

PROBLEMS AND PROSPECTS TO SUSTAINABLE DEVELOPMENT IN COVID-19 “NEW NORMAL”: EVIDENCE FROM WESTERN BALKANS’ STOCK MARKETS

Julia Stoyancheva STEFANOVA, PhD*

Abstract

The paper¹ examines empirically the adaptation of frontier stock markets of selected “capture” states in the Western Balkans in COVID-19 “new normal” realities by identifying the challenges and prospects to these countries and their stock exchanges for sustainable development. It focuses specifically to the deteriorating institutional quality of the business environment in the period 2013 - 2020 with lasting medium to long-term negative impacts on economic, social and environmental sustainability dimensions of the business setting. Peripheral stock exchanges of the Western Balkans would need to respond to various sustainability challenges at macroeconomic level (i.e., eco-innovation requirements, human development, democracy score deterioration etc.) as a condition for credible sustainable financial development in the foreseeable future.

Keywords: sustainable financial development, frontier stock markets, Western Balkans, “capture” states, “facade” democracies, sustainable economic growth

JEL Classification: G20; P34; Q56

* Senior Assistant Professor, Economic Research Institute at the Bulgarian Academy of Sciences, Sofia, Bulgaria.

Note: The views expressed in the paper are the sole responsibility of the author and should not be interpreted as reflecting position of Economic Research Institute of the Bulgarian Academy of Sciences.

¹ The present research is part of a joint collective project between Economic Research Institute and the Romanian Academy (<https://www.iki.bas.bg/en/the-world-economy-on-the-edge-of-a-deep-recession-solutions-for-a-long-lasting-recovery>).

1. Introduction

The importance of the topic is associated with the rising challenges in the institutional and macroeconomic setting of the selected “capture” states in the Western Balkans (Bulgaria as a EU member state and the EU applicant countries Serbia and Montenegro) with concomitant negative impacts on sustainability in its various dimensions (economic, social, environmental etc.). In the report, “sustainability” refers to a process of institutional, socio-economic, environmental etc. adjustments of the socio-economic framework as an imperative for economic, human, democratic and financial development in peripheral stock markets (Brinkerhoff and Goldsmith, 2005; Ludwig et al., 1997). The aim of the report is to investigate empirically and in comparative terms the socio-economic, institutional and environmental sustainability of the stock markets in Bulgaria, Serbia and Montenegro as case in point of “capture” states (see Corporate Europe Observatory definition, 2019) with “façade” democracy (Freedomhouse, 2020) and to draw conclusions about existing problems and eventual prospects in view of the ongoing EU integration efforts of the analysed countries.

The process of sustainable adjustment in the outlined dimensions (socio-economic, institutional, eco-efficient) is associated with various challenges and opportunities in the post COVID-19 global realities specifically for frontier stock markets and requires focusing on identified challenges in the business environment and making substantiated juxtapositions among the selected Western Balkan countries in several dimensions:

- a) to focus on various obstacles and challenges in the internal macroeconomic and institutional setting of these “capture” states in the Western Balkans;
- b) to outline specific aspects about stock exchanges in the three analyzed “capture” states (with semi-structured or hybrid democratic regimes) in post COVID-19 pandemic realities;
- c) empirically to test the association between Freedomhouse democracy score, United Nation (UN) human development index, the eco-innovation index and financial development in the the analyzed countries in the Western Balkans and to trace problems and prospects facing frontier stock markets to sustainable financial development in the post COVID-19 “new normal”.

For the realization of the above-stated objectives the paper grounds its analysis on official public sources (i.e. IMF, World Bank, Freedomhouse, EU reports etc.) combining descriptive comparative economic analysis and econometric techniques.

The hypothesis of the paper is that the deterioration of the institutional quality in the business environment in the selected “capture”² state democracies with peripheral stock markets will be an insurmountable challenge in the short-term following the deployment of three-fold crises: sanitary, social and economic ones and invariably impact negatively on the preservation of democratic sustainability and values. For that reason, in mid-term perspective the stock markets of such “facade” democracies would be challenged to provide sustainable financing for the restoration of sustainable economic growth in post COVID-19 “new normal” and would require internal adaptive and transformative macroeconomic and above all institutional changes in social, economic and environmental (i.e. green growth) aspects as a condition for credible financial development in emerging and frontier stock markets. This leads to the actuality of the analysis of the unfolding COVID-19 dynamics in “capture” state democracies in the Western Balkans and provides grounds for formulation of tentative conclusions regarding needed improvements in the institutional and economic setting of peripheral stock markets.

The remainder of the paper is arranged as follows: section “Description of the problem and related work” outlines the treatment of the issue of financial sustainability and the challenges to it specifically

² *Some of the characteristics of “capture state” (The Corporate Europe Observatory, 2019; Think for Europe Network, 2022; Barret, E., 2021; Magyar, B., 2015) include: 1) state is operating mechanisms for furtherance of elite (i.e. captors, oligarchs) interests through systematic corruption and embezzlement at a disadvantage of legitimate civil society interests, undermining democratic foundations of constitutional order of checks and balances and the social contract (i.e. “patronal democracies” or “clan”/ rent-seeking/ kleptocratic/ predatory/ mafia states); 2) development of a specific symbiosis of shared ideology between public and private interest groups or relationship of co-dependence (including links of institutional nomads with organized crime) using favorable media coverage to accumulate unchecked powers; 3) incorporation of corporate interests into public policy agendas and their realization through economic governance tools (i.e. fiscal policy or “budgeted corruption”) and providing material benefits to particular industrial sectors through loopholes in the legislative acts remaining immune of law enforcement and undermining the independence of the judiciary.*

in selected “capture” states of the Western Balkans; followed by a section focusing on analysis of the specific problems facing the economies of the analyzed countries in post-COVID-19 new realities and their stock markets. In the Methodological part and Results section, the paper presents the empirical outcomes at macro and meso-economic level, followed by concluding remarks of the research. Among the limitations of present research are: 1) it does not treat specifically the “green” aspects of sustainable development. 2) research for analyzed Western Balkan “capture” states on attainment of certain sustainable development goals (SDGs) cannot be generalized for all “capture” states with developing status and peripheral stock markets. 3) the paper does not address important alternative forms of sustainable development finance institutional interventions (as SDG bonds etc.).

2. Description of the researched problem and related work

Frontier stock markets in the Western Balkans which are object of analysis in the present paper include the stock market of Bulgaria as a member state of the European Union over 15 years’ full membership, and the stock markets of Serbia and Montenegro as countries aspiring for EU membership in the process of their adaptation and adjustment to the requirements of the future membership status. The process of sustainable financial development is associated with various challenges and opportunities in the post COVID-19 global realities specifically for frontier stock markets in the Western Balkans and requires focusing on the current specific financial situation of these markets in “capture” states with “facade” democratic regimes. Various studies (Faheem et. al, 2020) find evidence that Central and Eastern Europe stock markets depart from the Efficient market hypothesis (EMH) and the reason for this deviation is associated with the limited financial development in the region and inefficiencies with possibility to predict market movements implying increased market risks. The institutional approach to the topic requires factoring in of the institutional aspects of the business environment such as protection of property rights, transparency and effective resolution of problems with asymmetric information, tax issues, accounting standards etc.

