Republic of Serbia

FISCAL COUNCIL   **ANALYSES, POSITIONS AND PROPOSALS**

ANTI-CRISIS BUDGETARY MEASURES DURING THE COVID-19 PANDEMIC:
COSTS, RESULTS AND LESSONS LEARNED

Belgrade, 13th April 2022

Introductory remarks

In accordance with the Budget System Law, the Fiscal Council of Republic of Serbia issues an independent evaluation of the economic policy measures proposed by the Government, aimed at achieving quantitative fiscal goals, and it also may at any time issue advice to the Government regarding the issues related to the fiscal policy and public finance management (Article 92e and Article 92z). In this document, the Fiscal Council analysed fiscal measures undertaken in 2020 and 2021 to counteract the adverse effects of the pandemic and evaluated their effects on the key fiscal and macroeconomic aggregates.

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Executive Summary

As the world is facing yet another period of economic uncertainty, lessons learned from the previous years could help Serbia cope with the looming crisis. Periods when one global crisis follows right after another are quite rare in economic history. However, that is the case in 2022. The crisis caused by the COVID-19 pandemic was only beginning to subside when the War in Ukraine, along with high and rising inflation, and energy crisis, brought about new economic uncertainty. For these adverse events to have the least possible effect on the Serbian economy (and its public finances), it is imperative to learn the lessons from the previous crisis (2020 and 2021). As in the previous crisis, these new uncertainties will probably require a strong fiscal intervention. That is why it is of utmost importance to implement prudential fiscal policy measures, especially when it comes to assistance programmes for businesses and households. Having this in mind, the Fiscal Council aims to contribute to an objective understanding of the scope and effects of budgetary support throughout the pandemic. Therefore, this analysis is relevant not only for expert-level comprehension of policy measures undertaken thus far, but also as a guide in designing new policy measures in the wake of rising economic challenges.

Serbian public finances have taken an enormous burden during the health crisis amounting to ca. EUR 5.4 billion. The COVID pandemic called for a strong increase in budgetary expenditures for healthcare, as well as support programmes for affected businesses and households. The anti-crisis package that the Government implemented during the pandemic was exceptionally large, with total budget costs reaching a quite high figure of EUR 5.4 billion (planned spending in 2022 included). Those expenses were financed through borrowing, which was the main reason why the Serbian public debt increased by ca. EUR 6 billion in the period between the end of 2019 and the end of 2021. In this study, the Fiscal Council analysed how exactly the public funds were spent and whether this was economically sound and efficient. Our main conclusions are as follows: 1) strong fiscal policy measures during the pandemic were justified in principle; 2) however, the measures implemented were predominately non-selective and therefore not entirely economically sound. Had the measures been better targeted, similar effects would have been achieved with EUR 2bn less in spending along with a correspondingly smaller increase in public debt.

All European countries have implemented substantial fiscal measures which was a proper economic response to the health crisis. The most important goal of the Government during the pandemic was to directly support the burdened healthcare system. Still, the pandemic and related epidemiological restrictions have caused rather deep economic disruptions in European economies, which also called for a prompt and strong fiscal policy response – as it turned out, significantly more extensive than in the previous crises. In simple terms, the executive branch had two choices before them. The first was not to take on any new debt, i.e. to leave the economy to the effects of market mechanisms without carrying out major budgetary interventions. This would imply the termination of those companies whose turnover strongly declined during the pandemic accompanied by a loss of a considerable number of jobs. The second option for the state was to take on additional debt to subsidise the economy in bridging the period of the pandemic. The broad consensus was that the economic crisis had been caused by temporary and external factors. This is why practically all European countries opted, to a greater or smaller extent, for the second scenario – to use public funds to preserve their economic capacities during the crisis, at the cost of the strong increase in the fiscal deficit and public debt.

Strong fiscal interventions have contributed to the fast recovery of the European economy from the deep recession. The GDP drop in 2020 caused by the pandemic amounted to 5.9% in the EU. This has been assessed as the deepest recession EU countries have experienced since the end of World War II, and it was certainly the deepest since 1970 when the data at this level of aggregation began to be published. However, strong economic recovery started in the second half of 2020 already, along with the loosening of epidemiological restrictions. At the EU

level, the pre-pandemic production (from the second half of 2019) was reached in the third quarter of 2021, and in the second quarter of 2021 at the level of Central and Eastern Europe (CEE). Serbia achieved its pre-pandemic level of economic activity even earlier, in the first quarter of 2021. Such a fast recovery was certainly aided by intensive fiscal and monetary measures as they prevented a major loss of jobs, thus avoiding the prolongation of the crisis. The employment trends show that the health crisis had a relatively low impact on the labour market, which was the primary goal of the fiscal policy measures. The decline in the number of persons employed in the EU was 20% lower than the one during the 2009 crisis (although the 2020 recession was much deeper), and the labour market recovery started earlier – in 2021 already, while it took several years for the employment to recover during the previous crisis of 2009.

In relative terms, Serbia spent 55% more budget funds for its anti-crisis package relative to comparable CEE countries. A major part of this report is dedicated to comparative analyses of different anti-crisis packages in Serbia and CEE countries. These analyses have shown that in 2020 and 2021 Serbia spent 10.4% of its GDP on anti-crisis measures, and in doing so became a record-holder among all other considered countries. Those countries allocated 6.7% of their GDP for their packages on average. In addition, Serbia allocated more funds than others for all three key components of the anti-crisis packages: 1) for extraordinary expenditures in the healthcare system Serbia allocated 1.1% of GDP more than the CEE average; 2) 0.6% of GDP more for support to the economy; 3) and a staggering 2.1% of GDP more for the support granted to the general population than in comparable countries.

The higher level of extraordinary expenses for healthcare in comparison with other CEE countries was inevitable. One part of the reason for higher expenses for the healthcare system in Serbia during the crisis could be explained by the method used to calculate these costs (relative to the GDP of an individual country). Namely, Serbia is significantly less economically developed than the CEE countries' average. This is the reason why the cost of purchase of standard medical supplies during the pandemic (vaccines, medicines, etc.) was considerably higher for Serbia in relation to its GDP than in the CEE countries. However, this is not the only reason why extraordinary expenses for the healthcare system in Serbia in 2020 and 2021 amounted to 2.7% of GDP (compared to 1.5% of GDP in CEE). The decades of insufficient investments have led up to Serbia facing the outbreak of the pandemic with undercapacitated healthcare facilities, lack of necessary equipment, relatively low wages and a shortage of medical staff. All of these resulted in extraordinary costs for the construction and equipment of COVID hospitals during the pandemic (which was not undertaken in other CEE countries), as well as in extraordinary costs of additional hiring and a relatively strong increase in the salaries of medical workers (this was also done in other CEE countries, but to a smaller extent than in Serbia). Still, irrespective of the causes of the more intensive increase in the healthcare expenditures in relation to comparable countries (which surely would need to be analysed), this was a priority cost during the pandemic and the state had allocated and spent these extraordinary funds justifiably.

