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HOW A STRUCTURAL CRISIS IS FLIPPING THE ECONOMIC SCRIPT AND CALLING FOR THE GREEN TRANSITION IN SERBIA

Kako strukturna kriza preokreće ekonomsko razmišljanje
i poziva na zelenu tranziciju u Srbiji

Abstract

These days in the economy and society, along with well-known and highly elaborated internal structural imbalances created by economic neoliberalism and exacerbated by fault lines in reactive policies during serial crises, new disruptive forces related to external asymmetric shocks have been unleashed. Due to widening imbalances, the economy fell in a structural crisis (cascading crisis, rolling crisis or a confluence of crises). A high probability of the emergence of apocalyptic consequences warns us that the situation is extremely alarming. The global economy and the planet are in a serious trap of dying slowly but surely. Finding a systemic solution to rising imbalances is the imperative of our time. The so-called "green transition" is a big idea to mitigate the crisis and make a recovery. It is a way to annul the existing structural imbalances and misconceptions of reactive policies, as well as a platform for sustainable economic growth in balance with the limits of nature. This approach is particularly suitable for developing economies that aspire to catch up with the developed world through new industrialization. In this paper, we attempt to concentrate, among dozens of complex issues concerning the transition from an old to a new economic order, on those solutions pertaining to the economic system adjustments in line with the natural limits in a landlocked, small, open, and developing economy such as Serbia. The great majority of economics scholars have agreed upon the root causes of the crisis as well as the key assumptions regarding problem solutions. In defining our proposals, despite different angles, we intend to integrate the most effective elements of a widely accepted but outside-the-box view. No doubt, it is not certain for how long the current crisis will last. Some mitigation activities already exist. Unfortunately, it is not enough. To reverse the regression trend, four questions need to be answered. What is a global priority for action, and what to ignore? What would be a feasible and effective conceptual platform for the crisis mitigation and the subsequent revival and establishment of a sustainable and inclusive economy? How to coordinate transformative activities in the

right direction at the local level? How to weight different instruments to finance the transition from a new normal to a better normal, particularly from the perspective of the mission of economic entities and performance measurement system? To answer the previous questions, the economic theory and public policy should first replace the nexus of neoliberal rules, particularly by making well-being a relevant tenet, not only self-interest. That requires a paradigm change, in both microeconomics and macroeconomics, by adopting a new nexus of economic rules, capable of explaining the behavior of economic agents, sometimes irrational and inconsistent, but always under the impact of natural limits and "universal connectivity" as a dominant free good in the Fourth Industrial Revolution. The above requires the implementation of the circular model of growth and heterodox economic policy platform. To make the transition to a new system efficient, funding of this endeavor should be of paramount interest. Following the previous line of reasoning, the material is organized in six parts, besides Introduction and Conclusion. The Part 1 is dedicated to the necessity for a fully radical change to mitigate the structural crisis and to set up a new conceptual platform for sustainable and inclusive growth. The Part 2 is focused on the fault lines of the neoliberal economic policy platform, confirming that this platform cannot provide the conceptual base for economic policies during the system change. The Part 3 proposes the green transition as a solution to the aforementioned problems. To invigorate a greener economy, the Part 4 is suggesting the new ways of financing as a smart enough pivot. The Part 5 discusses the transition toward a greener economy as a challenging response to the current economic situation in Serbia. The Part 6 is focused on the necessity for the accreditation of the green transition program for Serbia.

Keywords: *Serbia, green transition, circular economy, industrial policies, SDGs, ESGs, new financing models*

Sažetak

Pored dobro poznatih i svestrano razmatranih strukturnih neravnoteža koje je izazvao ekonomski neoliberalizam i koje su pojačane pogrešnim politikama reakcije na serijske krize, danas su se u privredi i društvu pojavile nove sile destrukcije kao posledica delovanja eksternih asimetričnih šokova. Zbog produbljanja neravnoteža, ekonomija je ušla u strukturnu krizu (kaskadnu krizu, kotrljajuću krizu ili sabirnu krizu). Visoka verovatnoća pojave apokaliptičnih posledica govori da je situacija ekstremno zabrinjavajuća. Globalna privreda i planeta su u ozbiljnoj stupici, umirući sporo ali izvesno. Imperativ našeg vremena je pronalaženje rešenja za narastajuće neravnoteže. Tzv. „zelena tranzicija“ je velika ideja za rešavanje krize i obnovu. To je način za anuliranje postojećih strukturnih neravnoteža i pogrešnih koncepcija reaktivnih politika, kao i platforma za održiv ekonomski rast koji je u skladu sa ograničenjima prirode. Ovaj pristup je posebno pogodan za privredu u razvoju u njihovom nastojanju da dostizanje razvijenih zemalja ostvare novom industrijalizacijom. U ovom radu koncentrisaćemo se, pored većeg broja složenih pitanja u vezi sa prelaskom sa starog na novi ekonomski poredak, na rešenja u vezi sa prilagođavanjem ekonomskog sistema u skladu za ograničenjima prirode u zemlji bez izlaza na more, maloj i otvorenoj privredi u razvoju kao što je Srbija. Značajna većina relevantnih ekonomskih teoretičara slaže se u pogledu uzroka krize kao i ključnih polazišta u vezi sa rešenjem problema. U definisanju naših predloga, nastojali smo da integrišemo najučinkovitije elemente opšteprihvaćenog, ali originalnog pogleda. Nema dileme da se ne zna kada će se kriza završiti. Neke korektivne aktivnosti već postoje. Nažalost, to je nedovoljno. Preokret u regresionom trendu zahteva odgovore na četiri pitanja. Šta je globalni prioritet za delovanja, a čime se ne treba baviti? Šta je izvodljiva i učinkovita koncepcijska platforma za rešenje krize i oporavak, kao i za stvaranje održive i inkluzivne privrede? Kako koordinirati aktivnosti transformacije u dobrom pravcu na lokalnom nivou? Kako oceniti različite mogućnosti finansiranja prelaska od postojeće normalnosti prema boljoj normalnosti iz ugla misije ekonomskih subjekata i sistema merenja uspeha? U davanju odgovora na postavljena pitanja, ekonomska teorija i javne politike, pre svega treba da zamene skup neoliberalnih pravila i opšte dobro postave kao cilj zajedno sa ličnim interesima. Prethodno zahteva promenu paradigme u mikroekonomiji i makroekonomiji. Izborom novog skupa ekonomskih pravila koji je u mogućnosti da objasni ponašanje ekonomskih subjekata koji su ponekad iracionalni i nekonzistentni, ali uvek pod uticajem ograničenja prirode i „univerzalne konektivnosti“ kao dominantnog slobodnog dobra u četvrtoj industrijskoj revoluciji. Prethodno zahteva primenu cirkularnog modela rasta i heterodoksne platforme za vođenje ekonomskih politika. Da bi prelazak na novi sistem bio efikasan, u centru pažnje mora biti finansiranje tog poduhvata. Sledeći prethodnu liniju razmišljanja, materija je strukturirana u šest delova, pored uvoda i zaključka. Prvi deo je posvećen neophodnosti potpuno radikalne promene kako bi se rešila strukturna kriza i uspostavila platforma za održivu i inkluzivnu privredu. Drugi deo bavi se greškama neoliberalne platforme za vođenje ekonomskih politika, dokazujući da ova platforma nije u stanju da bude konceptualna osnova ekonomskih politika tokom promene sistema. U trećem delu se govori o zelenoj tranziciji kao rešenju za prethodno opisane probleme. Da bi se osnažila

ideja zelene ekonomije, četvrti deo je posvećen novim načinima njenog finansiranja kao stožerom promene. Peti deo se bavi tranzicijom prema zelenoj ekonomiji kao izazovnim odgovorom na trenutnu ekonomsku situaciju u Srbiji. Šesti deo je usmeren na akreditaciju programa zelene tranzicije za Srbiju.

Ključne reči: *Srbija, zelena tranzicija, cirkularna ekonomija, industrijske politike, ciljevi održivog razvoja, kriterijumi održivosti, novi modeli finansiranja*

Introduction

The intention of this paper is not only to voice our concern over the impact of the ongoing global rolling crisis on Serbia's economy, but also to raise awareness about the importance of more systemic, comprehensive and proactive view in search of a solution colloquially called the “green transition”.

In the Anthropocene age, climate change and related imbalances in physical and biological subsystems are evident to everybody, including their negative impact on the socio-economic subsystem of the planet imagined by J. Forrester as “system dynamics” [17]. For more than two centuries, economic prosperity was predominantly based on the cumulative effects of four industrial revolutions and economic liberalism. In the meantime, economic liberalism reached its limit because its key consequence, the linear model of growth, has brought humanity in the state of climate emergency, threatening to ruin any chance of further sustainable and inclusive growth. These days there is an increased commitment to climate action, on both micro and macro level. The global temperature is expected to rise significantly above pre-industrial levels. The likelihood of extreme weather tripled during the century. Global heatwaves cause wildfires, droughts and shortage of water supply and negatively affect agriculture. Rivers are drying up, diminishing hydro power production and making river transport extremely difficult. After that, almost regularly, the episodes of heavy rains occur. The global economy is losing 23 acres of fertile land per minute. As the Arctic is heating 1.5 times faster than the rest of the world, the Arctic Ocean may become ice-free by 2050. The consequences on rising sea levels are postponed and unpredictable. One is certain, because millions of people

are affected, global warming contributes to a significant influx of climate refugees. According to [45, p. 2], greenhouse gas emissions are set to increase by 14% over the current decade. The previous fact sheet dramatically increases the probability of the most apocalyptic consequences, including the risk of biotic feedback loops and a full-blown conflict that threaten the very survival of humanity.

Due to an existential threat to the global economy and the planet, the transition toward a greener economy is unavoidable. The Network for Greening the Financial System (or NSFS) defined the so-called “net zero” scenario as a hypothetical path toward 1.5 degrees temperature increase by 2050 [31]. Bearing in mind that greenhouse gas emissions are universal and front-loaded, there is a broad consensus about the need for a multipronged attack on energy production based on fossil fuels. Also, the green transition creates the opportunities for sustainable growth in three areas: replacing carbon-intensive products and technologies with climate neutral ones, decarbonizing the existing production, and developing new inputs, products, services and infrastructure, including carbon capture, within supply chains.

So, the green transition is a way to mitigate the current structural imbalances as well as a platform for sustainable and inclusive growth, toward both people and nature. Without a clear path toward a “net-zero” or, eventually, “low-carbon” economy, imbalances will continue to grow in a non-linear way.

Such a radical change in the organization and functioning of the economy would challenge economic orthodoxies. For more than two centuries, the supporters of liberal capitalism, whether conventional or neoliberal, have been constantly divided by the supremacy of two categories of liberty, negative and positive. To remember, a “negative liberty” is giving economic agents the independence from the government interference. Consequently, the economic theory explains egoism or the promotion of self-interest by the concept of “homo economicus”, which means that the behavior of economic agents is consistent, predictable and led by economic rationality. Inversely, a “positive liberty” is the right to be “human”, namely capable of respecting global commons, along with the freedom to have private interests.

In 1947, a group of reputable economics scholars under the leadership of L. von Mises, F. Hayek and M. Friedman, framed a new conceptual platform, believing that it would be able to deliver sustainable economic growth after the experience with totalitarian economic systems and WWII. They got back to the roots of free market capitalism, the market mechanism that is impossible to deny. After some time, such an orientation led to the appearance of an extreme version of capitalism named neoliberal capitalism, along with economic neoliberalism or market fundamentalism [21, p. 115]. The concept was further developed by the Chicago School of Economics during the 1960s and put in practice through a series of trial-and-error policies by prominent politicians R. Reagan and M. Thatcher in the US and the UK, respectively. The concept, with some changes, served as the platform for economic transition in Latin America and CEE economies, during the 1980s and 1990s, respectively.