At the global level stock exchanges are expected to be leading in introduction of comprehensive methodology for assessment of sustainable development goals (UN 2030 Agenda for Sustainable

Development, 2015) due to their long-term and above-board impacts on socio-economic, financial and environmental systems which deserve to be researched in-depth in the aftermath of the COVID-19 (Ranjbari, M et al., 2021). Research by Alibegovic et al. (2020) has identified that among consequences of COVID-19 are the unfavorable impacts on SDGs related to poverty (World Bank estimations for expected additional 70 million people pushed to poverty status, 2022), quality of education, decent work and economic growth. The sustainability methodology includes standards of sustainable accountability, inclusive and transformative change (Siegel and Bastos, 2020) in the process of corporate social governance. The environmental sustainability dimension includes, among other aspects: introduction of reporting requirements, energy standards, carbon mitigation schemes, national development financing roadmaps with integrated SDG outcomes (i.e., Sustainable Development Investment Country Financing Roadmap Initiative, UN, 2019) etc. to achieve triple bottom line (i.e., 3P “people, planet, prosperity”). The UN in collaboration with Bertelsmann Stiftung and Cambridge University Press have introduced SDG index since 2015 (<https://dashboards.sdgindex.org/rankings>), ranking 163 countries in the world toward the 17 SDGs. In 2022 according to the Sustainable Development Report (Sachs et al., 2022) the SDG rankings of the analyzed Western Balkan countries are as follows: Serbia occupies 35th position (75.89 score), followed by Bulgaria at 42nd position (74.29 score) and Montenegro at 86th position (68.81 score).

Theoretically, among the benefits from enhanced sustainability reporting of stock exchanges are: 1) boosted stakeholder trust and visibility among the investment community; 2) value creation effect and cultivation of sustainable business models (Parrish, 2010); 3) high transparency standards in line with UN Sustainable Stock Exchanges Initiative and World Federation of Exchanges Sustainability Initiative; 4) driving up the process of technological and digital innovations through increased compliance capabilities (see Aviva Roadmap for Sustainable Capital markets, 2015).(see Aviva Roadmap for Sustainable Capital markets, 2015). On the other hand, challenges to sustainability facing stock markets and their stakeholders include, among others: 1) increased costs for compliance with heightened standards for dissemination of information in the 3 dimensions (i.e. economic, social, environmental) and likely impacts; 2) extending the base of indices traded on stock exchanges with inclusion of

environmental and climate related indices and introduction of sustainability financing segments at stock markets as alternative forms of financing; 3) developing active institutional adaptation to triple bottom line requirements at micro, meso and macroeconomic levels.

At a regional level, the post COVID -19 pandemic situation would definitely require comprehensive adaptation of Western Balkans stock markets to overcome the significant negative effects in the social, economic and political frameworks (i.e. SGDs) through rapid digitalization of economic activities, finding effective resolution to rising income polarization through ever increasing role of governments and the need for lifting the quality of public institutions that guarantee inclusive and sustainable social contract. These concomitant changes in the social, political, economic, and financial spheres will pose challenges especially for developing countries like those in the Western Balkans with underdeveloped peripheral stock markets to tackle urgent public health and social needs with limited fiscal space, inadequate transparency, weaknesses in application of practices for effective crisis management, resolution, and resilience build-up.

The adopted Economic and Investment Plan for the Western Balkans (European Commission, 2020) (together with the Just Transition Mechanism and Fund) aims to support the twin transition of the region to green and digital sustainability objectives relating to climate neutrality and circular economy with indicators on sustainability development goals (SGDs) in the EU Resource Efficiency Scoreboard. The adaptation process requires significant institutional and investment efforts to overcome dependence on coal-based power production patterns (over 70 % of total electricity produced in the region). The industrial ecosystem in the region is characterized with extremely low resource productivity, very low recycling rate of waste, modest innovation and digitalization patterns and pose significant challenges in smart specialization strategies to decoupling economic growth from intense resource utilization under conditions of “capture” state, low level of political commitment, lack of financial resources and the general uncertainty of the business environment.

Due to the underdeveloped financial markets in the region and the low possibilities for attracting private investments in post-COVID 19 environment, the EU envisages significant public interventions for the realization of the green and digital agendas for the Western Balkans in the Instrument for Pre-Accession III (up to EUR 9 billion for the period 2021-2027), through the participation of the EIB (i.e. Structural Reform

Support Facility etc.) and various EU level financial instruments (as Green for Growth Fund, Regional Energy Efficiency Program, External Investment Program, Guarantee Facility etc.) toward the creation of Common Regional market in Western Balkans. The importance of institutional intervention measures for resumption of economic restoration (specifically for developing countries) along the path to SDGs has been empirically proven by Yoshino et al. (2020), Ike et al. (2019) etc.

COVID-19 has also impacted negatively the fragile democratization process in the Western Balkans leading to entrenched autocratic interests of the elites and their clientelist networks. A research by Clingendael Institute and Think Network Europe (Zweers et al., 2022) on Western Balkans has focused on the degrading quality of democratic reforms in the region and the formation of “stabilocracies” due to a combination of domestic shortfall of political will and flaws in EU strategies, policies and their implementation (i.e. soft policy and overly technical approach, disregard of civil society voice, democratic decline in EU institutions etc.). Restoring democratic principles and upgrading from status of “state capture” or “stabilocracy” requires adoption of national rules and development of cultural norms guaranteeing full lobbying transparency, parliamentary checks and balances through ex-ante and ex-post accountability mechanisms. This process calls for development of a new model of participatory civil society activism in pre and post legislative implementation at the national level by using the mechanisms of public consultations and impact assessment (European Commission, 2020).

2.1. Specific challenges to selected Western Balkan “capture” states in post COVID-19 new realities

COVID-19 pandemic (a specific “black swan” event in itself, He P. et al, 2020; He Q. et al., 2020) has disruptive effects on “captured” states in the Western Balkans due to rising public debts, deteriorating quality of financial assets, rising investment risks and would require heavy public interventions (at national and EU level) to restore economic growth toward attainment of SDGs in UN 2030 Agenda in the short to mid-term perspective due to the following challenges: 1) Income inequality (relating to SDG 10 Reduced inequalities); 2) Efficiency in public policy measures to mitigate income inequality (relating to SDG 1, SDG 10 and SDG 16); 3) Freedom of expression and media independence (relating to SDG 16 Peace, justice and strong

institutions); 4) Corruption and strength of legal rights (relating to SDG 16 Peace, Justice and strong institutions); 5) Human development prospects (relating to SDG 8 Decent work and economic growth); 6) Specific aspects of stock markets in the Western Balkans.

