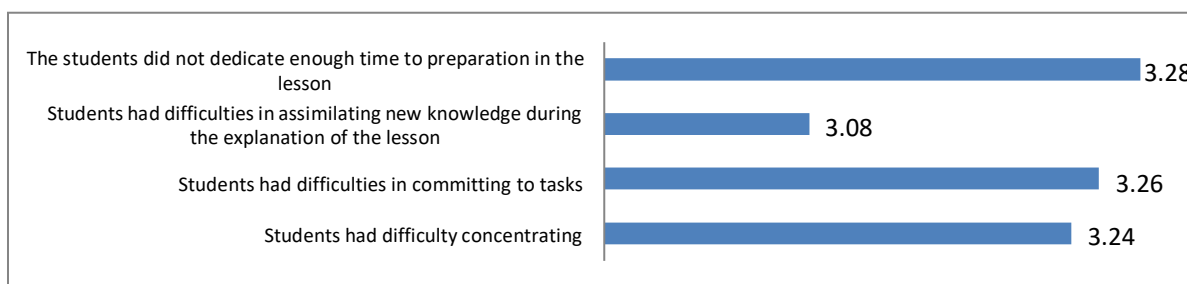
The teachers were asked about the gaps in students' knowledge and the difficulties they faced in teaching during the 2021-2022 school year, as well as the measures they take or should take in order not to suffer in the long term from the remaining deficiencies from distance learning. The first question of the questionnaire was: "*Did you feel difficulties in the teaching process in terms of work discipline on the part of the students?*"

**Table 4.** Did you feel difficulties in the teaching process in terms of work discipline on the part of the students?

Did you feel difficulties in the teaching process in terms of work discipline on the part of the students?	Frequency	Përcent
No	39	33.3
Yes	78	66.7
Total	117	100.0

Most of the teachers questioned, 66.7% of them, claimed that they had encountered difficulties in the teaching process in terms of work discipline on the part of the students. This was observed both in their preparation for learning (on average 3.28 on a scale from 1 to 5), in their commitment to tasks (on average 3.26 on a scale from 1 to 5), and in their concentration in learning (on average 3.24 in a scale from 1 to 5). Difficulties in assimilating new knowledge has a low difference (on average 3.08 on a scale from 1 to 5) compared to the other three alternatives.

**Chart 1.** In what aspect were these difficulties?



When asked "*in what proportion of students did these problems appear?*", the most chosen alternative by the teachers is "*in the majority of students*". On a scale from 1 to 5, this alternative has an average of 3.12.

**Chart 2.** In what proportion of students did these problems appear?



91.4% of the teachers asked, stated that, in the subjects they taught, the students had gaps in the knowledge gained in the past 2 years. Of the 116 teachers who answered this question, 106 of them stated that they felt gaps in the knowledge gained by the students during the past 2 years, in the subjects they teach.

**Table 5.** Did you feel gaps in the knowledge gained by the students during the past two years, in the subjects you teach?

		Frequency	Percent
Did you feel gaps in the knowledge gained by the students during the past two years, in the subjects you teach?	No	10	8.6
	Yes	106	91.4
	Total	116	100.0

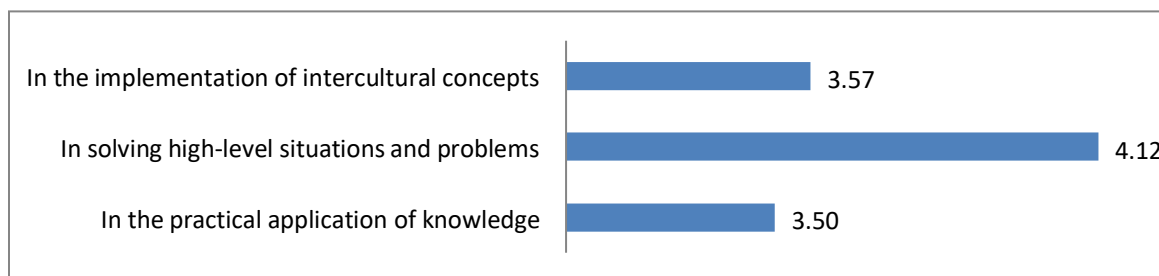
Gaps in acquired knowledge are felt in all subjects. The teachers, regardless of the profile of the subjects they teach, say that they have felt gaps in the scientific knowledge gained by the students in the past two years. More details are presented in table 6.

**Table 6.** Did you feel gaps in the knowledge gained by the students during the past two years, in the subjects you teach?

The profile of the subjects	Teachers	Answer "Yes"	Percent
Elementary education	7	7	100
Arts	2	2	100
Physical education	8	6	75
Social profile subjects	64	58	90
Natural profile subjects	36	33	91.6
Total	117	106	91.4

Based on the answers of the teachers to the question "*In what aspects were the difficulties in teaching - learning felt by the students?*" difficulties are greater in solving high-level situations and problems, with an average of 4.12 on a scale of 1 to 5.

**Chart 3.** In what aspects were the difficulties in teaching - learning felt by the students?



It is common in educational institutions to have students who have difficulties in teaching and learning, and even more so in solving high-level situations and problems, but the teachers' response to the extent of students who felt these gaps and difficulties is worrying. With an average of 3.08, on a scale from 1 to 5, the teachers say that *these difficulties are encountered by the majority of students*. More data, regarding the answers to this question, are presented in chart number 4.

**Chart 4.** In what proportion of students did these problems appear?

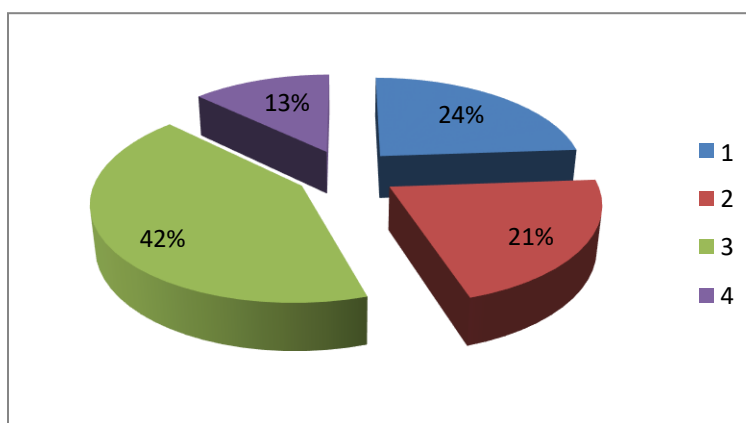


The teachers were also asked how they worked to fill the gaps they encountered in the students' knowledge. Teachers had to choose between four alternatives provided:

1. *Extra lessons were held*
2. *Consultations were held with special groups of students*
3. *The annual plan and the daily work plan were adapted, taking into account the difficulties of the students*
4. *I continued working normally, according to the subject plan*

They were given the opportunity to add other alternatives, according to their experience. In this question they had the right to choose more than one alternative. Based on their answer, it appears that most of the teachers *adapted the annual plan and the daily work plan taking into account the difficulties of the students* to help them in the remaining gaps in scientific knowledge.

**Chart 5.** How did you work to fill the gaps encountered in the students' knowledge



At the end of the questionnaire was an open question, where teachers were asked about their opinion regarding *"the measures that should be taken in order not to suffer in the long term from the shortcomings that remained from online learning during the pandemic."* The dominant opinions of the teachers were:

- *Creating opportunities to work with smaller groups of students to fill the gaps*
- *To have constant consultations, repetition of learned concepts.*



- To draw up special annual and daily plans in order to help all students regardless of the level of achievement.
- To adapt the annual and daily plan according to the difficulty of the students.
- The teacher should diagnose the problem and work with differentiated work to fill the gaps, coordinating the work with the parent.
- To revise the curriculum and teaching plans
- Recovery and reinforcement of knowledge in certain topics.

Although some teachers think that revision of curricula and lesson plans would help in this process, most of them charge themselves with taking measures, making consultations, repetitions, differentiated work with the students, even though this means increasing their workload in daily work. Teachers also require the cooperation of parents and maximum commitment from students.

#### - Questionnaire for parents

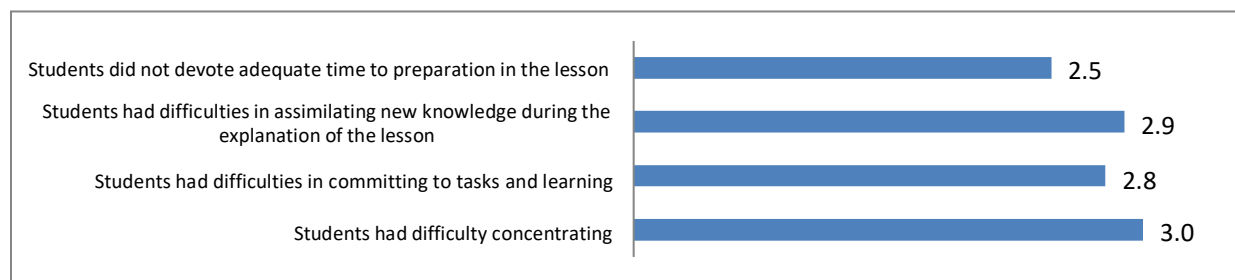
The questionnaire for parents aimed at the same thing, so some of the questions were the same as the questionnaire for teachers, with the aim of seeing and analyzing the situation from different points of view. Parents were asked about the difficulties their children feel in adapting to the educational process, the difficulties, the gaps in scientific knowledge, the subjects and aspects where these difficulties were felt the most. The parents were also asked to give their opinion about the measures they believe are necessary to take to fill the gaps left by distance learning. In the first question: *Did you feel that the child had difficulties in adapting to the learning process and school requirements?* 57 of the parents asked (53.8%) answered Yes, the child had difficulties in adapting to the learning process and school requirements

**Table 7.** Did you feel that the child had difficulties in adapting to the learning process and school requirements?

Did you feel that the child had difficulties in adapting to the learning process and school requirements ?	Frequency	Percent
No	49	46.2
Yes	57	53.8
Total	106	100.0

When asked *in what aspect they felt the difficulties the most*, parents answered that they felt their children had difficulty concentrating in school, with an average of 3.04 on a scale from 1 to 5. On average 2.9 (on a scale from 1 – 5) parents expressed that children felt difficulty in assimilating new knowledge.

**Chart 6.** In what aspect they felt the difficulties the most?



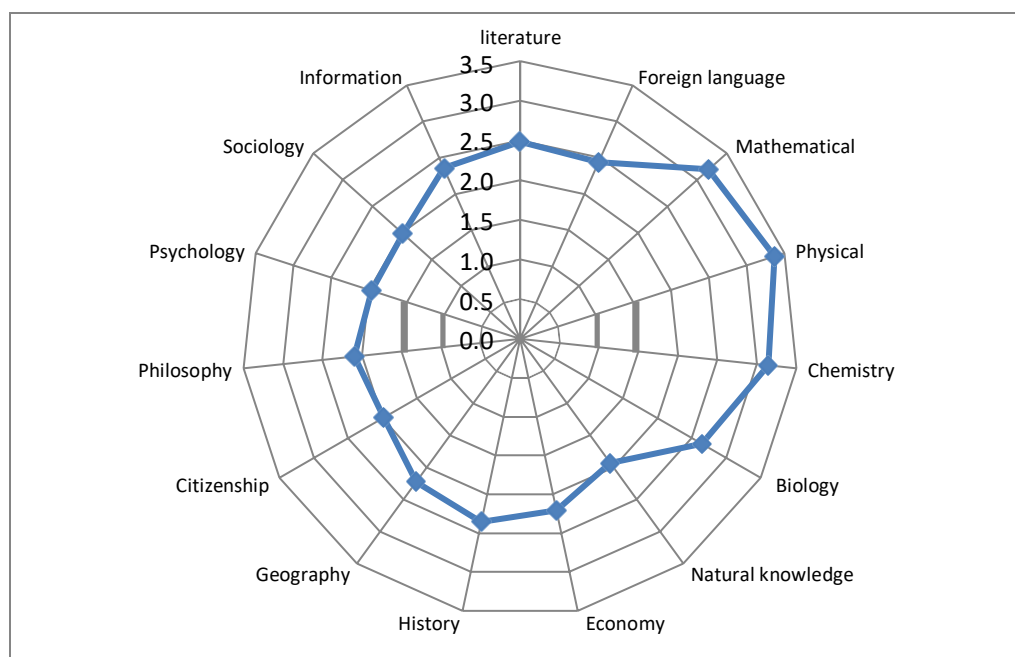
Parents were asked if "*during the 2021-2022 school year, (during which the lesson took place under normal conditions) did you feel that the child had gaps in the knowledge gained during the past 2 years, in different subjects?*" 84 of the parents asked, or 79.2% of them, said YES, they felt that their child had gaps in the knowledge gained during the past 2 years, in different subjects. This also explains the high average in the above answer to the alternative "*students had difficulty in assimilating new knowledge*". Gaps in previous knowledge make assimilation of new knowledge very difficult.

**Table 8.** Did you feel that the child had gaps in the knowledge gained during the past 2 years, in different subjects?

Answer	Frequency	Percent
No	22	20.8
Yes	84	79.2
<b>Total</b>	106	100.0

Evaluating the *subjects in which the children have the most gaps*, the parents asked gave the following answers:

**Chart 7.** The subjects in which the children have the most gaps



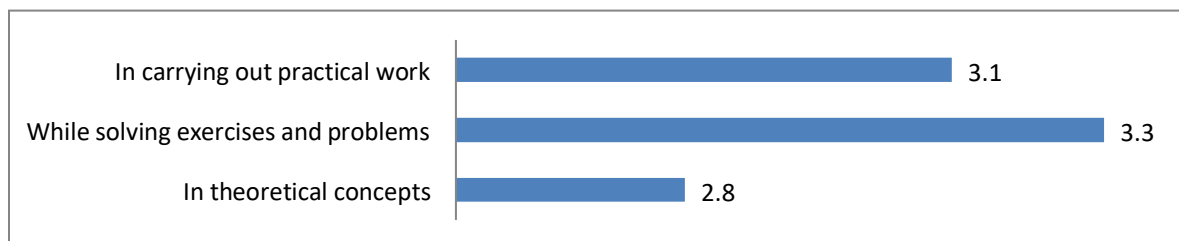
From the answers of the parents, presented summarized in chart 7, we understand that the children had more gaps in the subjects of Mathematics, Physics and Chemistry.

The next question aimed to understand, in which aspect the difficulties in teaching - learning, from the parents' point of view, were felt the most. Among the alternatives:

1. *In theoretical concepts*
2. *While solving exercises and problems*
3. *In carrying out the practical work*
4. *Next*

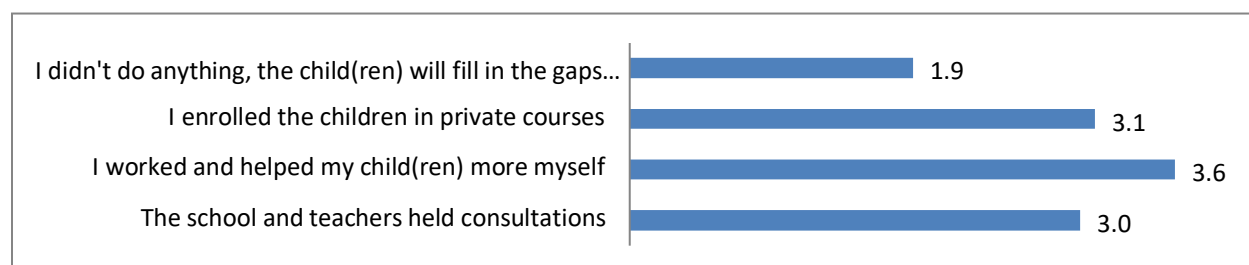
the parents answered that, the most difficulty the children felt while *solving the exercises and problems*, then listed *the performance of practical work* and finally *the theoretical concepts*. The statistical data of the answers to this question are presented in chart 8.

**Chart 8.** In what aspect were the difficulties in teaching - learning felt the most?



In the progress of a child in school, the work of the school and the teachers, his personal dedication and the role and commitment of the parents help. Therefore, valuing the very important role of parents in the learning results of children, parents were asked how they worked to fill the deficiencies encountered in the child's knowledge. In the closed question, with four alternatives, the alternative with the highest average (3.6 on a scale from 1 to 5 - see chart 9) was *I worked and helped my child myself*. After it came the alternatives; *I enrolled them in private courses* and *the school and the teachers held consultations*.

**Chart 9.** How did you work to fill the deficiencies encountered in the child's knowledge?



Like teachers, parents were also asked "*what measures should be taken to avoid suffering in the long term from the shortcomings of online learning during the pandemic?*" – in their opinion. The question was open and among the most frequent answers from parents were:

- *I think that overcoming difficulties can only be achieved through the coordination of efforts of teachers, parents and children.*
- *If teachers can return to the topics that children find difficult (although I understand that this is very difficult)*
- *The student should consult with the teacher about deficiencies during a lesson*
- *A teaching plan should be prepared to make it possible to fill the gaps in the students and strengthen their knowledge.*
- *Develop differentiated learning*
- *The school conducts consultations*

Parents generally expect the school and teachers to take measures to fill the gaps in teaching - learning, developing repetition, consultation, differentiated work with students, revising work plan. They also value school-parent cooperation as the key to children's success.

### *- Common findings between the two groups - teachers and parents*

By comparing the responses of parents and teachers, we confirm that students, during the 2021-2022 school year, during which learning took place under normal conditions, suffer the consequences of distance learning difficulties. Both teachers and parents, in a high percentage, declare that students feel difficulty in adapting to the educational process and the demands of the school; 66.7% of the asked teachers (Tab. 4) and 53.8% (Tab. 7) of the asked parents think so. Even higher was the percentage of both parents and teachers, respectively 91.4% of teachers (Tab. 5) and 79.2% of parents (Tab. 8) who are expressed that children have gaps in scientific knowledge, in the knowledge gained in the two years of pandemic caused by the virus COVID 19. The teachers of all subjects say that they identified these gaps, while according to parents, the gaps were felt more in the subjects of Mathematics, Chemistry and Physics. Gaps were felt more in solving high-level problems and exercises, and this is confirmed by both, parents and teachers in their answers (see charts 10 and 11).

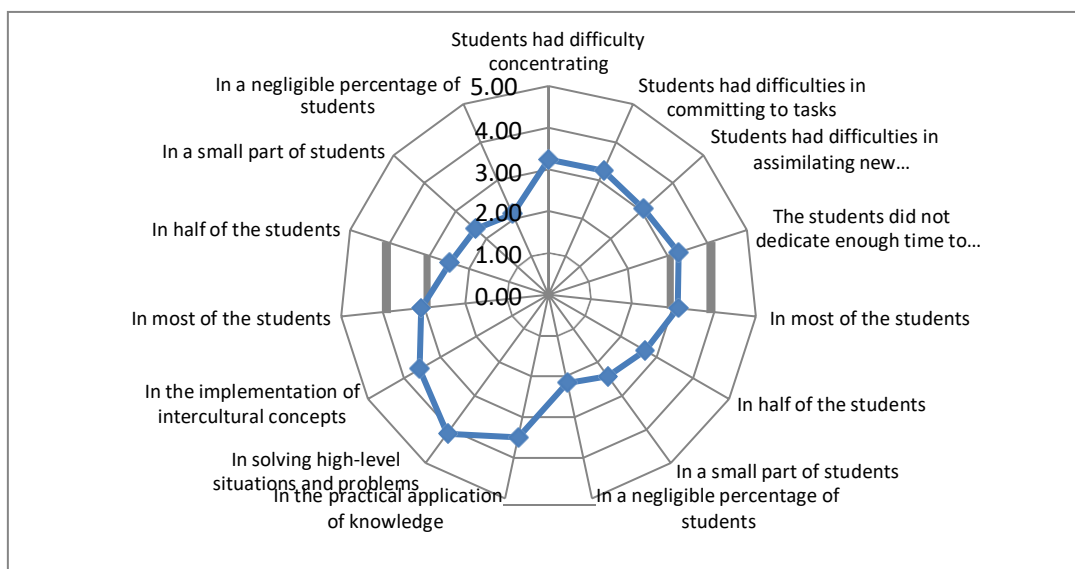
Both parents and teachers list school-parent cooperation, the need for consultations, differentiated work with students and revision/adaptation of subject and daily plans to the needs of students as necessary measures to overcome difficulties and gaps in teaching and learning. Both schools/teachers and parents, aware of the shortcomings left by distance learning (online), admit that they have taken concrete actions to help students/children to overcome difficulties and gaps. Most of the parents say that they have worked more on their own with their children to help them and a good part of them have enrolled their children in private courses. The teachers claim that they have revised the annual and daily plans to adapt to the needs of the students and have developed consultations in the school.

## **CONCLUSIONS AND RECOMMENDATIONS**

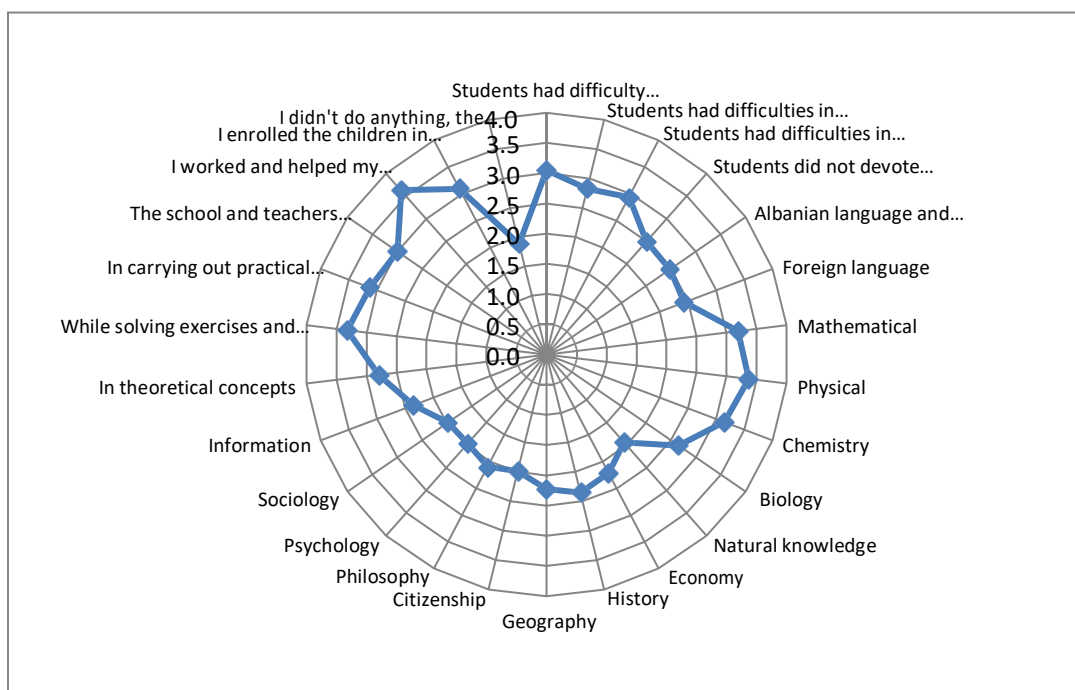
After a 2-year period of distance learning (online) and combined learning (with presence in class and distance) and shortened hours, in the 2021-2022 school year, learning took place under normal conditions. While schools and learning are back to normal, measuring the learning difficulties of students in pre-university education is undoubtedly the most important and challenging issue. This is necessary, not just to understand the consequences of online learning, conditioned by the pandemic caused by COVID 19, but also to take the necessary and immediate measures to overcome the difficulties and gaps of students, so as not to have long-term consequences in the future of young people, society in general and the economy.

The questionnaires carried out, during this study, with parents and teachers, aimed to explore the difficulties and gaps of pre-university education students in scientific knowledge (according to the relevant curricular levels) and the dimensions of their spread. The questionnaires were developed in the schools of the region of Korca, so a limited space, but they are representative of the general population of students of pre-university education throughout the country, since they developed and develop learning in the same conditions as in any other school in Albania, so the

**Chart 10.** Summary - Difficulties felt by students in learning - according to teachers' answers



**Chart 11** Summary - Difficulties felt by students in learning - according to parents' answers



results of the study do not represent the reality and problems only of the Korca region, but also more widely. The study concludes that:

- Two years of online learning have left traces and gaps in the knowledge of students of all levels in pre-university education
- Gaps of difficulty are felt by the majority of students and are more pronounced in solving high-level situations and problems. Difficulties and problems are felt by teachers of all subjects, but parents say that children feel these difficulties more in Mathematics, Physics and Chemistry.
- The parents of the teacher, each by himself and all together, during the year 2021-2022 worked to overcome difficulties and gaps. The teachers reviewed the subject and daily plans, adapting

them to the needs of the students, developed consultations and differentiated work. Parents helped and worked more with their children, and often enrolled their children in private courses.

This panorama shows that all the actresses are aware of the difficulties and gaps left by online learning and feel the need to take immediate measures individually or institutionally. The measures taken should not be limited only to this first year after the pandemic. Problems come quickly, but they go away slowly, so it is important to continue with the intervention measures to minimize the problems. At the end of this study, the recommendations that come from the authors and respondents are:

- The improvement of the situation requires a state and institutional reaction, the taking of measures cannot be left only to the will of the teachers and the possibilities of the parents
- Strong and continuous cooperation between the school and parents in order to increase the student's learning results

In order not to find ourselves unprepared in other similar situations and not to put educational institutions and teaching staff in difficulty, we must:

- To make changes in the legal basis for education in relation to approaches to learning modalities and paths,
- To improve the technological infrastructure in schools
- To invest in the professional development of teachers, their training in the development of online learning (e-learning). This also applies to students.
- To prepare platforms and applications, for digital learning, that are used offline, as well as digital teaching materials for each subject in the teaching curriculum of pre-university education.

Education and learning achievements of students is not only a matter of the population group that is included in it, but it is a matter of national importance. The future is closely related to the quality of education today, so attention to education problems, especially after the severe crisis caused by the COVID 19 pandemic, requires the attention of all actors.

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# THE PROGRESS OF DEMOGRAPHIC GROWTH IN ALBANIA. ANALYZE OF INFLUENCING FACTORS

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## ABSTRACT

*During the last decades, Albania has experienced a significant population change. During this period the balance between the old age and the new age is broken. It seems that a society with gray hair is being created in our country where the number of elderly people is increasing. The phenomenon of population aging is a phenomenon that started after the 90s. Before the 90s, we were the youngest population in Europe. After the 90s, have taken place very big changes. Economic and political changes are been reflected in demographic changes. In addition, another factor that has influenced the aging of the population is mass immigration. Emigration has become an integral part of the life projects of individuals and their families, influencing the demographic growth of the population. Although the economic and political situation can be a classic incentive factor, it cannot explain the continuous emigration flows. A more appropriate approach would be to focus on individuals' ambitions and abilities to migrate (de Haas 2010; de Haas 2011). The ambition to emigrate is also indicate by the desire to improve living conditions, as well as by information about the situation in other countries. The purpose of this study is to identify the demographic development of the country, the level, the trend, as well as to identify the impact that it has on the economy. For this reason, the main research questions of the paper are:*

- How has been the progress of demographic growth over the years?*
- How has it influenced the country's economy?*
- What are the influencing factors?*

*To answer the research questions, we based on the analysis of secondary data.*

**Key words:** *Demographic growth, emigration flows, economic development, political stability, economic uncertainty.*

## METHODOLOGY USED

To prepare the paper we used these methods:



*Firstly*, descriptive method is followed to make a theoretical presentation about the country's demographic developments. For this, were used publications, statistical data and numerous scientific articles.

*Secondly*, analysis method to give a more accurate picture of the current situation of demographic developments in Albania through analyzes figures and facts. Also, we have used empirical analyze to find the impact of demographic growth to the economy of the country.

In order to fulfill the objectives we have processed and systematized the data, graphs and tables.

### **Research instruments**

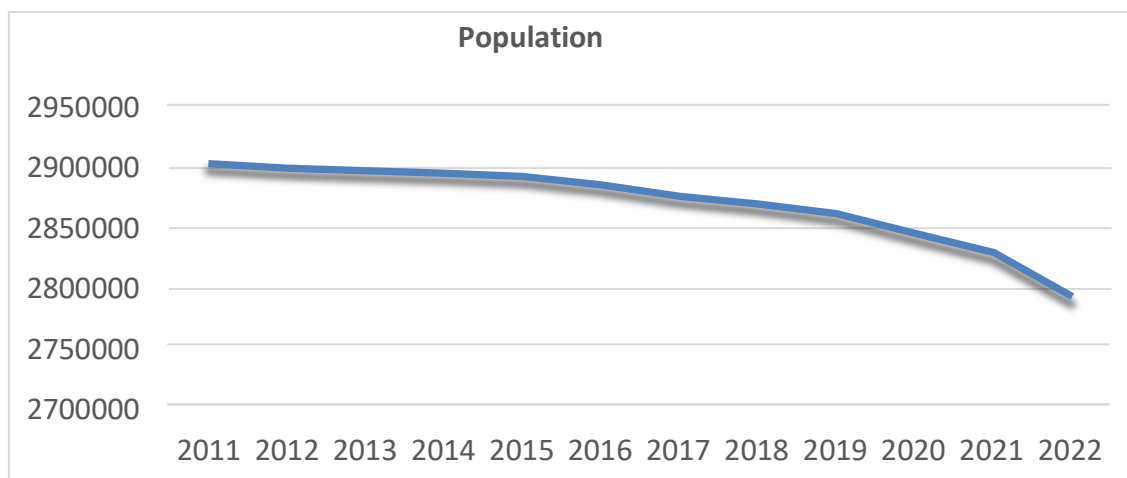
To prepare this research were used *secondary data*. These data were provided by institutions such as INSTAT and Bank of Albania. The selection of statistical data of the demographic progress, belong to the period from 2011 to 2022.