The neoliberal variant of capitalism, referred by J. Friedman as “shareholder capitalism” [18], has three components. First, the linear model of growth that tends to ignore external negative effects and public goods. Second, the supremacy of the market over the state intervention in the economy. Third, the economic policy platform colloquially called the “Washington Consensus” [46], based on a set of rules such as deregulation, liberalization, globalization, and privatization, supported by inflation targeting as the key policy tool.

Inbuilt structural imbalances of neoliberal capitalism became evident from the very beginning. In the linear model of growth, the treatment of free goods (land, water, and air, primarily) went to extremes, namely to total ignorance. Other examples of ignorance are related to the appearance of market (and regulatory) imperfections and public goods (and public companies). The linear model of growth is the first derivative of basic economics rules. When the “invisible hand” of the market is declared an almost exclusive coordination mechanism, the state’s role in the economy is mainly neglected. The related economic policy platform, obsessed with inflation (low and stable), is almost exclusively managed by monetary measures. When the output gap (low and stable) is off the radar of an economic policy platform and the fiscal policy plays a secondary

role within core policies, there is no space for structural (or industrial) policies to control the output gap and its structure. The aforementioned implies plenty of negative feedback loops, followed by the fractures (or structural imbalances) starting with financialization (together with securitization). Financialization, combined with outsourcing, accelerated deindustrialization, particularly in advanced economies. Deindustrialization led to an increasing role of leverage buyouts and other manifestations of investment myopia, while roughly one-fifth of retained earnings at the disposal of the real economy were invested internally. The aggregate result of the previous fault lines is income (and wealth) inequality.

To find the solution to a structural crisis, we cannot work without a framework. For such meta masses, non-systemic, partial and erratic responses are not required. The solution involves tectonic changes. The Fourth Industrial Revolution (4IR), as an enabler, can be used effectively to find a solution only if the economic context is adequate.

To mitigate regression, humanity should be driven by hope, not fear. The right time to act is now. Namely, to replace pessimism with optimism and to transform optimism into action. To do that, the economy and the planet as a whole need the transition toward a new system based on the principles of circular and regenerative economy and the heterodox economic policy platform based on a substantial coordination role of the state in economic development.

Every economic model has its reason to exist. The reasons behind the green transition are to repair, restore and rejuvenate the current economic model and the planet as a whole. Human ingenuity, as always, will do that.

It is not easy to make a shift to a greener economy. Replacing the resource-intensive linear model of production with the circular and regenerative one is even more challenging in a national economy under a permanent threat of stagflation due to a delay in economic development, the output gap, indebtedness, and the lack of liquidity. For instance, the production of clean cement, which is seen as a necessity from the climate perspective, costs approximately twice as much as traditional production. Moreover, huge investments are needed to create conditions where the substitutes for fossil fuels such as green hydrogen,

solar, nuclear plants, bio mass, and others would become cheaper than fossil fuels.

In the war against the climate crisis, each national economy has its responsibility. No one can afford to sit on the sidelines. In the green transition, as a novel and emerging area of investment, each national economy needs strategic ambiguity, which means minimizing engagement, while maximizing effects. Moreover, it is a way to finance the new industrialization of Serbia by escaping the threat of stagflation.

Based on the previous proposition, preparing a green transition program for the accreditation by relevant international bodies is the first, but only a tiny part of what needs to be done to implement the new industrialization based on climate neutral production. So, we promote a quite transformative change in Serbia because we want the global economy and the planet to be as sustainable and inclusive as possible.

After the Great Recession of 2008, the old-timers from the field of economics such as J. Stiglitz [36], [37], D. Rodrik [34], [34], R. Rajan [33], D. Acemoglu [1], and many others started to propagate the ideas about a new economy. More recently, these ideas have been backed and further deepened by some prominent economics scholars of the new generation, including M. Mazzucato [24], [25], [26], S. Brunnhuber [7], [8] and other distinguished figures from other scientific fields such as C. A. Pereira and U. Bardi [2]. In our own previous work [12], [13], [14], [15], [20], we tried to contribute to this line of reasoning. So, the emerging contours of a new economy are clear.

The first big question: Why do we need a radical change in the current nexus of economics rules?

These days humanity is at war with (human) nature. The outcome is a very unusual backdrop, a rolling crisis, cascading crisis, or a confluence of crises. Understanding how the key forces have transformed the global economic context from prosperity into regression, including an in-depth analysis of other imponderables, is not possible without identifying regression-pull forces and isolating them from the progress-push ones. The key regression-pull forces are: imbalances of economics neoliberalism and reactive

policies against these imbalances, climate crisis, health crisis, and (geo)political disputes. Multiple interactions of these forces create a meta trend, the structural crisis of neoliberal capitalism. The central progress-push meta trend is the 4IR. Thanks to the 4IR solutions, “universal connectivity” is going to be a new free good.

In a structural crisis, a bewildering change full of conflicting signals and contradictions dominates. The context is mainly under the impact of exponentially shaped growth curve of output and population for years. The above is not in line with the limits of nature, so it becomes an evident limit to growth. Also, it is not compatible with universal connectivity as a legacy of the 4IR. Despite almost endless opportunities for the influx of innovations based on the amalgams of virtual, physical, and biological breakthroughs, an ambivalent character of such innovations is obvious. On the one hand, innovative amalgams are continually opening new frontiers for investment and growth and, by doing so, they play a positive role. On the other, their disruptive character against incumbents exacerbates a negative impact of the existing market failures.

During the crisis the number of headwinds is continually increasing as a result of the holistic character of correlations between key forces. In inflection points, the number of black swans and multiple non-linear feedback loops is growing exponentially. These adverse phenomena contribute to the transformation of the economy from a linear into a non-linear system. In non-linear systems, heuristics and bottom-up initiatives prevail over optimization and top-down command and control, in both microeconomics and macroeconomics.

Non-linear systems are full of disruptors (or risks stressors). The nexus of global (or external) disruptors has dominated over the nexus of internal disruptors such as the risks related to individuals, economic agents, financial institutions, national economies fundamentals, macroeconomic policies, etc. External risks have a universal and asymmetric impact. As such risks consist of interlinked non-linear components, it is almost impossible to cover them by individual reactions [8, pp.15-16]. Again, a coordination role of the state is necessary.

Exponentiality, which is everywhere, is putting the economy in a stage of chaos. In this stage, the great

majority of stakeholders are formally expressing the respect for public interests and global commons, but in concrete actions, individual interests massively prevail. The stage of chaos is clouding the prospects for crisis mitigation and economic revival. In the absence of inbuilt corrective mechanisms, the economy trapped in such massive dysfunctionalities cannot be sustainable. What is not sustainable, will not sustain.

To resolve this contradiction, there is a need for changing the context by developing an additional coordination mechanism based on a new role of the state in the economy, along with the market mechanism.

At the end of 2022 humanity has reached eight billion people. This obviously challenging figure is related to the serious responsibilities of the global economic system to provide sustainable and inclusive economic growth, for both people (full employment and good enough household income), and the planet (balance between the subsystems of system dynamics).

Unfortunately, neoliberal capitalism, as the last and most extreme variant of free-market capitalism, and market fundamentalism as its policy platform, almost an ideology, did not provide a plausible guarantee of the previous expectations. Capitalism is at the end of more than five-decade-long period of shareholder capitalism and more than four-decade-long period of market fundamentalism. Also, other alternatives to this system have opened more questions, particularly regarding the sustainability issue. One of the reasons for such skepticism is an unavoidable cross-impact between the systems.

For more than two centuries since the first industrial revolution, the global economy has been sending disturbing signals regarding the sustainability issue, even in “good times”. In “bad times”, or the times of crisis, instead of mitigating the existing imbalances, unconventional and/or experimental remedies of reactive policies mainly exacerbated them and/or contributed to the emergence of new ones. Indeed, the old and new types of structural imbalances have not been entirely accidental, nor mitigated by conscious design.

One of the most important structural imbalances is income (and wealth) inequality. According to [10, p. 30], since the start of economic neoliberalism income

inequality trends have diverged significantly in the US in relation to the period of liberal capitalism. Concretely, the wealth shares of the richest 1% and richest 0.1% in the US increased from 25% to more than 45%, and from 7% to 20%, respectively. Interestingly, the crisis has not altered the long-run trend of inequality. According to OXFAM [32], in the first two years of the COVID-19 crisis, the world's ten richest individuals more than doubled their personal wealth from USD 700 billion to USD 1.5 trillion, while the bottom segment still has not recovered its pre-crisis wealth levels.

Even more, income and wealth inequality indicate that economic neoliberalism is not socially sustainable for many reasons. The most important one is that half of working age individuals in advanced economies are shut off from the effect of economic growth. Income and wealth concentration of the top 1% has been accompanied by reductions in social mobility of the remaining groups of people. For example, the repayment of student loans when apartment rents eat more than half of wages of ex-students is reducing social mobility. If anything, decreasing discrete income is restraining growth by shrinking opportunities for lower and middle earners and fostering rent-seeking mentality of the top earners.

An overheated and out-of-tune economy with the output gap cannot fix itself. It is neither able to respond adequately and timely to monetary and fiscal stimuli, nor to austerity measures. To prevent the economy from collapsing, the leitmotiv in almost all anti-crisis programs consists of massive bailouts for financial intermediaries, aid programs for the non-financial sector, and money infusion. Unfortunately, the outcomes of such unconventional and/or experimental policy responses are not encouraging. Conventional policy tools that are regularly used to smooth over the impact of risk stressors and/or to create a positive economic momentum have lost much of their power as interest rates remain close to zero or even negative and quantitative easing (QE) provides an alibi for money printing.

Since the beginning of economic neoliberalism, the global economy has been in a rolling crisis because frequent seismic waves have gripped it. According to [11], in this period the global economy faced 425 downfalls and one

big crisis per decade. The extremely bad experience with the effectiveness of anti-crisis measures shows that they could not be credited as a factor pushing the economy toward recovery. Also, the inventions such as experimental and/or unconventional policies cannot be a commonplace of reliable policy patterns in the future.

At the confluence of crises, basic economic agents and institutions are overwhelmed by many difficulties on a variety of levels. Permanent inflation is the main indicator that the system is out of tune. For a long period of time inflationary pressure has not gone away. Also, inflation, persistent and growing, indicates that policy measures are ineffective. The next indicator of overall dysfunctionality is debt level. According to IMF [22], in 2021 the global debt (public plus private) picked up USD 235 trillion, or 247% of global GDP. The world's public debt is 96% and private debt is 153% of global GDP. If we look at private debt, we can see that the debt of non-financial corporations is by one-third larger than household debt. The related indicator of dysfunctionality of the system is the level of off-balance sheet items held by financial intermediaries. According to BIS [6], there are USD 65 trillion off-balance sheet derivatives in the global financial system. The odds of further lending are unlikely when there are giant black holes of financial derivatives in the banks' balance sheets.

When it comes to the monetary policy, we see that the "pendulum never stops in the middle". At the beginning of 2022, guided by the aim of keeping inflation under control, monetary powers shifted from one extreme to the other, from a dovish to a hawkish policy. To keep inflation under control, they faced an agonizing challenge, to sacrifice growth. This shift in the monetary policy led to a sharp slowdown in economic growth. Anyhow, each form of slowdown (recession, stagflation, or even depression) dents capital markets as the brain of market economy. On the other hand, the planet is continuously sending a lot of disturbing messages calling for impact investments to mitigate the climate emergency.

Moreover, such a fragile economy is exposed to the impact of external asymmetric shocks such as climate change, microbe mutations, geopolitical disputes, etc. According to [8, p. 1], they have some characteristics. They are hidden and with implicit effects. Contrary to

internal or self-inflicted shocks, external shocks are characterized by their asymmetric impact. They hit all economic entities, but they hit them in different ways. Moreover, entities that are not responsible for their appearance are almost always hit harder. Finding global solutions to global problems requires an anti-fragmentation platform.

The combination of internal structural imbalances, fault lines in the economic policy platform and external asymmetric shocks has generated strong centrifugal effects, which are further deepening the existing fractures and creating the new ones. All of them have been accompanied by the reductions in social equity and loss of social cohesion. Last but not least, in advanced and wealthier economies, demography speaks for itself. When the economy does not function well, autochthonous population is rapidly declining and aging dramatically. This is a serious economic issue entailing many ethical and (geo)political consequences. Ordinary people fully understand the mess we are living in. In search of answers, luminaries are looking for a paradigm change or a new foundation of the economic theory, both macro and micro.