1) Income inequality (relating to SDG 10 Reduced inequalities)

Table 1
Aspects of income inequality in selected Western Balkan countries

Specific aspect	Bulgaria	Serbia	Montenegro
Income inequality	The income share of the richest 20% (S80/S20) of the population was almost eight times that of the poorest 20%, which is the highest in the EU (2018, EU average 5.17) (European Commission, Country Report 2020)	8,9 % of people at risk of poverty and social exclusion; 7 % living in absolute poverty (BIT, 2020) (S80/S20 income quartile ratio for 2019 at 6,46)	Poverty rate at 20,4 % and people at risk of poverty 24,5 % (World Bank database, 2019)

Source: according to sources cited in the Table

Obvious from the indicators of income inequality in Table 1, the analyzed countries in the Western Balkans face significant challenges relating to structural vulnerabilities of their economies representing an obstacle to their economic convergence and sustainable financial development. Important measures to overcoming the existing economic, social, ecological and digital divides of Western Balkan countries include boosting their competitiveness and labor productivity despite unfavorable business environment and heightened uncertainties in local, regional and global context. Specifically, Bulgaria as a member of the EU continues to show worst performance on Social Development Goal (SDG) “No poverty” (33.6% of the population is at risk of poverty or social exclusion, EU average 21,6 % for 2020), “and deteriorating results on SDG “Reduced inequalities” (22.1 % socially or materially deprived and 9,6 % in-work at risk-of-poverty, 2020). The expectations are through Economic Transformation Program the country to support the “twin” green and digital transition, enhance

research and innovation, stimulate upskilling/reskilling and activate businesses to higher value-added economy trajectory.

2) Efficiency in public policy measures to mitigate income inequality (relating to SDG 1, SDG 10, and SDG 16)

Table 2

Fiscal policy impacts on income distribution

Specific aspect	Bulgaria, Serbia, Montenegro
Fiscal policies impact on income inequality	The capacity of the tax and benefit system to reduce income inequalities is particularly weak in the Western Balkans. For Bulgaria, in particular, measured by the S80/S20 ratio (see Table 1), taxes reduce income inequality by only 4% (13% for the EU) and benefits by 28% (35% in the EU) (European Commission, Country Report 2020)

Source: according to sources cited in the Table

Following the post COVID-19 situation the inadequate fiscal policy measures are associated with inherent weaknesses in the social safety nets, strong regional disparities (economic activities highly concentrated in the capital area, less competition due to concentration of wealth and assets within elites), high labor shortages (due to brain-drain and worsening demographics indicators or the so called “social resource curse”) and many institutional shortcomings in the analyzed Western Balkan countries (i.e. misallocation of resources toward sectors which captor elites can control leading to unequal distribution of economic wellbeing). The sustainability and inclusive policy agenda would require implementation of progressive taxation, raising public debt levels, and undertaking above-board social transformations in a digitalized postindustrial era. Prudential monetary policy guarantees confidence in the stability of the economy. Low and predictable inflation rates are likely to contribute to the development of the stock market.

Attracting foreign portfolio investment requires a rational exchange rate management policy. Low and predictable inflation rates are likely to contribute to stock market developments, according to Yartney & Adjasi (2007). The stability of short-term interest rates increases investor confidence, leads to adequate monetary policy and reduces market volatility. Also important is the conduct of adequate fiscal policy due to the fact that investors are interested in the real post-tax rate of return on investment, and in many countries equity investments are subject to double or triple taxation. In the aftermath of COVID-19 crisis the business environment in the analyzed countries deteriorated and access to alternative forms of finance worsened

(limited equity finance and venture capital investments below 0.5 % of GDP). Other obstacles to investors in Western Balkans include volatile business setting with negative fiscal multipliers and returns on investments (i.e., “white elephant” investments, IMF, 2018), non-transparent regulations and high political risks (European Parliament, 2022).

Table 3
General government debt sustainability

Fiscal stability (averaged 2013- 2020)	Bulgaria	Serbia	Montenegro
	22.82% (IMF)	63.68% (IMF)	79.06 % (IMF)

Source: according to sources cited in the Table

Expectations are for further rise in general government debt levels following post COVID-19 uncertainties and the need for adaptation of the economies to the process of economic, social, environmental, and digital sustainability and convergence to twin green and digital transformations. For Bulgaria, government debt has been projected to further push up from 25.3 % (2022) to around 37 % of GDP by 2032 due to rising budget deficits and the high uncertainties of the business environment.

**3) Freedom of expression and media independence
(relating to SDG 16 Peace, justice, and strong institutions)**

Table 4
Freedom of expression aspect

Specific aspect	Bulgaria	Serbia	Montenegro
Freedom of expression (Reporters without borders)	112 ranking (2021 World press freedom index)	93 ranking (2021 World press freedom index)	104 ranking (2021 World press freedom index)

Source: according to sources cited in the Table

The media environment in post COVID-19 situation is highly politicized and does not reflect adherence to principles of objectivity, transparency, pluralism, and independence. According to European Commission (2020) trust in public institutions has reached bottom low levels due to the extremely restrictive COVID-19 measures to civil and fundamental democratic rights and freedoms (as the freedom of expression, media freedom, freedom of assembly etc.), duly enshrined

in The Charter of Fundamental Rights, the European Charter of Human Rights and respective national Constitutions.

4) Corruption and strength of legal rights (relating to SDG 16 Peace, Justice and strong institutions)

In the aftermath of COVID-19 the political environment in the analyzed “capture” states in the Western Balkans is characterized with rising institutional instabilities, high-level corruption, growth of ethnonationalist polarizations with negative impact on economic and financial development amidst rising public debts, fiscal deficits and deepening social inequalities.

Table 5
Corruption perception and political environment aspects

Specific aspect	Bulgaria	Serbia	Montenegro
Corruption (Transparency International, 2021) (average score for 2013-2020)	48 ¹⁾	46	44
Strength of legal rights index (0 weak to 12 strong)	8 (for 2013-2019, World bank database)	6 (for 2013-2019, World bank database)	12 (for 2013-2019, World bank database)
Political environment (averaged score, Freedomhouse)	60.69 (semi-consolidated democracy for the whole period 2015-2020) ²⁾	69.2 (free 2017-2018, partly free 2019-2020)	65.2 (partly free for the period 2017-2020)

Notes: 1) Bulgaria ranks at the bottom among EU countries; 2) A Resolution on the Rule of Law and Fundamental Rights in Bulgaria (European Parliament 2020) calls for a “...full and unconditional respect” for the values enshrined in EU founding documents.

Source: according to sources cited in the Table

The newly introduced mechanism for annual monitoring of the state of democracy, the rule of law and preservation of fundamental rights at the EU level is expected to be a guarantee for the preservation of the founding values of EU.

5) Human development prospects (relating to SDG 8 Decent work and economic growth)

Western Balkan countries are confronted with problems as deteriorating human development prospects (see Table 6) due to rising income inequalities, unemployment levels, demographic crisis in the

aftermath of COVID-19 in a worsening institutional environment (see Tables 4 and 5 above).