The budget funds for the support to the economy were indeed too high, but an even greater problem is reflected in their irrational allocation. The main purpose of fiscal measures for the support to businesses was to prevent the excessive drop in the employment. Due to this fact, the convincingly highest portion of budget funds both in CEE and Serbia was paid per employee (usually in the amount of a minimum wage or part of the minimum wage). Moreover, certain countries (including Serbia) additionally implemented other measures like deferred tax payment or temporary tax exemption. In 2020 and 2021 Serbia allocated somewhat more budget funds for assistance to businesses compared to the CEE countries' average (4.8% of GDP against 4.2% of GDP). We consider this difference unjustified, more so because, due to the specific structure of its economy, Serbia was less affected by the crisis than other European countries. However, an even greater issue than the size of executed funds was poor targeting. In the CEE countries, on average ca. 75% of the paid state aid was given to companies affected by the crisis (with a turnover decline ranging between 20 and 50% or those operating in the particularly affected

sectors, like tourism). Unlike them, less than 10% of the funds in Serbia were targeting particularly affected business sectors (tourism, hospitality, bus transportation, car rental services, etc.), with even more than 90% of the funds being allocated independently from the company vulnerability level. So, the budgetary funds were unjustifiably flowing toward the companies not affected by the crisis at all (pharmacies, food delivery, IT sector, etc.). Owing to better profiling of firms, CEE countries have managed to provide considerably higher support to companies affected by the crisis while spending fewer funds.

The major flaw of the anti-crisis package in Serbia was the excessive and non-selective assistance to the general population. After the first round of budget allocations (EUR 100 to all citizens above 18 years of age) in June 2020, a number of similar measures followed, so their cost reached a huge figure of EUR 1.9 billion, including the payments currently planned for 2022. Other CEE countries targeted their assistance primarily to vulnerable population. Specifically, the funds were allocated to the unemployed (almost all CEE countries), low-income pensioners (Croatia, Slovenia, Montenegro, Bulgaria), beneficiaries of social welfare programmes (Montenegro, Poland, Lithuania, Albania), for covering the costs of absence from work for the care of a family member infected by COVID or school closure (the Czech Republic, Slovakia, Poland, Lithuania), for training and re-training (Croatia, Bulgaria, North Macedonia, Lithuania), for other vulnerable groups (Slovenia, North Macedonia, Latvia). However, the measures in Serbia also included the population segments not at-risk, namely employees which regularly receive salaries, pensioners with above-the-average pensions, etc. Due to this fact, for the assistance to the population in 2020 and 2021 Serbia spent almost four times more than comparable countries. These obvious and enormous differences are only one of the arguments used for years by the Fiscal Council to show that it is economically unjustified to impose additional debt on all citizens of Serbia (with interest) to distribute these funds non-selectively to those who are not socially vulnerable by any criteria. In October 2020 we have shown that the impact of these measures on the reduction of inequality and poverty was very low and temporary; in May 2021 we have demonstrated that these measures are economically inefficient, namely, their effect on the GDP acceleration and increase in tax revenues is almost negligible. Still, despite this, the non-selective payments to citizens continued in 2022, whereby the Government did not make available a single credible analysis to demonstrate the economic and/or social purpose of such measures.

We estimate that the government could have saved, and thereby avoided the subsequent rise in public debt by, ca. EUR 2 billion if the measures had been better targeted at businesses and the population at risk. A major part of these savings (EUR 1.4 – 1.5 billion) could have been achieved by better targeting the assistance to the general population. If the implemented criteria and allocated funds were the same as in other CEE countries, approximately EUR 500 million would have been spent for this purpose instead of EUR 1.9 billion. Two methods were used to estimate how the dissipation of funds for assistance to businesses could have been reduced. The first, a somewhat more conservative approach, comes down to a simple comparison with the outlays paid for the same purposes in comparable CEE countries. This method shows that savings in Serbia could have amounted to at least EUR 300 million if the cost of support to the economy had been proportional (in terms of GDP) to those in CEE countries. However, the Serbian Business Registers Agency data on results of the economy during 2020 suggests that the savings could have actually been doubled with adequate targeting of companies at risk. An objective and technically feasible criterion for the assistance payout could have been, for instance, the reduced turnover of 20% compared to the pre-crisis period (this was the criterion used by some of the CEE countries). In that case, Serbia would have spent a somewhat lower amount on support to businesses than the average in other CEE countries, which is a reasonable estimate given that the Serbian economy was noticeably less affected by the crisis than in other CEE countries. Taking into consideration everything mentioned above, we estimate that ca. EUR 2 billion, accounting for ca. 4% of GDP, could have been saved without perceptibly lowering GDP growth if the budget funds had been better focused on the objectively vulnerable segments of the economy and population.

The funds that have been irrationally spent during the pandemic would indeed be of great use now, because a potential new crisis could emerge already in 2022. Economic crises are impossible to predict. Sometimes the period between them is measured in decades, sometimes they emerge in a very short interval. This latest, rather rare scenario could actually happen in 2022. The war in Ukraine, with the already present high inflation and energy crisis, could easily push the economies of European countries into a new recession which would practically represent just an extension to the health crisis. Although Serbian public finance can still principally be assessed as stable, the excessive and non-selective spending in the past two years was wrong. Not only because it increased the public debt by ca. EUR 2 billion more than it was necessary (this debt will be paid back in the coming years by taxpayers), but also because it unnecessarily shrank the available economic policy mechanisms in the possible new crisis.

1. BASIC ECONOMIC CHARACTERISTICS OF THE COVID CRISIS IN EUROPE

The pandemic crisis was caused by the exogenous shock, not by a structural economic problem, which makes it fundamentally different to the previous crises. At the beginning of 2020 the pandemic spread out to all European countries. The spread of the virus called for strict epidemiological measures in order to limit physical contact among people. Shortly after, the restrictions were imposed in the sectors where human interaction is most frequent (hospitality, tourism, air transport, etc.), which was followed by reduced production in plants with a large number of employees. Such restrictions led to a standstill in supply chains, while the complete closure of certain business activities led to a halt in their production. The specificity of the COVID crisis lies in the fact that it was not evoked by structural economic problems, but by exogenous factors – restrictions imposed to limit the transmission of the virus. In comparison, the previous 2008/2009 Global Economic Crisis was a consequence of internal weaknesses, i.e. piled-up structural problems in the financial sector (such as systemic underestimation of risk, overestimated equity of banks, high off-balance sheet liabilities).

The health crisis had a rather asymmetric effect on different business activities and professions. Certain industries were strongly affected by the pandemic, others slightly, whereas specific businesses registered a strong growth.[1] One of the main criteria determining whether and to what extent the crisis would affect a business was the intensity of physical contact in the workplace (with clients and/or among staff). Another significant factor was the response of consumers/users in the changed circumstances, i.e. whether they increased or decreased demand for particular products and services.[2] Therefore, the sectors requiring a pronounced direct inter-personal interaction and those considered non-existential to a certain extent, were hit the most (tourism, air transport, hospitality, entertainment and recreation). On the other side, office jobs (consultancy, finance, banking, and IT services) continued operating unhindered, although under different conditions (remote working). Finally, due to the growing demand for their products, some sectors registered an increase in inactivity during the pandemic, which was the case with the production of basic chemical products and consumables, as well as medical and pharmaceutical products etc.