In the Anthropocene age humanity is hanging by a thread. When the pieces of economic puzzle do not fit together, and when its way of functioning is not particularly in harmony with the laws of nature, regression, both economic and social, is unstoppable. When an economy is crisis-inclined and without self-defense mechanisms by its design, and when external asymmetric shocks are accelerating and magnifying embedded structural imbalances, geopolitical involvement is growing. Economic sanctions and counter sanctions (trade wars), currency wars, proxy wars, etc. are the predecessors of more serious geopolitical disputes. When geopolitics dominates economics, the shift toward deglobalization and restricted globalization (or reglobalization) is real. In this case, the advantages of outsourcing due to cheap labor and effects of diversification, particularly in food, energy, and commodities supply, tend to disappear. Under the impact of this shift, a great number of national economies, particularly landlocked, small, open, and developing ones, such as Serbia's economy, could not fix their problems without a radical change of the system.

The second big question: Why did reactive policies fail during the crises?

In neoliberal capitalism the private money is flowing through the economy almost exclusively in “good times” and the government money more extensively in “bad times”. The outcome of counterproductive, unconventional and/or experimental reactive policies that have emerged in “bad times” is that the economy is floating from one crisis to the next. In the financial sector, to prevent the collapse of banks and mitigate the liquidity (sometimes solvency) crisis, policymakers have used massive bailouts and QE. Pumping of money into the real economy was based on soft lending. In an out-of-tune financial system full of bubbles, bailout and money pumping are in contradiction to the orthodox economic policy platform based on the “hard budget constraint” argument, both macro and micro. The unconventionality of “soft budget constraint” is a consequence of the politically motivated principle of “too big to fail”, which is directly opposed to the ordinary economic rule that economic agent with negative equity should step off the stage to stop insolvency spillover. Interestingly, almost the same reactive policy has been implemented during the COVID-19 pandemic, despite a massive supply squeeze and/or supply chain disruptions due to the lockdown.

Another dovish pivot of the monetary policy for years has been an extremely low, even negative, key policy rate. Interestingly, the fiscal policy has also been expansionary (massive fiscal stimuli, degressive taxation and tolerance of profit transferring to tax havens), which seems to contradict a well-known trade-off from the conventional policy mix: an expansionary monetary policy along with a restrictive fiscal policy, and vice versa. Today is even less clear how to achieve a sustainable balance in the economy in the context marked by a deepening gap between supply and demand, persistent and growing output gap, input costs surge, universal price soaring, diverging signals from capital markets, and fall in investor expectations.

Despite the obsession with macroeconomic stability reduced to inflation (low and stable), volatility has been the dominant characteristic of the economic landscape for years. The bubble burst and winner-takes-all strategy

in new sectors of the economy confirm that the “invisible hand” of the market frequently did not meet the efficiency and sustainability proposals. Moreover, competition fails more in emerging industries, thus contributing to an overall slowdown. During the recovery episodes, due to an abrupt shift in demand, the prices of commodities hit maximum levels. As the prices of energy, precious metals and basic foods are in correlation with the demand for raw materials, their soaring easily pipelined to every supply side corner of the economy. Recently, geopolitical disputes sent prices of commodities higher still. The biggest rise was seen in gas and fertilizers, which pushed up the prices of basic foods even stronger. In such a context, low and stable inflation as the key policy target has been totally overshot.

An overheated economy is faced with debt and fiscal burdens increase. In 2021, the US public debt reached USD 28 trillion, while it is estimated that the tax gap in the next ten years will balloon to USD 7 trillion. The ongoing approach in fighting inflation has raised two big dilemmas regarding the functionality of a hawkish turn in the monetary policy and fiscal tightening (including the introduction of wealth taxation). Both policy turns are fundamentally in stark contradiction to the basics of economic neoliberalism including as low as possible neutral (or natural) interest rate¹ and degressive taxation. Moreover, to keep inflation under control by using a hawkish monetary policy means that an economic slowdown is much needed, which is another contradiction of such a policy.

Contrary to all expectations, in 1H 2022 in advanced economies and their followers, the actual rates of inflation have doubled projections. In the US, in June 2022 CPI y-o-y surged to a four-decade high of 9.1%. This fact confirms that inflation is not transitory but a structural phenomenon, which means that it is persistent and growing. No doubt, the central monetary power waited too long to make a hawkish policy turn. The policy of easy money, being in place for years, has only deepened the gap between demand and supply.

There are the two most critical effects of structural inflation. First, the cost-wages inflationary spiral. Due to rampant inflation, prices have been rising so fast that it

has diminished the purchasing power of salaries. Second, a downgraded outlook for growth. When the central bank increases core policy rates more assertively to slow demand, economic growth is likely to shrink.

Another problem is the calibration of prime rate as a hawkish pivot of the central bank. The surge in interest rates is expected to ease demand for the key drivers of headline inflation, primarily commodities and housing. When inflation is in or near a double-digit territory, it is almost impossible to increase core policy rates to come close to the natural interest rate. So far, the rise of key policy rates has not calmed inflation. The explanation is relatively simple. The natural interest rate is indefensible when the situation with inflation is irreversible. Namely, the natural interest rate of 2.5-4.0% does not make sense if the actual inflation is drastically higher.

No doubt, a restrictive monetary policy is a legitimate way to cool inflation, but it could help only gradually, and under some conditions. After the massive liquidity infusion which significantly deepened the gap between demand and supply, equilibrium could not be restored automatically by withdrawing cash and capital from the financial system. Simply, imbalances cannot be solved quickly. Another reason for slow cooling down is that the confidence in capital markets has been lost because central banks have misread the signals for years. The price of misreading signals is stagflation.

Price volatility, combined with slowdown, indicates that the economy is facing a precarious equilibrium triggering a long chain of negative consequences: contraction in capital markets, slowdown in the housing market, collapse of investments in real estate and real economy, output squeeze, and minimum wage hike. An economy trapped in an inflation spiral cannot maintain momentum and is simply heading for a freefall.

As they are not able to provide convincing evidence, unconventional and/or experimental economic policies are not immune to overestimations and fault lines. Persistent inflation is a clear confirmation that the current policy mix has missed the target.

To line up a new economic system based on understanding what is achievable (and how), requires a radical non-evolutionary change, or paradigm change.

¹ Interest rate which supports maximum output while keeping inflation under control (2%)

Despite many negative events brought by cascading crises, a good thing in the Anthropocene age is that humans are sitting in the driver's seat. So, technological breakthroughs have the potential for crisis mitigation. Technology is an enabler. To be effective, the 4IR solutions require the change in economic context. So, this reasoning prevails in our approach because it speaks clearly of the necessity of the paradigm change in economics, both micro and macro.

Some measures should be focused on the paradigm change in microeconomics (and micromanagement). In the conventional sense, microeconomics refers to the optimal allocation of limited resources and pricing of products and/or services produced with the aim of matching factor prices with factor returns and generating the value for owners. Microeconomics is helping to respond to changes with the aim of achieving a sustainable competitive advantage.

Others prioritize the paradigm change in macroeconomics (and macro management) involving an active role of the state in the economy. The purpose of macroeconomics is the search for an adequate context, i.e. defining a set of rules under which economic agents operate, as well as the coordination mechanisms and policies that can provide sustainable and inclusive economic growth. The government's coordination role in frontier technologies is to respond to major challenges and ensure impact investments in tradable sectors. That is the very purpose of the "visible hand" of the government.

Most people would probably agree that we need some of both because a radical change implies a double paradigm change. The interplay between 4IR tools and solutions and new economic settings based on a double paradigm change has the potential to make the rejuvenation of real economy possible and fully compatible with the planetary boundaries. The double paradigm change needs the coordination effort. Specifically, we share the opinion that the changes on a micro level should be coordinated by new policy instruments on a macro level (industrial policies, macroeconomic automatic stabilizers, and impact investments).

From the perspective of the climate crisis, a great majority of relevant institutions saw 2022 as the most dangerous year from the start of economic neoliberalism. The UN COP27 plan to mitigate the climate emergency [42]

has been fast-tracked because the situation seems worst that it was at the time of the UN COP26 [41]. Evidently, the ground momentum for a radical change of direction has been lost due to the war in Ukraine. In a rising chain of geopolitical disputes, nobody knows where the situation is heading. When average global temperature could easily rise by 3°C above pre-industrial levels by 2050, the reduction in greenhouse gas emissions of ten big global emitters by 45% until 2030 and the goal of net-zero emissions until 2050 are still hypothetical. Without a radical change of the system, the climate crisis will continue.

Anyhow, to make a turn from regression toward prosperity, the zero step is the settlement of (geo)political disputes. Without this, macroeconomic stability, carbon neutrality and the resolution of biological crises are likely to remain just hypothetical goals. Moreover, when (geo) politics dominates economics, the question is: why to spend so much intellectual capital and time on the concept that is unlikely to be implemented soon? The main reason for such activism is the necessity for such a change.

After a geopolitical settlement, at some point of time the economic recovery will start and investments in the green transition will reemerge. Unfortunately, as soon as this happens, reglobalization or a two-tier system of values and economics rules, one for the advanced Western economies and another for the emerging economies from Euro-Asia, Far East, Middle East, Latin America and Africa, is almost inescapable. It could become a new source of polarization and a powerful threat to globalization. So, the new model of growth and economic policy platform we are trying to promote should be conceptually capable of settling down these inconveniencies.

Let us present two additional proposals. The financing and allocation of investments in the green transition as well as the disclosure of their effects through financial reporting need to follow new rules. In the new economy, GDP as a measure of economic progress is not enough. There are some complementary measures from the human well-being perspective such as the UN 17 SDGs [43], along with natural prosperity index, index of job satisfaction, and index of happiness. In the new setting, we should admit that when the players of economic game do business, they are not only putting a price tag on resource combination

and disclosing created value, but also confronting their strategy with the risk universe, particularly the risks related to the planetary boundaries. Given the fact that, in addition to profit concerns, each economic players is deeply intertwined with environmental (E), social (S), and governance (G) concerns, a new performance measurement system should be extended by ESGs measures. Including the ESG proposition in the standard reporting on the company's viability links the effects to sustainable growth and higher value creation.

The green transition: A great idea to answer the big questions

The previous analysis has undoubtedly showed that the prevailing economic model has been functioning without any limits, namely, under the soft budget constraints, toward both money and natural resources. It creates the money it needs to cover imbalances and exploits the natural resources related to these needs. M. Mazzucato [25] eloquently explained the phenomenon of a "spender of last resort", referring to a subject that is making and taking everything. Given the fact that we are not living in an empty world but in a full world with the obvious limits, the transition toward a new economic order is imminent.

If the creation of an economic system which will respect the limits of nature is a target, a vehicle to accomplish this intention is the green transition. An emerging economic system should be able to reduce moral hazard in the financial sector and rejuvenate the real economy by minimizing welfare losses and maximizing well-being for all. So, the green transition calls for a radical, non-evolutionary context change. In social sciences such as economics, the success in implementing a context change and the creation of a new economic system require a new narrative, which includes three elements:

1. Adequate nexus of economics rules
 2. Circular model of growth
 3. More comprehensive economic policy platform
1. *An adequate nexus of economics rules.* The change of rules is an option when the system does not function

well. The neoliberal economic model was thoroughly architected based on inadequate rules. What did the founders of economics neoliberalism miss to accomplish when they imposed the nexus of rules?

Firstly, there is an inadequate treatment of non-economic phenomena such as free goods and technology change. Although economic theory has evolved over time to acknowledge the impact of the environmental boundaries on the free goods proposition, it has yet to deepen its understanding of the role of technological change as a solution to the climate emergency. The problem as massive as this one will require a fundamental reconsideration of some of the most deeply-held propositions in economics such as the exogenous character of technology.