Table 6

Human development aspect			
Specific aspect	Bulgaria	Serbia	Montenegro
Human development index (UN Development Program) 2020	56 rank (of 140 countries)	64 rank	48 rank
GNI per capita PPP (2019) in the respective country (current international \$, World Bank database)	\$ 24,900	\$ 18,440	\$ 24,120
GDP growth rate in the country (average for 2013 - 2020)	-4,2 % (European Commission, 2020) 3.69 % (average, World Bank database)	-1 % (BIT, 2020) 4,25% (average, World Bank database)	-15,2 % (BIT, 2020) 3,64 % (average, World Bank database)

Source: according to sources cited in the Table

6) Specific aspects of stock markets in the Western Balkans

The process of economic, social, environmental, digital etc. sustainability is associated with many challenges and opportunities and requires an in-depth analysis of various indicators on frontier stock markets in the aftermath of the global COVID-19 situations. Specifically, the pandemic has negatively impacted on investors' confidence level and significantly increased market volatility (Liu et al., 2020), dampening stock returns (Singh et.al, 2020).

In particular, these negative consequences require stock markets' application of the advanced 5P approach (i.e. profit-people-planet-peace-prosperity) to restoring sustainability (i.e. "build back better", Jabeen, Sh., 2022) as per UN Development Program (2015) and alignment with UN 2030 Agenda for Sustainable Development. The 5P sustainability approach requires the following adjustments to frontier stock markets in the Western Balkans:

- introducing SDG (i.e. economic, social and governance, ESG) detailed dissemination of information and good practices in line with UN Sustainable Stock Exchanges and World Federation of Exchanges Sustainability Initiatives;

- requiring high level of transparency and better quantification of risks relating to attainment of SDGs (i.e. ESG) goals of investment portfolios;
- driving forward the fast transition to twin green and digital transformation through technological innovation and sustainability development;
- seeking active involvement of all stakeholders in the implementation of the 5P sustainability matrix in meeting UN 2030 Agenda for Sustainable Development.
- development of alternative financing instruments for the realization of SDGs at global, regional and national levels (i.e. environmental “green”, “blue” etc. bonds, SDG-linked bonds) to help companies transition and make measurable progress toward some of the 17 SDGs.

Table 7
Specific aspects of frontier stock markets in the Western Balkans in the pre- and post-COVID-19 realities

Specific indicator	Stock market		
	Bulgaria	Serbia	Montenegro
Asset returns MSCI (average for the period 2013-2019) ¹⁾	10.59 % (max. 97.82 % in 2013; min. - 35.32 % in 2015)	2 % (max. 30.44 % in 2017; min. - 27.78 % in 2015)	Note: not included in the calculation of MSCI
Private equity flows as % of GDP (averaged for the period 2013-2019)	-3.08% (World bank database)	-0.07 % (World bank database)	1.2 % (World bank database)
Stock market capitalization as % of GDP (averaged for the period 2013 -2019)	16.94 % (World bank database)	11.89% (World bank database)	75.13% (World bank database)
Stock index volatility (averaged for the period 2013-2017)	12.89% (Fred Economic Database)	10.95 % (Fred Economic Database)	N/A
Liquidity (latest data)	1.065 % (2019, World bank database)	0.00 % (2021, MSCI)	N/A

Note:1) Annualized returns MSCI frontier markets for the same period stood at average 7.77 % (max. 31.86% in 2017; min. -14.46 % in 2015)

Source: author compilations according to sources cited in the table

The multifold adaptations to 5P approach to sustainability is a particularly topical issue for underdeveloped peripheral stock markets which are traditionally characterized by:

1) structural weaknesses as illiquid and not adequately transparent market activities with high transaction costs. The liquidity of the financial markets and their development is determined by the presence of a diversified base of institutional investors such as mutual funds, pension and insurance companies. They prove to be a stable source of demand for equity and debt financial instruments, thus promoting competitiveness in primary markets and helping to build a stable regulatory and supervisory framework. An important challenge for the pension and insurance market in Bulgaria remains the implementation of the country's commitments arising from EU membership and compliance with established international practices (Nedelchev, 2017). A very important tool in corporate governance is also the observance of the standards for equal treatment of shareholders (Chipev, 2015);

2) low stock market capitalization relative to GDP and significant volatility of the stock market index. A study of Katarzyna Cz. et al., (2020) established that in the aftermath of COVID-19 the stock indexes on Vishegrad emerging stock markets declined in the range of 12 % (Slovakia) to 47 % (Hungary) pointing toward negative unexpected returns due to future volatility;

3) many of the countries in the Western Balkan have been characterized as semi-structured and/or hybrid democratic regimes or “facade” democracies which poses additional challenges to restoration of sustainable economic growth in post COVID-19 “new normal” and delay the prospects for upgrade of their stock markets to emerging market status and their accession efforts to EU in the foreseeable future (see Tables above).

In emerging stock markets, the link between the stock market and its performance, economic growth and the institutional environment is particularly strong (Levine & Zervos, 1998). A modified Calderon-Rossell (1991) model, which includes macroeconomic and institutional factors, highlights the following statistically significant institutional variables for emerging stock markets: law and order (+); good quality bureaucracy (+); effective democratic governance (+) and level of corruption (-). All these components determine the economic effect of political risk and institutional sustainability on the development of the stock market. This contributes to an increase in the level of

savings and their distribution to productive investments. Thus, according to research by McCinnon (2010), financial development preconditioned on good institutional quality leads to the stimulation of economic growth.

The stock exchanges are expected to take a leading position in implementing sound standards and good corporate practices in economic, social and governance sustainability (i.e. SDG and ESG) aspects which are inseparable part of UN 2030 Agenda for Sustainable Development. Progress toward the UN 2030 Agenda is assessed on the basis of a set of social development indicators central to which are real GDP per capita, eco-innovation, R&D expenditure and employment etc. Specifically for Bulgaria, the Recovery and Resilience Plan 2021-2027 with total of EUR 6,3 billion in grants envisages investments and structural policy reforms to provide estimated macroeconomic impact with forecasted rise in GDP by 1.9 % (short-term) to 3 % by 2026. Besides, the Just Transition Fund instruments (EUR 1,298 million) and Common Agricultural Policy funds of EUR 5,7 billion are expected to support the green transition, social, environmental and economic sustainability policy objectives. UNCTAD (2020) has estimated that at global level progress toward SDGs would require investments in the range of \$ 5 - \$ 7 trillion yearly till 2030.