The harmful economic effects of the crisis were considerably more pronounced in the countries with a high share of the affected sectors in their economy. Economic implications of the pandemic were rather heterogeneous among countries, which is a direct consequence of the already described specific nature of the crisis it caused. For example, in 2020 Montenegro registered a GDP decline of 15.3%, Spain of 10.8%, while Ireland, on the other side, achieved a growth of almost 6%. These differences are tightly related to their economic structure. The most affected countries had a high share of tourism, hospitality, transport and complex industries which involve manufacturers from a large number of countries (e.g. automotive industry, producers of investment equipment). On the other side, the less affected countries were those with a higher share of agriculture, food processing industry, pharmaceutical and production of other essential

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[1] This is one of the main reasons why it is called a sectoral crisis in the literature. See, for example, European Commission, Directorate-General for Economic and Financial Affairs, *Quarterly report on the euro area. Volume 20, No 2 (2021)*, Ruscher, E.(editor), Pench, L.(editor), Salto, M.(editor), Publications Office, 2021

[2] The evident macroeconomic uncertainty and the closure of certain sectors have led to precautionary savings, but also "forced saving". The total savings in the economy were higher than the usual savings levels in uncertain times, given that in part they were conditioned by the inability to consume goods and services. The growth in savings meant declining demand of households for non-existential products (e.g. for durable goods), and demand of the economy for investment products. On the other side, a growing demand was recorded for existential products, basic chemical products, medical products, and strong growth in demand for IT products and services, which created new technical and software solutions for remote work, followed by financial services, etc.

goods.[3] Additionally, the analyses have shown that a certain contribution to the achieved economic growth was made by stringency of implemented epidemiological measures, as well as economic circumstances prevailing in the respective countries at the moment of the crisis outbreak.[4] There are, namely, some indications that the drop in economic activity was higher in countries that implemented stricter lockdown measures (e.g. longer duration of total closure of bars and restaurants, limitation in mobility of citizens).

In the year of the pandemic outbreak (2020) European economies experienced a record-breaking GDP drop, the largest in the past several decades. In 2020 EU countries had a GDP decline of 5.9% on average, which is 1.6 p.p. more than in 2009, while the Central and Eastern European (CEE) countries, which are comparable to Serbia, registered a drop of 3.7%, or 0.7 p.p. more than in 2009 (Table 1). Serbia belongs to a smaller number of countries that have had a lesser decline in 2020 than in 2009.

Table 1. The trends of basic macroeconomic aggregates in the 2009 and 2020 crises for the selected sample of countries

	2009 Crisis				2020 Crisis			
	GDP (%)	Fiscal deficit (% GDP)	Employment (%)	Pre-crisis GDP level reached in	GDP (%)	Fiscal deficit (% GDP)	Employment (%)	Pre-crisis GDP level reached in
EU	-4.3	-6	-1.8	2014Q4	-5.9	-6.9	-1.4	2021Q3
Eurozone	-4.4	-6.2	-2.1	2015Q2	-6.4	-7.2	-1.4	2021Q4
CEE 11 countries								
Bulgaria	-3.3	-4.4	-3.1	2010Q4	-4.4	-4.0	-3.6	2021Q3
Czech Republic	-4.7	-5.4	-1.5	2014Q2	-5.8	-5.6	-1.2	-
Estonia	-14.6	-2.2	-9.3	2015Q2	-3.0	-5.6	-2.3	2021Q1
Croatia	-7.3	-6.2	-1.0	2019Q1	-8.1	-7.4	-1.2	2021Q2
Latvia	-14.2	-9.5	-13.1	2018Q1	-3.6	-7.4	-2.1	2021Q2
Lithuania	-14.8	-9.1	-7.7	2014Q1	-0.1	-4.5	-2.0	2020Q4
Hungary	-6.6	-4.7	-2.6	2014Q3	-4.7	-8.0	-1.3	2021Q2
Poland	2.8	-7.3	0.5	2009Q1	-2.5	-7.1	-0.3	2021Q2
Romania	-5.5	-9.1	-0.9	2014Q1	-3.7	-9.4	-1.6	2021Q1
Slovakia	-5.5	-8.1	-2.8	2010Q1	-4.4	-5.5	-2.1	-
Slovenia	-7.5	-5.8	-2.1	2017Q1	-4.2	-7.7	-0.5	2021Q2
Aveage CEE11	-3.0	-6.9	-1.5	2011Q2	-3.7	-7.1	-1.2	2021Q2
Serbia	-2.7	-4.2	-7.3*	2013Q1	-0.9	-8.0	-0.3	2021Q1

Source: Eurostat and SORS

*The piece of data regarding the employment decline of 7.3% in 2009 is probably a consequence of the poor reliability of the Labour Force Survey undertaken at the time. Namely, according to this data, Serbia had a five times higher employment decline compared to CEE countries, although its GDP drop was slightly lower than in CEE

To prevent further deepening of the crisis, strong economic policy interventions were necessary and principally justified. Turbulences in economic trends were sudden and pronounced, especially in the first half of 2020. Since they were caused by exogenous shock with the most important fiscal and monetary aggregates in majority of the economies being stable before the crisis, a worldwide consensus was reached that the strong fiscal and monetary interventions were justified and necessary. Therefore, aiming to prevent the transformation of temporary crisis into a long-term downfall coupled with a major job-losses and a decline in living standard, most countries responded promptly – by implementing most of the measures right after the pandemic

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[3] We would like to mention here that in certain sectors there was no regularity in trends across countries during the crisis. The most obvious example is the construction industry which kept the value-added levels in Germany and the Netherlands while registering a decline in the South European countries (Spain, France, Italy). Source: European Commission, Directorate-General for Economic and Financial Affairs, *Quarterly report on the euro area. Volume 20, No 2 (2021)*, Ruscher, E.(editor), Pench, L.(editor), Salto, M.(editor), Publications Office, 2021.

[4] See Chapter 5 for more information about the findings of different studies on the impact of these factors on macroeconomic indicators.

outbreak, and this was also the case in Serbia.

Most European countries have faced the pandemic with sound public finances and relatively stable macroeconomic parameters. The average debt in European countries at the end of 2019 equaled to ca. 62% of GDP, with only three countries having extremely high debt (Greece 180% of GDP, Italy 134% of GDP, and Portugal 117% of GDP).[5] If only the CEE countries are considered, the average debt at the end of 2019 amounted to 42% of GDP. Additionally, the majority of countries registered stable fiscal indicators before the crisis – the average consolidated deficit in European countries in 2019 was around 0.2% of GDP, and 0.5% of GDP in CEE countries. Finally, inflation was also low and stable – the average annual inflation in 2019 was 1.6% in European countries and 2.5% in CEE countries, with interest rates at their historical minimum (close to zero). Accordingly, the stability of the most important macroeconomic parameters before the crisis, together with sound public finances and the experience from the previous crisis (that the measures should be implemented without a delay),[6] all enabled a timely and comprehensive response without risk of causing major macroeconomic instability.