The orthodox approach treats technology as an exogenous factor, the factor which affects resource allocation but does not depend on it. Such an approach did not recognize the endogeneity of technology and its possible impact on the cost-return relationships of investment. From the risk-return perspective of investment projects reflecting in global commons such as the limitation of greenhouse gas emissions or vaccine development, for example, the severity of these risks cannot be properly assessed by the discounted cash flow calculation if technology has an exogenous character. With the endogenous character of technology, we can easily notice that investments in renewables are much more profitable than investments in the optimization of energy consumption. Properly defined industrial policies could support a lower discount rate for projects in global commons. Consequently, plenty of innovative breakthroughs in the energy sector and land-use industries based on the 4IR solutions could be financially viable. Through industrial policies and impact investments, the state could play a catalytic role in the transition towards a greener economy.

Secondly, while reconsidering the conventional nexus of economics rules, a revision of the understanding of the human cognition mechanisms is an important issue. After more than four decades of serial studies

in the field of behavioral economics (and behavioral finance), it is quite legitimate to forget the way in which the conventional economics rules conceived human cognition.

Namely, behaviorism made breakthroughs in understanding the functioning of human brain from the perspective of economically relevant factors such as common sense, self-confidence, investment habit, intuition, risk appetite (or aversion), etc. as well as the resulting social relations. According to behaviorists, people are not as rational and consistent as the neoliberal economic theory claims. “Humans”, which are mostly irrational and inconsistent, exist in parallel with the “homo economicus”. Also, behavioral economics confirms that there is no symmetry between risks and rewards. The Nobel Prize laureate in economics, D. Kahneman [23] takes all the credit for this achievement. Concretely, in most situations the investor’s risk aversion is significantly stronger than the risk appetite. In contrast to neoliberal orthodoxies, all these findings were confirmed through the empirical tests provided by neurophysiology and neuropsychology.

As for social relations, rather than seeing human beings as being driven exclusively by rational self-interest, we could adopt a complementary proposition that human beings are driven by purposiveness [5]. Even as self-determined players, human beings are “social animals” whose decisions are the result of social interactions in the political process. When developing the mindset of purposiveness, the existential threats such as climate change should be taken into consideration by all.

There is another conventional standpoint related to the previous rules, saying that human well-being is the first derivative of egoism. Contrary to this plausible economic and philosophical proposition, when blindly following egoistic interests without paying for negative externalities, some people behave inhumanly toward other people. Actually, they privatize profits and socialize costs. The similar effect is associated with the ignorance of public goods, which leads to the costs of moral hazard. So, in the

process of building a fair and equitable society for all, what we are looking for is achieving a new balance between purpose and profit.

Moreover, there are at least two negative consequences of the above-mentioned economics rules such as the shadow economy phenomenon and a relatively large state-owned sector. The shadow economy is the reality of economic neoliberalism. At the global level, it makes up a quarter to a third of all economic transactions. The state-owned sector is mainly entropic, namely value-destroying and/or loss-making. Due to the escalation of agency problem, the state’s involvement in natural monopolies and/or network technologies with the ongoing mismanagement is great burden to productivity improvement. Given that public utilities are still based on fossil fuels, while doing business with them private investors are actually sitting on the carbon bubble.

When searching for a new set of rules, we need constructive sceptics, namely luminaries with realistic but “outside-the-box” thinking. A realistic view backed up by universality and the current narrative is not enough. New economics rules should explain simultaneously what to do to come out of the current crisis, and how to make the new economy sustainable and inclusive.

One of the key rules is that all investment actions (and inactions) should be carried out within the planetary boundaries. This change fundamentally replaces the way we evaluate new ventures, choose the discount rate as a hedge against risks and confront the discount rate to the rate of return associated with related investments. Also, it implies the inclusion of all externalities (positive and negative) in the calculation of earnings stream.

2. *The circular model of growth.* The second component of a new economic narrative relates to a new growth model. The linear model of growth is unsustainable because the economy cannot grow indefinitely in a finite world, at the same time disregarding all negative external effects such as pollution and waste. The economy can only function in a sustainable (and inclusive) way if it follows the reversibility principle

in circular processes by analogy with the physical system (energy and matter should not be lost).

According to [29, p. 371], the circular (or regenerative) economy is an antonym of the linear economy as the conversion of natural resources into waste and pollution through industrial production. The circular model of growth has two cycles, the biogeochemical cycle and the reversal of already produced products based on the “5R” rule (Reduce, Reuse, Recycle, Reconstruct and Refurbish). Functioning of this model requires the promotion of innovative solutions, providing a deeper insight into human well-being as well as the conservation of energy, natural resources, and biodiversity.

By promoting the circular economy, we follow the key rule of the 4IR, “to do more, better and faster with less resources/energy and more knowledge”.

3. *A more comprehensive economic policy platform.* The third element of change in economics covers a new economic policy platform, named “heterodox” [12]. Along with the “invisible hand” of the market, the new policy platform uses the “visible hand” of the state as a complementary coordination mechanism. The best thing to neutralize the market (and government) failures and negative externalities is to use a special purpose policy instrument. Importantly, the above implies that an economic policy intervention that is not focused on a well-recognized problem and its key root causes may not be justified.

In the heterodox approach, the previous principle manifests itself in core policies and structural (or industrial) policies, as well. The novelty in this approach is that it allows the market forces to operate in the context of structural (or industrial) policies.

Perhaps one of the most significant findings for boosting and reconfiguring the output is the role of structural (or industrial) policies. The 4IR and an almost endless influx of combinatorial innovations have created the space for greater engagement of the state in the economy through coordinating and financing efforts toward a sustainable competitive advantage.

There are three generic types of industrial policies: horizontal, vertical, and environmental. Horizontal (or industry neutral) policies tackle education, research and development, big science, health care, etc. Vertical policies are dedicated to industries from tradable sectors providing export expansion and/or import substitution. Environmental policies are dedicated to environmental conservation.

In the heterodox policy platform, there are two simultaneous processes: verticalization of the achievements of horizontal industrial policies and horizontalization of results of vertical industrial policies. So, the new model is based on two coordination mechanisms: “visible hand” of the state (via industrial policies and impact investments in infrastructure and tradable sectors) and “invisible hand” of the market via trial and error, encouraging the quick and massive diffusion of innovative solutions.

In the new policy platform, we must think about core economic policies in a structural way. Namely, both coordination mechanisms are functioning by using automatic macroeconomic stabilizers. As a consequence, the new policy platform supports the reversibility principle because automatic macroeconomic stabilizers help in the coordination among industrial policies and between industrial and core economic policies (primarily monetary, fiscal, labor and competition).

Automatic macroeconomic stabilizers are an example of the implementation of a well-known Keynesian idea, pointed out by O. Blanchard et al. [4], about reducing negative economic consequences in “bad times” by using the fiscal space from “good times”. For example, the green subsidies as a fiscal automatic stabilizer helps to prevent an excessive buildup of debt into the economy and to contain inflationary consequences of fiscal stimulus, by changing conventional policy targets with the structural ones. When considering the negative effects of greenhouse gas emissions, we simply need to specify the carbon tax as another fiscal automatic stabilizer. Carbon tax as a price tag on the related resources can be compared with subsidies

or other incentives to stimulate innovations and deployment of carbon-neutral technologies. From an environmental perspective, both measures could discourage investment in fossil fuels and encourage investment in renewables.

A complex problem such as the structural crisis of neoliberal capitalism needs systemic and comprehensive answers. In defining a new economic system, we need a more comprehensive overhaul that tackles the root causes of the ongoing crisis instead of targeting its worst symptoms. To implement the green transition, humanity needs a new social taxonomy that would contribute to learning how to adapt to continuous change with the aim of simultaneously managing the sustainability of the economy and the planet. The path from the new normal to a better normal requires new financing models.

Financing the green transition

Spending on clean-energy and investments in climate-friendly production finally starts ramping up. Funding of impact investments is more cost-intensive than funding of conventional projects. It requires a quantum leap in funds needed, “from billion to trillion”. According to McKinsey [28, p. viii], until 2050 the green transition could absorb the amount of USD 275 trillion, reaching about 7.5% of the aggregated GDP forecast. This fact implies that in 2022 the green transition financing has already absorbed roughly USD 10 trillion out of about USD 80 trillion of the global GDP.

From which sources could money come from? Withdrawing an amount of money of such magnitude from the current fund flows, namely from the state budget, fiscal scheme (taxes and subsidies), borrowings and financial securitization would be too slow and hardly possible considering the required sums. So, in funding global commons, the new channels of monetary transmission in parallel with the existing ones should play a pivotal role. Also, this funding should take into account the necessity of marketization of common goods.

Functioning of a sustainable economy, which means a recovered, more stable and greener economy, should be based on the dual currency system, conventional and

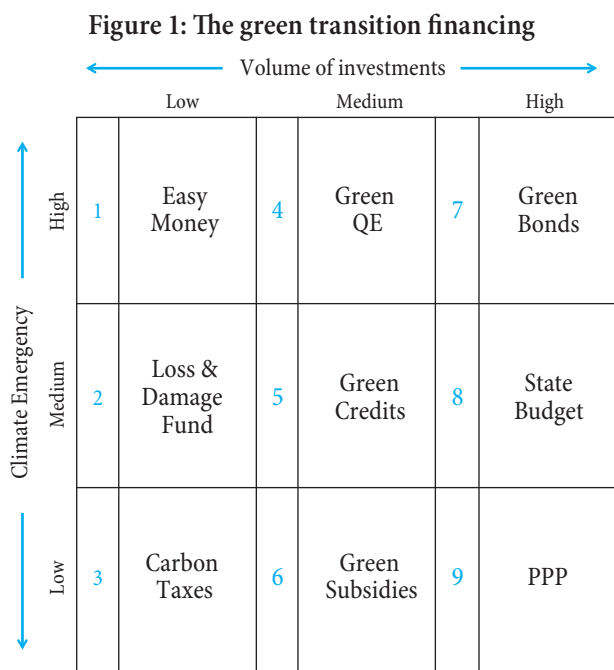
green digital. In this monetary regime, the central bank will take responsibility for the issuance of special purpose green digital instruments such as green bonds, crypto currencies, stablecoin, etc. For years central banks have been playing the role not only of a lender of last resort, but also of a spender of last resort. They create money that is needed to cover imbalances. In the previous period, the expansion in the monetary base by activities of credit institutions was mostly decoupled from the real economy. Namely, increasing of the monetary base has inflated the FIRE (Finance-Insurance-Real Estate) sector by means of new financial intermediaries (private equity funds, hedge funds, FTS, etc.). So, instead of contributing to economic growth, financial securitization led to further financialization and bubble bursts in overheating sectors. In times of crisis, increasing of the monetary base has been also used as a way to finance fiscal deficit. Lining up green digital money as a new monetary transmission channel is an absolute must for our generation and an obligation for future generations.

Financial intermediaries will also have an important role in the disbursement of green credits and marketization of common goods by using bonds (sovereign and private), actually “green bonds”, and other hybrid instruments of financing. To marketize common goods, special-purpose green digital financial instruments issued by the central bank are required.

Last but not least, the fiscal policy could use some tools to redirect fund flows and reenergize collective actions toward a greener economy. Instruments such as carbon taxes and green subsidies play the role of fiscal automatic stabilizers.

The foregoing could lay the groundwork for thinking about different tools in financing the green transition by distinguishing them across two dimensions. First, tools vary with respect to the volume of investments needed. They are shown as row headings in the matrix presented in Figure 1. Concretely, the alternative tools differ in terms of “low”, “medium”, and “high” volume of funds needed. The second dimension along which the tools differ is the climate emergency. They are shown as column headings in the matrix. The alternative tools target the climate emergency at “low”, “middle”, and “high” level.

Combining the two dimensions, yields a 3x3 matrix with 9 different cells.



1. *Easy money.* Easy money (or grants) from multilateral financial institutions and regional organizations could be the solution for covering a high level of the climate emergency, recognized in the local programs of green transition based on international standards, and low volume of funds needed. For example, the COP26 announced the necessity of USD 100 billion per year to support this purpose in emerging economies.