## **1. INTRODUCTION**

During the last decades, Albania has experienced a significant population change. During this period the balance between the old age and the new age is broken. It seems that a society with gray hair is being created in our country where the number of elderly people is increasing. The phenomenon of population aging is a phenomenon that started after the 90s. Before the 90s, we were the youngest population in Europe.

### *1.a Population growth in Albania*

It is important to know how many people currently live in Albania and how many there will be in the future, so that better decisions can be made regarding the construction of schools, hospitals and roads. It is also important to know how old the population is and will be in the coming years, in order to plan for example, pensions or health care. We have analyzed population growth for the period 2011-2022. Based on statistical data, the population in Albania has had a downward trend. On January 1, 2022, the population of Albania will be 2.79 million inhabitants and compared to 2011, it has decreased by 3.9%.

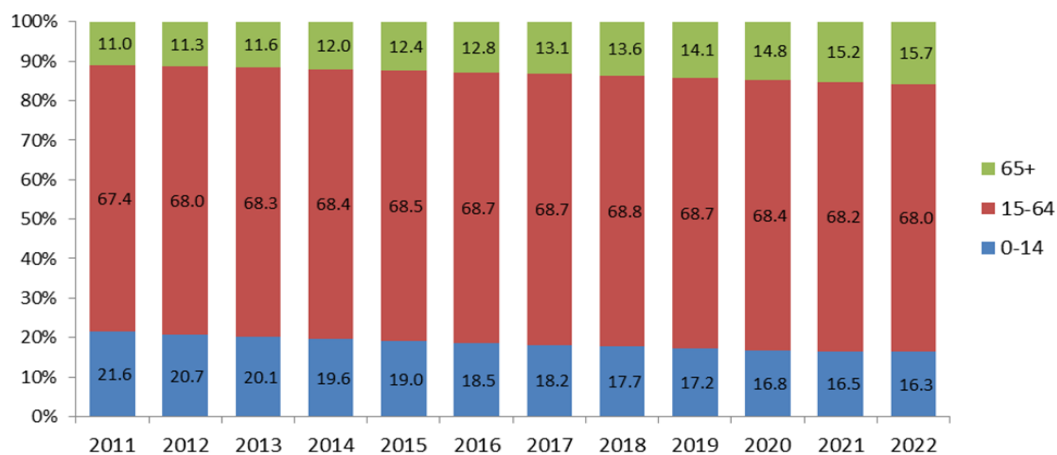


Source: INSTAT Database

The downward trend continues to be present from previous years. During 2021 the natural population increase (births-deaths) was -3,296 inhabitants, marking for the first time negative natural increase.

#### 1.b Aging population

Albania's population is aging. This is shown by the percentage of people over 65 compared to young people (under 15) from 2011 to 2022 (population on 1 January). Also, the population structure has change. According to statistics the age group of the population 0-14 years has decreased from 21.6 % in 2011 to 16.3 % in 2022. The age group of the population 15-64 years has remained almost the same, undergoing a slight increase, from 67.4 % in 2011, to 68.0 % in 2022. The 65+ age group of the population has increased from 11.0 % in 2011 to 15.7 % in 2022.



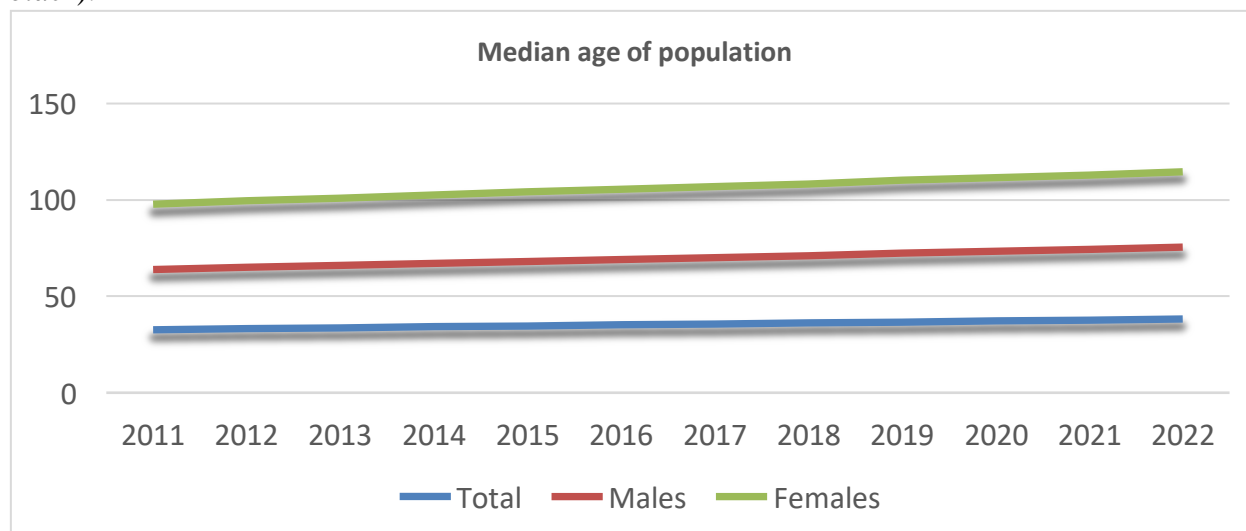
Source: INSTAT Database

#### 1.c Median age of population

The median age of the Albanian population has increased from approximately 33 years on January 1, 2011 to approximately 38 years on January 1, 2022. The median age of the population

has also increased over the same period, by gender from 31.3 to 37.3 years for males and from 33.9 to 39.1 years for women.

*(The median age of the population is an indicator that divides the population into two equal groups. It represents the age at which half of the population is younger and the other half is older).*



Source: INSTAT Database

## 2. THE INFLUENCING FACTORS ON DECREASING POPULATION

Here we can mention two influencing factors

a- Natural population increase (births-deaths)

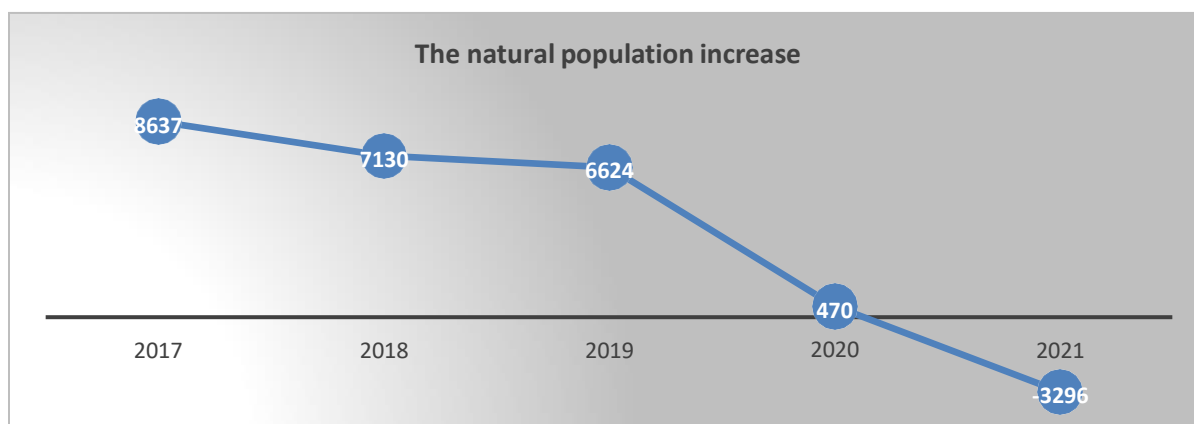
-Fertility Index

b- Net emigration.

*2.a The natural population increase (births-deaths)*

The natural population increase has been declining during the last decade.

Base on statistics in 2021 the natural population increase (births-deaths) was -3,296 inhabitants, marking for the first time negative natural increase.



Source: INSTAT Database

During the period 2011-2021, the number of births has decreased significantly: from about 34 thousand in 2011, to about 27 thousand in 2021, while the number of deaths per year has remained between 20 thousand and 22 thousand for the period 2011-2019, but has increased in about 30 thousand deaths in 2021, influenced by the effects of the Covid-19 pandemic.

Usually more males than females are born, but since males have a higher mortality, there are more elderly females than males

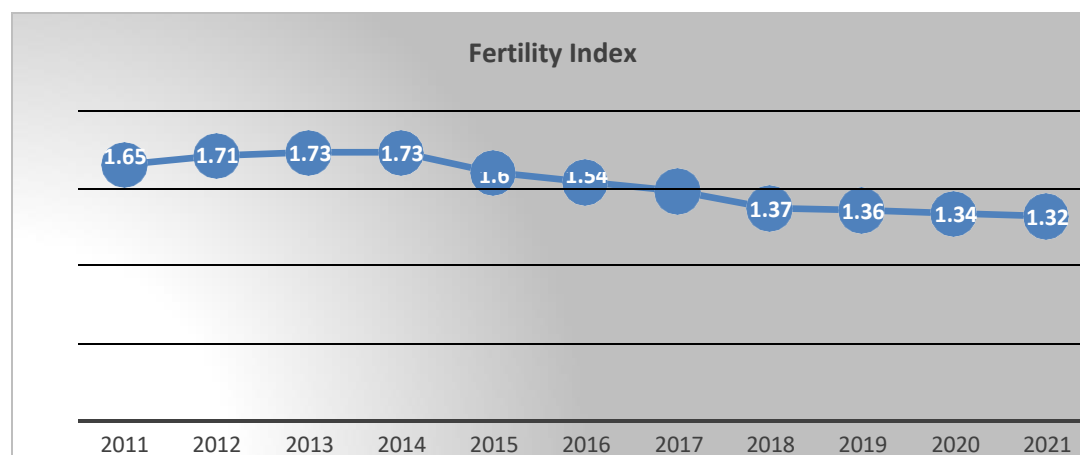
#### - Fertility Index

The fertility index shows how many children a woman is expected to have during her lifetime.

It is widely accepted that 2.1 children per woman is the replacement level needed for a given country's population.

The synthetic fertility index has fallen: from 2011 when it was 1.65 children per woman, to 1.32 in 2021. This is an important indicator.

The ISF can be reflected in the number of the population in the coming decades and have an impact not only on its reduction, but especially on social-economic factors, with impacts that can appear in the reduction of purchasing power, the increase in the age dependency rate, putting the pension scheme at risk



Source: INSTAT Database

#### Some of the social factors that can affect fertility rates are:

- cultural norms,
- level of education,
- religion,
- use of contraceptive methods,
- abortion,
- impact of emigration,
- children as a source of labor (on family farms), children as support for couples at older ages, the costs of raising children, etc.

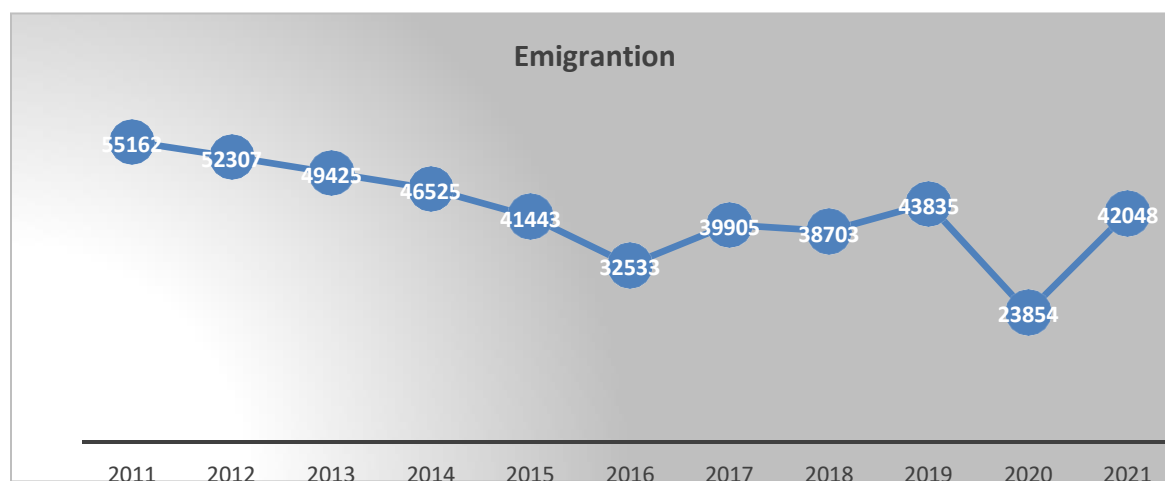
#### 2.b Net Emigration

The population of Albania began to decrease since 1990, as a result of a mass emigration.

During the years 2011-2021, it is estimated that an average of 42,000 people emigrated each year and 23,000 people immigrated on average each year.

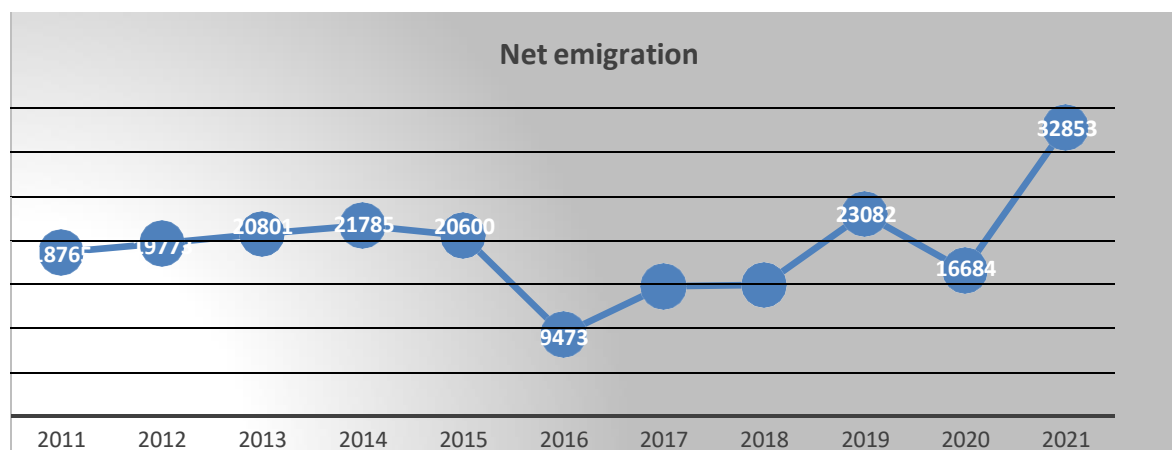
The factors that have influenced the departure of Albanians from the country are different. Among others, we can mention factors such as better job opportunities, bad economic situation, health, education, family, housing, social protection, security and pessimistic perception of their future and that of their children. Economic conditions include poverty, unemployment, low income, difficult living conditions, limited social protection and debts. Another reason to leave the country is to send remittances to family members they leave behind. Remittances from abroad are an important economic source for many Albanian families.

So, Albanian emigration has been dominated by economic influencing factors. Economic reasons have been and continue to be the ones that push the majority of Albanians to leave the country.



Source: INSTAT Database

Emigration and immigration are a significant factor in demographic shifts. Both in- and out-migration affect natural and actual increases and decreases in population. The effect of migration depends especially on migrants' fertility, social attitudes, age, gender, and other identity factors.

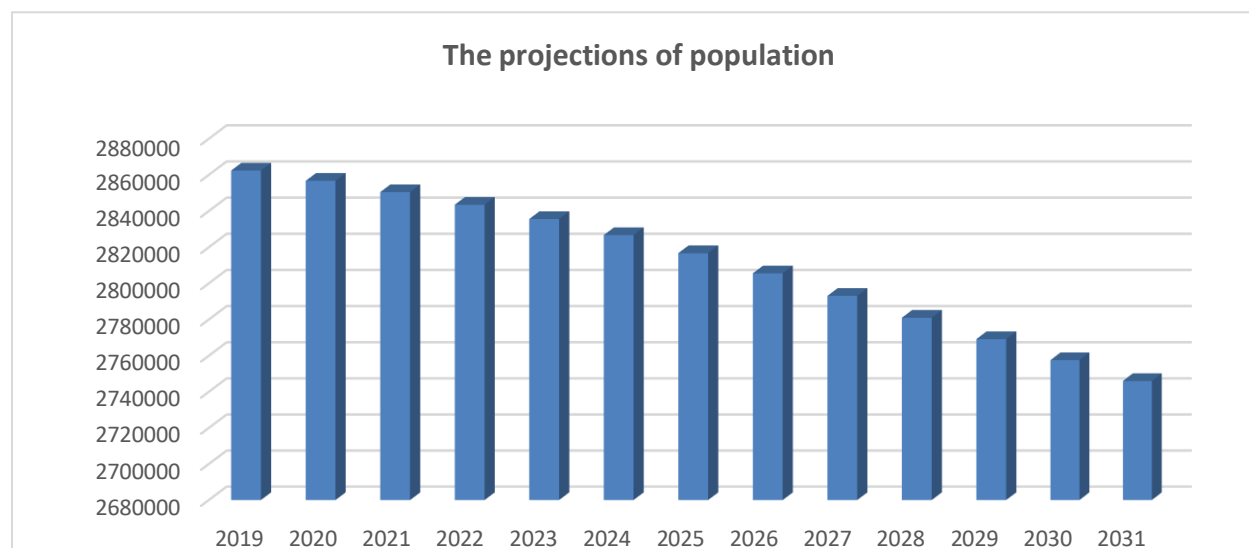


Source: INSTAT Database

### 3. THE PROJECTIONS OF POPULATION (2019-2031)

The population of Albania in 2031, according to the projections of updated, is calculated to be 2,745,996 inhabitants. This number is about 47.6 thousand inhabitants less compared with the population in 2022.

The slow growth of the ISF will mean that the number of births will not undergo significant changes during the period 2019 - 2031. At the same time, the number of deaths will continue to increase, as a result of a larger population in the age of old. These two changes will bring a falling in the natural population increase with about 3.2 thousand in 2031.



Source: INSTAT Database

#### **4. THE INFLUENCE OF DEMOGRAPHIC GROWTH IN THE COUNTRY'S ECONOMY**

The consequences of immigration and demographic changes are also felt in the country's economic performance.

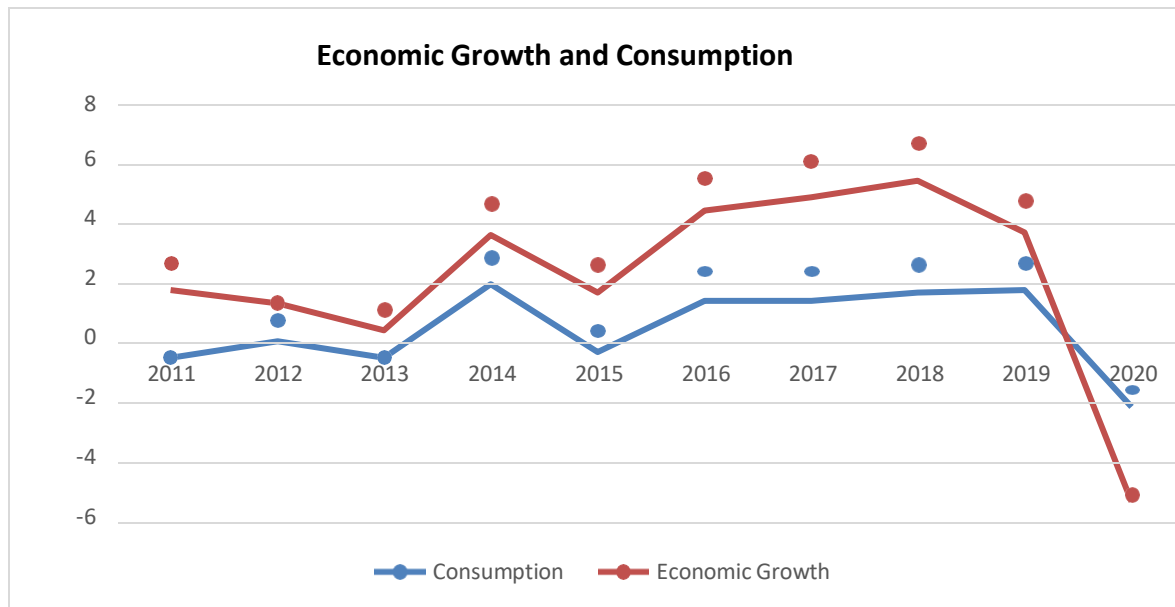
The increase in the number of citizens at retirement age and the departure of the workforce worsens the social and economic status of the country. Especially the departure of qualified employees, who are also significant contributors to the social security scheme due to their higher salaries, further complicates the functioning of the social security scheme itself"

Emigration especially that of the last decade, has at its center the most active population in Albania and the most productive for the market and the economy. According to the analysis, not all age groups are affected in the same way and that the working age population is the most affected.

Base to a study of the Center for Economic and Social Studies: about 34 thousand Albanians between the ages of 18-40 can emigrate every year and more than half of them have professional, university and postgraduate education.

As a result of the departure of the youth and the qualified class, Albania loses its human capital, the labor force with high productivity.

The mass emigration of the Albanian population leaves behind a society with many shortages. The emigration of young people has recently reduced the level of employment and has negatively affected the economic growth of the country.



Source: INSTAT Database

The economic growth of the country is related to employment, which affects the income and further the consumption of families.

The more people who work and earn money, the higher the demand for goods and services from households. As a result, companies increase their production and subsequently family consumption increases. This means that the GDP also increases. When the situation worsens and people have less money to spend, the demand for goods and services falls. So, companies have to adapt and produce less. As a result, GDP grows more slowly or falls.

## 5. EMPIRICAL ANALYSIS

There are many factors that affect economic growth. In our paper we have analyzed the relationship between population growth and economic growth. We think that exist a relation between them so long as exist a relation between population growth and consumption and further a relationship between consumption and economic growth. Below we have represented the coefficients of correlations for these relationships.

### ▮ Correlations between consumption and population growth

Correlations			
		Popullsia	Con1
Population Growth	Pearson Correlation	1	<b>.942**</b>
	Sig. (2-tailed)		.000
	N	11	11
Consumption	Pearson Correlation	<b>.942**</b>	1
	Sig. (2-tailed)	.000	

	N	11	11
**. Correlation is significant at the 0.01 level (2-tailed).			

There is a strong positive correlation between consumption and population growth because the coefficient of correlation is 0.942.

### ▮ Correlations between consumption and economic growth

Correlations			
		GDP Growth	Consum.Growth
GDP Growth	Pearson Correlation	1	<b>.807**</b>
	Sig. (2-tailed)		.005
	N	10	10
Consum. Growth	Pearson Correlation	<b>.807**</b>	1
	Sig. (2-tailed)	.005	
	N	10	10
**. Correlation is significant at the 0.01 level (2-tailed).			

Also, there is a strong positive correlation between consumption and GDP growth because the coefficient of correlation is 0.807.

### ▮ Correlations between population growth and economic growth

Correlations			
		Pop. Growth	GDP growth
Population growth	Pearson Correlation	1	<b>.418</b>
	Sig. (2-tailed)		.230
	N	11	10
GDP growth	Pearson Correlation	<b>.418</b>	1
	Sig. (2-tailed)	.230	
	N	10	10

There is no strong correlation between population growth and GDP growth because the coefficient of correlation is 0.418.

### 5.1. Analysis And Presentation of Findings

As stated in the methodology of the study, the research focused on the construction of two regression models. In the first model, we chose consumption as the independent variable and



economic growth as the dependent variable. In the second model, the independent variable is population growth, while the dependent variable is consumption.

- *Model Specification*

□ The functional appearance of the first model will be:

$$\text{GDP Growth} = f(\text{consumption})$$

Linear equation that expresses the relationship between the explanatory variables has the form:

$$\text{GDP Growth} = \beta_0 + \beta_1 \text{con.} + \mu_t$$

Expected signs of variable is:

$$\beta_1 > 0$$

□ The functional appearance of the second model will be:

$$\text{Cons.} = f(\text{Pop. Growth})$$

Linear equation that expresses the relationship between the explanatory variables has the form:

$$\text{Cons.} = \beta_0 + \beta_1 \text{Pop.} + \mu_t$$

Expected signs of variable is:

$$\beta_1 > 0$$

- *Empirical Results*

The statistical analysis was carried out using the regression procedure. The results of the evaluation revealed that all the variables entered were statistically significant at the 95% level. The testing results show that there is a strong linear relation between independent variables and the dependent one in the first model  $R = 0.994$  and in the second  $R = 0.942$ . The model has a power explanatory which is relatively high:  $R^2 = 0.988$  and the second  $R^2 = 0.887$ . Through F test, we can see the importance of the model. Since  $\text{sig.} < 0.05$  the independent variables in two model explain the dependent variable and they are statistically important ( $\text{sig.} < 0.05$ ). The equation of the regression are:

First Model:  **$\text{GDP Growth} = 1.183 + 0.807\text{cons.} + 0.306$**

Second Model:  **$\text{Cons.} = 5.100 + 0.942\text{Pop.} + 0.607$**

The first model predicts that if consumption expenditures increase by one unit, GDP will increase by 0.807 ( $\beta_1 = 0.807$ ). The second model predicts that if the population increases by one unit, consumption will increase by 0.942 ( $\beta_1 = 0.942$ ).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.511	.550		.930	.380
	Consum. Growth	1.183	.306	<b>.807</b>	3.867	<b>.005</b>

a. Dependent Variable: GDP Growth

Coefficients <sup>a</sup>	

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	15937430.125	1746379.160		9.126	.000
	Popullsia	5.100	.607	.942	8.406	.000

a. Dependent Variable: Consumption

## CONCLUSIONS

Albania's post-communist transition has been characterized by a large population movement inside and outside the country, in search of better economic opportunities.

The freedom of movement to choose residence and profession, which is a distinguishing feature of globalization that has affected even developed countries, is confronting Albania with fatal consequences, the emptying of the country.

Emigration has become the most acute problem of Albanian society. The number of emigrants, mostly young people, is increasing more and more, putting into question the sustainable development of the country in the future.

Combined with the decline in the birth rate, emigration resulted in a significant decrease in the Albanian population by about 3.9% for the period from 2011 to 2022.

Albania is already experiencing an aging population, while the host countries have clearly gained working-age populations, creating opportunities for development.

From the empirical analysis, we come to the conclusion that if consumption expenses increase by one unit, GDP will increase by 0.807 and if the population increases by one unit, consumption will increase by 0.942.

In these conditions, it is important to know how many people currently live in Albania and how many there will be in the future, in order to draw up the right policies.

We need to focus on long-term economic objectives, which include the creation of a strong and sustainable economic growth model with the aim of improving the living standards of citizens, thus encouraging qualified and talented people to stay in Albania.

In order to positively influence demographic progress and economic growth, the focus should be on:

- Investment in human capital
- Increasing the productivity of firms and creating opportunities for better jobs
- Creating a sustainable model of economic growth
- The increase of income

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# IMPACT OF COVID-19 ON LIFE EXPECTANCIES AND ANNUITY VALUES IN BALKAN COUNTRIES

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## ABSTRACT

Not every country was affected the same by Covid 19, some countries were hit hard in 2020 but not in 2021 and some were hit hard in both years. Our aim was to analyze the impact of Covid 19 in some Balkan countries. We calculate virtual death counts and exposures for 2020 and 2021 using the same procedure like Jens Robben, Katrien Antonio, Sander Devriendt (2022). After that we do a validation of the virtual data with the real data which are available up to 2021 on Human Mortality Database. The next step was to use different scenarios and calculate life expectancies and annuity values like Simon Schnürch, Torsten Kleinow, Ralf Korn, Andreas Wagner (2021). With this we analyze mortality for different scenarios based on forecasting with the APC model.

**Keywords:** APC model, COVID-19; forecasting; Lee Carter model; mortality modeling; pandemic shock

## 1. INTRODUCTION

The COVID-19 pandemic impacted mortality in multiple ways. The disease itself led to an increase in deaths, especially at higher ages, but government measures also impacted mortality positively, leading to less traffic accidents and a mild flu season during winter 2020–21.

In this paper, we aim to assess the impact of Covid 19 in some Balkan countries. We calculate virtual death counts and exposures for 2020 and 2021 using the same procedure like Jens Robben, Katrien Antonio, Sander Devriendt (2022). We calibrate this mortality model on annual death counts and exposures at the level of individual ages. This type of mortality data are typically collected, produced and reported on a platform such as the Human Mortality Database. To enable a timely evaluation of the impact of one event in particular, we have to rely on other data sources (e.g., Short-Term Mortality Fluctuations Data series) that swiftly publish weekly mortality data collected in age buckets.