The consequence of the intensive budgetary response is sharp rise in fiscal deficits, and this increase was larger than in the previous (financial) crisis. A major share of the anti-crisis packages pertained to fiscal measures, implying a noticeable growth in public expenditures and/or decline in public revenues, and as such, they were spilling over to the final fiscal balance. Compared to the 2009 crisis, the fiscal response in 2020 was stronger (i.e. more expansive). In this sense, in 2020 the EU countries have achieved an average deficit of 6.9% of GDP, or 7.2% of GDP in CEE countries, while in 2009 the deficit in the EU countries was 6%, and 6.2% of GDP in CEE countries (see Table 1). The actual deficit in Serbia in 2020 was 8% of GDP, which is 3.8 p.p. more than in 2009. This contrast indicates a different perception of the 2020 crisis compared to the 2009 crisis. Given that the 2009 crisis was caused by structural factors, it was considered to last longer, and therefore public finance tended to gradually adjust to the changed macroeconomic circumstances. However, in the case of the 2020 crisis, the perception was that it was temporary, so the anti-crisis measures and the deficit increase were addressed in a more relaxed manner.

The economic policy measures were prompt, comprehensive and essentially effective. The available data shows that the recovery of economic activity was much faster compared to the initial expectations at the beginning of the pandemic, but also compared to the 2009 crisis. Table 1 shows the difference in the trends of the selected macroeconomic aggregates in 2009 and 2020. The pre-crisis production level during pandemic was reached in 2021 already both in the EU and CEE countries – practically in a year on average, in some countries even faster. Only two countries (the Czech Republic and Slovakia) have not yet reached the pre-crisis level of production, while in Serbia it happened already in the first quarter of 2021. Contrary to that, after the outbreak of the previous crisis (2009) it took much more time for production to return to the pre-crisis level. Specifically, EU countries achieved that in the last quarter of 2014, namely, six years following the initial shock; CEE countries a bit earlier – in the second quarter of 2011, while in Serbia this happened in the third quarter of 2013. Therefore, it might be concluded that during the 2020 crisis the recovery was V-shaped, unlike the previous one when it more resembled the letter *U* or even *W* (much slower recovery).

The main purpose of the fiscal policy measures was to prevent the excessive drop in employment – along with a decline in aggregate demand – and avoid the negative spiral, which has been achieved. The purpose of the generous fiscal measures was to ensure the private sector's liquidity in order to continue with the regular payment of salaries in emergency circumstances. This prevented a drop in employment and aggregate demand, as well as the potential deepening of the crisis.[7] The data shows that the number of employed people in European

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[5] If these three countries are excluded, the average debt of the remaining European countries was ca. 53% of GDP.

[6] In the previous economic crisis (2009), the ECB took a long time to respond.

[7] There was a risk that in a case of the delayed response, companies might start laying off workers, which would have had multiple negative effects in terms of the labour force (human capital erosion) and would considerably slowed down

countries in 2020 registered a slightly lower decline compared to 2009, although the GDP drop during the pandemic was significantly higher (Table 1). In addition to that, economic recovery started in the second half of 2020 already and the recovery of employment began in 2021, which was not the case with the previous crisis when employment continued its fall in 2010 as well, followed by a rather slow and unconvincing recovery. Other important objectives of fiscal interventions during the pandemic entailed intensified equipment of the healthcare system and assistance to financially vulnerable groups of population, which was also mostly achieved.

The strong anti-crisis fiscal policy measures were supported by monetary expansion. Along with the ample fiscal policy measures, an increase in the expansiveness of the monetary policy also occurred during the crisis. Central banks reduced interest rates and the FED and ECB printed a large quantity of money. Moreover, a loan moratorium was introduced in most of the European countries stimulating the borrowing activity – which was also an important mechanism for mitigation of the adverse economic effects of the crisis.[8] The monetary policy measures were not the subject of this study.

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the future recovery.

[8] The other side of the medal of the fiscal sland monetary policy expansion was reflected in the considerably faster growth of the aggregate demand in relation to aggregate supply, which triggered inflation. This did not happen after the 2009 crisis.

2. ANTI-CRISIS FISCAL MEASURES IN SERBIA: SIZE AND STRUCTURE

The pandemic is slowly phasing out and now is a good opportunity how much the Government has spent on anti-crisis measures. The pandemic hit Serbia in March 2020, after which in 2020 and 2021 the Government passed a set of measures to mitigate the negative impact on the economy and the population. In the initial stages, an imperative was to promptly formulate policies and implement them urgently, while a detailed overview of the projected expenses was of secondary importance. Today, two years later, the situation is different: a major portion of anti-crisis measures is already implemented, the number of the infected people is declining and the epidemiological situation is expected to calm down, i.e. the future waves of virus spreading are not even closely expected to be of the same intensity as in the previous two years. Therefore, it could be expected that COVID will not call for new extensive budgetary interventions, thus creating a basis for assessing the actual cost of measures implemented to date.

Government officials frequently claim that Serbia has allocated a (huge) EUR 9 billion for anti-crisis measures, which is an overestimated amount. One of the reasons why it is important to assess the actual budget cost lies in the fact that imprecise information is being heard in the public with a major overestimation of the budget cost of the implemented measures. An example is the recent statement of government officials that in the past two years Serbia allocated almost EUR 9 billion or 18% of its GDP for these purposes – which is exaggerated on multiple grounds. *First*, this figure includes the total amount of the loans granted to the businesses for which the state had issued a bank guarantee, which is not nearly equal to the cost that budget will bear. The actual cost occurs only if individual companies fail to repay the loan and even then the state does not guarantee the entire amount of the loan but only a smaller portion (specifically, the state guarantees a maximum of 25% of the total funds which the banks may approve to businesses via this scheme). So, in our estimation, out of the EUR 2.8 billion in loans to be approved by the end of 2022, the possible fiscal cost is estimated to maximum of EUR 70-100 million, distributed over several years.[9] *Second*, the estimation made by the officials includes the total amount of deferred taxes and social security contributions from 2020 (ca. EUR 850 million), which is also not the burden to be taken by the budget. Namely, in 2021 around one half of deferred liabilities were repaid already, while the remaining block is to be settled by the end of 2022. So, the actual budget outlays in this case include only the amount "eaten" by inflation until the moment of repayment (interest is not paid on deferrals) and a part of liabilities some companies will not be able to settle – estimated to EUR 100 million.[10] *Third*, the figure officials mention in the public in some cases refers to the planned expenditure for the measures and not their execution, which also leads to an overestimation of the total cost. An illustrative example is subsidizing the minimum wage in 2021 which was budgeted for the entire private sector, but not all companies applied, thus resulting in ca. 20- 25% lower execution compared to the plan.[11]

We estimate that the actual budget cost of the anti-crisis measures implemented in the period 2020-2022 amounts to ca. EUR 5.4 billion. Our analyses have shown that the actual budget cost of the measures adopted and executed to date is considerably lower than the one indicated in the public, and amounts to EUR 5.4 billion. This number includes: budgetary effects

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[9] The IMF expects a higher budget cost of ca. EUR 140 billion; however, our calculations show that this is a rather conservative projection.