The COVID-19 consequences to peripheral stock markets point to medium term overregulation with concomitant rising costs to market participants and policymakers (Katarzyna Cz. et al., 2020). These costs encompass not only mandatory compliance with the new regulatory framework but also the price for rising volatility generated by the heightened degree of uncertainties in the global environment accelerating trends toward deglobalization/ slow globalization/ localization of economic activities. As COVID-19 pandemic affected both demand conditions and supply value chains, Western Balkan countries with open economies experienced fall of exports, limited production, and consumption, squeeze of employment (short term impacts), rising budget deficit, public debt levels and generally public finance destabilization in the medium to long-term with negative impact on economic, financial, social, environmental sustainability.

3. Methodological aspects

At the macroeconomic level the report focuses on the challenges to sustainable financial development of selected Western

Balkan countries and their economies as the most CO₂ intensive by applying empirical testing of the association between ecological sustainability index (WIPO, 2020) and real GDP per capita at PPP for the period 2013-2020. The ecological sustainability index is an integral part of sub-pillar 3.3 of the Global innovation index (Cornell, INSEAD, WIPO, 2020) and it consists of three indicators: a) GDP per energy use (measuring the efficiency in energy utilization); b) the Environment performance index of Yale and Colombia Universities; c) number of issued certificates conforming to ISO 140001 on environmental management systems. Besides, the report tests the association between Freedomhouse democracy score of the respective three Western Balkan countries and their Human development index for the period 2013-2020. The human development index is calculated by the UN as a summary measure for assessing long-term progress to sustainable human development beyond GDP. It includes population's average longevity, education, income, poverty, inequality and gender gap levels.

Regarding the meso-economic level, the analysis focuses on the practical adaptation of the Western Balkan stock markets to sustainability dimensions (i.e., ESG standards) by empirically investigating the association between Freedomhouse democracy score, UN Human development index, the eco-sustainability index and stock market capitalization ratios on Bulgarian, Serbian and Montenegrin stock exchanges for the period 2013 - 2020.

The hypothesis that the paper aims to test empirically are as follows:

H₁: Sustainability performance (measured by Freedomhouse democracy score, UN human development index and Ecological sustainability index) is positively associated with stock market development (measured by respective stock markets capitalization rates) for the period 2013-2020.

The factor variables tested in this study consisted of:

- 1) Ecological sustainability index (sub-pillar 3.3 of Global Innovation Index) as a synthetic measure of environmental sustainability of the respective economy;
- 2) UN Human development index (UN database Human development reports) as a summary measure of long-term sustainable human development beyond GDP measure;

3) Total democracy score (Freedomhouse database) as a measure of political freedoms and civil liberties in the analyzed countries.

Data for the respective variables used in the empirical test for the period 2013-2020 were taken from the following sources: 1) for Ecological sustainability index (sub-pillar 3.3 of Global innovation index) from Global Innovation Index Database, Cornell, INSEAD & WIPO. 2) For Human development index from UN database Human Development Reports. 3) for GDP growth rate from IMF country reports. 4) for democracy scores from Freedomhouse database. 5) for stock exchange capitalization rates from the Internet sites of the respective stock exchanges.

4. Results

The results of applied empirical analysis by using heteroscedasticity model of ordinary least squares regression, for the period 2013-2020 using the following equation indicates:

$$Y = \beta X_1 + X_2 + X_3 + \varepsilon \quad (1)$$

Where: Y = financial development measured by stock market capitalization rate; X_1 = eco-sustainability index; X_2 = human development index; X_3 = total democracy score; ε = error term.

Table 8
Correlation matrix between tested variables for Bulgaria

	Eco-sustainability Index	Annual GDP growth rate	Market Capitalization as % of GDP	Human development index	Freedomhouse democracy total score
Eco-sustainability index	1,000	0,5812	-0,4606	-0,1652	-0,4100
Annual GDP growth rate		1,000	-0,2859	0,0575	-0,1861
Market capitalization as % of GDP			1,000	0,6970	0,9883
Human development index				1,000	0,7770
Freedomhouse democracy total score					1,000

Source: own calculations of the author

Following from Table 8 above, the eco-sustainability index of Bulgaria is moderately and positively correlated with annual GDP growth rate, proving stylized fact (Hall and Lerner, 2009 etc.) that good environmental performance relates to long-term economic growth. This established fact is firmly grounded in endogenous growth models (Romer, 1986) and is explained with increased total factor productivity levels in the course of technological spillovers of the production processes. According to European Commission Country Report (2022) Bulgaria is showing improved performance on most UN Agenda 2030 Social Development Goals relating to environmental sustainability (i.e. SDGs 2,6,7, 9, 11) yet the country has not yet adopted strategic long-term agenda toward decarbonization and climate neutral economic development.

The market capitalization rate shows moderate correlation (0,6970) with Human development index and strong (0,9883) correlation with Freedomhouse democracy total score proving the importance of institutional and social development for stock market performance in achieving synergistic impact on sustainability performance in its triple dimensions (i.e., socio-economic, institutional and eco-efficient).

Table 9

Simple linear regression model with heteroscedasticity correction. Dependent variable: market capitalization rate for the period 2013-2020 Bulgaria

	Coefficient	Standard error	t-value	p-value	Sig. level
const	-319,516	101,685	-3,142	0,0348	**
Eco sustainability index BG	-0,313817	0,191563	-1,638	0,1767	
Annual GDP growth rate BG	-0,182659	0,201284	-0,9075	0,4155	
Human development index BG	437,440	116,026	3,770	0,0196	**
Freedom house democracy score	9,92000	0,669674	14,81	5,92e-06	***
Sum of squares of residuals	4,742310	Standard error of regression		1,088842	
Simple coefficient of determination	0,978971	Adjusted R-squared		0,963200	
F(3, 4)	62,07206	P-value(F)		0,000823	
Log-likelihood	-9,259839	Akaike criterion		26,51968	
Swarz criterion	26,83745	Hannan-Quinn		24,37647	
rho	0,199788	Durbin-Watson		1,591174	

Source: calculations of the author

The results of the empirical analysis (Table 9 above) show existence of the following statistically significant associations:

- market capitalization rate on the frontier stock exchange of Bulgaria and Human development index (+) (p-value of 0,0196), indicating 1 unit increase in the score of the index is related with a rise in the market capitalization by 437,440 units. This is indicative of the increasing importance of long-term sustainable human development (beyond GDP) and its components (i.e. population's average longevity, education, income etc.) in stimulating financial development and financial sustainability in developing countries in particular. Yet Bulgaria scores low on Digital economy and society index in EU (DESI) human capital dimension (only 1/3 of the population has basic digital skills, lowest level in EU) and the strategic agenda of the country 2021 -2027 envisages measures to increase digital skills of the population, digitalization of public administration services etc.
- stock market capitalization rate and the Freedomhouse democracy total score (+), indicating that 1 p.p. increase in the score is associated with a boost in market capitalization rate by 9,92 p.p.