The next step was to use different scenarios and calculate life expectancies and annuity values like Simon Schnürch, Torsten Kleinow, Ralf Korn, Andreas Wagner (2021).

We transform weekly mortality data collected in age buckets to yearly, age-specific observations. We then calculate a formula that accounts for individual ages. In our analysis, we evaluate the

impact of a pandemic shock like COVID-19 in 2020 on future estimated mortality rates and life expectancies for some Balkan countries.

## 2. DATA

We use the STMF data for Bulgaria, Croatia, Greece and Slovenia. They are available per week and we use them for 2020 and 2021. Data are organized in age buckets [0-14, 15-64, 65-74, 75-84, 85+]. First aim is to transform them in annual mortality data at individual ages. For that we use yearly HMD Data up to 2019 to calculate virtual death counts

For calculating yearly exposure, the first step is to calculate weekly exposure out of the death counts and death rates. In some countries they are both zero, so calculating exposure isn't possible, and some exposure are missing. We replace missing values by the same count like in the other weeks of this year. Because STMF data series assume a **constant weekly exposure** per year, per age bucket and per gender we can calculate yearly exposure with 52 weekly exposure and with this we get total annual exposure in year  $t$  for every age bucket.

$$E_{[x_i, x_j], t} = 52 \cdot E_{[x_i, x_j], t, w}$$

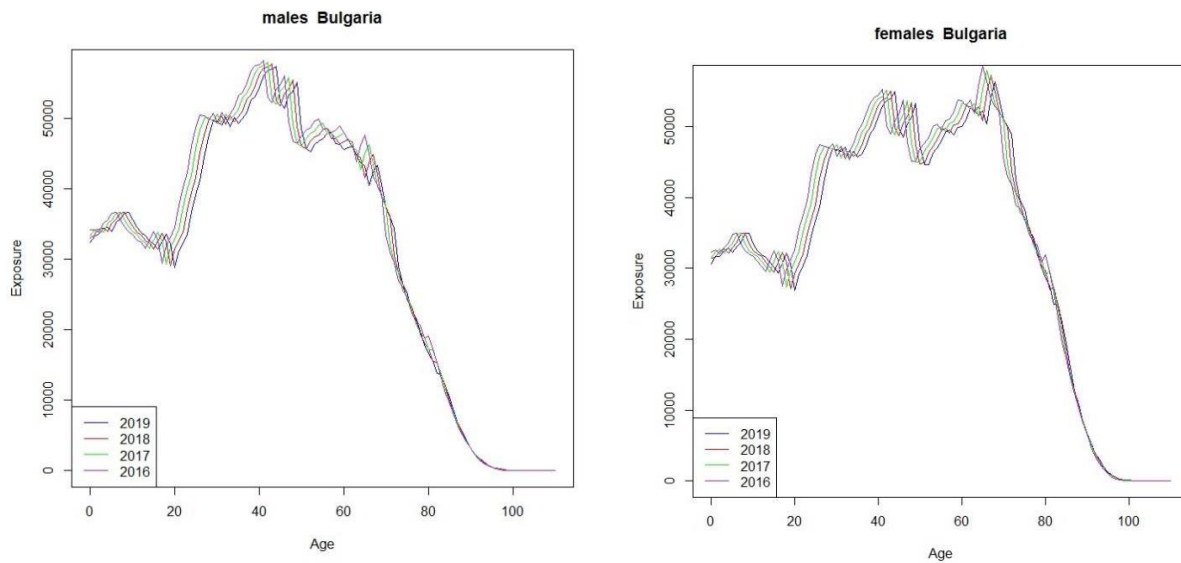
For calculating yearly Death Counts we use different formulas according to the number of weeks in one year. For years with 52 weeks: use the sum of the weekly deaths to calculate yearly deaths:

$$d_{[x_i, x_j], t} = \sum_{w=2}^{52} d_{[x_i, x_j], t, w}$$

For years with 53 weeks:

$$d_{[x_i, x_j], t} = \delta_{1, t} \cdot d_{[x_i, x_j], t, 1} + \sum_{w=2}^{52} d_{[x_i, x_j], t, w} + \delta_{53, t} \cdot d_{[x_i, x_j], t, 53}$$

where  $\delta_{1, t}$  and  $\delta_{53, t}$  are the fractions of the first and 53rd week that is part of calendar year  $t$  and this is compliant with the HMD and Eurostat individual death counts. In our situation: 2020 consists of 53 weeks and 2021 consists of 52 weeks.



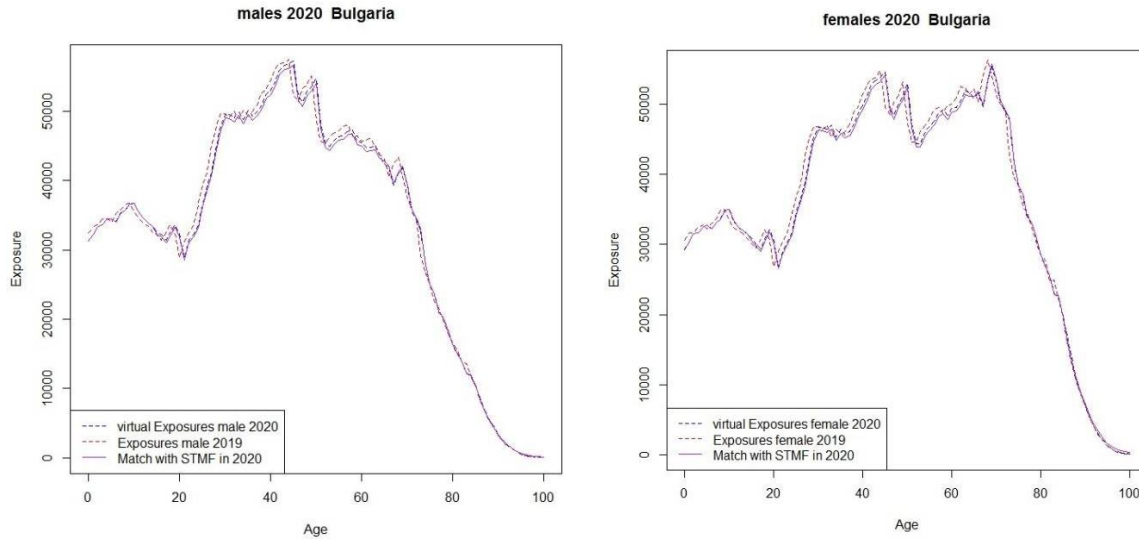
Picture shows the exposure for Bulgarian male and female for the years 2016-2019. Exposure function has a similar pattern shifted to the right with one age in each subsequent year  $t$ . People aged  $x$  in year  $t$  become part of the group at risk aged  $x + 1$  in year  $t + 1$ , if they survive. Out of this result we can calculate virtual exposure for 2020 out of the exposure from 2019 from HMD. We start with the yearly exposures  $E_{[x_i, x_j], t}$  collected in age buckets from STMF. Exposure and death counts for 2019 are available in individual ages from HMD. We use them from age 0 to age 100

$$\hat{E}_{x+1, t+1} = E_{x, t} - d_{x, t}, t = 2019$$

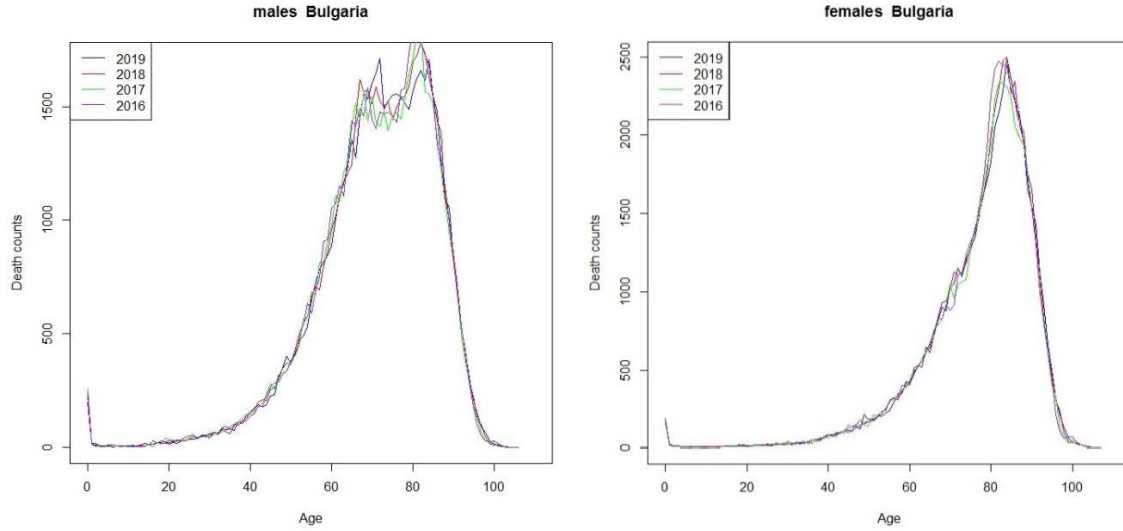
For  $x = 0$  in 2020 we apply linear extrapolation based on ages 1-4.

We match the exposure of 2020  $\hat{E}_{x, t}$  with the exposures collected in age buckets from the STMF (For  $x$  in age bucket  $[x_i, x_j]$  and  $t = 2020$ ):

$$E_{x, t} = \hat{E}_{x, t} \cdot b_{i, j}, \text{ where } b_{i, j} = \frac{E_{[x_i, x_j], t}}{\sum_{a=x_i}^{x_j} \hat{f}_{a, t}}$$



Picture shows the results for virtual exposure at individual ages for 2020 for Bulgarian male and female. We see the exposure of 2019 with the red dashed line and the shift to the right by one age with the purple line for 2020.

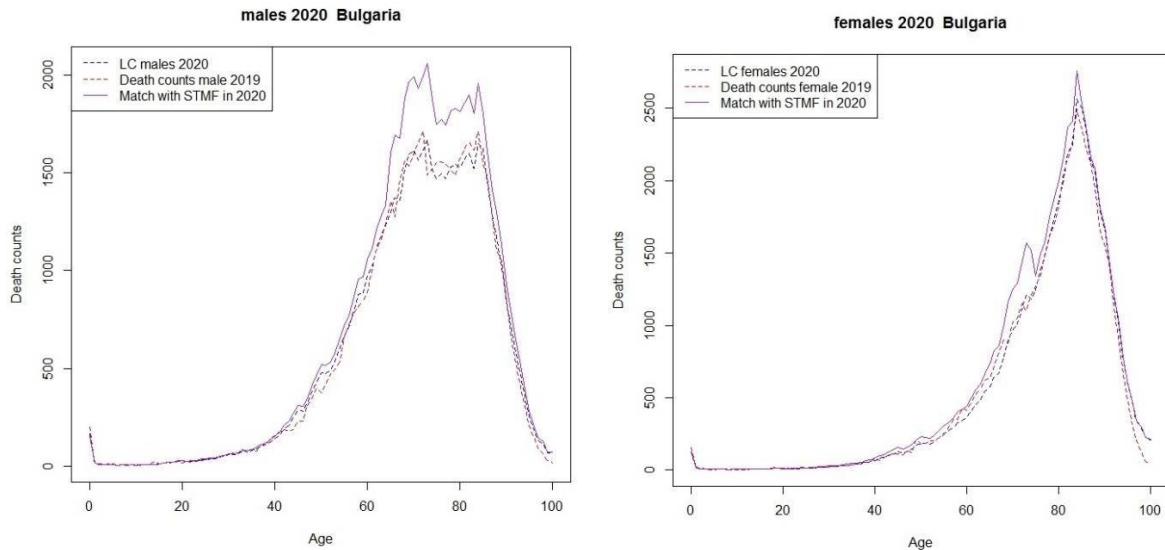


Picture shows the death counts for Bulgarian male and female for the years 2016-2019, that are very similar for all years but some variability in ages around 70 and ages around 85.

To calculate the virtual deaths for 2020 we fit a Lee Carter model for the calibration period 1970-2019 based on HMD data and project the death rate  $m_{x,t}$  up to the year 2020 with a random walk with drift. With the projected  $m_{x,2020}$  and the virtual exposure  $E_{x,2020}$  calculate the death counts for 2020

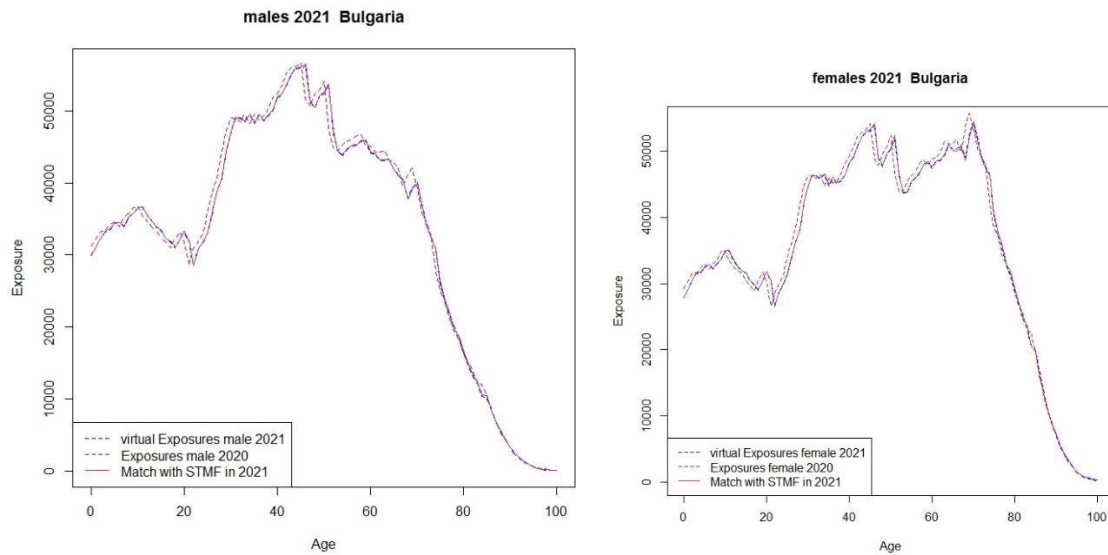
$$\hat{d}_{x,2020} = m_{x,2020} * E_{x,2020}$$

After that we also match the death counts of 2020  $\hat{d}_{x,t}$  with the death counts collected in age buckets from the STMF (For  $x$  in age bucket  $[x_i, x_j]$  and  $t = 2020$ )



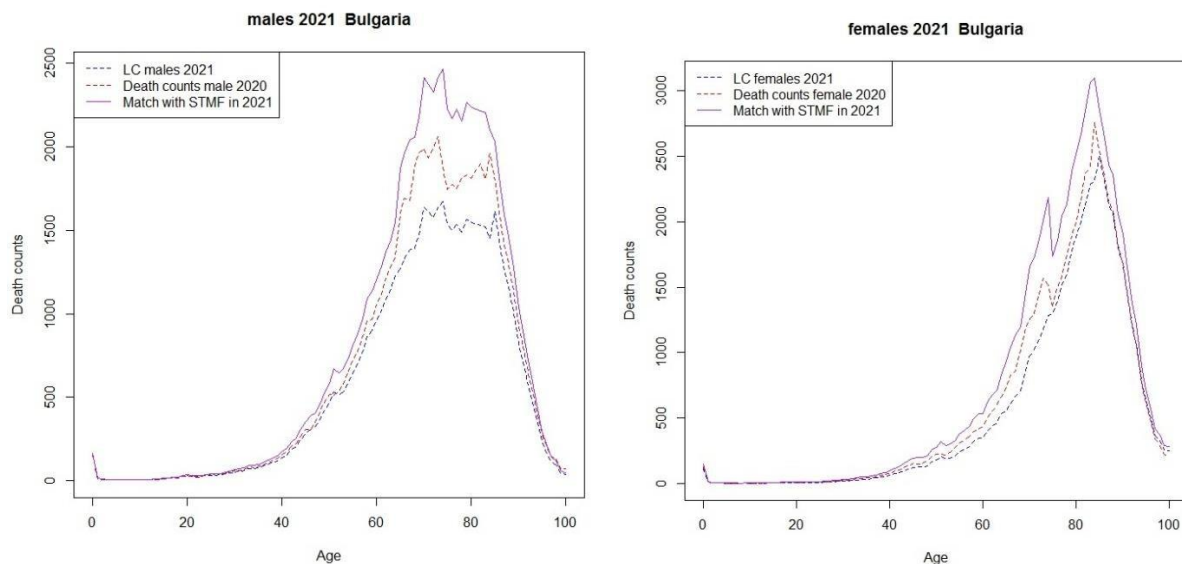
Picture shows the results for virtual death counts at individual ages for 2020 for Bulgarian male and female. The red dashed line shows the deaths in 2019 and the purple line shows the deaths in 2020. We see that the death counts grow up in 2020 especially for ages over 70 because of Covid-19.

We use the same strategy like before  $\hat{E}_{x,t+1} = E_{x,t} - d_{x,t}$  with  $t = 2020$ , where  $E_{x,2020}$  and  $d_{x,2020}$  are the virtual data calculated before. After that do the match with the STMF data as well.



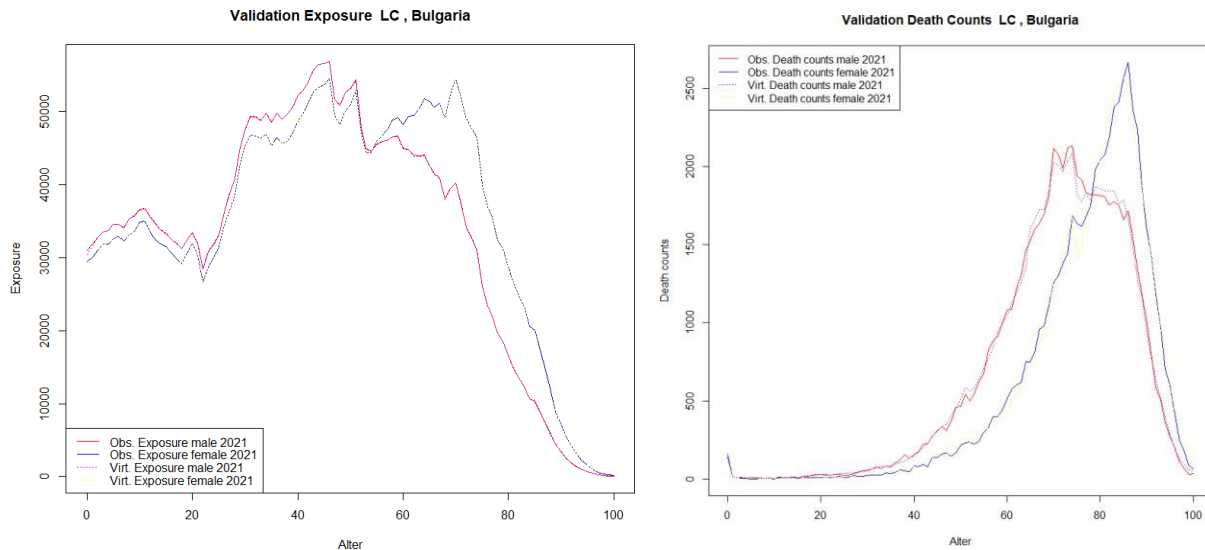
Picture shows the virtual exposure for 2021 for Bulgarian male and female and also here we can see the shift one age to the right with the purple line for 2021 and the red dashed line show the exposure from 2020.

For the death counts at individual ages for 2021 we do a fit with the Lee Carter model for the calibration period 1970-2019 based on HMD data and project the death rates  $m_{x,t}$  over the years 2020 and 2021 with a random walk with drift. With the projected  $m_{x,2021}$  and the virtual exposure  $E_{x,2021}$  calculated before we calculate the death counts for 2021  $\hat{d}_{x,2021} = m_{x,2021} * E_{x,2021}$ . After that do the match with the STMF data for 2021 like before.



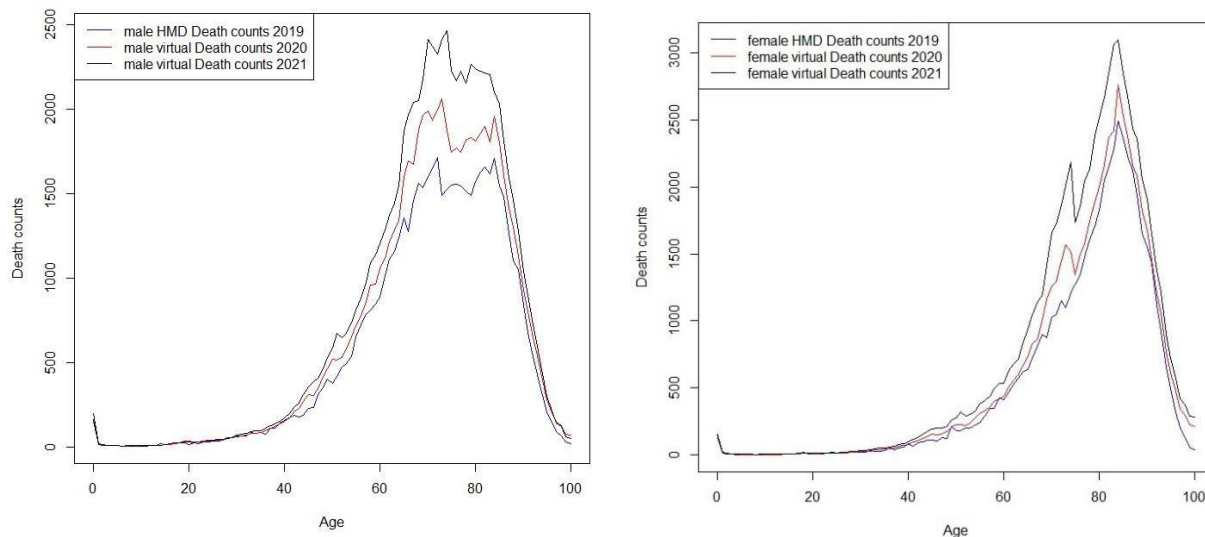
Picture shows the results for virtual death counts at individual ages for 2021 for Bulgarian male and female. The red dashed line shows the deaths in 2020 and the purple line shows the deaths in 2021. We see that the death counts grow up in 2021 but they go down for ages around 85.





Bulgarian data are available up to 2021 on HMD website. We compare the virtual data for 2020 and 2021 with the real data. Picture: see that the virtual exposure for 2021 fits very well to the real data from 2021. Same like before for the year 2021 death counts fit also very well except of a very small difference in age 70 and ages around 80.

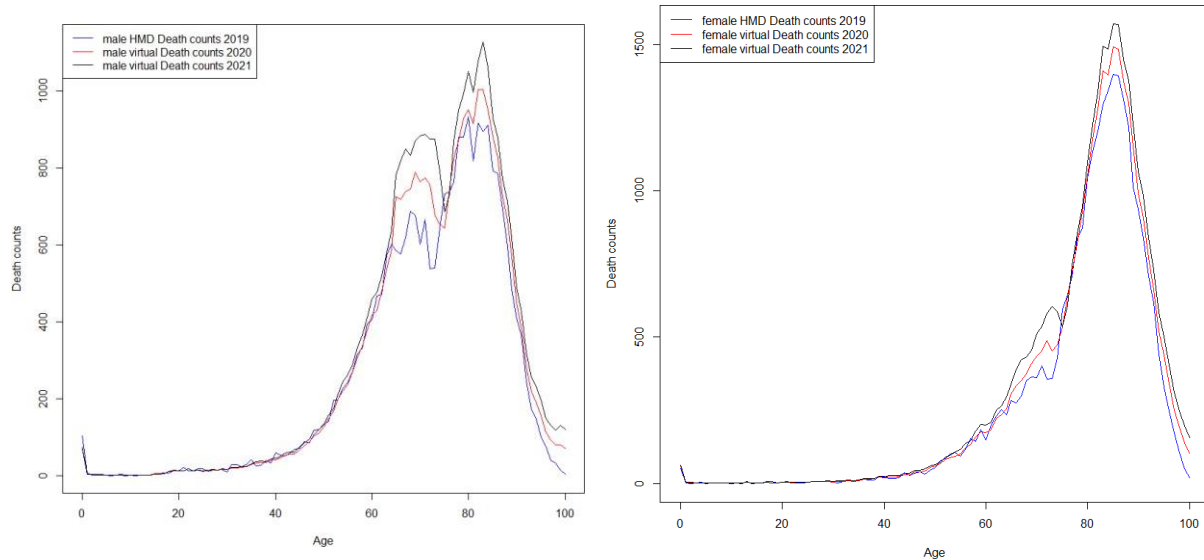
For the forecasting and calculating life expectancies and annuity values we analyzed four Balkan countries for which data are available in HMD database



## Bulgaria

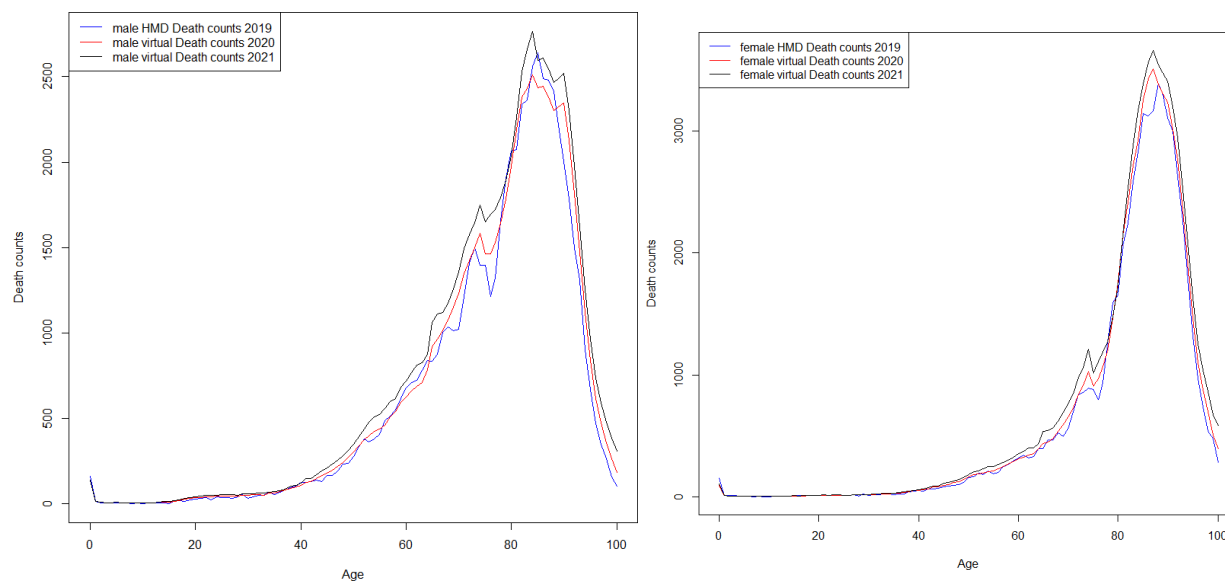
First country is Bulgaria with death counts for male on the right side and female on the left side. Here we can see that Bulgaria was hit hard by Covid-19 in 2020 (red line) and in 2021 (black line), too.





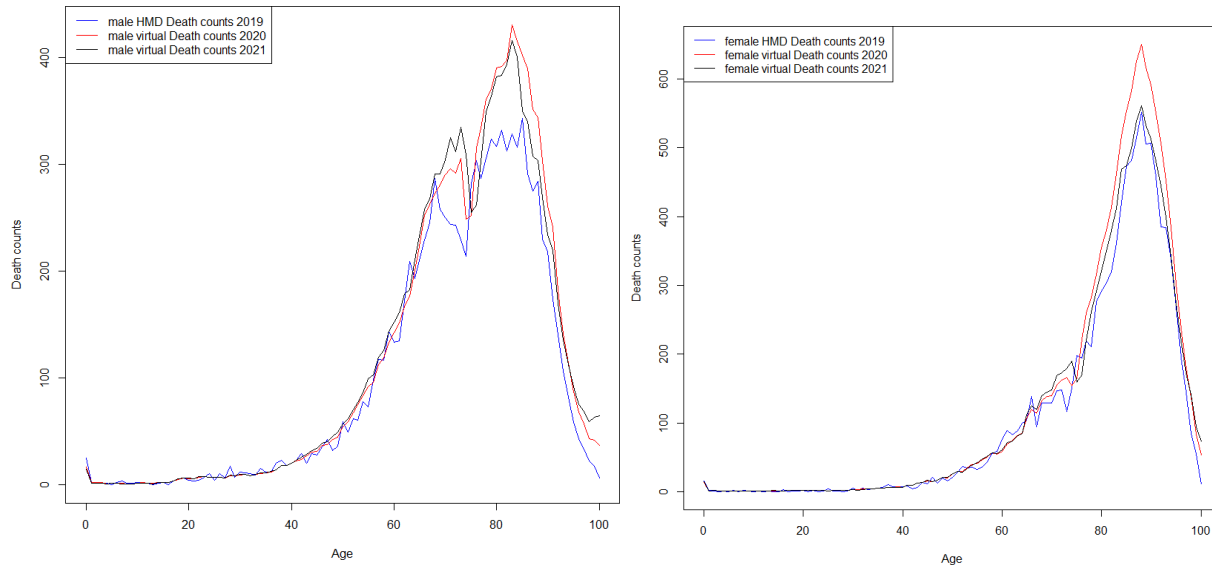
### Croatia

The second country is Croatia with death counts for male on the right side and female on the left side. We can see that Croatia was hit hard by Covid-19 in 2020 (red line) and in 2021 in some age buckets



### Greece

The third country is Greece with death counts for male on the right side and female on the left side and we can see that Greece was hit by Covid-19 in both years 2020 and 2021 in some age buckets.