[10] This is in line with the similar assessments of the Office for Budget Responsibility, an independent fiscal institution in the United Kingdom, calculations of the Ministry of Finance of the Republic of Serbia, and also to the usual collection efficiency in Serbian public enterprises for electricity, heating and utility bills.

[11] The amount of EUR 9 billion mentioned by the Serbian Government officials as the anti-crisis package could rather be interpreted as an economic stimulus, not as an actual budget cost. Although, even in such a case, the amount is somewhat overestimated since it includes planned, and not fully implemented measures as we already mentioned.

of the measures already executed in 2020 and 2021, as well as payments in 2022 executed up to date, together with the effects of all known measures yet to be paid out (e.g. additional EUR 100 for the youth to be paid out in June 2022). An overview of measures Serbian Government implemented together with respective costs is presented in Table 2, and a short explanation is given in the paragraphs which follow.

Table 2. Fiscal cost and the anti-crisis package structure in Serbia, in EUR mln

	2020	2021	2022	Total 2020-2022
Total fiscal cost	**3,700**	**1,308**	**372**	**5,380**
Support to the health system*	786	510	169	1,465
Support to the economy - tax measures**	854	-399	-364	90
Support to the economy - expenditure measures	1,180	505	0	1,685
Direct payments to citizens	742	677	491	1,91
Loans via the Development Fund***	138	0	51	189
Budget cost of guaranteed loans	0	15	25	40
Pro memoria				
Guaranteed bank loans (not a budgetary cost)	1,483	923	400	2,806

Source: Fiscal Council calculation based on the data of the Ministry of Finance and other sources

* Estimated extraordinary expenditures for 2022 based on the budget and the assumption that the pandemic is phasing out

** The effects of tax measures are stated on the net basis - in the years when the economy is settling deferred liabilities (2021 and 2022) the figures are negative. The estimated repayment of deferred taxes in 2022 is done based on the execution in 2021.

*** For 2020 and 2021 Ministry of finance (execution), for 2022 Budget law (plan)

The anti-crisis fiscal package in Serbia can be divided into three big segments – support to healthcare, economy and the citizens. The number of legal acts adopted by the Government in the past two years to limit the negative effects of the pandemic is large, significantly larger than in the pre-crisis years. Still, if we take into account the final beneficiaries of adopted measures, the policies basically come down to three segments: support for the healthcare system, the economy and the general population.

- The *support to the healthcare system* included: 1) purchase of medical material and equipment, medicines and vaccines, 2) construction of COVID hospitals in Novi Sad, Kruševac and Belgrade (Batajnica), and the vaccine production facility, 3) salary increase for the medical staff in 2020 and 2021, including COVID benefits and other one-off bonuses, 4) increased staff number, and 5) increased allocations for sick leave due to the pandemic paid via the Republic Health Insurance Fund.

- The *support to the economy* encompassed: 1) deferral of tax liabilities from 2020;[12] 2) budget subsidies for job retention in 2020[13] and 2021[14], and some smaller forms of sectoral support for the most vulnerable segments of the economy;[15] 3) soft loans via the

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[12] Deferred payment of *income tax and social security contributions* granted to the private sector during the state of emergency and for one additional month in 2020 and deferred *corporate profit tax* payment for the second quarter of 2020. The businesses will settle their liabilities in installments starting in 2021 until the end of 2022.

[13] Three-month minimum salary payment to entrepreneurs, micro, small and medium-sized enterprises, with two additional months of payment of 60% of minimum wage; 50% of net minimum wage for the employees who were laid off due to the pandemic was subsidised to large companies during the state of emergency.

[14] Half of the net minimum wage for three months to the entire private sector (entrepreneurs, micro, small, medium-sized and large companies).

[15] For bus operators (EUR 600 per bus for six months in 2021), for tourism (EUR 350 per bed, EUR 150 per room

Development Fund[16] and 4) loans approved by commercial banks with the state guarantee (i.e. guarantee scheme). It is important to point out one methodological remark here – in Table 2 the cost of tax measures incurred in 2020 was reduced by the share repaid to the budget in 2021. (ca. EUR 400 million) which explains the (minus) sign in the corresponding field. Analogue to that, a negative sign is also encountered in 2022 when we expect the additional settlement of deferred tax liabilities amounting to just over EUR 360 million. The loans issued via the Serbian Development Fund were entirely treated as a non-recoverable cost (the assumption is that the Fund will not repay it to the budget, but continue to approve loans to businesses using those funds), while the cost of guaranteed loans included only a portion the state will have to settle on behalf of the insolvent companies (we estimate EUR 40 million for the period 2020-2022 and EUR 30-50 million after 2022).

- The *support to citizens* included several cycles of assistance to the general population on various grounds – to all persons over the age of 18, youth between 16 and 30 years of age, pensioners, the vaccinated and the unemployed.[17] A major part of these payments was executed in 2020, 2021 and at the beginning of 2022, although there are still some payments to be made this year as well.

Cash handouts to citizens are not being phased out at the same pace as other measures, thus remaining relatively high in 2022. Following the first year of the crisis, the size of the total anti-crisis package strongly decreased. As it can be observed from Table 2, two-thirds of total measures were paid out in 2020, when the crisis hit the economy the hardest. If we disaggregate the package, we see significant differences in the dynamic of its individual elements. The subsidies for companies dropped from EUR 1.2 billion in 2020 to EUR 520 million in 2021, and are not planned anymore in 2022. The extraordinary support to the healthcare system strongly declined and in 2022 is almost five times lower compared to 2020. The only exception are handouts to citizens, which remain quite high in 2022 – they have been reduced by only 30% compared to 2020 (from EUR 740 million to 490 million) and this is a tendency for which it is very hard to find an economic justification.

In this section, the goal was to calculate the costs and present technical aspects of the anti-crisis package implemented in Serbia, whereby the analysis of its effects on fiscal and macroeconomic aggregates, along with the comparative analysis, will be presented in the coming chapters.

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for city hotels in 2020 and 2021 + one more minimum wage for the hospitality, tourism, hotel and car rental sectors (in 2020 and 2021), for agriculture (direct subsidies + soft loans), assistance to sports clubs, independent artists, etc.

[16] Mostly liquidity loans for entrepreneurs, micro, small and medium-sized enterprises with an interest rate of 1% and the repayment period of 36 months in 2020, plus a new credit scheme with the EIB starting in 2022. A smaller portion of this credit scheme was sector-based: targeting tourism, hospitality and passenger transport sectors.

[17] Payments to pensioners (RSD 4,000 + RSD 5,000 in 2020, EUR 50 in 2021, RSD 20,000 in 2022), to adults (EUR 100 in 2020, EUR 30+30+20 in 2021), to youth (2xEUR 100 in 2022), to the vaccinated (RSD 3,000 in 2021), to the unemployed (EUR 60 in the territory of Central Serbia, EUR 200 to the unemployed in the territory of Kosovo and Metohija).