A result particular for a “capture” status developing country as Bulgaria is the negative albeit statistically insignificant association between stock market capitalization rate and the eco-sustainability index. This can be explained with the following:

- Bulgaria continues to maintain last place in 2020 EU eco-innovation scoreboard (most energy and emissions intensive country in EU with 31 % of power generation dependent on coal, 2020) and its transition to low carbon economy is still distant as compared to leading eco-innovating countries in the EU. The adopted Recovery and Resilience Plan in 2022 envisage approximately 60 % of measures toward attainment of set climate objectives by reductions in greenhouse emissions by 40 % of coal power production and threefold increase in use of renewables and alternative energy sources (share of 23.3 % in 2020 while EU average share for 2020 is 22.09 %);
- The eco-innovation environment is extremely sensitive to presence of established legal framework for protection of intellectual property rights, the range of various tax-based incentives for eco-innovations, competition policies, market structure regulations, depth of financial markets and access to alternative forms of

financing (i.e., venture capital), efficiency of trade and investment etc. The transition of Bulgaria to low carbon economic growth would require significant improvements in the institutional setting, establishment of efficient public policies in environmental protection (government expenditure on environmental protection stood only at 1,75 % of total expenditure by 2020), control of corruption and protection of property rights.

In another study by the author (Stefanova, 2020) it has been established that statistically significant institutional variables for financial development and institutional sustainability in Bulgaria include: 1) democratic accountability assessment (+); 2) political stability and market capitalization (+); 2) corruption and market capitalization (-); 3) low regulatory quality and market capitalization (-). A step toward improving the institutional framework in Bulgaria in the Recovery and Resiliency Plan relates to implementing digitalization and e-government in public administration and the judiciary in particular, increasing public policy transparency in allocation of resources.

Table 10
Correlation matrix between tested variables for Serbia

	Eco-sustainability Index	Annual GDP growth rate	Market Capitalization as % of GDP	Human development index	Freedomhouse democracy total score
Eco-sustainability index	1,000	0,1182	0,4973	-0,361	0,3352
Annual GDP growth rate		1,000	-0,1244	0,0971	0,3181
Market capitalization as % of GDP			1,000	-0,9512	-0,4061
Human development index				1,000	0,468
Freedomhouse democracy total score					1,000

Source: calculations of the author

Table 10 above indicates existence of moderate positive correlation between:

- eco-sustainability index and market capitalization as % of GDP, which is indicative of the increasing importance of environmental performance requirements in reporting the eco-innovation activities of companies in developing countries with peripheral stock markets (as that of Serbia). Eco-efficiency awareness of listed firms would drive up firm value in the long run based on natural resource and instrumental stakeholder theories;

- Human development index and Freedomhouse democracy total score for Serbia for the analyzed period 2013-2020 pointing toward the importance of political freedom and civil society liberties in realization of long-term sustainable human development (beyond GDP) in Serbia.

Table 11
Results of Heteroscedasticity correction model for Serbia, 2013-2020. Dependent variable: Market capitalization

	Coefficient	Standard error	t-value	p-value	
const	221,547	18,5962	11,91	0,0003	***
Eco sustainability index Serbia	0,0970959	0,0399246	2,432	0,0718	*
Annual GDP growth rate Serbia	-0,147035	0,100107	-1,469	0,2158	
Human development index Serbia	-267,694	22,6510	-11,82	0,0003	***
Freedomhouse democracy score	-5,25892	1,58302	-3,322	0,0293	**
Sum of squares of residuals	5,761429	Standard error of regression		1,200149	
Simple coefficient of determination	0,979383	Adjusted R-squared		0,963919	
F(3, 4)	63,33675	P-value(F)		0,000792	
Log-likelihood	-10,03848	Akaike		28,07697	
Scwarz criterion	28,39473	Hannan-Quinn		25,93376	
rho	-0,148214	Durbin-Watson		2,226276	

Source: calculations of the author

The results of the empirical analysis (Table 11 above) show existence of **statistically significant relationships** between:

1) eco-sustainability index of Serbia and the market capitalization rate (+) - thus a 1 unit increase in the score of the index is associated with a rise in the market capitalization rate by 0,10 units. This result is a proof of the importance of eco-innovative practices of listed companies for driving up sustainable financial development in Serbia, speeding up the transition of the country to eco-efficient

technologies in conformity with social, economic and environmental accounting and corporate social responsibility practices;

2) human development index and the market capitalization rate (-) - thus a 1 unit deterioration in the index is related with a decrease in the market capitalization by 267,694 units. This result is indicative of the need for adaptive and transformative institutional changes in Serbia for overcoming the social development weaknesses (social income gaps, demographic negative trend, aftermath of Covid-19 on the wellbeing of the population, need for digital upskilling of workers etc.) and for boosting financial sustainability dimension;

3) Freedomhouse total democracy score and market capitalization rate (-) - in this case a 1-unit deterioration in the index relates to fall in the market capitalization by 5,25892 units. This result also points toward the need for institutional improvements in “capture” state business environment for safeguarding the rule of law, democratic values, fundamental rights and freedoms for attracting investments and driving up sustainable financial development.

The model is valid (p-value (F) 0,000792 and leads to the acceptance of formulated hypothesis proving positive association between ecological sustainability performance in Serbia and financial development (measured by market capitalization rate as % of GDP) for the analyzed period 2013-2020. The empirical results for Serbia also prove the thesis that the deterioration in the institutional sustainability of the business environment in Serbia for the analyzed period under “capture” state situation is a limit to financial development and socio-economic progress in the short to medium-term period. In terms of social sustainability, the Human Development Index for 2019 Serbia ranked lower than all other European countries (except for Albania, Bosnia and Herzegovina, Northern Macedonia and Moldova) (BIT, 2020) and with GDP per capita of \$ 18,440 (or 43 % of EU average) Serbia ranks as one of the poorest countries in Europe (followed by Albania and Bosnia and Herzegovina). Regarding economic sustainability, since the onset of COVID-19, the Serbian economy contracted by about 1,5 %, current account deficit reached 4,3 % of GDP, FDI fell to 6,2 % of GDP in 2020 and the business environment has been characterized by red tape, large informal sector (almost 50 %, BIT, 2020), high corruption. In view of environmental sustainability, the country heavily relies on traditional coal industry and needs to implement more rigorously environmental policy and legislative tools in the field.

Table 12 shows strong negative correlation between eco-sustainability index and the market capitalization rate (-0,7354); weak positive correlation between annual GDP growth rate and Freedomhouse democracy score and weak positive correlation between eco-sustainability index and Freedomhouse democracy score for the analyzed period 2013-2020 in Montenegro.

Table 12
Correlation matrix between tested variables for Montenegro

	Eco-sustainability Index	Annual GDP growth rate	Market Capitalization as % of GDP	Human development index	Freedomhouse democracy total score
Eco-sustainability index	1,000	0,2898	-0,7354	0,2981	0,3666
Annual GDP growth rate		1,000	-0,3882	-0,3398	0,3564
Market capitalization as % of GDP			1,000	-0,6445	-0,3792
Human development index				1,000	0,1115
Freedomhouse democracy total score					1,000

Source: calculations of the author

The results of the empirical analysis for Montenegro (see Table 13) show existence of the following statistically significant relationships regarding Montenegro:

1) eco-sustainability index and market capitalization (-) - the deterioration in the index by 1 unit relates to a fall in market capitalization of Montenegro by 0,671598 units;

2) GDP growth rate and market capitalization rate(-) - the fall of economic growth by 1 unit is associated with a fall in market capitalization by 0,69 units;

3) human development index and the market capitalization rate (-) - the deterioration in the index by 1 unit is related to a fall in market capitalization by 33,4515 units.