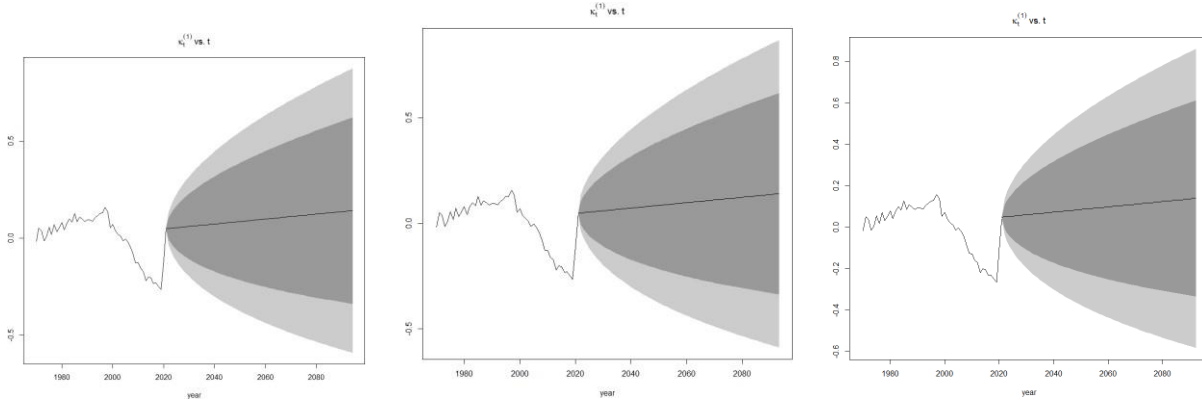


### Slovenia

The last country is Slovenia with death counts for male on the right side and female on the left side and we can see that Slovenia was hit harder by Covid-19 in 2020 (red line), especially for female in ages around 80.

### 3. FORECASTING WITH NEW DATA

In the first step we transform the new data for 2020 and 2021 in demogdata format to use the StMoMo package in R. The original HMD data up to 2019 and virtual data with the method described before for 2020 and 2021. For the forecasting we use an APC model with a validation period which starts at 1970 and an age range from 0 to 100. To simulate future paths, we use the function simulate “from the StMoMo package and simulate 500 paths using a random walk with drift for  $\kappa$  and an ARIMA (1,0,1) model for  $\gamma$ . For the next calculations we use the mean and the 80% confidence bands of the 500 simulated death rates  $m_{x,t}$ . These simulations were done for 3 different scenarios First scenario: fitting an APC model with the calibration period up to 2019 and project 73 years with 2020 as the first year of projection that is scenario without Covid-19. Second scenario: fitting an APC model with the calibration period up to 2020 and project 72 years with 2021 as the first year of projection, that is scenario with one pandemic year 2020. And the third scenario: fitting an APC model with the calibration period up to 2021 and project 71 years with 2022 as the first year of projection, that is scenario with two pandemic years 2020 and 2021.



#### 4. CALCULATING PERIOD AND COHORT LIFE EXPECTANCY & ANNUITY VALUES

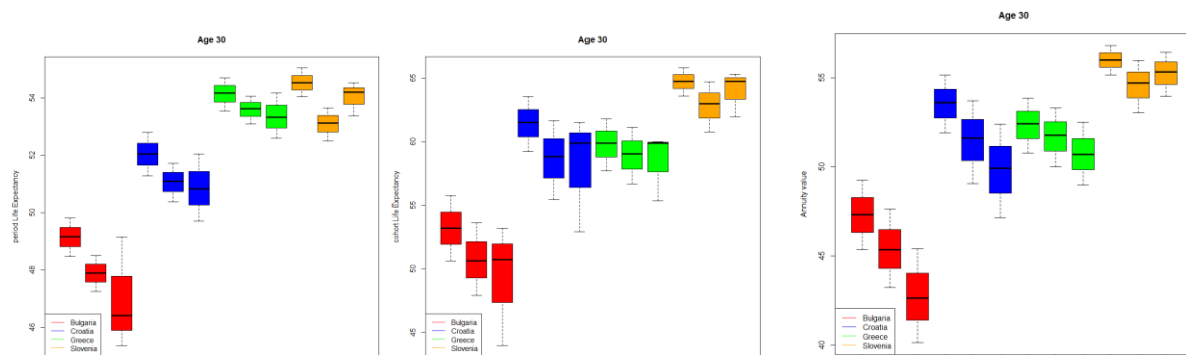
We want to calculate the period and cohort life expectancy for the countries Bulgaria, Croatia, Greece and Slovenia and want to compare them. We use the ages (30,40,50,60,70) and the calendar year 2022. We calculate the mean and 80% confidence bands of the survival probability of  $p_{x,t} = e^{-m_{x,t}}$ . We do this for different scenarios M3For2019, M3For2020, M3For2021.

$$\text{Period life expectancy: } e_x = \sum_{s=1}^{100} s p_{x,t} = \sum_{s=1}^{100} \prod_{j=1}^{s-1} p_{x+j,t}$$

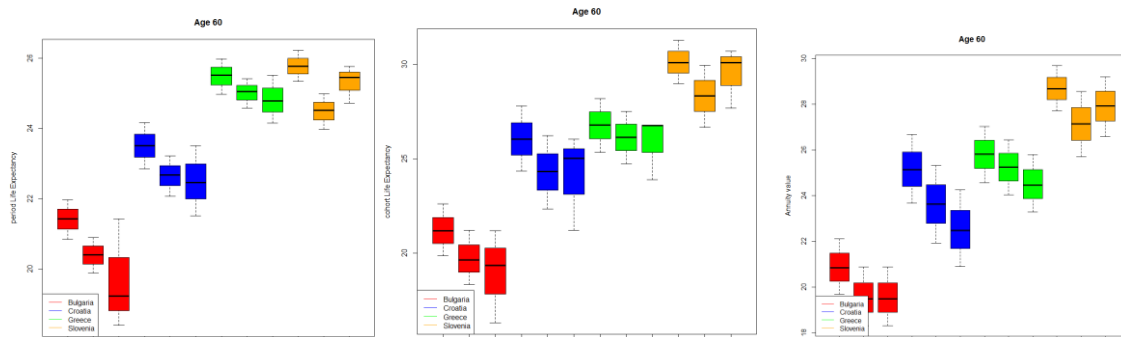
$$\text{Cohort life expectancy: } e_x = \sum_{s=1}^{100} s p_{x,t} = \sum_{s=1}^{100} \prod_{j=1}^{s-1} p_{x+j,t+j}$$

We also want to calculate the annuity values for the countries Bulgaria, Croatia, Greece and Slovenia, use the ages (30,40,50,60,70) and the calendar year 2022, use  $n=100$  as the last age people can reach, use a constant yearly discount factor  $v = \frac{1}{1+i}$ , with  $i = 0.005$  and here also calculate the mean and 80% confidence bands of the survival probability  $p_{x,t} = e^{-m_{x,t}}$ . Again, we do this for different scenarios M3For2019, M3For2020, M3For2021.

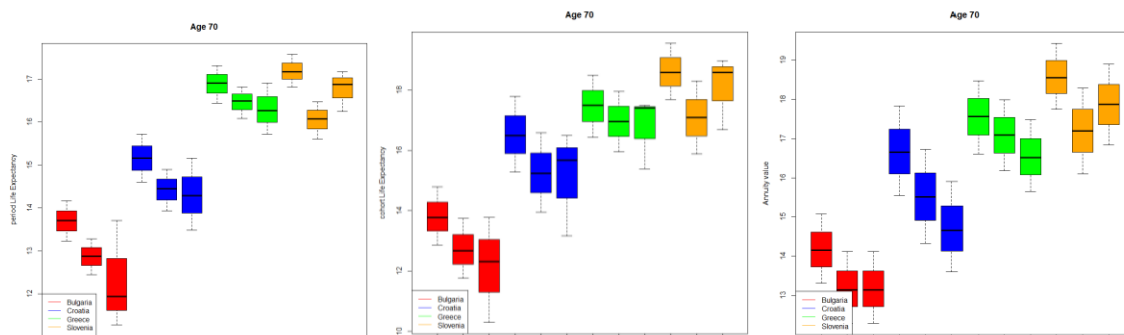
##### Results (male Age 30)



##### Results (male Age 60)



## Results (male Age 70)



## CONCLUSION

Influence of Covid-19 depends on the country and the political counteractions but generally mortality changes can have a substantial impact on mortality parameters, point and interval forecasts, life expectancies and annuity values.

### Forecasting:

- kappa 2020 has a large upward jump and it strongly influences the random walk with drift in the forecasting;
- generally: whenever a mortality shock appears in the last year of calibration period it has a major impact on the estimated drift term;
- taking Covid-19 into account leads to higher forecasts and the forecast confidence bands become wider and this impacts mortality and life expectancy forecasts

### Life Expectancies and annuity values:

- period and cohort life expectancy is negatively impacted by Covid-19 across all ages and because of this the Annuity values decrease;
- also, prediction uncertainty can increase whenever a mortality shock appears in der calibration period;
- ignoring mortality jump in a model might lead to an underestimation of forecast uncertainty

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# INCOME INEQUALITY

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## ABSTRACT

*This study analyzes the problem of income inequality which is at the same time a sharp economic and social problem. Inequality is generally related to differences in income, consumption or wealth and is reflected in social welfare. A literature review on the concept of inequality is given at the outset, focusing on income inequality because income is considered the best measure of economic well-being and income reflects individuals' control over resources. There have been a lot of debates about the causes of inequality by different authors, but we have been focused only on some of them and how to measure it through the Gini coefficient. Then, referring to statistical data, this phenomenon is seen in the USA, OECD countries, the Western Balkans and Albania. Statistics show that inequality is a global phenomenon and is getting deeper and deeper. At the end of the study are given some policies that should be undertaken to reduce inequality in Albania.*

**Keywords:** *income inequality, Gini coefficient, social inequality, economic crisis, economic development.*

## 1. LITERATURE REVIEW FOR THE CONCEPT OF INEQUALITY

In any context, the concept of inequality always refers to comparability between elements. The comparison is usually based on specific characteristics which can be measured using appropriate indices or indicators. Under these conditions, inequality seems to be a straightforward concept that, as Cowell (1995) says, "clearly" suggests a departure from the simple idea of equality when two or more quantities are the same size. However, difficulties arise when the concept has to be adapted to the social context and in relation to economic problems.

Inequality is generally related to differences in income, consumption or wealth and is reflected in social welfare. In this usage, the term embodies a kind of judgment of the value of justice, which will change according to different ethical perspectives.

According to Sen (1973) there are broadly two categories of inequality measures. On the one hand, those who try to capture the extent of inequality from an objective point of view, using the statistical measure of relative income variation, and on the other hand those who try to measure inequality in terms of some normative notions of social welfare that the complexity of ethical assessments display. The problem is that there is no clear line to limit the two approaches. So, it seems very difficult to find a single index that can give a complete description of the standard of living, as described by Sen. The literature on inequality and poverty has often used income, consumption, and wealth as measurements of living standards, but neither of these three concepts takes into account health, freedom, or achievement.

Income, consumption, and wealth tell us about mastery over potential resources in the case of income and wealth, and it is current in the case of consumption, but not for well-being itself (Goodman, Johnson, & Webb, 1997). Moreover, Cowell (1995) discusses that none of these concepts fully cover resource ownership for all goods and services in society.

According to Lipton and Ravallion (1995), the measures based on the consumption of a person's goods and services are substantially limited. They can reveal nothing about the lack of work, lifespan or the health of the life on which consumption is expected, risk and variability, and so on.

The idea is to have a standard scale in order to compare different population groups (Wratten, 1995). The problem is that when using a wide range of indicators to describe inequality, different variables can tell contradictory stories.

Despite the forms of inequality and the widespread treatment of many scholars and analysts, whether in wealth, capital, consumption, or income, in this paper we will focus mainly on the inequality of income of individuals. This for two reasons:

First, income is considered a better measure of economic well-being. So, if it is adopted an individualistic approach with focus on well-being in the social economy, then it is reasonable to focus on individual well-being and utility.

Secondly, income as ownership of resources. This revenue role can be interpreted in more than one way. If one has in mind the power of spending, then disposable income (after taxes) can be a very apt concept. If inequality is related to economic power or status then wealth inequality would probably be more appropriate.

For this, it is important to give the definition of income, what will be included in the "income" for the individual? The definition of income is the simplest and most basic concept in economics. Although it seems like a straightforward concept, a clear definition is needed when it will be used as a measure of the living standard. The widely accepted definition is the amount of money, over a period of time, that an individual can spend on consumption without changing the value of his wealth (Lindahl 1933, Simons 1938, Hicks 1946, Atkinson 1983).

An individual's income includes income from: salary; interest from savings accounts or securities; dividends; profit from the sale of property at a price higher than the purchase price; rent etc. Of course, there may be other items of income of an individual, in addition to the above items, such as income from self-employment, pension or various transfers such as: unemployment benefits, disability benefits, sickness benefits, education assistance, family assistance, etc. The latter have a great weight if we consider the income at family level and not individual, as not everyone meets the conditions to benefit from them.

As stated earlier, personal income is a concept related to resource ownership but how useful is the aforementioned income concept in measuring the satisfaction (or benefit) of individuals? Fisher (1930) uses the concept of real income to clarify this. The real income includes events such as the use of food, clothing, going to the movies, etc., which contribute to our enjoyment. However, most of these events occur in different ways producing different levels of joy for different individuals. Therefore, they are difficult to measure using any standard unit. "They have no common denominator, even the individual experiencing them cannot weigh and measure them directly. That is why most research done on inequality from an economic perspective uses money taken in a given period. time, which are called income only, as a measure of the potential standard of living of individuals (or families).

### 1.1 Measuring inequality

In order to measure income inequality as accurately as possible, it is empirically preferred to divide the whole economy into separate sub-regions or segments. In this way, it first calculates what the level of inequality is for each subregion and then concludes for the whole economy as a whole, taking it as a weighted average of regional disparities, so it should be a function of subregional inequalities, although it is not said to be necessarily linear.

There are several indices for measuring inequality, which aim to summarize or combine the distribution of income into a single index, reducing information. This reduces the complexity, but in turn takes us away from the real measure of inequality. To reduce the complexity, as mentioned above, the population is divided into quintiles, where each segment contains a portion of revenue. In the event of an unequal distribution, each segment will have a different revenue. Also, the higher the number of segments, the closer the measurement of inequality is to the real one. In general, inequality indices are calculated regardless of the estimation of inequality within segments.

#### Gini coefficient and Lorenz curve

The Gini coefficient is attributed to Gini (1912), is considered the most widely used measure of income inequality, and the reasons for this are because it is a direct measure, easy to understand, and above all simple to calculate. The values that this coefficient takes vary in the interval from 0 to 1, where the value 0 indicates a perfect equality (all individuals have equal income) and the value 1 indicates a perfect inequality (one individual has all the income and the rest has no income). Graphically, the Gini coefficient is represented by the Lorenz curve. The Lorenz curve is a graphical representation of income inequality or wealth inequality developed by the 1995 American economist Max Lorenz. On the horizontal axis is the percentage of the population, while on the vertical axis is the cumulative income.

This curve is associated with a linear line which passes through the origin of the graph, creating an angle of  $45^\circ$  and has a slope of 1, which indicates a perfect income equality. The Lorenz curve lies below this straight line showing the actual distribution of income. The area between them, area A, represents the deviation of the current inequality from the perfect one. In other words, this area represents the Gini coefficient. Each point on the Lorenz curve shows what percentage of current income N% of individuals have.

Given the slope of the curve we conclude that N% of individuals have N-1% of total income. An equal distribution of income would be where every person would have the same income (N% of society would have N% of income), so we would not have inequality. In the graph this is expressed through the straight-line  $X = Y$ , called as the line of perfect equality. On the contrary, a completely unequal distribution would be in the case where one person would own all the income and the rest would have none at all. In this case the curve would be  $y = 0\%$  for every  $x < 100\%$  and  $y = 100\%$  for every  $x = 100\%$ . This is called the perfect inequality line.

The Gini coefficient is the ratio of the area between the perfect equality line and the Lorenz curve (area A), to the total area between the perfect equality line and the perfect inequality line:

$$\text{Gini} = A / (A + B)$$

The higher the Gini coefficient, the higher the inequality.



## 2. CAUSES OF INEQUALITY. INEQUALITY IS A GLOBAL PHENOMENON

In recent years, the inequality has been the most debated topic in most developed economies, being blamed for everything from slow economic growth to productivity stagnation and rising populism.

Inequality is further widened by three things: (Income inequality is cyclical Branko Milanovic 21 September 2016) Technological change favors high skills in terms of low work. Economic policies have reduced tax contributions from higher incomes. And unionization has declined (it is more difficult to organize when service providers are diverse, geographically dispersed, and each individual unit includes few people).

A second implication of historical data is that at some point, forces - malignant, benevolent or both - will stop and reverse the current rise in inequality. This runs counter to the idea - caused in part by economist Thomas Piketty in the 2013 book *Capital in the 21st Century* (Harvard Univ Press) - that the concentration of capital in the hands of 1% of the population and a steady rate of return on capital will lead to ever-increasing income inequality.

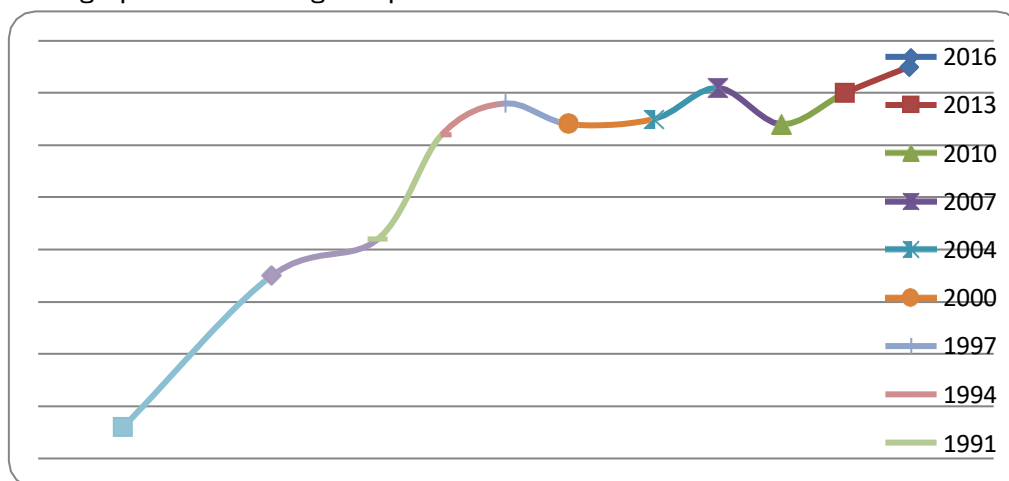
According to (Branko Milanovic) even in a capitalist world, four good forces could reduce inequality. The first is a reduction in how much corporations charge for their products over and above what is needed to cover their costs. This happens when competitors arrive - as for personal computers, for example. The second is technological change that undermines the coveted positions enjoyed by skilled workers, such as hunters in rich countries, such as doctors, lawyers and teachers. For example, with advances in communication often allowing medical diagnoses to become cheaper in India, they say that in rich countries, patients are traveling for treatment and reducing the demand for medical services in rich countries.

The third benign force is the more equal access to good education, as well as equalizing the quality of public and private education. The last is the political change that results in the reduction of some higher incomes, the increase of the minimum wages and the capital tax, as well as the encouragement of taxes to make the current plutocratic capitalism more of a "people's capitalism".

Social inequality, in recent years, is growing at a fairly rapid pace, all over the world. In the United States about 40% of individuals do not own any assets. Income inequality in the US is the highest of all G7 countries, according to data from the Organization for Economic Co-operation and Development. To compare income inequality between countries, the OECD uses the Gini coefficient, a commonly used measure ranging from 0, or perfect equality, to 1, or complete inequality. In 2017, the US had a Gini coefficient of 0.434. Elsewhere in the G7, Gini ranged from 0.326 in France to 0.392 in the UK.

Globally, Gini ranges from the lowest levels of around 0.25 in some Eastern European countries to the highest levels of 0.5 to 0.6 in countries in South Africa, according to the estimates of the World Bank. In 1989, 5% of the richest households had 114 times more wealth than households in the second quintile (one level above the lowest level), at the average \$ 2.3 million compared to \$ 20,300. As we can see from the graph below, income inequality in the United States, despite small fluctuations, continues with an upward trend over the years. Starting from 1979, where the Gini coefficient was only 34.6, in 2016 it reached 41.5, increasing by almost 20%.

Gini graph in US during the period 1991–2016



Source: World Data Atlas Knoema Corporation

## 2.1 Income inequality in OECD countries

Income inequality in OECD countries has grown at a fairly rapid rate, compared to the first half of the last century. The average income of the richest part (10%) of the population is almost nine times higher than the 10% of the poorest population. The economic crisis has also increased the need to address inequality. In emerging economies, such as China or India, economic growth has helped millions of people escape poverty, yet the benefits of this growth have not been evenly distributed across all sections of society, causing deepening inequality. The table below shows the performance of inequality in OECD countries, measured through the Gini coefficient, for a period of 8 years, starting from 2010 to 2017.

**Tabela Gini for disposable incomes (after tax and transfers)**

Shteti\Viti	2010	2011	2012	2013	2014	2015	2016	2017
Austria	0.28	0.281	0.275	0.279	0.274	0.276	0.284	..
Australi	..	..	0.326	..	0.337	..	0.33	..
Belgjikë	0.267	0.27	0.265	0.265	0.266	0.268	0.266	..
Kanada	0.316	0.313	0.317	0.32	0.313	0.318	0.307	..
Kili	..	0.471	..	0.465	..	0.454	..	..
RepublikaCeke	0.259	0.257	0.253	0.259	0.257	0.258	0.253	..
Danimarkë	..	0.251	0.249	0.254	0.256	0.263	..	..
Estoni	..	..	..	0.357	0.346	0.33	0.314	..
Finlandë	0.264	0.264	0.26	0.262	0.257	0.26	0.259	0.266
Francë	..	..	0.305	0.291	0.293	0.295	0.291	..
Gjermani	..	0.291	0.289	0.292	0.289	0.293	0.294	..
Greqi	0.336	0.333	0.338	0.342	0.339	0.34	0.333	..
Hungari	..	..	0.289	..	0.288	..	..	..
Islandë	0.249	0.252	0.253	0.241	0.246	0.255	..	..
Irlandë	0.298	0.307	0.31	0.308	0.298	0.297	..	..
Iszrael	..	0.371	0.371	0.36	0.365	0.36	0.346	0.344
Itali	0.327	0.327	0.33	0.325	0.326	0.333	0.328	..
Japoni	..	..	0.33	..	..	0.339	..	..

Korea	..	..	..	..	..	0.352	0.355	0.355
Latvia	0.347	0.352	0.347	0.351	0.35	0.346	0.346	..
Lituani	0.329	0.322	0.35	0.352	0.381	0.372	0.378	..
Luksemburg	..	..	..	..	..	0.306	0.304	..
Meksikë	..	..	0.457	..	0.459	..	0.458	..
Hollandë	..	0.289	0.288	0.287	0.303	0.288	0.285	..
Zelanda e Re	..	0.323	0.333	..	0.349	..	..	..
Norvegji	0.249	0.25	0.253	0.252	0.257	0.272	0.262	0.262
Poloni	0.305	0.301	0.297	0.299	0.298	0.292	0.284	..
Portugali	0.341	0.337	0.337	0.341	0.338	0.336	0.331	..
Sllovaki	0.263	0.261	0.25	0.269	0.247	0.251	0.241	..
Slloveni	0.244	0.244	0.249	0.254	0.251	0.25	0.244	..
Spanjë	0.339	0.341	0.334	0.345	0.344	0.345	0.341	..
Suedi	..	..	..	0.268	0.274	0.278	0.282	0.282
Zvicër	0.298	0.289	0.285	0.295	0.297	0.296	..	..
Turqi	..	0.403	0.399	0.39	0.398	0.404	..	..
UK	0.351	0.354	0.351	0.358	0.356	0.36	0.351	..
US	..	..	..	0.396	0.394	0.39	0.391	..
Rusi	..	0.376	..	..	..	..	..	..

Source: OECD.Stat

By processing the data of the table above, the result is table 3.4, which shows us which are the countries with the highest inequality and the countries with the lowest inequality, according to the years 2010-2017. What stands out most is that Chile and Mexico more often result in the countries with the highest inequality, topped by Chile with the highest level of inequality (0.471) in 2011.

**Table The countries with the highest and lowest inequality during the years 2010-2017**

Viti	Pabarazimëtë lartë	Pabarazimëtë ulët
2010	UK (0.351)	Slloveni (0.244)
2011	Kili (0.471)	Slloveni (0.244)
2012	Meksikë (0.457)	Slloveni (0.249)
2013	Kili (0.456)	Islanda (0.241)
2014	Meksika (0.459)	Islanda (0.246)
2015	Kili (0.454)	Slloveni (0.25)
2016	Meksika (0.458)	Sllovaki (0.241)
2017	Korea (0.355)	Norvegji (0.262)

Source : Author's calculations

Among the countries with the lowest inequality during these years is Slovenia, while Iceland and Slovakia have the lowest level of inequality (0.241). For 2017, Korea results in higher inequality (0.355), while Norway has lower inequality (0.262).

## 2.2 Inequality in European Union countries

Inequality in Europe has increased significantly since the mid-1980s. Perhaps a factor in the growth of this inequality has been the enlargement of the EU, in more member states. In the late 2000s, income distribution in Europe was more unequal than the average of OECD countries, but

lower than inequality in the US. Poor growth performance in recent decades in Europe has also raised concerns about income distribution and social inclusion. From 2010 onwards, despite a decline in inequality in some countries (Czech Republic, Greece, Austria, etc.), in general we see an increasing trend of it from year to year. A significant increase is observed especially in Balkan countries such as Bulgaria or Romania. The table below introduces us to the evolution of inequality in EU member states, according to the years 2010-2018, based on the inequality measuring ratio S80 / 20.