3. EFFECTS OF THE ANTI-CRISIS MEASURES ON SERBIAN FISCAL DEFICIT AND PUBLIC DEBT IN 2020 AND 2021

The high fiscal deficit in the past two years mainly stems from anti-crisis measures. After presenting the cost-based aspect of the implemented measures, we switch to the analysis of their effect on fiscal performance. Keeping in mind that the deficit and public debt in 2022 are still unknown, this analysis was based on the published data for 2020 and 2021. During the crisis, Serbia registered a high fiscal deficit – 8% of GDP in 2020 and 4.1% of GDP in 2021. Expressed in euros, the cumulative general government deficit amounted to EUR 5.9 billion in last two years, which is a sharp turnaround compared to the pre-crisis period when the budget was almost balanced.[18] Being aware that the budget cost of anti-crisis measures in 2020 and 2021 was ca. EUR 5 billion (see Table 2), and that the cumulative deficit in these two years amounted to EUR 5.9 billion, we conclude that extraordinary allocations caused by the pandemic were responsible for the major portion of the negative fiscal result – they accounted for 85% of the 2020 and 2021 cumulative fiscal deficit. The remaining part of the negative fiscal result generated in 2020 and 2021 is a consequence of the growing public investments and declining economic activity.

A positive aspect of Serbian fiscal trends in 2020 and 2021 is that the budget, apart from emergency measures, remained relatively stable. Another side of the fact that 85% of the high fiscal deficit in the previous two years was the direct consequence of anti-crisis measures is that regular budget revenues and expenditures remained relatively stable. Without emergency interventions, the consolidated deficit in 2020 and 2021 amounted to EUR 900 million. This corresponds to the annual deficit level of ca. 1% of GDP, implying that the pandemic had only slightly influenced the fundamental, long-term trends in Serbian public finance. Moreover, a significant part of this slight increase in structural deficit generated during the crisis can be attributed to a rise in public investment, which is the most productive category of budgetary spending, i.e. desirable anti-recession policy. On the other side, the largest budget expenditures – salaries in the public sector and pensions – were under control and practically kept at the 2019 level.[19]

During the pandemic, public debt has increased by EUR 6 billion, which is a record-breaking surge in a period of two years. General government debt grew by ca. EUR 6 billion from the end of 2019 until the end of 2021, namely from EUR 24.4 billion to EUR 30.5 billion. This increase approximately corresponds to the actual budget deficit in the observed period which has been, as already noted, strongly related to the emergency anti-crisis measures. The mentioned public debt rise of EUR 6 billion represents, historically observed, the largest absolute increase in a two-year period (the data is published as of 2000). For comparison, the strongest debt rise in the past occurred in 2011 and 2012 (EUR 5.6 billion cumulatively), which forced the state to initiate the process of fiscal consolidation soon after.

The public debt-to-GDP ratio did not register such a drastic increase due to the solid economic growth, accelerated inflation and real appreciation of the domestic currency. If we look at the public debt-to-GDP ratio, the picture is somewhat different – public debt grows from 52.8% of GDP in 2019 to 57.1% of GDP in 2021. In other words, the accretion of public debt amounted to only 4.3 p.p. of GDP, although in the same period cumulative deficit was over 12% of GDP. The reason why the debt-to-GDP ratio grew so little is that Serbian GDP cumulatively rose by 6.5% in two years, but an important role can also be assigned to the inflation acceleration and a relatively strong real Dinar appreciation (amounting to 4% in the period between 2019 and the end of 2021).

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[18] In the period 2017- 2019 Serbian consolidated budget was in a slight surplus, roundabout EUR 30 million per annum (ca. 0.5% of GDP).

[19] Specifically, wage bill increased by 0.5 p.p. of GDP at the end of 2021 compared to 2019, and at the same time pension expenditures dropped by 0.6 p.p. of GDP.

4. COMPARATIVE ANALYSIS OF ANTI-CRISIS PACKAGES IN SERBIA AND CEE COUNTRIES

4.1. Comparative analysis of the total assistance packages by years

In relative terms, Serbia spent considerably more budget funds in 2020 and 2021 on anti-crisis measures than CEE countries. Undertaking comparative analyses of the support packages turned out to be a rather demanding task. Individual countries used different methodological approaches in reporting different support instruments, while global databases (like the IMF database of anti-crisis assistance by countries) have certain technical limitations. This is the reason why for the needs of this study we have separately analysed each CEE country, including the Western Balkans[20] countries and several largest economies of developed Europe, and adjusted their measures to make it comparable with the data for Serbia.[21] For more details about the methodology applied, please see the Methodological appendix (Chapter 8) at the end of this document. During the last two years, by implementing measures aimed at mitigating adverse consequences of the pandemic, Serbia cumulatively spent 10.4% of GDP and thereby exceeded the average of CEE countries (amounting to 6.7% of GDP) by over 50% (see Chart 1). Serbian anti-crisis package was not only greater than the regional average but also larger compared to all other countries individually (closest are Slovenia with 9.7% of GDP and Bulgaria with 8.8% of GDP).[22] Given that Serbia holds the record in the total cost of response measures in CEE, the question arises as to whether the package it implemented was rational, i.e. did its size (and to what extent) correspond to the volume of funds necessary to counter the negative effects of the pandemic – or was it unnecessarily higher. Already at this level, it could be stated that our package was oversized; namely, the decline of Serbian GDP in the past two years was significantly smaller compared to other European countries, which is why it could have been expected that Serbia would spend less on mitigating adverse effects of the crisis than other countries, not more. More words and quantitative indicators on the above can be found in Chapter 6.

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[20] In the text below the term CEE will mainly include the Western Balkans countries as well.

[21] For this purpose, we have used the data of the relevant Governmental authorities (ministries of finance) of individual countries, and in cases when this data was not available, we used the latest published versions of other available sources like the IMF documents (e.g. *Article IV* used to assess several times a year the macro-fiscal framework of the countries that have entered into an arrangement with this institution), European Commission, etc. Having in mind that a set of data for CEE countries was compiled from indirect sources not including a sufficient level of detail in each case, minor inaccuracies could be possible.