Table 13
Results of Heteroscedasticity correction model for Montenegro (MNG), 2013-2020. Dependent variable: Market capitalization

	Coefficient	Standard error	t-value	p-value	
const	747,838	123,171	6,072	0,0037	***
Eco sustainability index MNG	-0,671598	0,149661	-4,487	0,0109	**
Annual GDP growth rate MNG	-0,695741	0,149114	-4,666	0,0095	***
Human development index MNG	-786,567	154,361	-5,096	0,0070	***
Freedomhouse democracy score	-33,4515	17,5127	-1,910	0,1521	
Sum of squares of residuals	5,480750	Standard error of regression		1,170550	
Simple coefficient of determination	0,992147	Adjusted R-squared		0,986257	
F(3, 4)	168,4466	P-value(F)		0,000115	
Log-likelihood	-9,838710	Akaike		27,67742	
Scwarz criterion	27,99519	Hannan-Quinn		25,53421	
rho	-0,178073	Durbin-Watson		2,200786	

Source: calculations of the author

The model is valid (with a p-value (F) 0,000115) leads to rejection of alternative hypothesis due to the following: 1) under conditions of “capture” state environment the transition of Montenegro to low carbon “green” and sustainable economic growth and financial development requires significant adaptation and improvement in the institutional and regulative setting, considerable investments in environmental protection and boosting public policies for human development and protection of the rule of law. 2) Montenegrin economy is characterized with high degree of openness, service based and heavily dependent on trade and foreign investment and the post Covid-19 situation has led to significant negative consequences to the economic, social, financial etc. spheres coupled with weaknesses in the institutional and regulatory framework (BIT, 2022). After strong economic performance till 2019, with the onset of Covid-19 pandemic in 2020 economy contracted by about 12,4 % (IMF, 2020), public deficit rose to 8,6 % of GDP, government debt pushed up to 92,9 % of GDP, fall of FDI (from 16,9 % of GDP 2015) to 7 % of GDP (2019) pointing toward medium-term economic vulnerabilities with negative impact to social, financial, economic etc. sustainability toward SGD and ESG objectives.

In another study of the author (Stefanova, 2019) applied Engle-Granger cointegration model for Montenegro for the period 2006-2017 established: 1) improved rating for regulatory quality and market capitalization rate +); 2) improved estimate of the indicator of government effectiveness and market capitalization rate (+); 3) worsened estimate of the rule of law and market capitalization (-).

5. Concluding remarks

Institutional weaknesses relating to deteriorating democratic values, limitations on political freedoms/fundamental human rights, high-level corruptive practices etc. in the analyzed frontier stock markets of “capture” states in the Western Balkans put a limit to economic, social, environmental and financial sustainability in medium term perspective.

There are structural constraints on the capital markets of the Western Balkans countries analyzed in the report, which are related to the small size and structure of their economies, due to which the peripheral stock markets are unable to provide economies of scale for companies listed on them in conditions of low liquidity, high price volatility and insufficient depth of the stock markets. An eventual project for establishment of Balkan Stock exchange would require significant institutional and market efforts to overcome the challenges posed by “capture” states analyzed in the present paper (and having in mind the unsatisfactory performance of the SEE Link initiative of unified stock exchange trading platform in Southern and Eastern Europe so far). Stock exchanges have a proactive future role in establishing “green” low-carbon investments and developing best practices for high transparency and corporate social responsibility in view of creating trust in these new forms of investments and providing support for the industrial transition to green and digital sustainability of their economies. Against the background of high uncertainties in the business environment globally, overcoming the challenges facing countries with peripheral financial markets such as those in the Western Balkans is providing alternative sources of financing and improving access to bank lending (Taseva, G., 2014)

Given the fifteen-year membership of Bulgaria in the EU, the consequences of the process of integration of the Bulgarian capital market are that it continues to be on the periphery of these processes, and this is due to a number of institutional, structural, demographic,

etc. constraints, which requires an interdisciplinary and synergistic approach to action to solve existing problems and uplift from status of “capture” state with “facade” democratic regime. Obviously, the future points to an increased role of deliberative civic engagement with strong participatory activism of society (i.e., “deliberative democracy”) in the analyzed countries of the Western Balkans as a counterbalance to “facade” and “capture” institutional developments.

References

1. Alibegovic, M., Cavalli, L., Lizzi, G., Romani, I., & Vergalli, S., (2020). COVID-19 & SDGs: Does the current pandemic have an impact on the 17 Sustainable Development Goals? A qualitative analysis, FEEM BRIEF. https://www.feem.it/m/publications_pages/brief07-2020.pdf
2. Aviva (2015). A roadmap for sustainable capital markets. Accessible at: https://sustainabledevelopment.un.org/content/documents/10574aviva_booklet.pdf
3. Barrett, E. (2021). State capture and inequality. Research Paper. Pathfinders. Accessible at: https://cic.nyu.edu/sites/default/files/cic_pathfinders_state_capture_in_equality-2021.pdf
4. Bertelsmann Stiftung’s Transformation Index (2022). Country report Montenegro
5. Bertelsmann Stiftung’s Transformation Index (2022). Country report Serbia
6. Brinkenhoff, D. and Goldsmith, A. (2005). Institutional dualism and international development. A revisionist interpretation of good governance. *Administration and Society* 37 (2), pp.199 -224.
7. Calderon-Rossell, R. (1991). The determinants of stock market growth. In S. G. Rhee and R. P. Chang (Eds.), *Pacific Basin Capital Markets Research Proceeding of The Second Annual Pacific Basin Finance Conference*, 2, 4-6 June, Bangkok, Thailand.
8. Chipev, P. (2015). Current trends in the structure and operation of corporate boards. Proceedings of the international scientific conference “Economic incentives and restraints”. III-BAS. ISBN: 978-954-616-258-8. pp. 497-511
9. Corporate Europe Observatory (2019). Captured states: when EU governments are a channel for corporate interests. Accessible at: <https://corporateeurope.org/en/2019/02/captured-states>
10. European Commission (2020). Country report Bulgaria. Accessible at: <https://eur-lex.europa.eu/legal->