Or, in 2022 the EU Council announced a EUR 1 trillion program for the European Green Deal (EGD). The ultimate goals are the reduction in greenhouse gas emissions of 55% by 2030 and the transformation of Europe into the first climate-neutral continent by 2050. Money is supposed to come from the EU budget, national budgets of member states, and private-public-partnership (PPP). To make the concept applicable requires many things at once, including the implementation of green taxonomy, green bonds standards, technical standards for green loans, and accounting directives for sustainability reporting (ESGs).

As a non-EU country, Serbia cannot enjoy benefits of the EGD, including around EUR 100 billion in funding

for financing the green transition in CEE and SEE countries. However, there are funding opportunities that need to be exploited. The Western Balkans Investment Framework (WBIF) is a “blended” financial instrument supporting the EGD. It aims to mobilize EUR 9 billion of EU funding through IPA III (Instrument for Pre-accession Assistance) instrument. So far, the WBIF has allocated EUR 2.6 billion in grants to its Western Balkans beneficiaries. The framework includes two facilities tackling the renewable energy and energy efficiency issues in WB. According to [16], the Green for Growth Fund (GGF) provides financing for green investments, while the Regional Energy Efficiency Program (REEP) supports the transposition and implementation of the EU energy efficiency legislation, combined with financing to enterprises, households and public sector entities undertaking investments in energy efficiency. The GGF is a form of PPP and has so far invested EUR 1.5 billion in the green transition [19].

2. *Loss and Damage Fund.* The COP27 closed with an agreement on providing financial support to vulnerable developing countries hit hard by climate changes. In accordance with new funding arrangements, a “loss and damage” fund is conceived to assist developing countries in responding to the climate emergency. The fund is expected to become operational after the COP28 in 2023. It is projected that acting against the climate crises could cost developing countries struggling with severe climate problems USD 160-340 million annually by 2030. It refers to all costs from building destroyed facilities, building sea walls to creating drought-resistant crops [40]. We expect that the funding will go firstly to those countries marked as “particularly vulnerable” (such as the UN 46 least developed countries or small islands in the Pacific Ocean), but the UN has to recognize problems and disparities existing in seemingly “non-qualifying” countries in terms of GDP pp such as Serbia. Bearing in mind severe pollution reported daily, putting Serbia’s cities on top of the world’s pollution map, floods, droughts jeopardizing the most vulnerable inhabitants, we

believe there is room for hope that Serbia will also get its share in loss and damage funding.

3. *Carbon taxes.* Carbon taxes are a necessary (but not sufficient) fiscal policy tool to tackle the climate problems implying low levels of the climate emergency and low levels of investment needed. This way of financing the climate emergency is mostly incentivized by regulatory bodies and tax authorities. In the heterodox policy platform carbon taxes play the role of fiscal automatic stabilizer. The aim of the carbon tax is twofold: reduction in carbon leakage and prevention of unfair competition.

4. *Green QE.* Green quantitative easing (or green QE) is an innovative idea to tackle climate problems imposed by analogy with quantitative easing in the monetary sphere. It covers a medium volume of investment needed and a high level of climate emergency. The central bank will be responsible for the monetary base increase because the risk exposure associated with this variant of financing exceeds the risk exposure of private credit institutions. Also, fundamental risks are more frequent and intensive. Along with the necessity for the elimination of negative external effects of the previous industrialization, the rationale for using an increased monetary base could be extracted from the need for green job creation. Additionally, green QE would have a significant impact on the improvement of risk-return match and reduction of the risks related to greenwashing and the free-rider problem, always connected with private financial intermediaries. Green QE is digital money including different instruments such as crypto currency, stable coin, etc. Its success depends on parallel digital block-chain based technologies [8, pp. 74-77].

Anyway, this model of financing is a controversial issue. A major obstacle to reaching consensus to finance the green transition in this way is the conflict between developed and developing economies. The question is who should be responsible for this money printing and in what magnitude. Central banks from the economies with reserve currencies could issue some portion of green QE, but this magnitude is quite

limited. Digital money issuance in the economies with reserve currencies and its free distribution to developing economies is a possible solution.

5. *Green credits.* Green credits are a workable solution for middle climate emergency – medium volume of investment needed cell of the matrix. In credit institutions, different sorts of credits prevail over equity financing. At the beginning of 2022, the six largest US banks announced USD 4.6 trillion in the next decade for this purpose [38]. The EU and China also have similar initiatives. In the case of Serbia, there is respectable agility of the leading banks in this regard. There is a wide range of options, from financing energy production from renewables to energy optimization.

6. *Green subsidies.* If carbon taxes are recognized as a necessary tax policy tool to tackle climate change, green subsidies are a sufficient tax policy tool. Namely, this is an inverse but complementary measure to carbon taxes. Green subsidies have been mostly used to finance the projects involving a low level of the climate emergency – a medium level of necessary funding. It is a way to provide finance to start-ups and existing companies on their path toward a greener business model. In the heterodox policy platform green subsidies play the role of a fiscal macroeconomic stabilizer.

7. *Green bonds.* There is a genuine idea that that the so-called “sustainability budget” should exist in parallel with the conventional state budget and act as a middleman between the real economy and institutional investors in financing a greener economy. The idea comes from [3]. In this concept, the sustainability budget will issue green bonds. Insurance companies and pension funds play a primary role in the marketization of green bonds. The main reason is that they have extraordinary liquidity.

This way of financing could be used for the projects with a high level of climate emergency-top volume of funds needed. The typical projects include investments in green hydrogen, nuclear fusion, energy conservation, and carbon capture.

8. *State budget.* In the heterodox policy approach, a genuine way in which the government could finance the transition toward to a greener economy is based on impact investments. This way of financing is typical for a middle level of the climate emergence/a high level of funds needed cell of the matrix.

Unfortunately, the government budget is limited due to the need to fulfill conventional government duties and auxiliary ones, particularly in times of crisis. The fiscal gap is the reason why the principal sources of impact investments are credits and sovereign bonds issuance.

9. *PPP.* Private Public Partnership (PPP) is a workable idea for financing the green transition projects with a low level of climate emergency / a high level of investments needed. According to WB [47], private investment and expertise, including infrastructure finance, are essential for the delivery of climate-smart infrastructure. There are several arguments for PPPs in this area. Firstly, the projects require massive capital investments, thus requiring multi-party financial arrangements. Secondly, there is a great need for innovation and unstandardized solutions, which requires more active involvement of the private sector supported by public innovation hubs. Finally, the climate emergency causes the rise of the new forms of risk presenting unique challenges to investors that would rather accept those risks if they are allocated among several partners.

In the geopolitical crisis, the energy giants' boom is evident. Profits are by almost 50% higher in 2022 than in the previous record 2011. A price umbrella makes investments in renewables profitable. Also, investment in energy efficiency could also be a feasible idea for the private sector.

The funding of impact investments associated with renewable energy sources and climate-friendly products/services should be more effective than the funding of conventional projects because of a higher volume of capital engaged, operating costs, and depreciation (including impairment). In addition to the previous prerequisite regarding the quantum leap in funding, a complementary prerequisite implies that investment in common goods should have a positive return profile.

Closing the deal when it comes to the green transition requires the harmonization of different perspectives. One of them is law and order. If investors in common goods are sitting on a carbon bubble because the fossil fuel base of the existing value chains has remained fundamentally untouched, the risk of greenwashing will significantly increase and the law system should intervene.

Based on the previous discussion we can draw the conclusion that green finance provides some guidance, but it is not enough on its own. Green financing should be compatible with the new economics rules and normative judgments, in which the circular model of growth and heterodox economic policy platform would interact. Also, with the aim of respecting the planetary boundaries during the green transition, a new economy should be capable of controlling the output gap (low and stable) and the structure of output related to new technological breakthroughs of the 4IR. So, the model should be super-focused on the implementation of frontier energy and land-use technologies, primarily through impact investments towards SDGs, as well as the performance measurement system based on ESGs.

The previously explained changes are the great imperative of our time. The national economies heavily reliant on fossil fuels are most exposed to the shift to a greener economy. It will be a huge momentum shift particularly for developing economies because economic neoliberalism has made catching up with developed economies impossible. Without these changes, a further buildup of physical risks and the costs of crisis mitigation will continue and the current freefall is likely to be prolonged.

Review of the economic situation in Serbia

On the eve of the COVID-19 pandemic in 2020, Serbia's economy recorded the most respectable performance in the last three decades. The fiscal consolidation accompanied by macroeconomics stability and robust growth gave the economy a fiscal space as well as better tools for the fight with incoming headwinds. As soon as the peak of the COVID-19 pandemic passed, in 2H 2022 the economy entered a recovery phase. Coincidentally, in the same period the economy faced a new disruptor, geopolitics.

Consequently, at the end of 2022 Serbia's economy suffered from slowdown, particularly due to the threat of stagflation affected primarily by geopolitical disputes. The fiscal deficit as a constant of the last three-year period amounted to 3.8% of GDP in 2022. So, the fiscal deficit, the current account deficit and growing debt have become the major concerns. No doubt, at the beginning of 2023 Serbia's economy is at a strategic inflexion point.

As for the fact sheet of Serbia's macroeconomic performance at the start of 2023, we see the following.

First, growth is in a positive territory, but it is slowing. The economy is not in a recession yet. After the economy picked up in 2021 (7.5%), a slowdown was quite noticeable in 2022 (2.3%)². According to the NBS [30], a growth projection for 2023 in a baseline scenario is in a range 2-3%, which is in line with the IMF/WB projections. This growth is not enough to repay the COVID-19 costs³ and the costs incurred due to geopolitical disputes.

Second, capital investments reached a respectable level. Concretely, their share in GDP is almost one quarter. Public investments dominated, followed by private sector loans, FDI, and retained earnings from the private sector (see Figure 2). Public investments reached a level of over 6% of GDP in 2021. However, the ongoing energy crisis has

had a negative impact on public investments, particularly in the 2H 2022, leading to the redirection of funds to the energy supply.

Third, the labor market is strong, representing the major pillar of Serbia's macroeconomic position. In 3Q 2022, registered employment increased by 1.3% compared to the same period of the previous year (private sector 1.5% and public sector 0.9%). The participation and employment rates reached the levels of 55.8% and 50.8%, respectively. On the other hand, the unemployment rate reached a record low level of 8.9%, which is 1.6 pp lower than a year ago (see Figure 3). In the first three quarters of 2022, the average net salary in Serbia amounted to EUR 625, which is a year-on-year nominal increase of 13% or 2.7%, in real terms.

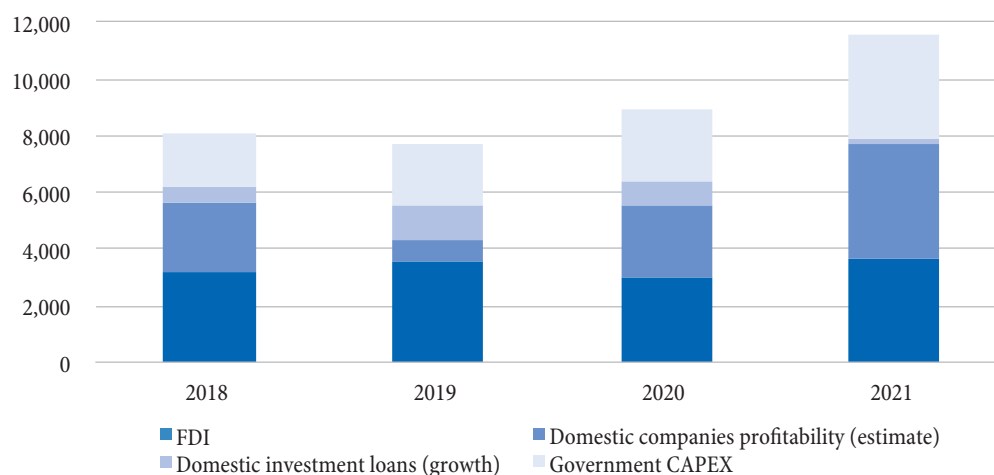
Fourth, the financial sector is doing well. The share of NPL decreased from 3.5% in 2021 to 3.0% in November 2022. Domestic credit activity recorded double-digit growth in the period 2018-2021. The echo effect of the previous developments has been materialized until 2H 2022. After that, credit activity recorded a downward trend. Also, dinarisation, as a key pillar of the monetary strategy, slightly decreased throughout the year.