[22] Serbia, Slovenia and Bulgaria had a relatively similar size of fiscal package, but quite different GDP trends during the crisis. This is the first indication that the response measures (although they undoubtedly affected economic activity) were not a predominant factor defining the GDP trends in 2020 and 2021.
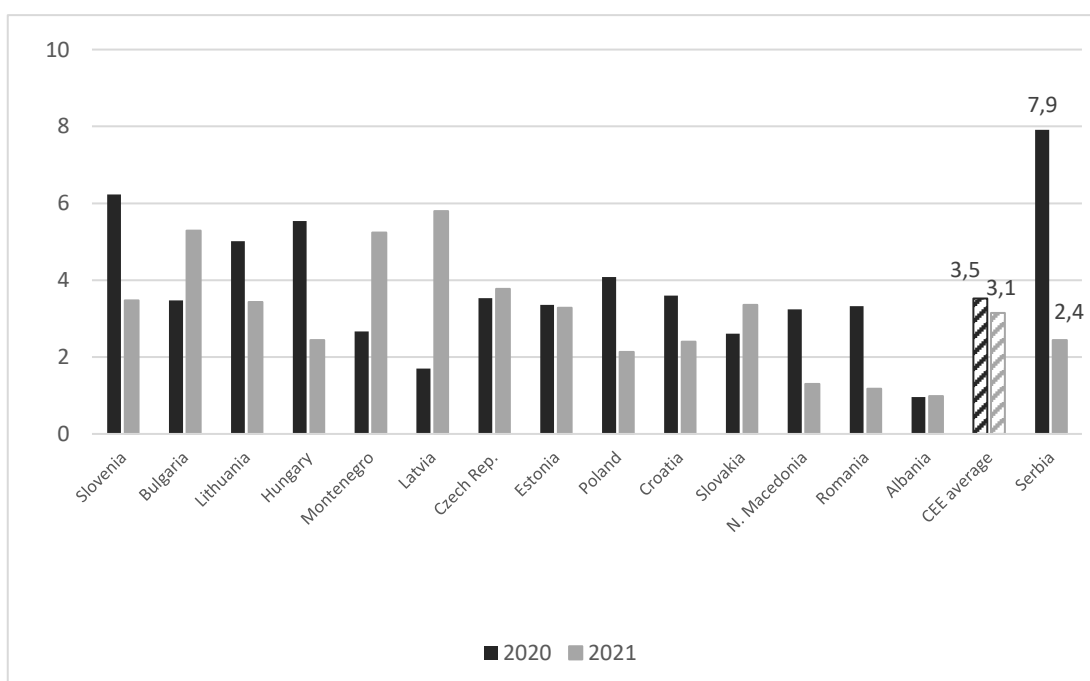
Chart 1. The fiscal cost of the anti-crisis measures in 2020 and 2021, in % of GDP
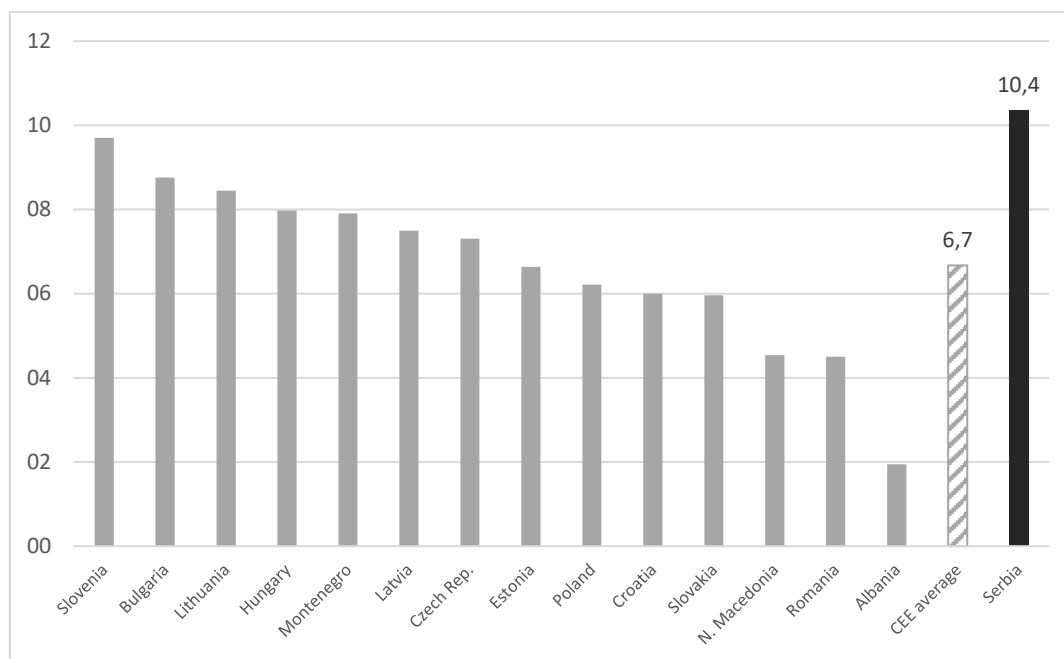
Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

The largest difference in allocations for anti-crisis measures compared to CEE countries was made in 2020. Serbia adopted the first package right after the pandemic outbreak (end of March 2020), which corresponds to the moment when other countries did so as well. If we take a look at the expenditure execution by years (Chart 2), we can see that the key difference in size of the packages occurred in this year. Namely, the Serbian package in 2020 notably exceeded the one in CEE – by 4.4% of GDP, and this difference was to a certain extent reduced in 2021 (in that year Serbia had a smaller package than CEE by 0.7% of GDP).

Chart 2. The fiscal cost of anti-crisis packages by years, in % of GDP

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

4.2. Structure of anti-crisis packages

The anti-crisis packages in CEE were predominantly comprised of the support to public healthcare system, businesses and the general population. In this section, we present a comparative analysis of the structure of anti-crisis packages implemented in Serbia and CEE countries in 2020 and 2021. The packages contained a large number of individual support instruments, which can all be divided into four categories – healthcare, economy, citizens and other (Table 3). Observed by countries, sector measures vary, although their general characteristic was that the first three channels (healthcare, economy and citizens) accounted for by far the largest part of the total allocated amount, while the category Other accounted for only a small share.

Table 3. Stylized presentation of anti-crisis measures in CEE countries

Healthcare	Economy	Citizens	Other
Purchase of medical devices and equipment	Assistance to employers for the employees' salaries	Bonuses for pensioners	Subsidies for culture and sports
Purchase of medicines and vaccines	Reduced rate of taxes and social benefits (most often for particular sectors)	Additional social assistance to the poor	Support for the education system and science
		Payments to the unemployed	
Increase in salaries and bonuses for healthcare workers	Write-off and/or deferred payment of tax and benefits	Assistance to families with children	Support for religious communities
Construction of COVID hospitals (Serbia only)	Aid for settling fixed costs (e.g. rent)	Allowances for the care of a family member infected by COVID	
	Salary compensation to those inflected by COVID	Tourist vouchers	
	Compensation for revenues lost	Bonuses for the vaccinated	
		Payments to persons above the age of 18 (Serbia only)	

Source: Fiscal Council, based on the available official documents of the countries observed

Allocations in Serbia were higher than in CEE countries for each key segment of the anti-crisis package. It has already been demonstrated that the total two-year package in Serbia was 3.7% of GDP larger than in CEE countries. In this section we further analyse the sources of this difference, i.e. we are trying to find out for which part of the anti-crisis package Serbia allocated more funds than other countries. Our calculation has shown that the costs of the anti-crisis package in Serbia were higher in each of three most important elements than in CEE. The largest difference was made in assistance to citizens (2.1% of GDP), followed by the support for the healthcare system (higher by 1.1% of GDP) and support to businesses (exceeding CEE by 0.6% of GDP). On the other side, Serbian expenditures we categorized as Other were somewhat lower (by ca. 0.1% of GDP). The mentioned differences are presented in detail in Table 4, while their causes will be elaborated in the sections that follow.