content/EN/TXT/?qid=1584543810241&uri=CELEX%3A52020SC0501

11. European Commission (2020). Country report Bulgaria. SWD (2022) 603 final.
12. European Commission (2020). Country report Montenegro. Accessible at: https://ec.europa.eu/neighbourhood-enlargement/system/files/2020-10/montenegro_report_2020.pdf
13. European Commission (2020). Country report Serbia. Accessible at: https://ec.europa.eu/neighbourhood-enlargement/system/files/2020-10/serbia_report_2020.pdf
14. European Parliament (2020). Resolution 8/10/2020 on the rule of law and fundamental rights in Bulgaria. (2020/2793/RSP).
15. European Parliament. Directorate General for external policies. Policy Department (2022). The economic and investment plan for the Western Balkans: assessing the possible economic, social and environmental impact of the proposed flagship projects.
16. European Commission (2020). Rule of Law Report. Country chapter on the rule of law situation in Bulgaria. SWD (2020). 301 final.
17. European Commission (2020). An economic and investment plan for the Western Balkans. SWD (2020) 641 final.
18. Faheem, A., Nogueiro, F., Shahzad Mughal K., Bashira, B., Latif, S., Brasil., M., Ferreira, P. (2020). The footprints of Covid-19 on Central and Eastern European stock markets: an intraday analysis. Accessible at: <https://www.tandfonline.com/doi/full/10.1080/14631377.2020.1827202>
19. Freedomhouse (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020). Annual reports.
20. Jabeen, Sh., Farhan, M., Zaka, M., Fiaz, M., Farasat, M. (2022). Covid and world stock markets. Systemic Review. A Comprehensive Discussion. Front. Psychol. 12:763346. doi: 10.3389/fpsyg.2021.763346
21. Hall., B and Lerner, J. (2009). The financing of R&D and innovation. NBERworking papers N 15325.
22. He, P., Sun, Y., Zhang, Y., and Li, T. (2020). COVID–19’s impact on stock prices across different sectors—an event study based on the chinese stock market. Emerg. Mark. Finance Trade 56, 2198–2212
23. He, Q., Liu, J., Wang, S., and Yu, J. (2020). The impact of COVID-19 on stock markets. Econ. Political Stud. 8, 275–288.
24. International Monetary Fund (2018). Public Infrastructure in the Western Balkans. Opportunities and Challenges, Washington DC.

25. Levine, R., Zervos, S. (1998). Stock markets, banks and economic growth. *The American Economic Review*, Vol. 88, No. 3. (Jun., 1998), pp. 537-558.
26. Liu, H., Manzoor, A., Wang, C., Zhang, L., and Manzoor, Z. (2020). The COVID 19 outbreak and affected countries stock markets response. *Int. J. Environ. Res. Public Health* 17:2800. doi: 10.3390/ijerph17082800
27. Ludwig, D., B. Walker, and C. S. Holling. (1997). Sustainability, stability, and resilience. *Conservation Ecology* [online](l): 7. Available from the Internet. URL: <http://www.consecol.org/voll/issl/art7/>
28. Katarzyna Cz., Wielechowski, M., Kotyza, P., Benešová, I., Laputková, A. (2020). Shaking stability. Covid-19 impact on the Visegrad group countries' financial markets. Accessible at: <https://ideas.repec.org/a/gam/jsusta/v12y2020i15p6282-d394421.html>
29. Kmezić, M. (2020) Rule of law and democracy in the Western Balkans: addressing the gap between policies and practice, *Southeast European and Black Sea Studies*, 20:1, 183-198, DOI: 10.1080/14683857.2019.1706257
30. McKinnon, R. (2010). *Money and capital in economic development*. Brookings Institution Press.
31. Nedelchev, M. (2017). Insurance and pension markets in the European Union and Bulgaria (2005-2015). Collection of studies "The Economy of Bulgaria in the European Union". FastPrintBooks. ISBN: 978-619-7312-63-8
32. Parrish, B. (2010). Sustainability-driven entrepreneurship: principles of organization design. *Journal of Business Venturing*. 25 (5). 510-523.
33. Ranjbari, M., Esfandabari, Z., Scagnelli, S., Siebers, P. Quatraro, F. (2021). Recovery agenda for sustainable development post Covid-19 at the country level: developing a fuzzy action priority surface. *Environment, Development and Sustainability*. Springer. <https://doi.org/10.1007/s10668-021-01372-6>
34. Reporters without Borders RSF (2021). *World press freedom index report*
35. Romer, P. (1986). Increasing returns and long-run growth. *Journal of Political Economy*. 94. pp.1002-1037.
36. Sachs et al. (2022): *From Crisis to Sustainable Development: the SDGs as Roadmap to 2030 and Beyond*. Sustainable Development Report 2022. Cambridge: Cambridge University Press.
37. Siegel, K. M., & Bastos, M. G. (2020). When international sustainability frameworks encounter domestic politics: The sustainable development goals and agri-food governance in South America. *World Development*, 135, 105053. <https://doi.org/10.1016/j.worlddev.2020.105053>.

38. Singh, B., Dhall, R., Narang, S., and Rawat, S. (2020). The outbreak of COVID-19 and stock market responses: an event study and panel data analysis for G-20 countries. *Glob. Bus. Rev.* 1–26.
39. Stefanova, St.J. (2020). Institutional sustainability and stock markets development in Central and Eastern Europe: 30 years transition. Proceedings of theoretical workshop. Technical University Sofia. ISBN: 2603-4999. 92-110.
40. Taseva, G. (2014). Trade credit - a mechanism for the transmission of liquidity between companies. *Management and Education*, Volume X (I). 63-72
41. Transparency International (2009-2020). Annual rankings
42. UNDP (2015). Annual report
43. UNDP (2020). Annual report
44. UN (2015). Agenda 2030
45. UN (2019). Roadmap to SDGs Investment: Financing SDGs/country roadmaps. <https://www.un.org/en/desa/roadmap-sdgs-investment-financing-sdgs-country-roadmaps>
46. United Nations Department of Economic and Social Affairs. 2020. How Can Investors Move from Greenwashing to SDG-enabling? Policy Brief 77. June.
47. World Bank (2022). April 2022 global poverty update from the World Bank. <https://blogs.worldbank.org/opendata/april-2022-global-poverty-update-world-bank>
48. WIPO (2020). World Intellectual Property report
49. WIPO (2020). Global innovation index
50. Yarteny, Ch. & Adjasi, Ch. (2007). Stock market development in Sub-Saharan Africa: critical issues and challenges. IMF Working paper 07/209
51. Yoshino, N., Taghizadeh-Hesary, F., & Otsuka, M. (2020). Covid-19 and optimal portfolio selection for investment in sustainable development goals. *Finance Research Letters*. <https://doi.org/10.1016/j.frl.2020.101695>
52. Zweers, W., Cretti, G., de Boon, M., Dafa, A., Subotić, S., Muk, M., Fetahu, A., Imeri, A.A., Kuhinja, E., and Kujraković, H. (2022). The EU as a promoter of democracy or stabilocracy in the Western Balkans. Clingendael Report of Netherlands Institute of International Relations 'Clingendael'. February. Accessible at: <https://www.clingendael.org/pub/2022/the-eu-as-a-promoter-of-democracy-or-stabilitocracy/>