In 2022, the corporate banking line was expanding significantly faster than the retail banking line. Disbursing liquidity loans and loans for current assets financing dominated in the corporate line (47.3%), followed by loans for capital investments (39.8%), while in the retail line cash loans dominated (44.1%), followed by housing loans (39.3%). The main risk stressor for credit institutions

² The preliminary estimate of the Statistical Office of the Republic of Serbia.

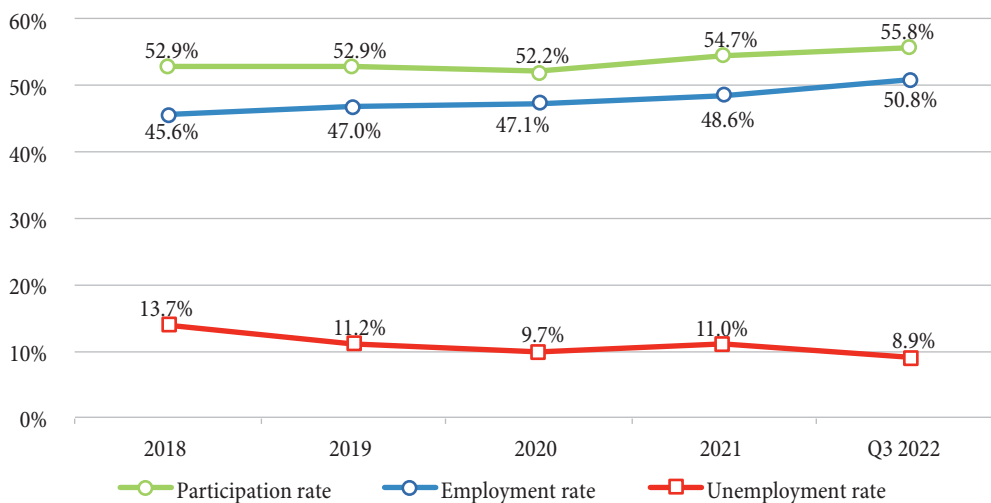
³ According to [15, p. 17], to compensate lost growth due to the pandemic in 2020 and 2021 and make longer-term growth sustainable, in the 5-year period Serbia's economy will need CAGR of 2.8% and 2.46%, respectively. The previous means that, to ensure sustainable growth, in the 5-year period starting from 2023 there is a need for CAGR=5.26%

Figure 2: Structure of capital investments (in EUR mil), period: 2018-2021



Source: NBS, Macroeconomic Developments in Serbia, December 2022

Figure 3: Labor market trends, period: 2018-3Q 2022



Source: Authors' calculations based on the Statistical Office of the Republic of Serbia data base

is a growing credit exposure of loss-making and value-subtracting state-owned companies.

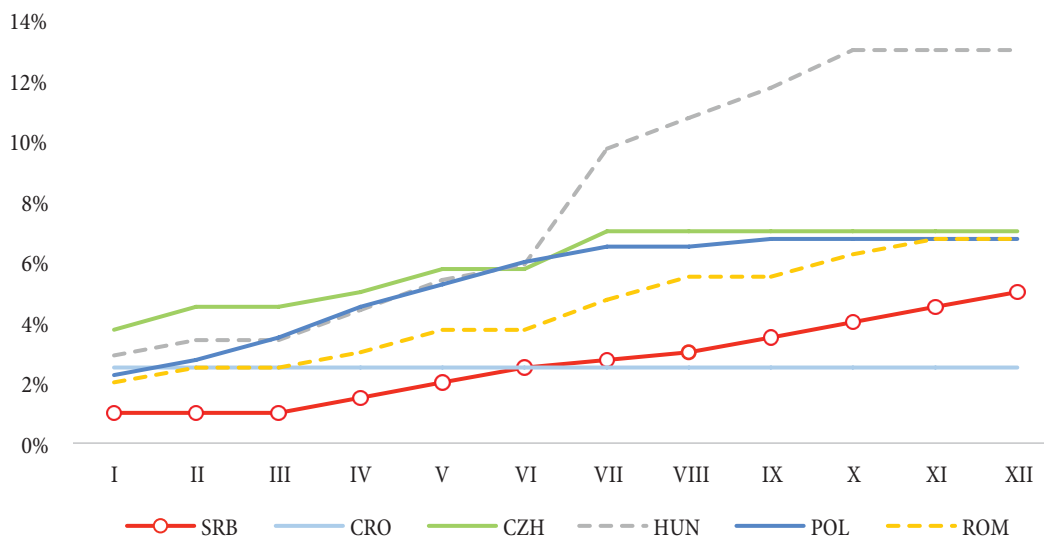
After the IMF forced the NBS to rethink its monetary policy levers, the shift from a dovish to a hawkish monetary policy was put in place. In December 2022, the NBS raised the key policy rate to 5% which is much higher in comparison to the key policy rates of relevant monetary powers such as FED (4.25%), BOE (3.5%), and Swiss National Bank (1%). But this is still below an average key policy rate in CEE (see Figure 4). The result was a surge in interest rates, particularly on RSD-denominated loans. Specifically, the average interest rate on RSD loans in the

retail line increased from 8.53% in January to 11.86% in November, while the average interest on RSD corporate loans increased from 2.71% to 5.96%.

After the fiscal consolidation successfully ended in 2018 and before the shift from a dovish to a hawkish monetary policy in 2022, the costs of capital from different sources were constantly decreasing, being at a relatively low level (see Figure 5). The situation dramatically changed from 2Q 2022 when a surge in sovereign debt yields has become a matter of great concern.

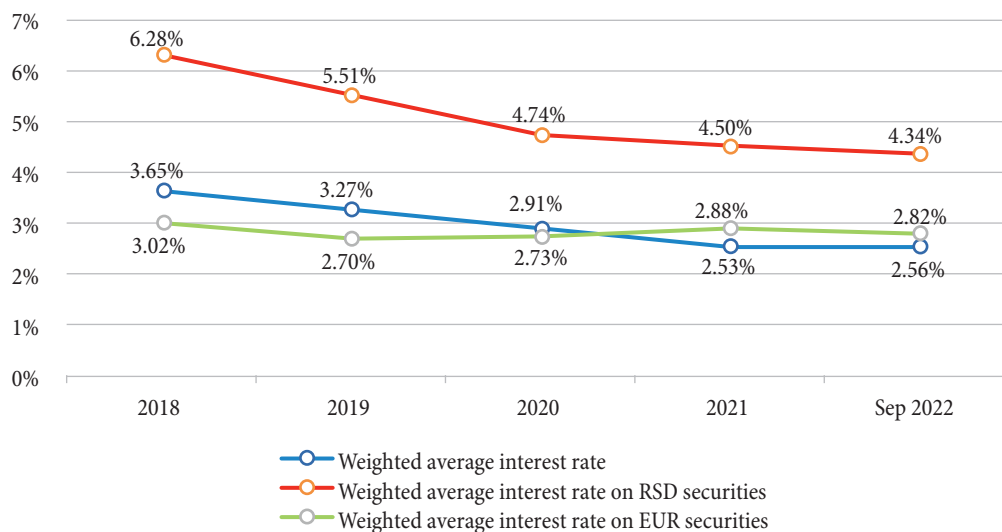
The NBS has done a good job of portraying liquidity as a substantial uncertainty in capital markets. To prevent a

Figure 4: Key policy rates in the group of CEE countries, 2022



Source: The ECB and the NBS data bases

Figure 5: Yield curves, period: 2018-2022



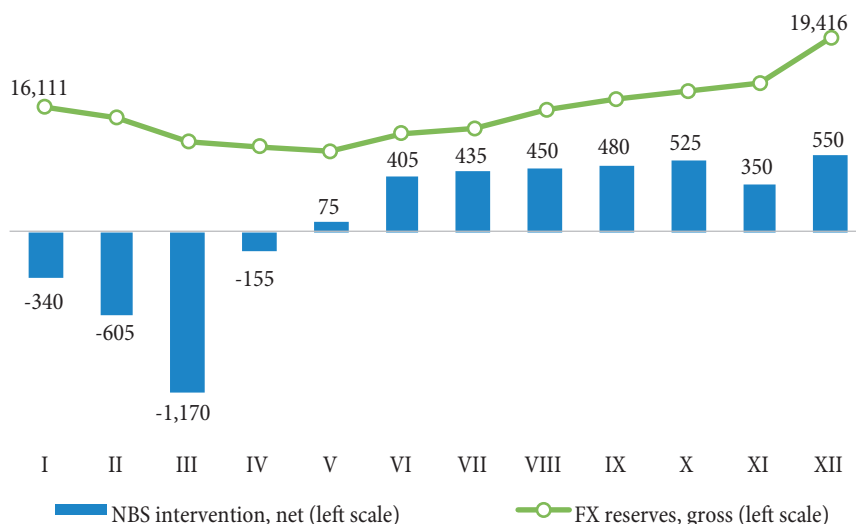
Source: The Ministry of Finance of the Republic of Serbia

liquidity trap, the central bank always tries to match supply and demand for money and capital. In the case of the NBS, a good example of this behavior is the raising of a reverse short-term repo rate. Its open market interventions were timely and effective. Namely, the NBS bought EUR 1 billion net in an open market, while the gross foreign exchange reserves amounted to EUR 19.4 billion (see Figure 6).

Navigating the supply-demand balance has been significantly affected by geopolitical crises. In that regard, the calibration of key policy rates is a critical issue. Following the global trend, the NBS successively increased the key policy rate, up to 5.0% in December 2022.

At the beginning of 2023, the key policy rate has attained 5.5%. In the fight against inflation, a hawkish policy should not be taken for granted, particularly when the surge in interest rates causes a shock on the supply side and multiple aftershocks in the real economy output. If the NBS hikes the key rate significantly above the natural rate of interest or decides to keep it at this level too long, the risk of recession will grow. Moreover, an uncontrolled surge in interest rates is not good for credit institutions, too. The surge is good only up to some level due to the credit risk increase. So, the expectation is that the NBS will signal an upcoming pause in hiking soon.

Figure 6: NBS open market interventions and FX reserves



Note: Authors' calculations based on the National Bank of Serbia data base

The Ukraine conflict caused a distress in capital markets. The issuance of sovereign debt instruments in January 2023 with the aim of tilting the upside risk and risk of unsustainable debt was successful. The Treasury Department successfully issued the 5-year government bonds of USD 750 million and 10-year government bonds of USD 1 billion. The issuance has attracted high demand, confirming a high level of the country credibility in global financial markets. The cost of debt and risk hedge were also reasonable. This is in line with the sovereign debt global trend. It was the best start of the year for decades⁴.

A stable FX has played a pivotal role in the monetary strategy. During the whole 2022, the NBS kept the FX rate almost unchanged. Precisely, it is slightly appreciated against reserve currencies (see Figure 7). Devaluation is not an applicable alternative for many reasons. Eventual RSD plummeting will trigger inflation spiraling. In responding to key macroeconomic challenges and keeping inflation under control, the NBS sacrificed the profitability of exporters.

To keep liquidity under control in an economy with three macro imbalances, critical success factors are cash infusion from FDI and remittances. In 2021 FDI amounted to EUR 3.9 billion and remittances picked up EUR 2.5 billion. In the period from January to November of 2022, FDI amounted to EUR 3.95 billion (EUR 3.7 billion net), while

remittances amounted to EUR 3.7 billion (EUR 3.5 billion net). To attract FDI and to meet investors' expectations, the government has been continually offering subsidies. This measure fueled criticism from some representatives of business community who pointed out that, due to an alleged lack of vision regarding the targeted structure of output, with this policy measure the government has actually promoted holistic interests of foreigners.