**Tabela 3.5 Inequality in income distribution according to the S80/20 report**

Shteti / Viti	2010	2011	2012	2013	2014	2015	2016	2017	2018
Belgjikë	3.9	3.9	4	3.8	3.8	3.8	3.8	3.8	3.8
Bullgari	5.9	6.5	6.1	6.6	6.8	7.1	7.7	8.2	7.7
Ceki	3.5	3.5	3.5	3.4	3.5	3.5	3.5	3.4	3.3
Danimarkë	4.4	4	3.9	4	4.1	4.1	4.1	4.1	4.2
Gjermani	4.5	4.5	4.3	4.6	5.1	4.8	4.6	4.5	:
Estoni	5	5.3	5.4	5.5	6.5	6.2	5.6	5.4	:
Irland	4.7	4.6	4.8	4.7	4.9	4.5	4.4	4.6	:
Greqi	5.6	6	6.6	6.6	6.5	6.5	6.6	6.1	5.5
Spanjë	6.2	6.3	6.5	6.3	6.8	6.9	6.6	6.6	:
Francë	4.4	4.6	4.5	4.5	4.3	4.3	4.3	4.4	:
Kroaci	5.5	5.6	5.4	5.3	5.1	5.2	5	5	:
Itali	5.4	5.7	5.6	5.8	5.8	5.8	6.3	5.9	:
Qipro	4.5	4.3	4.7	4.9	5.4	5.2	4.9	4.6	:
Latvi	6.8	6.5	6.5	6.3	6.5	6.5	6.2	6.3	6.8
Lituani	7.3	5.8	5.3	6.1	6.1	7.5	7.1	7.3	:
Luksenburg	4.1	4	4.1	4.6	4.4	4.3	5	5	:
Hungari	3.4	3.9	4	4.3	4.3	4.3	4.3	4.3	4.4
Malta	4.3	4	3.9	4.1	4	4.1	4.2	4.2	4.3
Hollandë	3.7	3.8	3.6	3.6	3.8	3.8	3.9	4	:
Austri	4.3	4.1	4.2	4.1	4.1	4	4.1	4.3	4
Poloni	5	5	4.9	4.9	4.9	4.9	4.8	4.6	:
Portugali	5.6	5.7	5.8	6	6.2	6	5.9	5.7	:

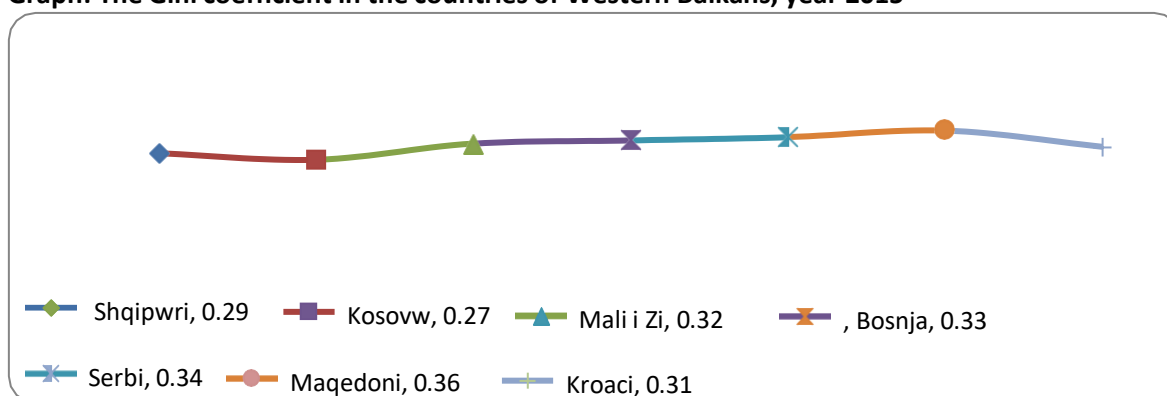
Rumani	6.1	6.2	6.6	6.8	7.2	8.3	7.2	6.5	7.2
Slloveni	3.4	3.5	3.4	3.6	3.7	3.6	3.6	3.4	3.4
Sllovaki	3.8	3.8	3.7	3.6	3.9	3.5	3.6	3.5	:
Finlandë	3.6	3.7	3.7	3.6	3.6	3.6	3.6	3.5	3.6
Suedi	3.8	4	4	4	4.2	4.1	4.3	4.3	:
Britania e Madhe	5.4	5.3	5	4.6	5.1	5.2	5.1	5.4	:

Source: Eurostat

### 2.3 Inequality in Albania

One of the most important and sensitive issues for an economy is income inequality. In Albania, but also in most developing countries, there is a perception that inequality is greater than in developed economies. In general, this is true, but richer economies do not always have more equality. Based on “Instat” data, for 2018 the Gini coefficient for Albania was 35.4%, down from the level 36.9% in 2017. This means that inequality has been declining. However, Albania remains a country with greater inequality compared to more developed economies. For the member countries of the Organization for Economic Co-operation and Development (OECD), which are generally accepted as the countries with the most developed economies, on average the Gini index is at 31%, or 4.4 percentage points lower than in Albania. For the European Union, the average Gini index is almost at the same level. The countries with the lowest inequality, according to the OECD, are Slovenia, Slovakia and the Czech Republic, where the Gini index remains below 25%.

Graph: The Gini coefficient in the countries of Western Balkans, year 2015



Source :AlTax

In the Western Balkans Region, data are mixed and not fully updated. However, according to Eurostat and World Bank data, Kosovo has the lowest level of inequality in the region, at 29%, even lower than the EU and OECD average. The second economy with the lowest inequality is Northern Macedonia, with 31.9%. for Bosnia and Herzegovina, the Gini coefficient is 32.7%, but this figure belongs to 2015, while there are no updated data for recent years. Serbia and Montenegro are in the range of 35% -36%, being at levels close to Albania. Based on these data,

it can be said that Albania is one of the economies with the highest income inequality in Europe. Below we present the performance of inequality, through the Gini index, from 1996 to 2012, statistics obtained from the World Bank and from 2016 to 2020 according to INSTAT statistics.

**Table 3.6 The Gini coefficient in Albania during the years 1996-2012**

Viti	Gini	Ndryshimi, %
2012	29	-3.33%
2008	30	-1.96%
2005	30.6	-3.47%
2002	31.7	17.41%
1996	27	

*Source : World Bank*

As we see in 2002 we have a significant increase in inequality in (31.7), with an increase of 17.41% compared to 1996, while for other years thereafter we have a moderate decrease in the level of inequality.

### **3. HOW WILL INCOME INEQUALITY SHRINK IN ALBANIA**

Albanian policymakers need to consider some policies and their rigorous implementation to reduce inequality, which is growing daily and in itself is a threat to the fragile values of Albanian society. Although the factors and influencers in increasing inequality vary from country to country there is room to list some policies that can have a strong impact on shrinking inequality.

**First is the reduction of tax evasion and evasion.** Public taxes and transfers have played an important role in offsetting rising inequality in almost all advanced economies. Over the past two decades, fiscal policy has reduced inequality by about a third in the Organization for Economic Co-operation and Development (OECD) countries. Fiscal policy also tends to have a greater redistributive impact in countries with higher market income inequalities. Tax and tax exemption policies, as well as the creation of areas that have benefited from fiscal favors under investment promotion policies have played an important role in creating income inequalities. On the other hand, the fact that they have been implemented in terms of an informal environment and under poor administration have upset the equality of individuals before the law by creating areas and shelters conducive to evasion, and at best for fiscal evasion. The redistributive impact of fiscal policy is even greater when in-kind transfers, such as public education and health spending, are included. These transfers reduce the Gini coefficient for disposable income by up to 6 percentage points and reflect universal access to education and health services. Increasing access to education has also reduced market income inequality.

Second comes **the increase in investment in public services.** Government policies should be related to the consolidation of public finances, reduction of the budget deficit which together with fiscal policies stimulate economic growth. This increase will benefit all sections of society, especially those belonging to the lower and middle levels. Many economists have argued that investing in public services is a favorable alternative that boosts private sector productivity, investment, and employment. Most of this redistribution is achieved through spending -

especially transfers that citizens receive regardless of their income, such as public pensions and universal childcare benefits. (Gallo 2002)

Third is the **wage increase**. The most fundamental issue of income inequality is that while the incomes of some continue to grow rapidly, the majority of the working and non-working population are or are still below the poverty line or in the opposite direction to the category selected for to be enriched. In many countries, inequality begins in the labor market. The IMF says minimum wage erosion is linked to significant increases in overall inequality. According to the International Labor Organization (ILO), developed countries are more at risk of income inequality, while some developing countries have shown a tendency to shrink inequality, where the practice of more equitable distribution of wages and employment is prevalent. . But one of the tabooest topics in politics is the minimum wage. Even in the most advanced economies, the minimum wage has remained in place.

However, increased wages have proven to have benefits where they are implemented. Better paid workers result in greater productivity, a reduction in absenteeism, and an increase in turnover. In addition, higher wages go to consumption increasing the demand for goods and services.

#### **Fourth is the best approach to financing**

The risk of investing in large businesses hinders the ability of Small and Medium Enterprises (SMEs) to approach the sources of financing. The economy is currently tight with capital funding for entrepreneurs, thus still maintaining a cycle of dependence, lost productivity and rising inequality.

SMEs have a positive effect on the relationships that their owners create with employees, customers and communities. A better approach to capital will provide the support needed for low- or no-income entrepreneurs to give them the ability to be able to manage their own businesses. The government should encourage investors to provide capital for small businesses, which can be realized through public and private lending programs.

#### **Fifth is the transparency of economic policies during the process of their implementation.**

Particularly in developing countries, the lack of transparency is problematic when it comes to economic policy in the implementation process. A system that lacks transparency tends to cultivate high levels of corruption. According to Transparency International, there is a strong negative correlation between corruption and the level of GDP per capita. Corruption hinders necessary government spending, which affects social welfare and creates mass inequality.

Policies to improve skills for all, ensuring that a country's infrastructure meets its needs, and encouraging the economy to adapt to innovation and technology are all essential to fostering growth and ensuring more inclusive prosperity than ever before.

## **CONCLUSION**

Inequality in income and wealth is one of the main phenomena discussed in the context of economic development. In recent decades, this phenomenon has spread greatly, deepening the differences between the rich versus all others. However, Albania remains a country with greater inequality compared to more developed economies. For OECD member countries, which are generally accepted as the countries with the most developed economies, on average the Gini index is at 31%, or 4.4 percentage points lower than in Albania. For the European Union, the average Gini index is almost at the same level. The countries with the lowest inequality,

according to the OECD, are Slovenia, Slovakia and the Czech Republic, where the Gini index is below 25%.

In the Western Balkans Region, data are mixed and not fully updated. However, based on Eurostat and World Bank data, Kosovo has the lowest level of inequality in the region, at 29%, even lower than the EU and OECD average. The second economy with the lowest inequality is Northern Macedonia, with 31.9%. for Bosnia and Herzegovina, the Gini coefficient is 32.7%, but this figure belongs to 2015, while there are no updated data for recent years. Serbia and Montenegro are in the range of 35% -36%, being at levels close to Albania. Based on these data, it can be said that Albania is one of the economies with the highest income inequality in Europe. Albanian policymakers need to consider their policies and their consistent implementation to reduce inequality, which is a threat to the fragile values of Albanian society. Although the factors and influencers in increasing inequality vary from country to country there is room to list the above policies that can have a strong impact on shrinking inequality.

The mentioned policies are a summary of international experience that has given visible effects in reducing the income inequality between the social strata of developed and developing countries.



# IMPACT OF THE COVID-19 PANDEMIC ON ALBANIAN BUSINESS, STUDY FOR SMES IN KORÇA

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## ABSTRACT

*The Covid-19 pandemic had a significant impact on the Albanian economy. The Albanian economy experienced a decline of 3.5% in 2020. The consequences of the pandemic were also felt in Albanian business. Small business was hit harder than medium and large business. The services and tourism sector had more serious consequences than the rest. In Albania as well as in the countries of the region, business had a decrease in demand, this led to a decrease in income. The pandemic period was accompanied by a lack of liquidity of businesses in Albania, many businesses that had bank loans had difficulty in paying installments and repaying the loan. The government took some mitigation measures for small businesses such as the abolition of profit tax and VAT, to help their recovery. A large number of businesses were forced to cease activity, but those businesses that continued to operate also had a significant decline. Part of the small businesses were forced to lay off employees, as a result the unemployment rate for the years 2020-2021 has increased. In the first quarter 2021, the employment rate for the population aged 15-64 is 59.0%. Compared to the same quarter of 2020, the total number of employees decreased by 2.6%. In 2021 the Albanian economy grew by 8.5%, while for 2022 the IMF predicts that the Albanian economy will grow by only 2%. Digital transformation was one of the pillars of businesses' economic recovery.*

**Keywords:** *Pandemic, business, unemployment, credit, recovery, post-covid, financial stability*

## INTRODUCTION

According to the Institute of Statistics (INSTAT), in the second quarter of 2020, the total gross product fell by 10.23% compared to the same period of 2019. INSTAT statistics<sup>88</sup> show that compared to a year ago, exports of goods in the quarter first quarter of 2020, decreased by 15.4% and goods imports decreased by 12.3%. The consequences of the crisis in the economy were severe: bankruptcy of businesses, increase in unemployment, decline in purchasing power, decline in domestic production and trade exchanges. At the macro level, there was an increase in public debt, a contraction of internal and external investments, an increase in the cost of many businesses, etc. The data show an increase in the number of small and family businesses that have gone bankrupt or temporarily blocked their activity, job losses, difficulties in fulfilling contracts and financial obligations, difficulties for new contracts in the near future, especially with external partners<sup>89</sup>. To cope with the consequences of the pandemic, the EU offered a grant of 180 million Euros, while Germany supported Albania with a financial aid of 10.56 million Euros.

## **1. IMPACT OF COVID-19 ON THE WESTERN BALKANS.**

Micro and small businesses were hit harder than medium and large businesses. Micro businesses in Bosnia and Herzegovina that reported significant revenue declines were more than 12 percentage points higher than the average for all firms. Furthermore, 35% of micro businesses in Serbia had a drop in income of over 80% compared to 10% of medium businesses with the same expectation. The services and tourism sector had more serious consequences compared to the rest of the economy. In Albania, the part of businesses that reported the drop in demand as the main problem was greater in the tourism sector than in other sectors, while in Serbia the losses in tourism sector were greater than in any sector where 45.5% of tourism businesses realized 80–100% less income compared to 2019.

Declining market demand is reported as the number one challenge in all countries<sup>90</sup>. 71% of businesses in Bosnia-Herzegovina and 81% in North Macedonia have been significantly affected by the drop in demand, which has caused a loss of income not only as a result of the drop in the number of new orders, but also due to cancellations of previous orders.

Compared to the decline in demand, supply shocks, including constraints on labor and raw materials, have been relatively milder. Providing raw materials necessary for production is mentioned as a concern by only 13.8% of businesses in North Macedonia and 10.4% in Bosnia-Herzegovina.

Businesses across the region faced a lack of liquidity. About 56% of businesses in North Macedonia and 63% of businesses in Bosnia and Herzegovina consider lack of liquidity as their main problem. While for business in Albania, Serbia and Kosovo, this is generally the second most reported problem. As a result, businesses applied for new loans or renegotiation of current loans.

Businesses in all countries of the region have been able to mitigate the effects of the crisis without mass layoffs. Only a small number of businesses have chosen to carry out forced dismissal or dismissal of employees: 5% in Serbia, 11% in Albania and BiH, 19.8% in North Macedonia and 29.2% in Kosovo.

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<sup>88</sup> <http://www.instat.gov.al/al/temat/ekonomi-dhe-financ%C3%AB/llogarit%C3%AB-komb%C3%ABtare-gdp/publikimet/2020/produkti-i-brendsh%C3%ABm-bruto-t2-2020/>

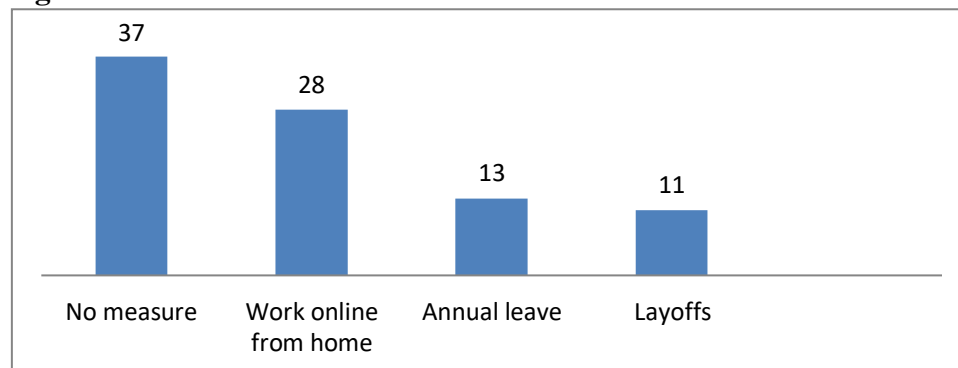
<sup>89</sup> Prof.dr.Adrian Civiqi “Pasoja tw rwnda social-ekonomike nga Covid-19”.

<sup>90</sup> <https://thedocs.worldbank.org/en/doc/521201591706501992-0080022020/original/WBRERFirmnoteALB.pdf>

## 2. THE IMPACT OF THE COVID-19 PANDEMIC ON ALBANIAN BUSINESSES

The Covid-19 crisis has marked a significant drop in economic activity, where half of the businesses have declared that they have completely stopped their activity during the pandemic. Despite this, as shown in Figure 1, only 11% of businesses have made layoffs, 28% of them have allowed employees to work from home, while 13% of businesses have used annual leave. Workers are also faced with other measures that affect working hours and thus their income. Call center companies have suspended a part of their work contracts, given them forced vacations without pay or reduced their working hours<sup>91</sup>.

**Figure 1. The reaction of Albanian businesses to the Covid-19 crisis**



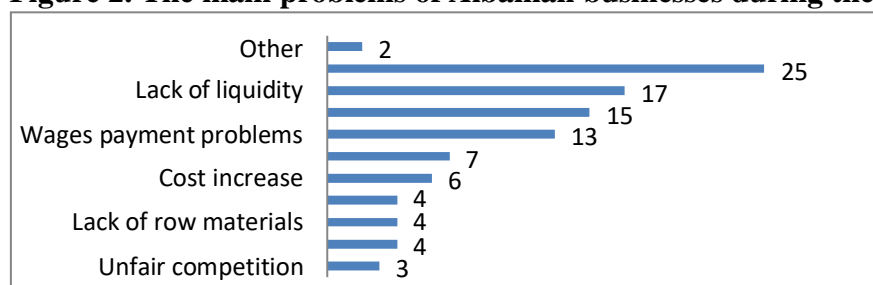
**Source: Albania Investment Council**

25% of businesses stated that their main problem was the lack of customers (figure 2). This negative impact on demand was more pronounced in the services sector 27% and construction 26% compared to manufacturing 16% or agriculture 17%. Despite the pronounced lack of liquidity, to guarantee the continuity of business activities, about 69% of businesses have used their income reserves or cut costs, while only 20% received bank loans. (figure 3).

The shocks on the supply side have not been as severe as those on the demand side. Although only 8% of businesses have continued to operate at full capacity, companies do not think the shocks to supply are as serious as the drop in demand. As shown in Figure 2, only 15% of them reported as the most important problems related to the supply, which include: problems in work organization (7%), the decrease in the productivity of the work force (4%) or the lack of raw material (4%). However, 55% of businesses that rely on the import of raw materials have encountered problems.

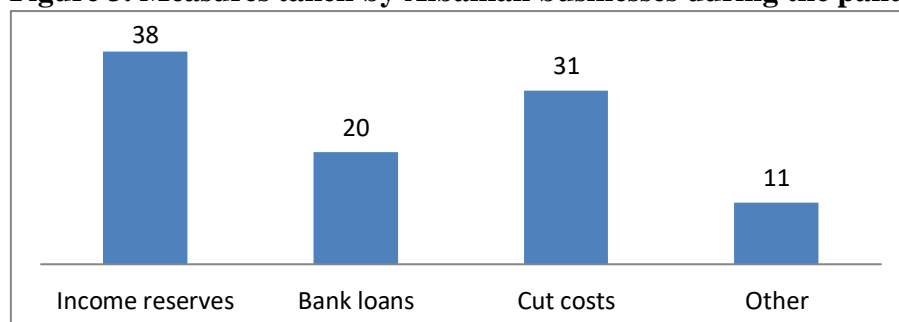
<sup>91</sup> <https://www.monitor.al/call-center-sektori-qe-po-lufton-koronavirusin-permes-punes-nga-shtepia-2/>

**Figure 2. The main problems of Albanian businesses during the Covid-19 pandemic**



Source: Albania Investment Council

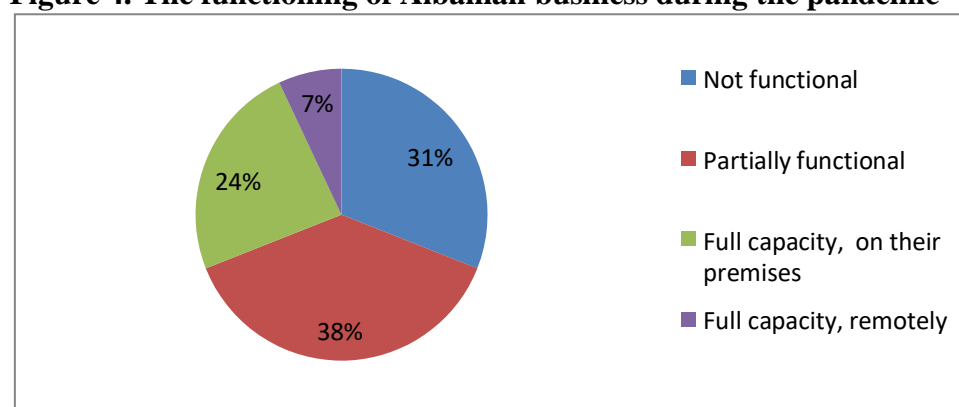
**Figure 3. Measures taken by Albanian businesses during the pandemic**



Source: Albania Investment Council

During the period of the Covid-19 pandemic, 31% of Albanian businesses were not functional, while 38% were only partially functional. A little less than a third of the enterprises exercised their activity at full capacity, either on their premises (24%) or remotely (7%).

**Figure 4. The functioning of Albanian business during the pandemic**



Source: Business Albania

The hospitality sector (78%) and the transport sector (63%), which have been forced to close due to restrictions imposed under the state of emergency, have the highest number of non-functional enterprises<sup>92</sup>. The collapse of supply chains and low consumer demand have also seriously affected the textile sector, which is the third hardest hit sector, with 43% of enterprises reporting

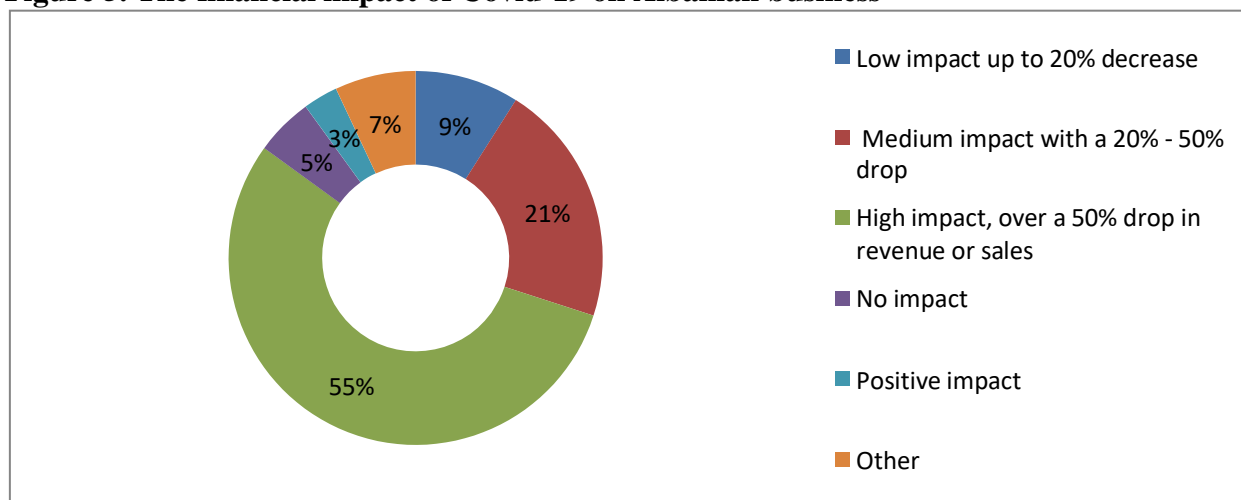
<sup>92</sup> <https://www.biznesalbania.org.al/index.php/sq/>

complete closure. When it comes to the retail, food and beverage, construction and information and communication sectors, on average less than a fifth of enterprises were not operational in each of these sectors. The agricultural sector seems to be less affected. Agricultural activities were almost in full development with only 5% of enterprises closed.

To ease the consequences of the pandemic, a large part of businesses (83%) have had to change their business operations. Businesses had to adapt to the new conditions imposed by the government (such as physical distancing, wearing protective masks, sanitizing the premises, etc.) to ensure the continuity of their operations as much as possible.

The financial impact of Covid-19 on the income or sales of Albanian businesses was considerable. Most businesses experienced over a 50% drop in revenue or sales, while more than a fifth perceived the impact as medium with a 20% - 50% drop. A relatively small part (9%) felt that the financial impact was low (up to 20% decrease) and 3% observed a positive impact of the crisis on their businesses.

**Figure 5. The financial impact of Covid-19 on Albanian business**



**Source: Business Albania**

Among other things, Covid-19 has brought an innovation in the way of doing business, taking into account the changes caused to companies of all sectors, Covid-19 has influenced as the main driver of digital transformation of companies, as well as digital transformation as a necessary process for companies to stay relevant and competitive in the market.

During the first half of 2021<sup>93</sup>, Albanian business emphasizes that the situation created by the pandemic continues to have an impact on their activity, affecting other problems they have faced and which are mainly related to competition and finding the market, access to financing, financing costs and availability of qualified staff. Small and large enterprises have appeared more sensitive to the developments of the period.

The progress of the level of sales and the financial result appears to be improved compared to the second half of 2020, although small and medium-sized enterprises continue to be presented with negative net balances. Over 87% of enterprises, in each size group, reported profit during the period. Compared to the previous period, the share of companies that reported profit has increased for all three groups of companies.

<sup>93</sup> Banka e Shqipërisë “Gjendja financiare dhe huamarrja e ndërmarrjeve në Shqipëri” 2021

### 3. THE IMPACT OF THE COVID-19 PANDEMIC ON SMES IN KORÇA

In Korça, 1,600 businesses were closed during the pandemic, the COVID-19 pandemic reduced sales in stores, and online purchases increased by 90%. Coffee bars in the city of Korça reduced their staff as they had fewer customers, restaurants were on the verge of bankruptcy<sup>94</sup>.

The COVID-19 pandemic has negatively affected small businesses in the city of Korça. Purchases in commercial units compared to 2019 fell significantly. The Municipality of Korça took some measures to help businesses, it postponed the deadlines for the payment of taxes and local fees and gave businesses the opportunity to pay in installments. Also, businesses with an annual turnover below ALL 14 million will not pay either profit tax or VAT after the government's decision<sup>95</sup>.

The questionnaire was developed with about 100 businesses that develop activity in Korça to see the impact of the pandemic on the businesses of Korça.

#### Question 1. Size of the business?

In Albania, businesses with an annual turnover of 14 million ALL are considered large enterprises. Out of 100 businesses, 32 of them belonged to the big business category, 68 of them were small businesses.

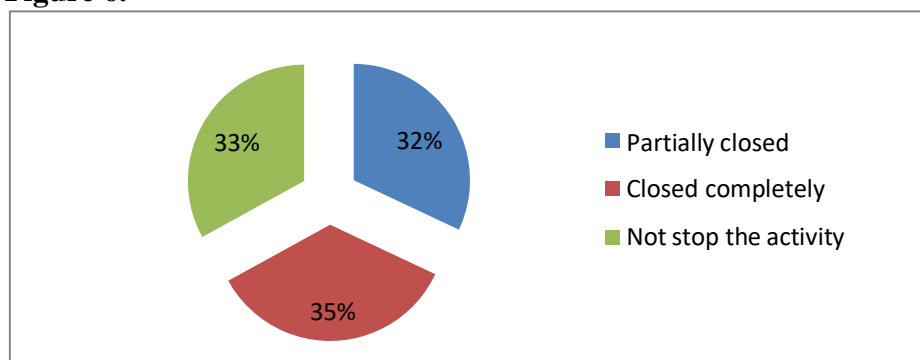
#### Question 2. Export?

Of the 100 companies that answered the questionnaires, 6 of them were companies that exported products to different countries. 85 companies did not export and 9 of them refused to answer.

#### Question 3. Have you stopped your activity as a result of Covid-19?

Of the 100 companies that responded to the questionnaires, 32 of them had partially closed their businesses. 35 of them had closed completely and 33 companies did not stop their activity at any time during the time of the coronavirus. These companies belonged to sectors such as agro-processing, food export, etc.

Figure 6.



Source: Author

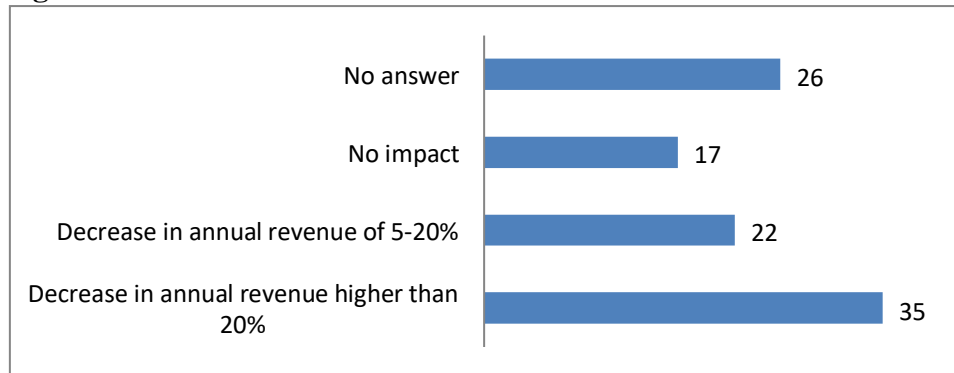
#### Question 4. How did the pandemic affect your company's annual revenue?

<sup>94</sup> <https://portavendore.al/2020/08/19/restorantet-e-eventeve-ne-korce-drejt-falimentimit/>

<sup>95</sup> <https://www.kryeministria.al/newsroom/zero-tatim-fitimi-deri-ne-14-milione-leke-xhiro-zero-tvsh-deri-ne-10-milione/>

Out of 100 enterprises, 35 of them answered that they had a decrease in annual revenue higher than 20%. 22 companies have reported that they had a decrease in annual revenue of 5-20%. 17 companies stated that this situation did not affect their work and 26 companies did not answer the question.

**Figure 7.**

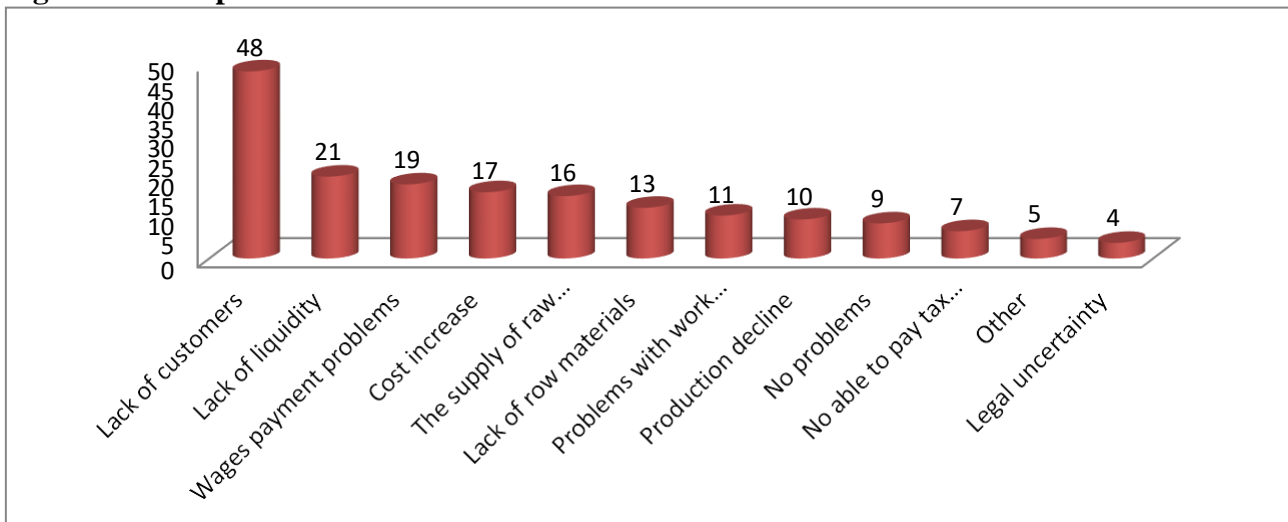


**Source: Author**

**Question 5. What problems did your company face during the pandemic?**

The analysis shows that companies are affected by the lack of customers and lack of liquidity. Most of them include both as a major problem during the COVID-19 situation. Also, for some other companies, the supply of raw materials from imports, the increase in costs and the payment of salaries have been a problem. As a result of the lack of customers, a large number of companies have reduced production. Due to the time constraints associated with the movement, work organization has also been another major problem.

**Figure 8. Main problems**



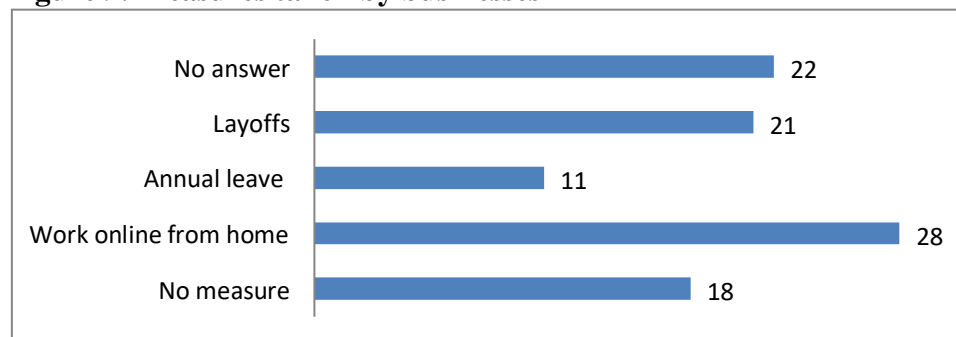
**Source: Author**

**Question 6. What measures did your company take to address the workforce shortage?**

Out of 100 companies, 18 of them had not taken any action regarding the workforce. 28 companies have applied online work from home as a strategy for their employees, 11 companies

have applied annual leave and 21 have reported being forced to lay off employees. They have also undertaken some other measures such as; employees most at risk from COVID19 have not been asked to report to work or have been temporarily suspended, temporarily laid off, etc.

**Figure 9. Measures taken by businesses**

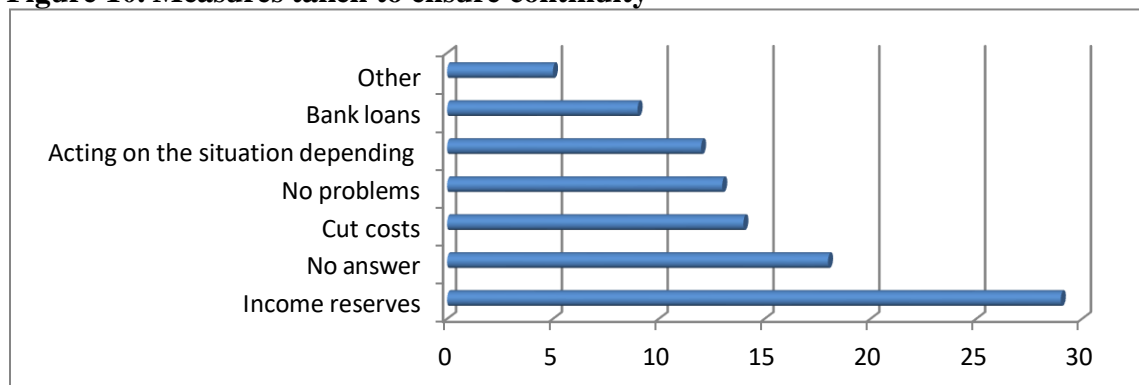


**Source: Author**

**Question 7: What measures did you take to ensure the continuity of your business?**

Out of 100 companies, regarding the measures taken to ensure business continuity, 29 of them answered that they used the income from the previous period. 14 companies reported that they cut costs by laying off employees or reducing production, or in some cases both. 13 of them declared that they had no problem. 9 companies stated that they received bank loans. 12 stated that they were acting on the situation depending on the further development.

**Figure 10. Measures taken to ensure continuity**



**Source: Author**

**CONCLUSIONS**

- Micro and small businesses were hit harder than medium and large businesses.
- Declining market demand is reported as the number one challenge in all businesses. Compared to demand, supply shocks, including constraints on labor and raw materials, have been relatively milder.
- Businesses across the region are suffering from a lack of liquidity.
- Businesses have not been able to amortize the impact of the crisis without layoffs.
- Businesses operating in the services and tourism sector had more serious consequences compared to the rest of the businesses.



- During the period of the Covid-19 pandemic, some Albanian businesses were not functional, while others were partially functioning either in their premises or remotely (online).
- The financial impact of Covid-19 on the income or sales of Albanian businesses was considerable.
- To ensure business continuity, about 69% of businesses used income from the previous period or reduced costs by laying off employees or reducing production, or in some cases both measures, while only 20% took out bank loans.
- To mitigate the consequences of the pandemic, a large proportion of businesses (83%) have had to change their business operations.
- Covid-19 has brought an innovation in the way of doing business taking into account the changes caused to companies of all sectors, the pandemic has influenced as the main driver in the digital transformation of companies, as well as digital transformation as a necessary process for companies to stay relevant and competitive in the market.

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# THE INFORMAL ECONOMY IN ALBANIA. ANALYSIS OF ITS FORMS AND EFFECTS OF COVID-19

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## ABSTRACT

*The informal economy in all its forms is an important and inevitable component of a country's economy alongside the formal sector. Economic informality is a more pronounced phenomenon in developing and less developed countries than in developed countries. Knowing and studying the informal economy is important for the design of economic policies. Compared to other sectors of the economy which can be easily measured, the informal economy is difficult to assess due to the secretive nature of the sector itself but also due to the individuals and businesses who want to benefit from this phenomenon. For this reason, the various forms of the informal economy that appear in Albania have been analyzed. The effects of the Covid-19 pandemic on the informal economy have also been addressed. The most widespread forms of the informal economy are the cash economy, fiscal evasion, corruption, informality in the labor market and informality in business. The methods applied for the assessment of the informal economy and its forms are indirect methods. The indicator of the cash economy is the circulation of money outside the banks. For the period under analysis, 2003 - 2021, the year 2019 marked a high level of money circulation outside the banking system. Avoiding VAT and not issuing tax invoices are indicators that the level of fiscal evasion in Albania is high. Based on the analysis and according to the data of Transparency International, the state of corruption in Albania has been getting worse. Regarding informality in the labor market, the data show that 40% of the total number of employees are informal employees. While the development of informality in business has the main causes of unfair competition, the large fiscal burden and the complexity of tax legislation.*

**Keywords:** *Informal economy, fiscal evasion, corruption, income, public sector*

## 1. INTRODUCTION

The study of informality is of interest not only to individuals, but also to governments, policy makers, and researchers. Statistics and figures about development and growth as part of the economy will be taken into consideration to analyze the effects of the informal economy and how much it costs this development. Knowing the informal economy increases the possibility of treating, keeping under control and fighting this phenomenon.

On the other hand, the study and knowledge of the informal economy serves us to know what are the costs and benefits of each of the participants in this economy, be they individuals, businesses or other important links of the economic system.

This paper presents the analysis of informality in Albania by analyzing the main forms of its appearance in the Albanian economy.

The impact of the pandemic on the economy and the government's efforts to deal with the phenomenon will also be addressed.

At the end, the conclusions reached and recommendations are presented for this study issue.

## **Objectives**

1. Theoretical aspects of the informal economy in Albania
2. The importance of informality as part of the economy
3. Identification of factors of the informal economy
4. Evidence of the main forms of development of this phenomenon
5. Analysis of forms of the informal economy
6. Identification of informality in the labor market
7. Identification of informality in businesses and other sectors of the economy

## **Methodology**

The methodology used in this paper is mainly descriptive and cognitive, through which the informal economy is addressed from the general theoretical perspective, its impact and treatment. Statistical, comparative and interpretative analysis was also used in the analysis of informality in Albania.

The sources used are secondary, representing information obtained from the Bank of Albania, the Ministry of Finance, ALTAX, Trading Economics, Transparency International, etc.

## **2. AN OVERVIEW OF THE INFORMAL ECONOMY**

The study of the informal economy sector is important in the process of drafting economic policies. Compared to other sectors of the economy, this sector is difficult to measure and evaluate because individuals or businesses want to receive benefits. Despite the secretive nature of this sector, researchers constantly try to derive estimates using direct and indirect methods. Some factors that increase economic informality are:

- a. Cash economy
- b. Fiscal evasion
- c. Corruption
- d. Problems with the labor market, unemployment
- e. Non-declaration of income
- f. Perception of the tax rate, the tax system

### **2.1 Analysis of informality in Albania**

The informal economy in Albania appeared for the first time during the transition period. The overthrow of the communist system caused the increase of immigrants. This phenomenon is closely related to the increase in remittances, the stabilization of macroeconomic indicators, as well as the increase in investments that followed with an increase in well-being. The negative effect of remittances is related to the increase in informality. Regarding the size of the informal

sector in Albania, unfortunately there have not been many comprehensive studies to give us an accurate figure. Estimates that are available are different and range from 25 to 50% of GDP. It is worth mentioning here a study by Friedrich Schneider (2007), professor of economics, who estimated that in 2007 the Albanian informal economy was equivalent to 32.9 percent of the GDP. In 2018, researchers Medina and Schneider (2008) estimate IE in Albania as equivalent to 32.7% of GDP. Judging from these characteristics of the development of IE in Albania, we can easily identify the main factors that have influenced this development. Among them we can mention:

- a. Poverty as one of the main reasons why people rely on informal activities to ensure survival, in the absence of official employment.
- b. The relatively high number of legal and administrative procedures. The higher these obstacles are, the more IE is stimulated.
- c. Tax burden on subjects.
- d. Lack of trust in public institutions due to corruption, unclear legislation and bureaucracies.
- e. Selective implementation of laws and regulations as a result of bribery in public administration.
- f. Uncertainty regarding property rights and ownership title, which becomes a barrier to access to the capital market.
- g. Acceptance of illegal work often approved or tolerated by the state.
- h. Perception of a high level of taxes and unfair competition from informal businesses

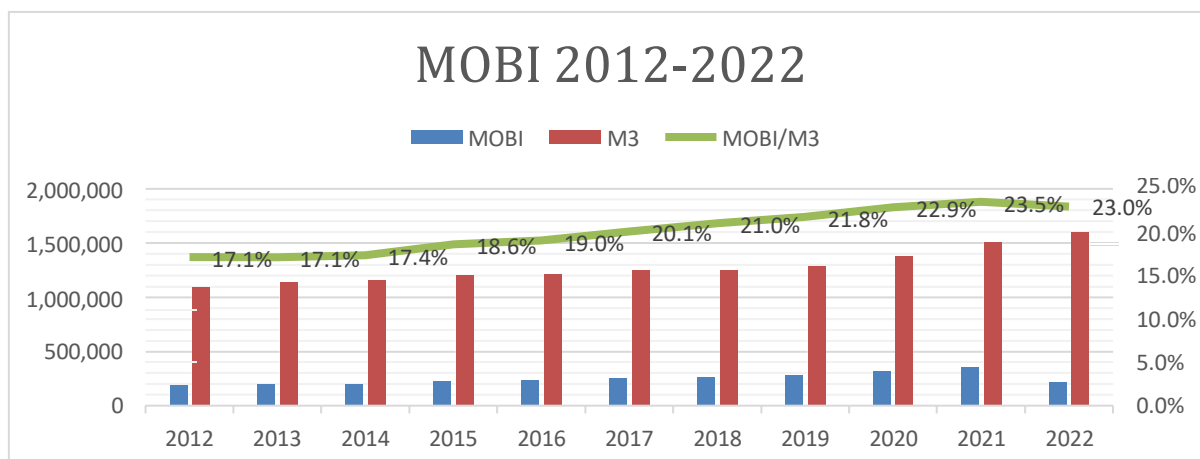
According to IMF (2019), informal economy is about 15-20% of GDP in developed country and 35% of GDP in developing country. In Albania the informal economy is about 35% of GDP but in some sector of economy it is increase on 50% of GDP.

## **2.2 Forms of the informal economy**

### **2.2.1 The cash economy**

One of the biggest aids to the development and growth of the informal sector is the use of tangible money. This practice means that the participants of this economy are not declared, controlled or recognized in any kind of institutional registration. An important indicator of this practice is the Money Outside Banks Indicator (MOBI). This indicator in our country is high compared not only to developed countries, but also to other countries in transition. Thus, the ratio of PJB to monetary supply (aggregate M3) during the last years has been close to over 20. Chart 2.1 presents this ratio over a period of several years.

Chart 2.1: Money outside the bank indicators



Source: Bank of Albania, 2022

This trend of cash circulation can be explained through several reasons:

- First, it is the high cost of keeping money in banks that pushes individuals to prefer keeping this money in cash.
- Secondly, the reduction of interest rates has been a factor that has made banks less attractive to keep savings in Lek.

According to data from the Bank of Albania, term deposits in ALL of individuals have decreased by 37%, making up only 21% of total deposits at the end of 2019, from 40%, which was this share at the end of 2011, when the Bank of Albania started the easing monetary policy. With the interest rates of 12-month savings in ALL being less than 1%, individuals are not preferring to keep their savings.

- And finally, we must not forget the Albanian mentality of using money, as many individuals have not yet gained confidence in money storage institutions. On average, during 2020, 316 billion ALL (2.57 billion euros) circulated outside the banking system, according to statistics published by the Bank of Albania. Historical data show that in 2020, the strongest annual growth was recorded, with ALL 53 billion, or +18%, since 2002, when the Bank of Albania reports this indicator. In relation to the total money, outside the banking system at the end of December 2021, 23.5% of the total circulated (from 21.8% at the end of 2019). This is the highest level since 2008, when there was a wave of deposit withdrawals at the time, as a result of fears caused by the global financial crisis. After starting to decrease after 2009, money outside banks has been on an upward trend since 2013 (an indirect indicator of informality). But in 2021, the growth was very strong, coinciding with the situation caused by the coronavirus in the country. Even total money (M3, which includes money outside the bank, current accounts, deposits in ALL and foreign currency) has grown rapidly, by 10%, reaching 1.45 trillion ALL (11.7 billion euros), again a record level and the largest expansion high in almost 20 years. The Bank of Albania has asserted that the expansion of M3 (total money) comes from the increase in credit and the budget deficit during 2020. The latter includes the Eurobond or internal borrowing. Other data from the Ministry of Finance revealed that the budget deficit at about 73 billion lek for January-November 2020, or 590 million euros, reflecting the drop in income from the pandemic and the increase in spending on support packages and post-earthquake reconstruction. While in May 2020, the government issued a Eurobond of 650 million euros, a part of which paid off the previous Eurobond (about 200 million euros), a part financed the budget deficit, and a part is in the

accounts of the Bank of Albania, waiting for to be spent from the finances. The growth of money outside banks, according to the Bank of Albania, goes in line with the growth of M3 and is explained by the increase in the preference for cash. Another reason is related to the fact that as a result of the pandemic, movements abroad have been limited, which has caused money to circulate in the country. The high level of money outside banks in relation to the total is also an indicator of great informality in the country. Other data of INSTAT (2021) show that real estate transactions reached a record level for the 9 months of the year. Market players claim that more than half of these transactions are carried out in cash. For the 9-month period, real estate transactions were around 612 million euros, marking again a record for the period in question, since 2009. The level of money outside banks of almost 24% of the total is much higher than the average of the European Union and the region. In the Eurozone, according to data from the European Central Bank, the level of money outside banks was about 9% of the total. Even in the region, this indicator is lower than 10%. The growth of money outside banks seems to have finally stabilized and reached pre-pandemic levels. Bank of Albania data show that for the first quarter of this year (2022), the annual rate of growth of money outside banks was on average 5.4%, while in the same period last year the growth of money outside banks on an annual basis had reached the level of 19.2%. After the first quarter of 2021, the growth curve started to fall gradually, also due to the extinction of the effect of the comparative base with the period before the pandemic.

### **2.2.2 Fiscal evasion**

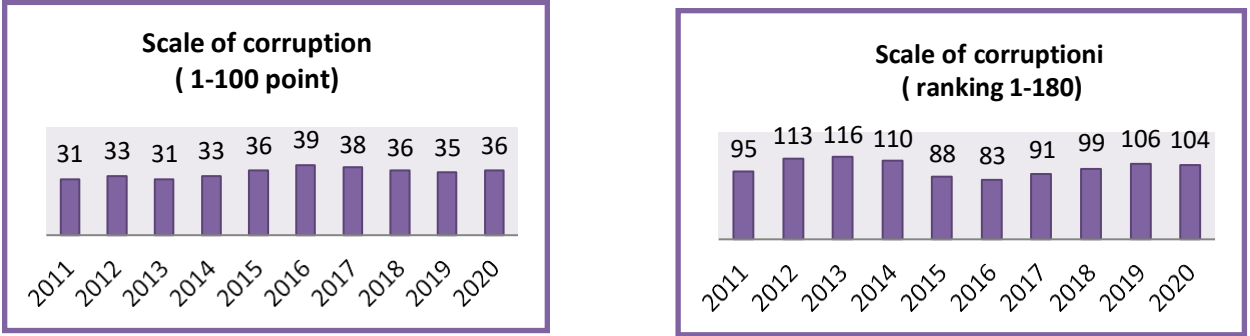
According to the World Bank (2020), about 40% of businesses in our country operate informally, about 47% of VAT is not collected and some taxes evasion ranges from 50%-100%. Revenues from taxes and duties in Albania account for about 25-27% of GDP. This level of tax revenue in GDP is much lower than the EU average (which is over 40%) and lower than the new EU members which stand at 34-36%. On the other hand, the distribution of the tax burden is not fair and proportional. Albania has about 110,000 active taxpayers, of which about 40,000 are VAT registered taxpayers and the rest, about 70,000, are small business taxpayers, including independent entrepreneurs and registered freelancers. The fact that there are more than 70,000 unregistered taxpayers for VAT means that they have a formal annual turnover of less than 2 million ALL per year. Such businesses usually do not accept invoices from their suppliers, prefer cash payments, do not issue sales tax invoices and do not regularly use the tax register on sales, thus stimulating tax evasion. On the other hand, these businesses insist on remaining formally "small enterprises" only to enjoy the privileged tax treatment and to be below the VAT threshold, or to have 0% tax on profit for annual turnover under 5 million ALL and 5% profit tax for turnover up to 14 million ALL. According to the data reported by the General Directorate of Taxes (2020), 10 million dollars of damage was caused to the state coffers through VAT fraud schemes carried out by businesses. The tax investigation has revealed 5 schemes where fictitious VAT invoices were declared and where dozens of companies have benefited from reimbursement from the administration. Businesses fictitiously bought goods from each other and then declared them as sales by making a request for a refund after the value added tax, money which turns out to have been unfairly taken from the state budget. Dozens of businesses are suspected to have been involved in these schemes, mainly in the field of construction and trade. Even during 2019, 8 similar schemes were discovered which burdened the pockets of taxpayers with 8 million dollars. In total, the violations discovered in the field of fiscal evasion last year reached 50 million dollars, where 20% of this amount is occupied by the classic fraud

schemes with VAT invoices. Meanwhile, at the beginning of the current year, it was decided to increase the threshold for the application of profit tax and VAT for small businesses in Albania. From 5 million ALL annual turnover, which was the exclusion limit for the payment of profit tax, it will increase to 14 million ALL. A year ago, businesses with a turnover of up to 5 million ALL paid zero profit tax, from 5 to 14 million ALL paid a simplified 5% profit tax rate, while those with a turnover over 14 million ALL paid 15%. Also, from the beginning of this year, the registration threshold in the VAT scheme increased from 2 million to 10 million ALL. Also an important problem that increase tax evasion in recent years is the growth of businesses operating online. Most of these businesses are unregistered and as such they distort market rules, make unfair competition and promote tax evasion. In most cases, these businesses do not issue a tax coupon for sales, therefore it is important that buyers also be aware of the tax coupon search in the transactions they carry out. According to the responsible authorities and inspectors, it is very difficult to control and supervise such businesses because unlike businesses that operate physically and regularly declare their data in the system, online businesses often do not have a physical location in addition to registration. difficult and almost impossible to identify and control them.

**2.2.3 Corruption**

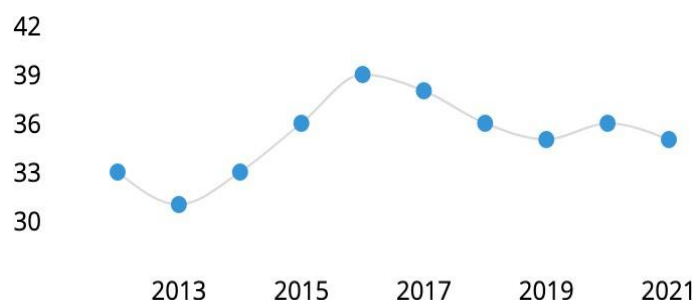
Corruption is perceived as one of the most disturbing problems for Albanian society and economy, becoming an internal and integral part of state institutions. Regardless of efforts to build a democratic system and various reforms, Albania still has to face, in addition to other obstacles, corruption, which is at worrying levels as reported by international studies. The state of corruption in Albania has been worsening in recent years, taking into account the global ranking of "Transparency International", where Albania has lost many positions in the ranking.

Charts 2.2: Scale of corruption



Source: Transparency International 2020

Charts 2.3: Scale of corruption



Source: Transparency International 2021

Out of a total of 180 countries, Albania is ranked 104th for 2020. The year 2019 marks a drop in the ranking by 7 positions from the previous year. This decline continued for the third year (2017, 2018, 2019) after a positive trend that existed from 2014-2016 where, Albania was higher in the ranking. On the other hand, the corruption index in Albania is estimated with 36 points out of 100 points in total for the year 2020 (The closer to 100 the countries are with the points, the lower the level of corruption is perceived and the fewer points the higher the level is perceived of corruption). The movement of positions in the ranking is also reflected in the points and correspondingly we have an upward trend in points for the years where Albania has been higher in the ranking and a downward trend in points for the years where Albania has lost positions and is ranked lower. According to the Report of Transparency International, the Index of the perception of corruption in Albania has increased from 27 points (the country 84 out of 180 countries in 1999) to 35 points (the country 110 out of 180 countries in 2021), showing that corruption has increased during this time period. The index itself is a composite indicator that includes data on the perception of corruption in areas such as bribery of public officials, bribery in public procurement, embezzlement of state funds and the effectiveness of government anti-corruption efforts.

### 3. THE INFORMAL ECONOMY DURING THE PANDEMIC COVID-19

#### 3.1 The pandemic and the labor market.

Due to non-registration, informal workers were the first to be affected by the consequences of the pandemic as they were left out of government support and aid packages. Also, lack of access to the financial system, weak social security systems have made it even more difficult to deal with the pandemic. With an informal labor market estimated at about 40% of the total market by Confederation of Albanian Trade Unions, we can say that the consequences of this crisis have been unbearable, especially for informal workers. About 67% of companies applied layoffs during the pandemic, and 33% of them used regular leave and work from home. Thus, according to the Quarterly Labor Force Survey by INSTAT, there are 33,235 less employed people, but unemployment has only increased by 0.5% since only 1,423 people meet the criteria to be considered unemployed. We are clearly dealing with a concealment and unrealistic reporting of the "alarming" situation in the world of work: high number (12.7%) of the discouraged, who have stopped trying to find a job (INSTAT 2020), high level of self-employment (35.4%) as the only way of survival. A significant proportion of those working are in informal employment,



which has increased from 37% considered in 2018 (OECD 2020). Women are particularly affected by informal employment as they are more predisposed to work without pay in family businesses. In coexistence with the consequences of the pandemic crisis, even more workers will be forced to jump into the informal economy.

### **3.2 Pandemic and corruption**

Another factor that makes it difficult to deal with the pandemic is the level of corruption in the country. Even according to Transparency International, Albania is not in a good position regarding this indicator. Lack of transparency and violations make the response to Covid-19 inefficient and weaker. All published studies and reports repeat the same thing: the Albanian economy has a high level of corruption and informality, which brings about a multiplication of the effect of the pandemic. The government has focused more on state sector investments, leaving the private sector behind, opening the way for it to profit in other ways and thus encouraging informality.

### **3.3 Pandemic and informal money**

As discussed in the second chapter, the circulation of cash has marked a significant increase in 2020, also being influenced by the pandemic situation. Official statistics by Bank of Albania show that in august, money outside depository corporations was 23.5% of the money supply, the total money in the economy. Cash reached 328 billion ALL, expanding by almost 40 billion ALL, or 13.8% compared to the same month of the previous year. A part of the cash money that is circulating in the economy is being given with usury. The phenomenon has been proven by two surveys that the Bank of Albania has conducted with 437 businesses and 251 borrower families, the results of which have shown that during this year, the cases of financing from the black market have significantly increased for both categories. According to the results, 48% of the respondents have to pay a loan that they took on the black market or from other individuals. Data shows that black market financing has been steadily increasing in recent years, peaking in the first 6 months

## **4. CONCLUSIONS AND RECOMMENDATIONS**

### **4.1 Conclusions**

- Poverty, problems in the labor market, high tax burden, difficulty in formalizing business, are considered among the main causes that have encouraged the creation of the informal economy in Albania. Informality in the labor market in Albania is at relatively high levels. Unions estimate that informal workers make up about 40% of the total workforce.
- The increase in money outside the banks came partly from the uncertainty that the pandemic created among economic agents, but also from the rapid expansion of the monetary supply by the Bank of Albania. To avoid any concerns related to the lack of liquidity, the Bank of Albania granted commercial banks unlimited access to short-term financing. This also affected the growth of all monetary aggregates in the local currency

- Regarding fiscal evasion, there are many businesses that choose not to pay taxes, not to issue invoices and commit VAT. In the last year alone, these schemes have cost the state coffers 10 million dollars. This indicator is higher than Balkan and European countries.
- Corruption is considered one of the most serious problems that Albania must fight. Internationally assessed, Albania has lost many points and positions in the ranking in recent years in terms of combating this phenomenon.
- The pandemic crisis was a big blow that, among other things, brought about the increase in the indicators of the informal economy. On the other hand, the presence of informality in Albania made it even more difficult to cope with the consequences of Covid-19.
- Despite the international studies, the level of informal economy of Albania is between 30%-35% of GDP.

## 4.2 Recommendations

- The first and most valuable recommendation is the awareness of all individuals in their behavior and attitude towards informality since everything starts from the individual. If everyone becomes aware of the costs of participating in the informal economy, its level will decrease significantly in each area.
- Reduction of tax evasion and evasion through increased formalization of activity and work using part of the funds collected from increased formalization for purposes of social dialogue. Tax and tax exemption policies, as well as the creation of areas that have benefited from fiscal favors under investment promotion policies, have had an important role in creating large cracks in the governments' budget.
- Recognizing minimum wages for basic living standards (living minimum) according to international references (a calculation based on the basic cost of living) would produce both social and economic benefits. Employers can be incentivized to raise wages voluntarily precisely based on a living wage or basic living standard. At the same time, the leaders of the country can make joint efforts to implement a wage starting from the vital minimum in the near future, transparency of economic policies during the process of their implementation and statistics. Especially in developing countries, the lack of transparency is problematic when it comes to economic policy in the implementation process. A system that lacks transparency tends to cultivate high levels of corruption. According to Transparency International, there is a strong negative correlation between corruption and the level of GDP per capita. Corruption hinders necessary government spending, which affects social welfare and creates mass inequality.
- As one of the countries with the highest tax burden in the region, an adjustment or reduction of this burden in function of the increase in the number of taxpayers, could improve the collection of fiscal revenues and reduce informality.
- Controls by the authorities should be increased, especially for businesses that operate online, which are unregistered and compete with the formal sector.