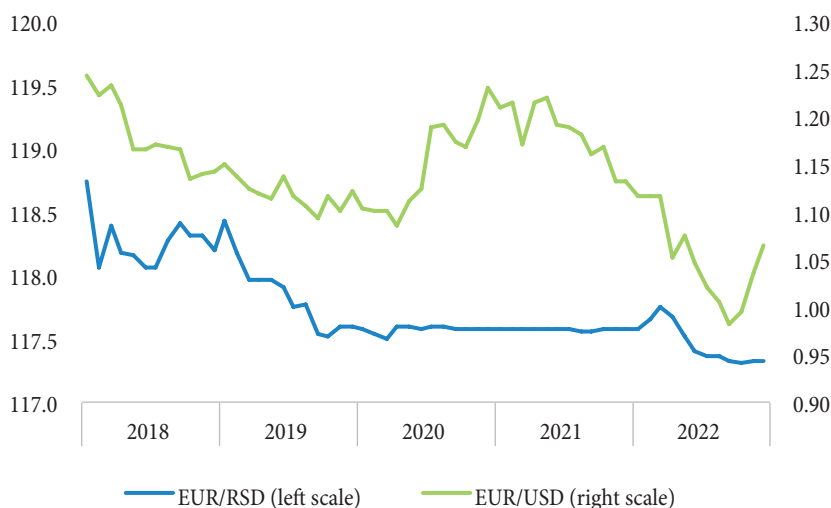
When the global economy is facing a precarious imbalance with inflation and growth moving in the opposite direction, Serbia's economy is being stuck with some internal challenges. The current recovery is fragile with a special concern related to the output gap (and its structure), inflation, and an outstanding debt increase.

The output gap is an echo effect of the geopolitical crisis during the 1990s triggered by the breakup of former Yugoslavia. The significant output gaps and distortions in their structure were the main consequences of this destruction. After the fiscal consolidation of 2018, the output has been recovering more strongly. Unfortunately, the rolling crisis 2020-2022 led to a new slowdown. The transitional output gap⁵ of 15% GDP is a major vulnerability, maybe (see Figure 8). In the last three years, the current output (particularly factory output) fell after the weakening of demand (global and local) due to twin triggers, the COVID-19 pandemic and geopolitics.

4 In January 2023 global bond issuance hit record of USD 568 billion which is 40% of all 2022 sales. Average yield is many times higher than in 2022.

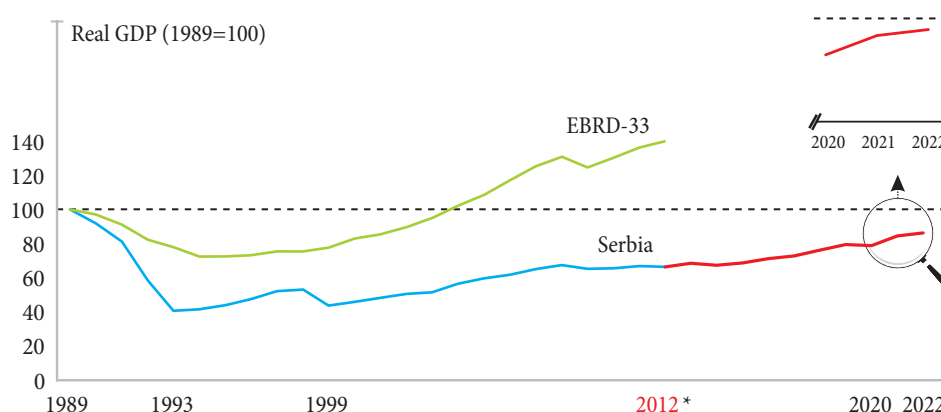
5 The ratio between the output in 2022 and the output in pre-transitional 1989 in constant prices

Figure 7: FX rate trend: RSD vs reserve currencies



Source: The National Bank of Serbia

Figure 8: Transitional output gap, period: 1990-2022



* 1989-2012 According to EBRD Transition Report
2013-2022 Authors' calculation based on national statistics

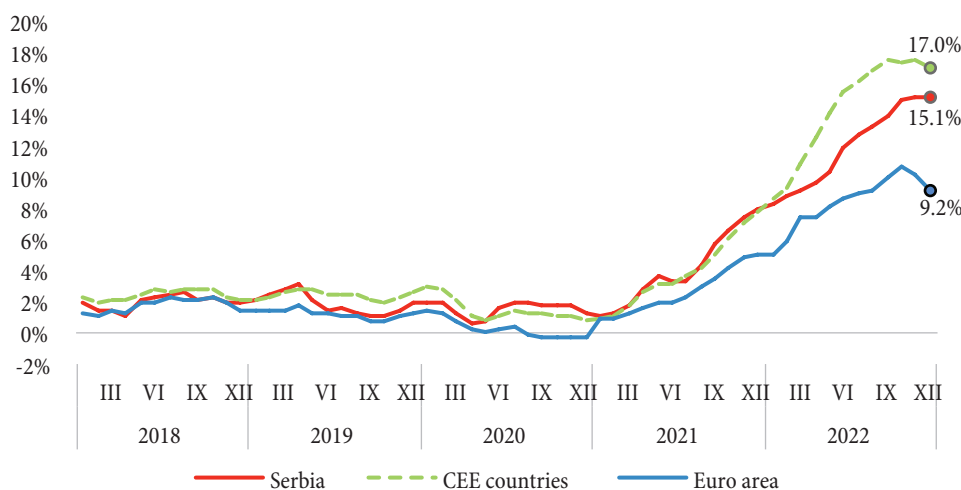
Serbia has the development gap not only relative to ex-transition countries of CEE, but also relative to the western republics of former Yugoslavia (Slovenia and Croatia). In 2021, the GDP pc in Slovenia amounted to USD 29,295 and in Croatia USD 17,685, while Serbian GDP pc amounted to USD 9,230.

Inflation is another fundamental vulnerability. Inflation is inextricably linked to the output gap. The additional triggers are the breakup (and slowdown) of supply chains and the global surge in energy and food prices. When the fear of fear overwhelms consumer sentiments, underlying inflation is plummeting. Food prices far outstrip average inflation. Energy prices are tightly controlled and below the average price in the EU. Because “there is no free

lunch”, the victim is debt increase. After a slowdown in December, annual CPI in 2022 reached 15.1%, which is below the average of the CEE economies (17%). Lower inflation in Serbia could mostly be explained by the FX policy. Namely, a stable FX rate was able to absorb some externally driven inflationary pressures and keeping under control the macro imbalances.

When it comes to advanced economies, inflationary pressures started to lessen toward the end of 2022. For example, the inflation rate y-o-y in the US slowed from 9.1% in June to 6.5% in December 2022, while in the euro area inflation slowdown started later, in Q4 2022, so it stood at 9.2% in December 2022. The inflation benchmark is presented in Figure 9.

Figure 9: Inflation benchmark



Source: Eurostat & Statistical Office of the Republic of Serbia

Last but not least, indebtedness is a vulnerability, too. A benchmark of the level of public debt shows that Serbia's economy stays in a relatively calm mode (see Figure 10). The level of debt is growing in absolute terms but staying almost stable in relation to the output. From January to October 2022, the total public debt increased by EUR 2.3 billion to the level of EUR 32.4 billion (53.7% of GDP). At the end of 2022 the public debt amounted to 55.1% of GDP. The share of public debt denominated in EUR was 57.3%, in USD 12.4%, 4.8% in other convertible currencies, while the share in RSD amounted to 25.5%. At the end of 2022 the public debt has reached 55.1% of GDP.

The cost of debt is also under control because after the fiscal consolidation the Treasury Department has done a lot of risk remediation and most of the necessary to refinance debt. A particular problem could arise due to the surge in off-balance sheet positions. A surge in off-balance risks is one of the factors affecting the inversion of the sovereign debt yields in the last period.

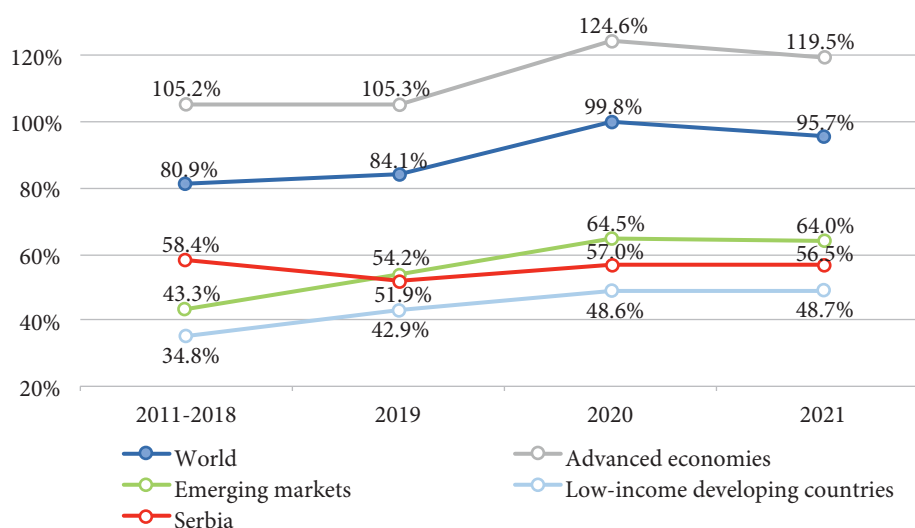
The strategic audit of Serbia's economy shows that, despite the negative trends, events are positive. The NBS and the government have dealt with many macro challenges. But there are a lot of concerns that the symbiosis of external asymmetric shocks and internal imbalances is threatening to magnify the current slowdown. As policymakers have a fiscal space and are better equipped in the fight with headwinds, the economy slows but still shows resilience.

The main reason for that is the implementation of an industrial policies-driven approach for years. Impact investments are more substantial than ever and ICT industry is booming. The new targeted sectors are energy, with a special focus on renewables, biotech, and advanced agriculture. Recently, the government has passed the law on biotech, established the Competence Center for the 4IR and started with the restructuring of major state-owned energy companies after the IMF's recommendation to the government to rethink the current approach.

Growing indebtedness and fiscal expansion normally lead to inflation surge. Consequently, the key idea for policymakers on the road ahead to maintain the balance between factor prices and factor incomes is to harmonize structural and macroeconomic policies by using macroeconomic automatic stabilizers. It is a prerequisite for restoring price sensitivity against all factors of production, investments expansion and revival.

In a rolling crisis not only prosperity, but the very survival on national economy depends on a proactive and preemptive government. If you are not ready to reframe the future, the future will reframe you. Despite reframed headwinds, the government should find something progressive enough to run the economy in a sustainable and inclusive way and, by doing this, to reframe the future. When the climate emergency acts as a "crisis multiplier", the green transition should be the confirmation of the government's climate-determined proactivity. Moreover,

Figure 10: Public debt benchmark (% of GDP), period: 2011-2021



Source: IMF, Global Debt Monitor 2022 & The Ministry of Finance of the Republic of Serbia

it is a chance for the new industrialization and output expansion. A greener economy has the potential to make a turnaround and push the output into a positive territory and toward a more convenient structure.

To follow this orientation, the accession process to the EU can play a catalytic role. Unfortunately, at this moment the EU standpoint is: “to enlarge or not to enlarge, that is the question”. Moreover, the so-called Kosovo issue is a fundamental problem for Serbia’s geopolitical positioning and further development. The dominant point of view in Serbia is to keep Kosovo within Serbia’s borders at all costs, until the last breath of each citizen, or the state. We understand this point of view and fully respect it. But it is in contradiction to the standpoints of the EU and the recently presented framework for resolving this issue. For the “going green” movement in Serbia, the EU would be a spender of last resort.

Despite respectable macroeconomics numbers, the earning power and credit potential of Serbia’s economy are not big enough to finance such a radical move as the green transition. If the green transition is a big idea for the crisis mitigation and revival, the logical question is how to finance this endeavor if Serbia remains isolated from the European mainstream. Anyhow, the zero step in the search for green funding requires the accreditation of the green transition programs by respectable international institutions.