- Increasing controls and strengthening measures against businesses that do not declare their employees, would be valuable both for employees who would benefit from legal and social protection, and in terms of reducing informality in the labor market.
- Raising the minimum wage would be such a much-desired change in the labor market. This would prevent the shift of employees to the informal sector due to low wages in the formal sector.
- The formalization of the economy should be done in a gradual and not immediate manner. While the two sectors are intertwined with each other, formalization must come slowly and adapt so as not to completely destroy that part of the economy that has been part of the informal sector.
- It would be appropriate for the government and institutions, in addition to concrete measures to combat informality, to work with public awareness campaigns, so that formalization, in addition to being an institutional objective, is transformed into an individual objective for everyone.

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# ANALYSIS OF THE ECONOMIC DEVELOPMENT OF ALBANIA, BEFORE AND AFTER THE PANDEMIC COVID-19

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## ABSTRACT

*Economic development is an increase in living conditions, the improvement of the necessary self-confidence of citizens and a free and fair society. According to various researchers, economic development should be conceived as a multidimensional process that includes major changes in social structures, people's attitudes, national institutions, in the socio-economic structure of a country.*

*The history of the Albanian economy shows us that we have not clearly recognized the influencing factors for long-term economic growth and development. During the last three years, Albania has gone through two extremely difficult situations, the earthquake and the COVID-19 pandemic, which brought serious consequences for the economy of our country.*

*After that, the normalization of economic activity and the reconstruction process to reduce the consequences of the earthquake and the pandemic supported a rapid growth, but in the medium term, structural reforms became necessary. Therefore, the specific objective of this paper is to analyze the economic situation before and after the pandemic. Also the presentation of the policies undertaken and the reforms that must be followed to contribute to the economic development. In this context, the study analyzes in detail the structural relationship of all development components such as: the structure of realized income, the structure of employees, the financial structure, the structure of the social product as well as all other influencing factors in the economy of Albania.*

**Keywords:** *development strategy, economic development, economic reform, influencing factors post-pandemic challenges.*

## 1. INTRODUCTION

The transition process from the Centralized Economy to the market economy, at the beginning of the 90s, was not expected to be easy for our country. The beginning of privatization, the dynamic development of the private sector in small and medium enterprises, with special emphasis on the production sector, the first initiatives of the integration process with the economy of the region through the signing of free trade agreements, are only the first steps of the long and difficult

processes towards the development of the market economy and integrations in regional and international institutions. It is not easy to talk about the economic development of a country because it is a matter of a preliminary analysis of all the factors influencing it.

Albania went through a very difficult period of the COVID-19 pandemic in the spring of 2020, which found a large part of the Albanian economy as well as other non-economic sectors prepared. Also, an obvious difference before and after the pandemic is that, despite the weaknesses it has had over the years, the banking sector is the last one that managed to successfully manage this crisis and showed us the main points for increasing the perspective of economic development Albania. In this framework, the main emphasis in this paper is on the detailed analysis of the main component factors of economic development in Albania.

## **2. OBJECTIVES OF THE STUDY**

- General objective:

The general objective of this paper is the confrontation of the factors that have influenced the economic development of Albania before and after the pandemic, understanding what changes have occurred in this confrontation of factors and how the economic development has changed, what impetus and obstacles have these factors given.

- Specific objective:

The specific objective shows the consequences of the fluctuations of different factors on economic development, and most importantly, it expresses the policies that should be followed to contribute to economic development.

## **3. ANALYSIS OF ECONOMIC DEVELOPMENT BEFORE THE COVID-19 PANDEMIC**

The term "economic development" means the achievement of a high level in all areas of human life and not only in the economic sector. It is progress that continues and is achieved in time.

Unlike Albania, which is a developing country, developed countries undoubtedly enable better living conditions, fulfilling the most basic to the most luxurious ones, creating a general social well-being, where every person enjoys a normal life functional health and with high standards of operation of health problems, with the provision of high professional conditions and technology, quality education, where a graduate fulfills all the attributes of market requirements, simultaneously access to all academic levels. These are some of the characteristics of economic development, or global development standards.

The Albanian economy has had a level of growth and decline, in the same direction as the political models and profiles of the country. According to the annual reports of the Bank of Albania, for the last three decades the Albanian economy has an average growth rate of 2.5%.

Albania, like most countries, has not yet achieved economic stability nor the desired development in this field. Over the years, we have gone through major political changes that have directly affected our economic development. After the fall of the socialist system and the transition of the economy from a centralized economy to a market economy, Albania encountered difficulties not only to understand how it worked, but also to benefit from it.

However, the rapid pace of economic growth helped Albania narrow the per capita income gap – increasing it from 18% of the European Union (EU) average income in 1998 to 30% in 2012.

This growth halved poverty in country from 25.2% in 2002 to 12.5% in 2008. Since 1998, economic growth has resumed.

It can be noted that the history of Albania's economic growth since the transition has been one of GDP contraction, often accompanied by economic and social disruption, and a subsequent recovery.<sup>96</sup>

### 3.1 The main factors that have decreased economic development

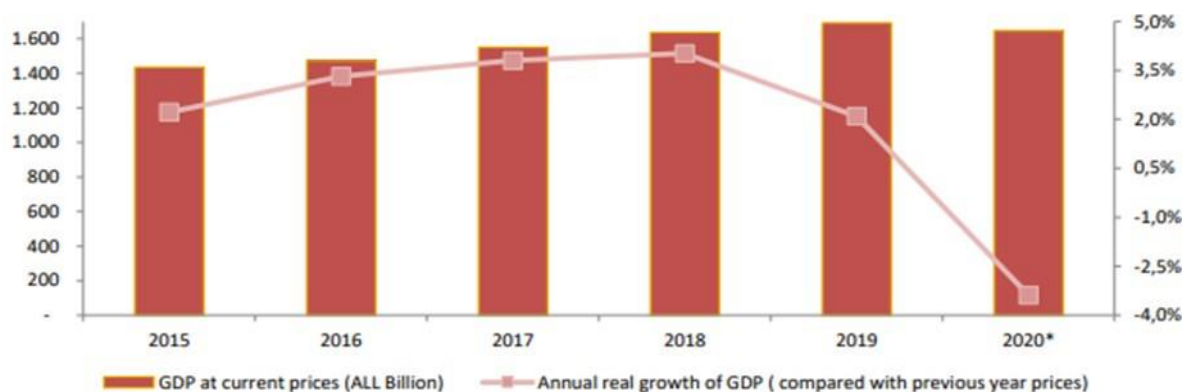
#### 3.1.1 GDP and economic growth, 2015-2020

One way to measure the development of prosperity in society is to estimate economic activity. The most commonly used measure of the size and the performance of an economy is Gross domestic product (GDP).

In 2020, in the Albanian economy, the GDP at current prices was estimated to ALL 1,644,077 million (EUR 13.3 Billion).

GDP per capita is also an important indicator of economic performance and a useful unit to make comparisons of average living standards and economic wellbeing. GDP divides the country's gross domestic product by its total population. In 2020, GDP per capita amounted to ALL 579 thousand (or EUR 4,681).

**Fig.1 GDP and real growth rate, 2015 – 2020**



**Source:** INSTAT, 2020

What is worth emphasizing is that Albania has indeed made progress in economic development, but we still remain in the conditions of a developing country, which means that we still have a lot of work to do.

Regression in economic growth is attributed to many economic and social factors that directly or indirectly affect the growth and development of the country.

Historically, the data show that we have not had detailed information about these factors that affect economic development, so the aim of our study is precisely the identification and analysis of the most important factors before and after the situation of the Covid-19 pandemic.

#### 3. 1. 2 Factors influencing economic development and their progress over the years

<sup>96</sup> G.Nicol, L.Jano, A.Harri (2003), *Projekt "Shqipëria, rruga e ardhshme drejt zhvillimit të qendrueshëm"*

### ***3.1.2.a Lack of political stability and unsafe institutions***

The development of states is undoubtedly the result of the realization of political activity. The institutions that support the construction of a genuine market economy still need to be stabilized. Institutional reform in economies in turmoil, such as the Albanian economy, has been more complex than expected. Good governance and competitiveness would benefit from addressing the widespread informal economy, as well as strengthening institutions. Despite significant investment in road infrastructure over recent years, transport networks continue to need significant further improvements. The public sector needs capacity building for investment planning and implementation, including those related to PPPs. The not very great progress of the institutional reform seems to have influenced an inadequate development in some areas of the economy. According to some referents, the scale of the informal economy in Albania has reached such levels that it has become an obstacle to economic development, has suppressed the role of the government through its fiscal policy. After achieving macroeconomic stability in Albania, the climate for increasing the efficiency and role of the monetary policy of the Bank of Albania has improved.

Corruption is the main problem of economic and social crisis and economic growth without economic development. Corruption has distortive effects on public spending because it often rewards the entrepreneurs who are most capable of corrupting and not those who are most capable of doing their job and realizing the highest quality projects that have the greatest impact on GDP. The latter increases less, as well as the level of fiscal income increases less. In such conditions, if taxes are not increased, the budget deficit will increase, and subsequently the public debt. The negative effects are higher when corruption money goes outside the territory, to fiscal havens or is locked up in banks that preserve the client's anonymity. The correlation between corruption and public debt is positive. For a poor country like Albania, no matter how much the salaries increase, with only them, many of these officials will never be able to buy the properties they have, even if their salaries were comparable to the salaries of a developed country. of the EU. The only solution, under these conditions, is total amnesty for past corruption, payment of taxes for all those who have undeclared savings, repatriation of money taken abroad and extreme punishments for all those who commit corruption in it. the future. This amnesty will serve to significantly reduce the cost of debt and to reduce informality in the future, especially in Albania.

### ***3.1.2. b Low level of workforce skills***

During the communist regime, full employment was programmed and the state was almost the only employer. After this period, the consequences for the work force and the way of life for the Albanian population were extremely serious. Most of them in communism worked in agriculture and after this period they did not they had the appropriate professional and technical skills for a certain job position. There is a strong and positive relationship between the level of education, the skills of individuals and the results of the labor market. During the last years there has been progress in increasing the educational achievements of the population. However, the functional illiteracy rate of young people is reported to be 57%. After the year 2000, employees with secondary education also suffered a decline, which currently make up 38% of the total, from 49% at the beginning of the 2000s. On the other hand, the share of employees with higher education has increased significantly, since the end of 2018 accounted for almost 54% of the total number of employees in the state.

After 2007, governments strengthened the educational criteria for admission to the administration, incentivizing them with higher salaries. Also in the health sector, higher education diplomas and second-level masters were set as conditions. The tightening of degree criteria and the explosion of private universities over the past decade increased the number of people with higher education in the state. Despite the increase in educational quality, the Albanian administration suffers from a lack of efficiency and a high bureaucracy. The frequent change of employees in the public sector, as a result of political rotations, has damaged professionalization and expertise. Monitoring reports from the European Union and other partners such as the World Bank and the International Monetary Fund constantly emphasize that the public sector in Albania needs to be reformed, considering this as the main tool to improve public services.

The system of vocational education and training continues to be affected by the limited involvement of social partners, by a highly centralized system with low fulfillment of local needs, by the separation between vocational education and vocational training, and by inadequate monitoring and evaluation approaches. To measure both the quality and quantity of education, professional training and lifelong learning. These remain a problem to be solved with priority. Investments in various trainings are needed for a qualified workforce. Training is defined as the process of learning procedures and techniques to perform current jobs more effectively, while development is characterized as the totality of efforts to help employees become more appropriately skilled for future jobs. In Albania, proper attention has not been paid to the training of the staff, of course there are attempts and attempts, but again they remain at low levels of development.

***3.1.2. c Old technology and few investments for its development, orientation of the economy that excludes technology (towards trade, towards the model of tourism without a model), investments not in favor of long-term development, weak infrastructure.***

Expenditures for scientific research and development in Albania, according to INSTAT, do not exceed 0.18% of GDP, which marks the lowest level in Europe.

Updating the digital infrastructure - The digitalization of processes and jobs aims to create ever wider networks, with more and more members and with more and more processes integrated into them. The integration of work processes through the connection between different devices in the form of a chain requires an up-to-date digital infrastructure.

Impact on the labor market - Every industrial revolution has had a strong impact on the labor market. New professions have been born and traditional professions have disappeared or been minimized. At the same time, the effectiveness of work has increased: production has increased and improved in quality, while the number of personnel has been reduced. The new era of digitalization is causing the same impact on the labor market. Intelligent machines are beginning to replace humans. Their production capacity is very high. What remains for people is to adapt to professions that machines cannot do or those professions that serve the system itself.

Digitization in Albania - The level of development of digitization in Albania, unlike economic or social and legal parameters, has moved at a relatively satisfactory speed compared to developed countries and in some sectors it is almost at the same level and is in the same stage of development (e.g banking sector). According to INSTAT data, in 2016 in Albania, the vast majority of enterprises (95.6%) and a significant portion of employees (28%) used the computer for work purposes. There are 96.8% of enterprises that have access to the Internet and 7.1% of them sell products via the Internet. A wide range of public services are in the process of



digitization, providing not only convenience but also cost reduction for both the state and the citizen (e.g e-Albania). Audiovisual transmissions are in the process of full digitization, offering advantages in terms of expanding capacities and services. In the financial sector, cyber systems represented mainly in banking networks have improved in the last 12 years, especially after 2005. There are 16 commercial banks distributed in 494 branches and agencies throughout Albania, which simultaneously provide banking services to 7,911 digital devices, respectively 800 ATMs. Insurance companies are aiming to expand their online service as well as offering in-kind products.

### ***3.1.2. d Fiscal and financial instability has a fundamental impact on Albania's ability to move towards a model of accelerated and sustainable economic growth.***

The macroeconomic link between fiscal policy and economic growth has attracted the attention of economists for a long time. Unfortunately, the studies conducted in relation to this connection have been unsuccessful. One of the main causes of this failure comes from the inability to build an indicator of fiscal policy. In the economic literature, none of the components of fiscal policy, taxes, government spending and the budget deficit show a strong correlation with economic growth when they are analyzed separately. The lack of correlation may be a consequence of the impossibility for each of the budget components to fully represent the position of the fiscal policy. An economy with an unstable and high inflation rate will increase the cost of doing business, negatively affecting economic activity. Fiscal policy can affect the level of inflation through various channels, both through the level of taxes and through the level of public consumption and the level of the budget deficit. Transition period oriented towards basic policies, such as trade liberalization, macroeconomic stabilization, fiscal consolidation, increased privatizations. etc. is towards the end. Therefore, policies should be directed at sectoral levels, such as agriculture, energy, industry, diversification of products, increased competitiveness, application of advanced technologies, harmonization of educational policies with the needs of the economy and businesses, wider inclusion of the population in the benefits of growth economic, etc.

### ***3.1.2. e Unemployment***

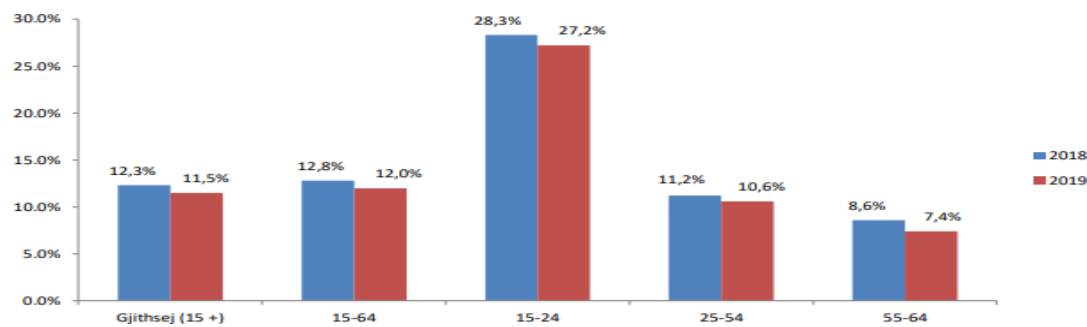
It is a negative multidimensional phenomenon in every human society. It is considered a social phenomenon because of the effects it has on the social structure of Albanian society, but not only.

If it is extended for a period of time, it brings the problem and the problem of long income. It is not only a financial difficulty, but unemployment also brings with it social isolation, making contact with relatives and society more limited. But the government tries to reduce the number of unemployed in two ways, through monetary and fiscal policy. Unemployment in Albania continues to grow. At the same time, economic development is a main objective of both monetary and fiscal policy. Economic development is a continuous process of increasing production capacity, for increasing national income as well as the level of capital.

The obtained results show that, starting from 2014, the main importance of the growth of work in Albania, employment and work, present the dynamics of favorable and encouraging growth for the economy.

Meanwhile, even if we further compare the two years 2018 and 2019, before the pandemic, the percentage of unemployment according to different age groups is in decline. (See figure 2).

**Fig.2 Unemployment rate by age group, 2018-2019**



Source: INSTAT, 2020

### **3.1.2. f Investment at low levels for physical capital**

Investment spending is a central issue in macroeconomics for two reasons. First, fluctuations in the investment account affect many of the movements in GDP over business cycles. Second, investment spending determines the rate at which the economy adds to its physical capital stock, thereby helping to determine the economy's long-term growth. In the case of Albania, the contraction of private investments is explained by the impact of other economic variables on the political economic climate. Thus, if we refer to the history of inflation rates in the period 1991-1998, the period with very high rates and in some years with hyperinflation, private investments have fluctuated. After 1999, with inflation at low levels under control, it is noted that private investments and their impact have been consolidated with increasing rates or small fluctuations. A firm can secure its capital in two ways: buy it or rent it. The main issues facing investors in this perspective are how much capital they should use or what is the desired level of capital stock. This implies that they are interested in knowing who influences their behavior to determine the desired level of capital stock and furthermore the determinants of the cost of capital. In the case where a firm decides to provide capital by renting it at a certain cost, the firm will rent capital up to the point where the marginal revenue of the product equals the cost of renting it. So the desired capital stock is seen to be a function of the level of output and the cost of capital (the cost of renting in this case). The lower the cost of capital the larger the desired capital stock. If the marginal product of capital is less than the cost of capital, the firm is better off reducing capital and vice versa. If the marginal product of capital increases while the cost of capital remains unchanged, the desired capital stock would increase.

### **3.1.2. g Concentration of the economy in sectors with low productivity such as fashion and call-centers, neglecting the processing industry**

The Albanian economy is focused on sectors with low productivity such as fashion and call centers. When it was thought that the traditional call-centers that offered services to Italy were closed, the call-centers that offer forex services began to flourish, reaching over 4000 of them in Albania. We can say that the Albanian economy resembles a colonial economy, where raw materials are exported (oil, minerals, decorative stones) where Albanian employees often work 48 hours a week for only 26,000 lek a month. Such salaries are below the "level of dignity", where consumption is not stimulated, development is not generated with these salaries, (Muco, 2019). Fiscal policy should intervene here, favoring Albanian employees not only in salary increases, but also in lower taxes. Establishing the balance in this direction requires special and quick studies and decision-making.

Studying this factor, with big interest is also the analysis of the cost of wages in the period 2016-2020.

Compared to LCS (Labour Cost Survey )2016, in LCS 2020, the cost of wages that have the largest share in the Labour Cost Structure has increased due to the increase in wages in general and the increase of the minimum wage from 22,000 in 2016 to 26,000 in 2020. In LCS 2020 compared to LCS 2016, due to the pandemic period, through the decisions taken by the Albanian government to prevent the spread of Covid-19 and provide economic assistance to businesses, expenses for professional training, labour taxes and other expenses were reduced, as well as the subsidies received by enterprises increased.

Tab.1: Structure of Labour Cost, 2016, 2022

Përshkrimi/Description	2016	2020
Pagat dhe shpërblimet / Wages and Salaries	84,0 %	85,6 %
Kontributet e sigurimeve (pjesa e punëdhënësit) / Employer's social contributions	14,3 %	14,1 %
Kosto të trajnimit profesional / Vocational training costs	0,4 %	0,1 %
Shpenzime të tjera / Other expenditures	1,2 %	0,2 %
Taksat e punës / Taxes	0,2 %	0,1 %
Subvencionet e marra nga ndërmarrjet / Subsidies received by the employer	-0,1 %	-0,1 %

Burimi i Informacionit: Anketa e Kostos së Punës 2016, 2020

Source of Information: Labour Cost Survey 2016, 2020

### ***3.1.2. h Emigration is not supported by coherent and appropriate policies that can contribute to economic growth***

Albania, like all other countries of the Western Balkans, has been a major source of illegal economic migrants, who seek work in the rich countries of Europe. According to Eurostat data in 2017, the number of immigrants from the countries of the Western Balkans was 137,000 individuals, where, mainly, immigrants from Albania dominated with about 52,000 people in the year in question and about 590,000 in the last 10 years. Every day more and more Albanian citizens are feeling the need to leave their country in search of a better future, due to poverty, inequality, lack of democracy, lack of rule of law and the impossibility of choice (Sen , 2014 places choice as the basic criterion of poverty). Never before had immigration become a "problem" as it is today for Albania. We are talking about a problem, not because immigration is considered negative in essence, but because in recent years in Albania, a reduction in the population, an increase in the average age, a reduction in births and a reduction in the workforce has been observed.

According to UNICEF, over 2/3 of the emigrating people are under the age of 30, while 16% of them are under the age of 20.

In Albania, the increase in the desire to emigrate is among the highest in the world. We rank behind Togo, Sierra Leone, Congo and Syria and are almost on a par with Haiti. The desire of the population to flee Albania is no longer related only to the level of poverty or unemployment, as it was in the 90s. Today it happens for reasons of food and health security, or for the loss of faith that tomorrow will be better. The desire and departure become even more painful and costly for the country, when students and intellectuals leave. Looking at these indicators, we can suggest government intervention to curb immigration and return the "brains" to the country.

This process can be accomplished by increasing wages for young people or by reducing labor taxes for all those who employ young people up to the age of 25; by giving bonuses for the purchase of houses by young couples, as happens in Croatia; with monetary stimulation for new births (100-200 euros per month, until they reach adulthood), as happens in Hungary or Macedonia; with extra payments for all those graduates who return to give their contribution to Albania, especially for those who will work for the public administration. Doctors and nurses, who are leaving en masse, can be offered mandatory 5-year contracts in Albania for all those who decide to study in the country. Other results of this study show that immigration has a positive impact on the increase in the average age of the local population, as well as on the increase in the number of pensioners, which is accompanied by a deterioration in the ratio of contributors and beneficiaries for pensions, passing from 4 to 1 that was in 1990 to 1.5 to 1 in 2019.

### ***3.1.2.i Bad loans***

Serbia comes after our country, while Turkey has a low level of problem loans. "The banking system remains profitable, despite rising provisioning costs from loan portfolio deterioration. Despite healthy bank balance sheets, credit growth remains weak, partly reflecting weak loan demand and a more cautious behavior by banks", the report says. The revival of credit will remain essential for the overall development of the Albanian economy, as accepted by the authorities. The fund concludes that higher domestic savings and a positive increase in exports led to a narrowing of the current account deficit by 13.8 percent. The exchange rate has been generally stable, reflecting the balanced supply and demand for foreign currency and the stable risk premium. Lending to the economy during 2012 grew by 2.4 percent, the weakest historical performance ever recorded.

### ***3.1.2. j Inflation***

In the world of economics, inflation or the consumer price index is one of the most difficult and debatable indicators. Average annual inflation was 2.0% in 2018. The decline in inflation reflected the continuation of exchange rate appreciation and low prices in international markets. Domestic inflationary pressures have been increasing, but they remain insufficient to return inflation to the 3.0% target.

### ***3.1.2. k Poverty and inequality of income distribution***

We remain a country with great inequality in income. Inequality and poverty have increased in Albania during the last 5 years according to the report of the World Economic Forum. Net income inequality, otherwise known as the GINI indicator, has grown by 7.7 percent in the last five years, according to the report. The Gini coefficient in Albania has reached 38.4. This index shows the extent to which the net distribution of income (after taxes and after transfers) among individuals and households in an economy deviates from a perfectly equal distribution. A Gini index of 0 implies perfect equality and an index of 100 implies perfect inequality. This means that the 7.7% increase of this indicator in Albania over the last five years is an indicator of the increase in inequality in the country. The forum also reports that poverty has been increasing. According to the report, Albanians living in poverty increased by 0.7 percent and the poverty rate reached 6.8%.

For developing countries, this indicator is calculated as the percentage of the population living on less than \$3.1 a day. The indicator of average daily income per capita also decreased by 0.1%.

Only the wealth inequality indicator is improving, which has decreased by 1.8%. The deepening of inequality in the country has been confirmed earlier by national statistics as well. According to the data from the Family Budget Survey for 2016, published by the Institute of Statistics, the trend is verified where the rich have become even richer, while the poor have continued to the other extreme. According to this survey, about 90% of families spend 78.3% of the total consumption value, with an average consumption expenditure of 63,609 Lek per month. On the other hand, 10% of families spend 21.7% of the total consumption, with an average expenditure of 158,946 Lek per month. This means that the average consumption expenditure of the 10% of the highest-spending CEEs is 2.5 times more than that of the other 90%, the poorest. The per capita consumption of 90% of families with the lowest expenses is on average 18,119 Lek per month, while the 10% of families with the highest expenses is on average 62,562 Lek per month per capita.

In the report of the World Forum in the ranking of developing countries, in the general indicator, Albania is in place of 28 out of 74 countries, being behind Macedonia (25), but surpassing Serbia. Albania received 4.08 points, where 1 is the weakest rating and 7 is the highest. The best of the developing countries is Lithuania and at the bottom is Mozambique. The pillars where Albania has the worst result are financial intermediation with 2.89 points, as a result of the low intermediation of businesses. The second pillar, where Albania has a poor performance, is the fiscal transfer, with both sub-indicators, the tax code and social protection. The third is corruption and payments, with 3.27 points, where the most negative sub-indicator is that of the concentration of payments.

Meanwhile, Albania's Gini Coefficient (GINI Index) according to the World Bank Assessment data that is updated annually, is reported to be 30.800% on average from December 1996 to 2019. And the multidimensional population poverty ratio (% of total population) of Albania is 43.4 in 2020.

### ***3.1.2. 1 Public Debt***

Public debt is important as it can influence the Monetary Policy, the political process, the international level of trust for the country, capital outflows and asset replacement. The transmission channels of the effect of an increase (decrease) in public debt on economic growth in the long term are: the net savings channel, the debt service cost channel, and the national confidence level channel. Among the main factors that have influenced the increase in public debt are the increase in the deficit and the increase in public investments.

Regarding the characteristics of the public debt of 2012, we can say that it mainly consists of internal debt, in local currency and held mainly by the banking sector. The stock of external debt for 2012 is estimated to be long-term debt and mainly in the form of loans. External debt has grown faster than domestic debt since 2007, and this is a concern for financial stability in the country, because such a composition of government debt carries a higher exposure to changes in global financial markets. and the exchange rate. Looking at the dynamic behavior of public debt and economic growth, in the third section, we noticed that the downward trend of economic growth coincided with the period when public debt was increasing, and vice versa. But we must say that the effect of a change in public debt appeared after some time delays.

## **4. Economic development after the Covid 19 pandemic and the presentation of factors influencing it**

The pandemic has already become the headline of everything. Certain sectors in the economy are experiencing losses, while on the other hand, some sectors are showing growth. The coronavirus pandemic has changed the habits of local buyers, who have shifted most of their online purchases to local e-commerce instead of foreign ones.

Some of the factors indicative of economic development during and after the pandemic result as follows:

**a- Gross Domestic Product of Albania (GDP)** grew 8.5% in 2021 compared to last year. This rate is 120 -tenths of one percent higher than the figure of -3.5% published in 2020. The GDP figure in 2021 was \$18,260 million, Albania is number 124 in the ranking of GDP of the 196 countries, according to World bank. GDP in Albania is expected to reach 18.29 USD Billion by the end of 2022, according to Trading Economics global macro models and analysts' expectations.

**b- Unemployment** If the pandemic would continue for an even longer period of time, cyclical unemployment would not only not be reduced, but could lead to an even deeper economic decline.

According to INSTAT data, *the pandemic crisis* rendered 43,000 people unemployed in 2020.

At the end of the year there were a total of 1.23 million employed in the country, from 1.27 million at the end of 2019.

INSTAT data from the Labor Force Survey show that the number of employed people dropped significantly in the first 6 months of the year (by about 50 thousand people), as the quarantine blocked economic activity for almost three months.

In the third quarter, after the opening of the country and tourism activity, employment improved significantly and over 30 thousand people returned to work.

In the fourth quarter of 2020, the employment rate for the population aged 15-64 is 60.2%. During this quarter, compared to the same quarter of 2019, the number of total employees decreased by 3.4%, while compared to the third quarter of 2020, this indicator decreased by 2.2%.

The increase in unemployment in our country during the pandemic has been confirmed by INSTAT in the official statistics. According to the figures of INSTAT, during 2020 there were a total of 43 thousand unemployed people, or in other words, unemployment increased by 3.4%. According to INSTAT, at the end of 2020 there were a total of 1.23 million employed in the country, from 1.27 million at the end of 2019. On the other hand, since many individuals remain unemployed, this shows that the businesses where most of the employees were there stopped their activity, the investments that would be made in the physical capital fell significantly due to the closure of the businesses. Even those that were operating were with reduced staff and capacities, the income they earned was relatively low and not enough to go for intensive investment in physical capital, therefore they were presented relatively low during this period. Given that the economy is concentrated, apart from others, in two sectors, the fashion industry and the call center during the abnormal period, they needed an economic aid package that had to be applied urgently. Indeed, these two sectors have a low profit margin, but their great weight in the economy is employment.

To curb the spread of the virus, Albania ordered the temporary closure of important economic activities such as restaurants, and trade in non-essential items, restricted the movement of people and applied extensive restrictions on domestic and international travel. Many industries allowed

to continue activity such as textiles, mining, call centers, and construction have had to curtail business activity to comply with the restrictions.

**c- Imports and exports** Official data from INSTAT show that during the past year the damage was greater in export businesses, whose number decreased by 8.3% during 2020, than in import businesses, which suffered a decrease of 1.1%. In 2020, exports of goods are 272 billion ALL, decreasing 9.0% compared to 2019. Meanwhile, imports of goods reached the value of 605 billion ALL, decreasing 6.8% compared to 2019. In 2020, the share of exports to EU countries is 75% of goods exports, reaching the value of 203 billion ALL. Exports to EU countries decreased by 10.9% compared to 2019. The weight of imports from EU countries is 58% of goods imports, reaching the value of 351 billion ALL. Imports from these countries decreased by 6.1%, compared to 2019. In 2020, our main partner for exports and imports continues to be Italy. The value of exports to Italy is 124 billion ALL, decreasing 13.7% compared to 2019. While the value of imports from Italy is 152 billion ALL, decreasing 7.4% compared to 2019. Exports in value have increased towards Greece, Germany, North Macedonia, Serbia, France, etc. Meanwhile, Greece, Germany, North Macedonia and Kosovo have an increase in imports. In 2020, according to INSTAT, our main partners for exports are : Italy (45%), decreasing by 13.7% compared to 2019, Kosovo (10%), decreasing 12.0% compared to 2019, Spain (6%), decreasing 30.4% compared to 2019.

**d-Teaching** Also, the isolation measures as a result of the Covid-19 pandemic brought, among other things, new and previously unexplored challenges in the teaching process. Teachers, students and parents were faced with the need to balance learning needs with technological innovations.

**e-Technology** In addition to a year with a pandemic, the greatest attention after Covid-19 was also technology, which at any time does not stop, the pandemic proved this to us best, it showed us how important technological education is and how much he helps us when we find ourselves in an unexpected situation due to the pandemic. The enterprises were not prepared, perhaps this made them reduce their profit even more.

**f-Population** The overall decrease of the population by 1.3% is only one of the alarming indicators of the general state of the country. The decline of the young population as a result of emigration and the increase of the elderly population, as well as the increase in the average age of the population are the other indicators. According to INSTAT data, the average age of the population reached 38.2 years in 2021 from 37.6 years in 2020. In September last year, Albanian citizens were the seventh largest group of applicants as asylum seekers in the EU, accounting for about 3 % of all applications. The numbers increased significantly since May, filing in September about 2130 applications.

**g-Non-performing loans** Commercial banks in the country tightened lending standards in the second quarter of 2020, as a result of the situation and high uncertainty from the pandemic. The Bank of Albania published the review on lending, according to which, "banks applied tighter standards as in loans granted to businesses, as well as loans granted to individuals, in all constituent subcategories". The demand for loans in the third quarter of 2020, according to the judgment of commercial banks, was expected to be higher both on the part of businesses, as well as from individuals, namely for the financing of inventories and working capital and for consumption. At the end of May, the loan portfolio for the economy had the value of 582 billion

ALL, an increase of 6% compared to the same period of a year ago (2019). The highest NPL ratios at the end of 2020 were reported for business loans (9.9%), foreign currency loans (8.9%) and long-term loans (8.5%). Compared to 2019, non-performing loans, non-performing loans have decreased by 3.23% according to BSH. The Bank of Albania issued an instruction that allowed borrowers to postpone loan payments by three months, if they agreed with the banks.

Every borrower whose income was affected due to COVID 19 had the right to apply to the bank and request a postponement and state the reason. The borrower should talk to the bank to agree when he will pay these installments without penalties. He can choose to pay these three installments within the remaining maturity of the loan or three months later from the maturity date of the loan.

Referring to data from the Bank of Albania, non-performing loans decreased to 5.32%, from 5.44% in May 2022.

The pandemic and the earthquake increased poverty in Albania, while it continues to be the highest in the region. In Albania, in 2020, which coincides with the peak of the Covid-19 pandemic, one third of the population, or 32.6%, was considered poor, from 31.8% the previous year. In contrast, social protection for the population is among the lowest.

The figures were announced in the last report of the International Monetary Fund (IMF) on the progress of the country. According to him: "The poverty rate in Albania is one of the highest in the Western Balkans, while its coverage with social protection is among the lowest." In response to the pandemic, the authorities quickly and temporarily expanded existing social protection programs by about 1 percent of GDP in 2020-2021. The government introduced temporarily higher social assistance benefits, extended unemployment insurance and offered wage subsidies. for formal workers, unpaid members of family businesses and workers in the informal sector if they are formalized.

The analysis of available information shows the continuation of the recovery of economic activity in the country, the improvement of labor market indicators, but also a rapid increase in inflation during the last two months. The increase in oil, energy and food prices in the world market has begun to be reflected directly and indirectly in the prices of consumer items in the country.

***h-Inflation*** Consumer Price Index in August 2022 arrived 110.1 against December 2020 as reference period. The annual rate of consumer price index in August 2022 is 8.0 %, a year before was 2.4 %. Compared with July 2022 the monthly change of consumer price index is 0.8 %.

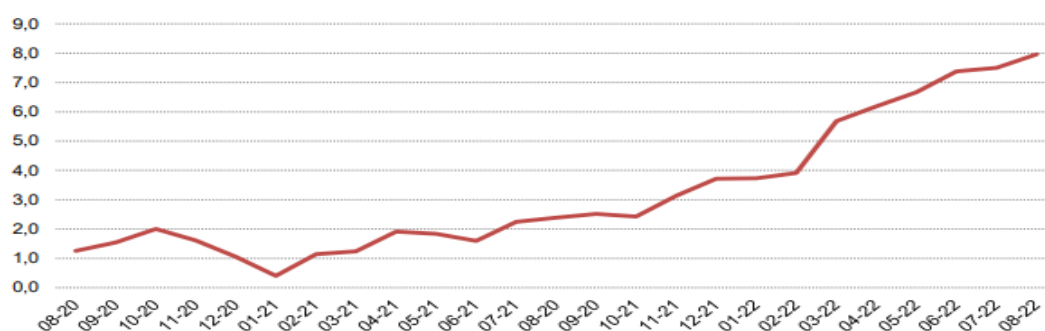


Fig.3 Consumer price index 2020-2022



***i-Public debt*** At the end of 2020, according to Ministry of Finance, the public debt was estimated at the level of 1,224.2 billion Lek or 77.9% of GDP<sup>2</sup>. In nominal terms, the stock of public debt has increased by about 111.6 billion Lek compared to the end of 2019, of which 46.6 billion Lek belong to the domestic debt and 65 billion Lek in external debt.

Various financial and economic crises, such as the current pandemic, have shown us that every developing or developed economy must have a medium-term development plan to use in emergency conditions.

## 5. CONCLUSIONS AND RECOMMENDATIONS

- The average economic growth of 2.68% during the last decade shows that the structure of the economy is inefficient and that productivity in the economy has been low.
- From Income and Living Condition Survey (SILC), In 2018, GINI coefficient is estimated 35.4 %, decreasing by 1.4 percentage points compared to 2017. The income quintile share ratio S80/S20, in 2018 is estimated 7,0 compared to 7,5 that was in 2017, presenting a decrease in inequality.
- Multidimensional poverty headcount ratio (% of total population) of Albania is 43.4 in 2020.
- The write-off of bad loans has been the measure with the main impact on reducing the ratio of non-performing loans over the past five years. In total, since the beginning of the write-off process, in January 2015, 65 billion ALL or about 525 million euros of lost loans have been written off. The value of written off loans is as much as 130% of the actual value of bad loans and gives a clear idea of the huge impact write offs have had on cleaning up the banking sector's portfolios.
- GDP in Albania is expected to reach 18.29 USD Billion by the end of 2022, according to Trading Economics global macro models and analysts's expectations. In the long-term, the Albania GDP is projected to trend around 19.50 USD Billion in 2023, according to econometric models.
- The slowdown in economic growth, beyond the experienced crises, requires more in-depth analysis and should lead to a review of the strategy and implementation of reforms in the long term, which should be oriented towards labor productivity, improvement and diversification of the structure of the economy.
- ❖ Consolidation of reforms in the banking system, creation of the capital market.
- ❖ Improvement of infrastructure, vital services to the population.
- ❖ Review of the reform strategy in the long- term (labor productivity, improvement and diversification of the structure of the economy).
- ❖ Increasing transparency in the use of funds and accountability, their orientation towards real projects with a well-defined priority agenda.
- ❖ Improvement of the climate for business in Albania.
- ❖ Stabilization of monetary and fiscal policies.
- ❖ Increasing transparency in the use of funds and accountability, their orientation towards real projects with a well-defined priority.

In summary, we say that it is needed: support, stability, coordination, employment, welfare, for economic growth and development.

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# EVALUATION OF PERFORMANCE FACTORS IN BANKS OF SECOND LEVEL IN ALBANIA. IN FOCUS, THE SATISFACTION OF EMPLOYEES IN THE REGION OF KORÇA

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## ABSTRACT

*The banking system in Albania, based on the strong foundation of the classic model, and also embracing digitization with rapid steps in recent years, is characterized by a great demand for employment. The second level banks in Albania are the largest corporation in the country in terms of employment, development of new talents, promotion of employees who carry outstanding values, where great importance is attached to building a comprehensive package for each employee, existing or new who wants to join the bank's teams.*

*The main purpose of this study is to seek and bring information on the job satisfaction of employees in the banking system. It analyzes all the factors that affect the level of satisfaction of employees in the second level banks in the Korca region, through a combination of quantitative and qualitative research analysis methods. The data used for the relevant analyzes of the study were collected through questionnaires addressed to second level bank employees.*

*The research results prove a positive relationship between all the elements defined in the conceptual model proposed in this study.*

**Key words:** *banking system, second level banks, employee, satisfaction, Korca*

## I. INTRODUCTION

This article show that 12 variables taken in this study as 1. The name of the Bank, 2. Leadership 3. Career opportunity 4.Training development, 5.Performance management, 6.Reward and appreciation, 7.Cooperation, 8.Authorization, 9.Infrastructure facilities, 10.Talents, 11.Work and private life balance, 12.Diversity and Inclusion are very significant in satisfaction of employees.

Based on the rapid technological development over the past twenty years, people's lives have changed drastically. Almost all professions are in the process of transformation, which has directly affected the entrepreneurial initiatives today, the quality of life has increased, the services as a whole have become faster, more qualitative and more in favor of the time we are living. In this context, the researcher D. Bell (1973) in his work "The advent of the post-industrial society" analyzed the concept of economic, political and social changes that were generated precisely by the rapid technological development. According to him, technological development not only transformed lifestyles, services, but also the very concept of life,

workplace, leisure and social interaction (see: Bell. D., 1973: 44). The fact is that advanced technology has already affected all sectors of the public and private life of the individual, every society and every sector of human society and the world economy.

There are 12 commercial banks in Albania with Foreign and Albanian capital, based on Annual report of banks 2021, data audited by IFRS, on date 31.12.2021, with 6,609 employees with 417 branches, led by Raiffeisen Bank with 1,265 employees and 74 branches. Then Credins Bank with 1006 employees and 57 number of branches, BKT with 939 employees and 63 number of branches.

The banking system is characterized by a young age (35 years average age) full of energy for work, with experience and the appropriate qualifications, guaranteeing the bank's long-term success. The banking sector has the highest level of expenses for training and qualifications of its employees.

If we look at the point of view of bankers and experts in this sector, the attitude of Andi Ballta (executive director of ABI bank) would be mentioned: "Banks are the proudest passport of Albania".

Undoubtedly, the banking system had a radical effect on the rapid social changes and the generation of contemporary societies that we know today. Therefore, banks are considered an excellent place to work and they themselves have taken care to have a professional staff, whose efforts have been essential for a successful banking performance.

These talented people with different profiles, skills and interests have contributed to making each bank where they work one of the most popular, competitive, preferred and safest financial institutions in Albania.

From the perspective of banking systems, World Bank reports in the last 5 years emphasize that banks always aim to be and become the best place to work, based on the best possible harmony of the emotional, mental and physical of their employees, also based on the main values such as respect, care, financial support and the creation of a cooperative and motivating work culture, especially with the customer who is at the center of the work of the banking system

(<https://www.worldbank.org/content/dam/worldbank/document/eca/Albania-Snapshot-al.pdf>).

Ensuring customer satisfaction and loyalty is a constant challenge for the banking system in Albania.

On the other hand, how satisfied are the employees who work in the banking system today?

Is working in a bank still considered "a dream" of an economics student?

## **II. REVIEW OF LITERATURE**

Undoubtedly, the most important asset of any organization is human resources. Their performance is closely related to job satisfaction (Pardee, L. R., 1990: 54). According to the views of Abraham Maslow (1954) "Job satisfaction" means what attitude and feeling employees have about their work. Positive and favorable attitudes towards work indicate the employee's satisfaction at the workplace. Negative and unfavorable work attitudes indicate job dissatisfaction (Armstrong, M., 2006: 23).

In contemporary societies, a number of theories related to job satisfaction have been developed, but the thoughts and opinions about them are different. These theories start as initial studies before the First World War, being developed more and more both in Europe and in the USA. The work process dates from the beginnings of the development of social life. Man has ensured life and its continuity through the work process, so this process has always been the focus of researchers in different disciplines. One of the most ambitious researchers of the work process has been ShafiAbadi (1997), who in his studies shows that job satisfaction is a concept without any unique and multi-individual variation, where the factors of satisfaction and its level should be studied independently, for each individual. The theory of hope and expectations, according to him, shows that expectations at work determine the level of satisfaction at work (Abadi, Sh., 1997: 12). If individuals have high expectations, they will receive their fruits too late. The opposite happens with individuals who have low expectations because these employees are more quickly satisfied with their work. Satisfaction at work is one of the important factors that brings success and high efficiency at work (Abadi, Sh., 1997: 34).

While Schertz, B. (1990), in his study on employee job satisfaction, states that job satisfaction is loving the job (demands and working conditions, its best and worst (Schertz, B., 1990: 78). This theory of needs is closely related to Masloë's hierarchy of needs, perhaps an integral part of this hierarchy and according to this theory it is seen if the needs and status are met in this job, otherwise this job is left. Meanwhile according to John Holland's Theory of Career Choice (RIASEC), environment and human personality have a high interaction between them.

In Khalilzadeh's view, (1996) says that the implied message of the theory is when an individual chooses his work, in accordance with his personality traits and has a positive attitude towards work and as a result will be satisfied (Khalilzadeh, H. , 1996:13).

It was Wahba and Bridwell (1976) who criticized Maslow's theory for lack of empirical evidence (Wahba & Bridwell, 1976). This limitation has been accepted by Maslow himself since 1954, where it was determined that, apart from all others, employees are lucky to have a job. It was the self-period of the banking review, especially in developing countries, and financial difficulties that highlighted that the perception of the individual's work and life in general will be very close to the very basic needs defined by Maslow. (Maslow, 1954).

According to AnithaRavikumar, (2012) job satisfaction is a general behavior towards work, in relation to the reward that employees receive and what they believe they should receive (Rovikumar. A., 2011:22).

On the other hand, Pushpakumari, M. D. (2008) emphasizes that employee behaviors are important to be recognized by managers, they determine the behavior of workers in the organization. He emphasizes that a satisfied worker is a productive worker, creates a pleasant atmosphere to work and helps us in every aspect of doing the work successfully. He showed that performance is closely related to job satisfaction. Showed the importance of remuneration, how it positively affects job satisfaction, taking into account the influence of age, gender and experience of employees on the level of job satisfaction.

In the same view, Uyargil (2010) shows that employee performance is greatly influenced by motivation and job satisfaction. The opinion of employees about the organization they work for is very important and their performance depends on job satisfaction (Uyargil, C., 2010: 11).

### **III. METHODOLOGY**

The factors that will be analyzed in this study are integral parts of 124 questionnaires, defining the independent factors: 1. The name of the Bank, 2. Leadership 3. Career opportunity 4. Training development, 5. Performance management, 6. Reward and appreciation, 7. Cooperation, 8. Authorization, 9. Infrastructure facilities, 10. Talents, 11. Work and private life balance, 12. Diversity and Inclusion are very significant in satisfaction of employees.

These questionnaires were completed during the period December 2021-January 2022, a busy period for the banking system because it coincides with the end of the year and a quieter period, the first month of the year. High work load, increased efforts to achieve their annual objectives increase the stress level of employees, just as the beginning of a new year increases their commitment to work. All this has influenced the answers in filling out the questionnaires of the employees, increasing more the degree of their authenticity. All questionnaires were completed through physical contact, including all commercial banks operating in the region of Korca.

The sample of this study includes a random sample of 124 commercial bank employees, in Korca Region. The sample achieved a valid response rate of 100% and represents nearly 90% of the number of employees in commercial banks operating in the region of Korca.

#### **3.1.1 Objectives and Hypothesis**

The purpose of this study is to contribute to the identification of primary knowledge on the adaptation of banking system employees to the permanent changes of this sector. The identification of factors that directly or indirectly affect productivity in the workplace or receiving quality service, affect the continuity of transformations and essential changes in the banking system. A decade ago, for the majority of private and business customers, the services offered in bank branches had turned into an unloved place, because there they were wasting a lot of time for a simple banking service or transaction.

Identification of problems or obstacles to reach an acceptable level of employee satisfaction, and which issues require more attention to be resolved in the coming years.

Identifying and describing as clearly as possible the factors that influence and increase job satisfaction.

Identification, description and analysis of customer attitudes and perceptions in second level banks in the Korça region.

H1: Employee satisfaction depends on the name of the bank, leadership, career opportunity, training development, performance management, reward and evaluation, collaboration, empowerment, anatomy, infrastructure facilities, talented personnel, work\life balance, diversity and inclusion.

### 3.1.2 Research Design

In this study, the multiple linear regression method was used to determine the specific weights that each of the 12 independent variables of the study have on the dependent variable "*satisfaction at work*".

To measure each element in both types of questionnaires, the Likert scale was used - named after the psychometrician Rensis Likert (1932) and is widely used in the design of evaluative, opinion or attitude questionnaires. This technique was used for the reason that it contains a variety of rating scales from bottom to top, showing us whether the respondent agrees or not and to what degree of agreement. The Likert scale is a simple and intuitive method which is very well suited to the study in measuring the above-mentioned variables. Based on the wording of the questions in the respective questionnaires, it is observed that the Likert technique gives a very clear picture of the answers, ranging from 1) Not at all agree, 2) I do not agree, 3) Somewhat agree, 4) Somewhat agree, 5) Agree and 6) Completely agree.

All data collected for this study were analyzed using the SPSS Statistical Package for the Social Sciences.

### 3.1.3 Data Collection

The sample of this study is a probability sample, consisting of 124 employees of commercial banks. The sample reached a valid response rate of 100% and represents almost 90% of the number of employees in commercial banks operating in Korca region.

Questionnaires were distributed and completed in the following locations:

1. BKT\_Banka Kombetare Tregtare with total number of employees 31, interviewed 30 employees in Korça Branch, Bulevard Republika Branch, Pogradec Branch and Bilisht Branch.
2. RZB\_Raiffeisen Bank with total number of employees 36, interviewed 31 employees in Korça Branch, Korça Agency, Erseke Branch, Pogradec Branch and Bilisht Branch.
3. ABI\_American Bank Investment with total number of employees 5, interviewed 4 employees in the Korça branch.
4. Fibank\_First Investment Bank, 6 employees from 8 were interviewed in the Korça branch.
5. OTP and Alpha Bank\_11 employees out of 18 in total were interviewed, as well as of the Korça and Bilishti branch.
6. ISP\_Intesa San Paolo Bank, 7 employees out of 11 in total were interviewed in the Korça branch.
7. Union Bank interviewed 10 employees out of 13 in total in the area of Korça and Pogradec.
8. Tirana Bank interviewed 16 employees out of 18 in total in the Korça, Bilishti, Pogradec branch.
9. Credins Bank interviewed 7 employees out of 13 employees in total in the Korça, Pogradec branch.
10. Procredit Bank interviewed 2 employees out of 2 employees in total in the Korça branch.

Because OTP Bank has completed the purchase of Alpha Bank, in the study we will consider it as a single bank.

#### IV. FINDINGS

The purpose of this study is to describe and analyze in detail the factors that affect employee satisfaction in the workplace. Employee satisfaction and customer satisfaction are two main pillars with a very significant impact on the design and implementation of success strategies in second tier banks. Factors that affect employee are many, but this study will only focus on factors such as bank emir, its leaders, career opportunity, training, performance management, reward and evaluation, cooperation, anatomy and authorization, facilities of infrastructure, talent and personnel, private life, work involvement. Cronbach's Alpha value shows that the study has high scientific stability because based on the results of the values underlined.

The table below (Table 1) present us with a complete view of the descriptive statistics of the study which help us to understand the trend between the data, how they are related or distributed to each other, what is their relationship with the average, what is the level of the answers according to the rubrics regarding agreement or not. Knowing that the average shown in the tables below shows the level of evaluation of the independent variables in this study, we say that this average is linear for the employee questionnaire. This means that all the independent variables underlined have linear frequency determining the dependent employee satisfaction coefficient from 4 to 5 and the dependent customer satisfaction coefficient from 1 to 2. These average values show us that those interviewers who were dissatisfied were not completely dissatisfied. The evaluation of all independent variables is positive and with an error (standard deviation) of  $< 1$ .

This table shows us that there were responses that evaluated all variables maximally in all questions of the respective sections and variation in responses in minimal evaluations.

		N	Minimumi	Maximumi	Average	STD. Deviation
	The name of the Bank	124	2.43	6.00	4.9608	.70724
	Leadership	124	1.57	6.00	4.8122	.77829
	Career opportunity	124	1.33	6.00	4.5672	.84368
	Training development	124	2.00	6.00	4.7312	.76471
	Performance management	124	2.33	6.00	4.7151	.71844
	Reward and appreciation	124	1.20	6.00	4.5681	.02876
	Cooperation	124	2.25	6.00	4.8548	.75983
	Authorization	124	2.00	6.00	4.6344	.89808
	Infrastructure facilities	124	2.50	6.00	4.7446	.70533
	Talents	124	2.00	6.00	4.6996	.76308
	Work and private life	124	1.13	6.00	4.8720	.75380



	balance					
	Diversity and Inclusion	124	1.50	6.00	4.8468	.82190
	Satisfaction	124	1.67	6.00	4.9140	.77082
	Valid N (listwise)	124				

Table 1, Descriptive statistics of the employee satisfaction questionnaire

The interviewers have rated the name of the bank the most with a mean of 4.9608 and an error of < 1 followed by the variable Private Life Balance, Diversity at Work and Leadership, showing that they agree with all the questions related to these variables as well as underlining the fact that it is very important for them that the banking institution where they work has a good reputation, establishes a balance between work and private life and with an open and honest communication from the senior management. Although career opportunity and reward have a low average with others, this does not mean that they are less important. Most of the interviewees answered that the banking institution where they work should value their contributions and achievements more, being aware that their work performance is closely related to their salary, as well as giving them a better opportunity great career.

To assess whether the independent variables: bank name, leadership, career opportunities, training, performance management, reward, collaboration, empowerment, infrastructure, talents, work life balance, diversity (X1-X12) statistically predict the variable dependent employee job satisfaction (Y) multiple linear regression was used.

The model we built has the form:

$$Y = 0.647 + .286 X1 + 0.283 X2 + 0.279 X3 + 0.022 X4 + 0.061 X5 + 0.335 X6 + 0.296 X7 + 0.132 X8 + 0.257 X9 + 0.098 X10 + 0.302 X11 + 0.029 X12$$

This model turns out to be statistically valid ( $F=11.272$ ,  $p=0<0.05$ ) with 50% explanatory power ( $R^2=0.501$ ).

Remuneration ( $\beta=.335$ ,  $t=3.965$ ), work and private life balance ( $\beta=.302$ ,  $t=3.115$ ), cooperation ( $\beta=.296$ ,  $t=3.101$ ), bank name ( $\beta=.286$ ,  $t=2.484$ ), leadership ( $\beta=.283$ ,  $t=2.328$ ), career opportunities ( $\beta=.279$ ,  $t=2.292$ ), infrastructure ( $\beta=.257$ ,  $t=2.247$ ), empowerment ( $\beta=.132$ ,  $t=2.232$ ), talents ( $\beta=.098$ ,  $t=2.204$ ), performance management ( $\beta=.061$ ,  $t=2.196$ ), diversity ( $\beta=.029$ ,  $t=2.159$ ), training ( $\beta=.022$ ,  $t=2.155$ ) and

all have a positive and statistically significant impact on employee job satisfaction ( $p < 0.05$ ) (because  $H_0$ :  $\beta = 0$  ( $p > 0.05$ ),  $H_1$ :  $\neq 0$  ( $p < 0.05$ ))

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.741 <sup>a</sup>	.549	.501	.54476

*a. Predictors: (Constant), Diversiteti, Shperblimi, Bashkepunimi, Marka, Talentet, Mundesi, Infrastruktura, Trajnimet, Autorizimi, MenaxhimiPerformances, PunaBilanci, Lidershapi*

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.141	12	3.345	11.272	.000 <sup>b</sup>
	Residual	32.941	111	.297		
	<b>Total</b>	<b>73.082</b>	<b>123</b>			

*a. Dependent Variable: Kenaqesia*

*b. Predictors: (Constant), Diversiteti, Shperblimi, Bashkepunimi, Marka, Talentet, Mundesi, Infrastruktura, Trajnimet, Autorizimi, MenaxhimiPerformances, PunaBilanci, Lidershapi*

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
0.647	0.45	2.439	0.016	0.647	0.45	
0.286	0.105	0.253	2.484	0.014	0.286	0.105
0.283	0.112	0.244	2.328	0.022	0.283	0.112
0.279	0.092	0.277	2.292	0.024	0.279	0.092
0.022	0.106	0.021	2.155	0.033	0.022	0.106
0.061	0.115	0.051	2.196	0.030	0.061	0.115
0.335	0.069	0.280	3.965	0.000	0.335	0.069
0.296	0.085	0.272	3.101	0.002	0.296	0.085
0.132	0.085	0.104	2.232	0.027	0.132	0.085
0.257	0.108	0.243	2.247	0.026	0.257	0.108

0.029	0.098	0.097	2.204	0.029	0.098	0.098
	0.115	0.237	3.115	0.002	0.302	0.115
	0.082	0.012	2.159	0.033	0.029	0.082

*a. Dependent Variable: Satisfaction*

## V. CONCLUSION

Rewards, cooperation, the name of the bank and the opportunity for a career have a greater specific weight in the job satisfaction of employees.

This shows that job satisfaction is closely related to financial payments, which are generally in large and well-known banks and where career opportunities are greater.

Employees will feel better in a bank where the level of cooperation is high because they spend a good part of their time in the bank premises, more than 8 hours a day.

The higher the rewards (monthly payments and bonuses or other financial schemes for the benefit of the staff), the happier the employees.

The higher the career opportunity, the higher the level of satisfaction. Motivation and giving opportunities for career growth in the same bank, from a lower level to a higher one, makes the employee more satisfied and does not require the opportunity to change banks or to leave the banking system altogether.

Employee service, digital banking and products and services have a greater weight in customer satisfaction compared to the appearance of the branch, call center..

But this does not mean that the appearance of the branch or call center is not important.

The better the client is served, the better you meet his needs, when the trust in the employee is high, the more comfortable he feels.

Its convenience is related to the online service, where every banking action is now carried out through smart phones and computers at any moment of the day, without appearing at the bank at all.

Another duty of banks is to be as transparent as possible with customers.

All banks have a very strong demand to be transparent, but how many of their employees transmit it to customers?

This means that the bank should pay much attention to the recruitment of employees and continuous training of the staff for banking ethics and to increase their professionalism.

Their professionalism is related to a very good knowledge of banking products and services, the best possible sale of them, and quality customer service.

Motivation and opportunity for a career is an important element: working in a job position, especially cashier, brings a dissatisfaction which translates into less work, and your good service to customers. The only goal in her head in this situation is to leave her job as soon as possible and she is continuing her job search.

Giving the opportunity for career change makes the employee more effective and productive at work, thus increasing customer satisfaction because the service will be of higher quality.

The great challenge of digitization and the transformation of the nature of banks from traditional to modern, is now and continues to be the focus of policy-making and strategies that banks are following and will follow in the future.

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