Accreditation of the green transition program for Serbia

Let us now add the final point to the discussion, the accreditation of the green transition program as a catalyst for the crisis mitigation and a key driver of economic revival.

National economies, including the champions of economic neoliberalism, are continually facing failures due to the limitations of theoretical concepts and ineffective governance. The philosophy of individualism and its constituencies like the linear model of growth and market fundamentalism, are not welcome anymore. Also, they could not be the platform for crisis mitigation and shift toward sustainable growth in the economies with a delay in economic development. People should not be victimized

by domination habit, being at the war with each other. Moreover, humanity should not be at war with nature. Rather, they should be connected and integrated. In the fight against global warming and pollution no one can afford to sit on sidelines. Each national economy has its responsibility.

After a recent acceleration of geopolitical crisis, humanity is in midst of a profound shift. When deglobalization and reglobalization are replacing globalization and protectionism is replacing free trade, geopolitics acts as a macroeconomic variable and a crisis multiplier. Antagonizing and reconfiguring the existing suppliers and buyers on a global level, economic sanctions (and countersanctions), trade wars, currency wars, proxy wars, and restricted globalization (or re-globalization) are going to be a substantial threat to free trade and investments. These days, despite an almost endless influx of 4IR solutions, geopolitics, not technology, reflects primarily in economic expectations. Moreover, in the developed world, the military industrial complex is a dominating part of the government machine pushing own interests as global commons. The economy and finance in developing world are slaves to the previous big shift. They should not play this game.

To change the context and put the economy on a sustainable path, Serbia needs unconventional steps. The seeds of economic and climate crises will have the major impact on a big change toward a greener economy, in terms of a double paradigm change generating the circular model dedicated to the SDGs and framed by ESGs, along with the heterodox economic policy platform based on a greater role of the state in the economy. Fine-tuning of a concrete program depends on the country’s specifics. To do that, more efforts should be made toward the development and accreditation of the green transition program. The accreditation of this document goes primarily to the EU.

Even if we manage to implement effective and quite diverse measures in search of solutions, we must be aware that the program of green transition will not be easy to reverse the current trends. In making an economy greener, there are many explanatory details. The details are different because environments and problems are different. But the fundamentals are fully recognizable.

Namely, the crises mitigation and recovery should be based on some pillars.

First and foremost, the transition from old to new economy should tackle the problem of climate emergency. The previous requires the development of all-around and in-depth relationships vis-à-vis this issue, including geopolitics. The experience with the geopolitical crisis in the 1990s teaches the architects of the system in Serbia about the necessity to look closely at meta trends such as the climate emergency. Those who do not remember history are doomed to repeat it. Otherwise, *déjà vu* all over again.

The program would primarily require the radical transformation of big polluters from the energy and land-use industries, including power generation, extracting industries, cement, processing industries, agriculture, buildings, mobility, forestry, and waste management. Also, the program should be able to deploy green technologies and products/services.

Climate change and energy transition are linked. When it comes to energy supply, Serbia is not on the right track, not only due to energy deficit, but also, and mostly, due to its dependence on fossil fuels (almost 70% of energy production based on coal). In the following period, the government should gradually escape from the energy production based on fossil fuels as something bold enough to run the transition correctly.

To attract the EU and other organizations and institutions to fund the green transition in Serbia, the program should also identify the sources of extraordinary growth potential. This requires setting up the vertical industrial policies providing a coherent integration between science and industry with the aim of deploying frontier technologies such as green hydrogen, solar energy, and carbon capture as a new technological base of climate-neutral production.

The second pillar consists of impact investments in infrastructure and tradable sectors. Impact investments in infrastructure (both physical and digital) are a conventional defense tool from output gap. Preserving the competitive advantage of tradable sectors in new circumstances requires decoupling from high energy consumption. As the biggest industrial producers (steel, copper, cement, agriculture,

etc.) are also the biggest polluters, the implementation of climate-neutral technologies is necessity.

The third pillar involves restructuring of the existing industrial base in compliance with the “go green” criteria, particularly in energy production and land-use industries. This restructuring fundamentally helps in keeping up with meta trends. Bearing in mind local specifics, the biggest priorities in the segment of renewable energy sources include pumped-storage hydropower plants and cogeneration plants based on biomass (bio gas, bio diesel, and bio methanol). Such an orientation, together with reforestation, is highly compatible with the circular economy requirements.

Fourth, the harmonization of industrial policies with core macroeconomic policies through macroeconomic automatic stabilizers (key policy rate, green subsidies, green tax, tax holiday for impact investments, etc.) is also welcome. Calibration of key policy rate in line with natural interest rate and control of wage inflation could not be good enough without structural adjustments in tradable sectors (particularly, in ICT, energy, industrial production, agriculture, and construction).

Last but not least, a new financing platform based on a multitrack approach will offer interested players a critical mass of funds for financing these endeavors.

Conclusion

Among economics scholars and practitioners, economic neoliberalism has been recognized as the root cause of the current structural crisis, rather than the platform capable of generating solutions. An economy based on these premises is impotent and out-of-tune, which means with the output gap and over-finalized. It is not sustainable that the economy, as a spender of last resort, continuously increases debt and the scarcity of energy and material resources. Moreover, it is becoming increasingly difficult to navigate its main inconveniences such as debt crisis and stagflation by using the conventional macroeconomic script. Without structural policies and built-in macroeconomic stabilizers, the results of reactive policies are mainly counterproductive. Bringing inflation down with a hawkish monetary policy in case of the

output gap and its inadequate structure is a therapy that may be more dangerous than the illness itself. A surge in the key policy rate in the middle term leads to growing underlying inflation and wage inflation. It turns out to be a fatal illusion trying to close the gap between supply and demand, as a root cause of structural inflation, by using the tools regularly implemented as an antidote for transitory inflation (“easy come, easy go”). Moreover, the emergence of interest rates inflation as a new form of inflation leads to further lingering and spiraling of the crisis. Namely, calming inflation by interest rate hike and, by doing this, slowing down the economy is actually deepening another structural imbalance, the output gap.

Another weak point of economic neoliberalism is its incompatibility with the requirements of the 4IR. The concept of the so-called “contactless economy” under the impact of the 4IR needs a coordinated and well-tuned economic system with dynamic stability focused on innovative solutions to mitigate the structural imbalances of former development. Never-ending volatility, as consequence of in-built fault lines, coupled with counterproductive policy response, is one of the key characteristics of today’s economic settings. So, the contactless economy could not be implemented in a crisis-inclined system.

Probably the biggest worry associated with economic neoliberalism is the domination of “unknown unknowns” such as spiraling environmental deterioration. Despite the well-intentioned efforts, the climate emergency, as a key form of environmental deterioration, plays tango with the planet. The last driver of such developments is the dominance of geopolitics over economics. The climate targets initially defined in the Paris conference in 2015 have been missed due to geopolitical disputes and their negative consequences on greenhouse gas emissions. The most convincing evidence of the dangerous loosening of climate targets in advanced economies is the revival in the energy mix not only of nuclear energy, but also coal.

There is no panacea, including the geopolitical power game, for making the economy sustainable and inclusive with such inbuilt fault lines. Despite this, in 2022 geopolitics fully became a macroeconomic variable. In times when the global economy desperately needs an anti-crisis package to deal with structural inflation and

provide climate-minded investments as a response to the climate emergency, money is directed toward war financing. Moreover, geopolitics has undermined trade and investment and put the global economy into a more divided and dangerous mode. Now is not the time to put an additional burden on the economy full of imbalances. War financing is in contradiction to the evident planetary boundaries when people expect that each national economy should be as much inclusive toward nature as possible.

How to respond to these contradictions? The answer is simple, through strategic thinking. The magic of strategy lies in the transformation of handicaps into opportunities by using an inimitable idea. In outlining the exit strategy in a country like Serbia, a bullish shot could be the use of impact investments to eliminate key root causes of the climate emergency and to grow in a climate-neutral way. A “go green” shift in an economy currently based on fossil fuels could be an ultimate driver toward a more sustainable and inclusive economy in the future. Following this line of reasoning, in the final document of COP26 [41], the top 20 emitters producing 80% of global greenhouse gas emissions committed to reduce the emissions by 45% until the end of this decade and to reach a net-zero emission stage by 2050. In the COP27, the “Loss and Damage Fund” was established for developing nations [40]. In Europe, the European Green Deal is a great breakthrough. All documents are tiny parts of what needs to be done to preserve the future of the planet and make the economy sustainable and inclusive. Serbia should believe in the power of this idea.

The green transition is not an overnight flight. To protect, restore and rejuvenate the planet require the reconstruction of the economy and its future development by following natural boundaries. To drive the economy forward, the first step is to abandon the conventional economic script and think in a more systemic and comprehensive manner. However, mitigation of the current macroeconomic imbalances and adaptation to meta trends take time. Even if imbalances start to disappear at some point, global warming (and pollution) will not stop. Embarking on the green transition journey does not instantly end the disruptions created by economic neoliberalism.

In dealing with a confluence of crises, the existence of multiple ultimate goals points to the complexity of a leadership role. So, the new economy should integrate the climate emergency goals and the necessity for a climate-neutral industrialization based on 4IR solutions. What makes the architects of the new economy so special, apart from their consideration for meta trends and familiarity with a new conceptual platform, is their creativity in implementation.

Today for almost all national economies is much more important to whom you are connected than who you are. Geopolitically-driven restrictions between superpowers instantly produce decoupling, deepening the gaps between supply and demand, overall scarcity of energy and food on local levels, and deglobalization. The surge in energy and food prices is spreading to connected industries and, by doing this, eats the purchasing power of population. To calm social relations, the indexation of wages (and pensions) regularly leads to inflation spiraling.

The previous trend appears in its extreme form in a small, open, landlocked and underdevelopment economy. In an economy highly dependent on FDI, mainly from the EU, and faced with the negotiation process regarding its geopolitical positioning, conducted under the patronage of superpowers and still unresolved at both internal and international level, geopolitics has an important role to play. The so-called “Kosovo issue” has exacerbated the negative impacts of previously mentioned factors. It is a macroeconomic variable in full capacity and crisis multiplier. So, the Serbia’s economic success in navigating the rolling crisis has been overshadowed by the Kosovo issue.

Along with the Kosovo issue, Serbia has a lot of things to settle. A great priority is the climate emergency. It should not be treated as a political issue par excellence because there are no ideological roots. The climate emergency is not political but existential threat, quite visible in every corner of the planet. There is no need to politicize this issue because no one can escape the responsibility to participate in finding solutions. Even though a climate-neutral industrialization seems like a fantasy in times of geopolitical supremacy, it is a step in the right direction.

As for the green transition in Serbia, the critical question is going to be: Will Serbia be able to carry out an

adequate program of the green transition and be a reliable partner in its implementation? In strategizing about the future, national economies should not be under time pressure. In addition to hard work and determination, the implementation of a new framework needs a “substance”, namely the impact investments based on structural policies promoting tradable sectors and well-coordinated with the core economic policies via macroeconomic automatic stabilizers. It is a well-elaborated leitmotiv of our previous work, capable of generating key components of the green transition program. For central banks stagflation is incredibly difficult to navigate. So, structural policies are imminent.

In the near past, Serbia has consistently disappointed both optimists and pessimists. It has been continuously showing a confusing picture, determined by the genuine crisis management economic solutions enabling maneuvering amid headwinds of the rolling crisis, on the one side, and by the incapability of making strategic political decisions, on the other. Lighting the path through a confluence of crises will start with the climate crisis. If the adjustment to this multiplier of other crises delays, the overall crisis will be magnified. Serbia’s economy must shift away from the carbon footprint manufacturing and incentivize a new industrialization toward a digital economic landscape in line with the limits of nature. Because investing in SDGs and reporting by ESG criteria threaten energy security, the diversification of renewables is required. This is feasible because Serbia is sitting on the gold mine of ICT talents giving the strategists a plausible reason to raise their expectations. In 2022, ICT was the most profitable industry and the biggest exporter. Exploring new frontiers in ICT shapes the sustainability and inclusivity of many.

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