Table 4. Structure of anti-crisis package in 2020 and 2021, % of GDP

	Healthcare	Economy	Citizens	Other
CEE	1.5%	4.2%	0.8%	0.2%
Serbia	2.7%	4.8%	2.9%	0.1%
Difference	**1.1%**	**0.6%**	**2.1%**	**-0.1%**

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, etc.

The largest deviation is identified in assistance to citizens, since in relative terms Serbia allocated almost four times more budget funds than CEE countries. Allocations for the measures aimed at assisting citizens in Serbia in 2020 and 2021 amounted to a staggering 2.9% of GDP, which is almost four times more than the CEE countries' average (0.8% of GDP). The extensive assistance to the population after the outbreak of the pandemic were justified by Government officials as necessary for helping the poorest segments of the population and stimulating economic growth, stressing that the large portion of the cost incurred would return to the budget via VAT revenues due to the increased spending. However, in previous analyses[23] the Fiscal Council has already shown that similar results with respect to poverty and inequality reduction could have been achieved by applying a more selective approach, with a much lesser budget cost (by at least 30%). In addition, we have demonstrated[24] that such measures have a relatively weak effect on economic growth in small open economies like Serbia, as well as that only a modest share of the funds spent can be retrieved via tax revenues (ca. 10% only).

Contrary to Serbia, dominant practice in CEE countries was to allocate the budget funds towards the segments of population in need of assistance. Cash handouts to Serbian citizens mostly comprised of non-selective payments to pensioners and citizens over 18 years of age, without material status of the recipients being considered. Due to the excessive non-selectivity of this type of assistance, a large portion of the budget funds was allocated to people who objectively did not need it (persons earning higher income). Unlike Serbia, assistance to citizens in CEE countries was more focused on the vulnerable population segments. Namely, besides the unemployed (also assisted by Serbia to some extent), support was provided to the lowest-income pensioners (Croatia, Slovenia, Montenegro, Bulgaria[25]), beneficiaries of different forms of social welfare (Montenegro, Poland, Lithuania, Albania) and for covering costs of the paid absence from work for the care of a family member infected by COVID or school closure (the Czech Republic, Slovakia, Poland, Lithuania). There were also specific programmes for the affected groups of the population, such as allocations for training and re-training of workers (Croatia, Bulgaria, North Macedonia, Lithuania) and other vulnerable groups (Slovenia, North Macedonia, Latvia). Still, it ought to be mentioned that in some countries there were partially non-targeted measures – for example, assistance to all families with children (Slovakia, Hungary, Latvia) or assistance to all pensioners (Bulgaria, Latvia, the Czech Republic) – however, their share in the total allocations for citizens in CEE sample was significantly lower than in Serbia. Specifically, our analyses have shown that more than 90% of the anti-crisis assistance in Serbia was allocated on a non-selective basis, whereas the CEE average was 35%.

Higher extraordinary allocations *to the healthcare system* in Serbia compared to other countries are a consequence of objective circumstances, but also of long-term insufficient investments in this sector. In 2020 and 2021 Serbia spent 2.7% of GDP on support to the healthcare system and thus considerably exceeded the CEE countries' average of 1.5% of GDP. A major part of these costs in Serbia compared to other countries was inevitable.

The *first reason* is technical. Serbia is poorer than the CEE country average, with GDP per capita lower by almost a half. In practice, this means that, when purchasing vaccines and equipment in the international market under the same conditions as other countries, the cost of this purchase expressed in percentage GDP will be higher than in CEE.[26]

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[23] See the Fiscal Council analysis "The Effects of the measures EUR 100 to citizens above 18 years of age on inequality and poverty", October 2020.

[24] "Fiscal and economic analysis of non-selective cash payments to citizens", May 2021.

[25] Bulgaria is a specific example because, besides the targeted allocations to lowest-income pensioners, it also had additional non-selective assistance to all pensioners.

[26] Let us take the following example – Hungary and Serbia are buying vaccines at the same prices and they are also buying the same number of vaccines per capita. Due to the larger population, Hungary will have a 40% higher absolute cost (in Euros). But, having in mind that Hungary is much more developed – with a three times higher GDP than Serbia – the relative cost of the vaccine purchase as a percentage of GDP will be twice as large in Serbia compared to Hungary.

The *second reason* is related to insufficient investments in the healthcare sector over many years. In one of our earlier reports[27] we have outlined that in the period between 2000 and 2012 Serbia was noticeably lagging behind the CEE countries in terms of public investments in this area. The investment gap was closed in the period 2013-2015 when Serbia investment in health infrastructure amounted close to average of these countries, only being slightly above CEE level since 2016. However, for the purpose of catching up with CEE countries in terms of equipment, Serbia should have increased investments in health sector beyond the regional average for a certain period of time – which didn't happen. With practically equal allocations as in these countries (on average), the gap in the equipment is not being increased, but it also isn't being reduced. This is why Serbia entered the pandemic with a considerably smaller number of medical devices in hospitals and health centers than comparable countries and was forced to build new capacities during the crisis for admission and treatment of new patients (COVID hospitals), which also required purchasing new equipment.

Third, a part of higher allocations to the health system stems from the need to adjust the salaries and hire new staff. Even before the outbreak of the pandemic, Serbia was faced with a striking lack of employees in the healthcare system, primarily doctors and highly educated technicians. The data of the World Health Organization shows that, measured per capita, Serbia had by one fourth fewer doctors than the EU average (11% less than CEE) in 2019 and almost 30% fewer technicians than in the EU (ca. 10% less than CEE). Besides new hiring, staff expenditures were also increased by salary raises and payment of one-off bonuses in this sector (including payments for working in special conditions, i.e. COVID bonuses).

The *assistance to the economy* was a bit higher in Serbia than in CEE, but the bigger problem was its low efficiency. Due to the already discussed specific structure of the Serbian economy, the negative effects of the pandemic and epidemiological measures were less reflected in the production decline than in other countries. Namely, Serbia is a country with a small share of tourism and hospitality (sectors strongly affected by epidemiological measures) and with a higher share of agriculture, food processing industry and other activities whose production was mostly not disrupted during the pandemic. Due to these developments, it would be somewhat expected for Serbia to spend less on supporting businesses than those countries. However, exactly the opposite happened – these measures in Serbia were by ca. 0.6% of GDP higher than in CEE countries, which was primarily the consequence of non-selectivity of measures, which will be more discussed in Chapter 4.3.

The expenditure-side measures comprised the major portion of the total anti-crisis aid for businesses, both in Serbia and CEE. The total budget support to the economy can be divided into two categories: measures on the expenditure side of the budget (direct payments) and the revenues side measures (tax benefits, etc.). Comparative analyses show that CEE countries have given priority to expenditure-based measures, having in mind that they accounted for 70% of the total package of support to the economy – which basically corresponds to the structure applied in Serbia. In practically all countries, expenditure measures for businesses included job retention subsidies for private companies (in full or in a certain percentage of wage), but also specific sector-based assistance for vulnerable sectors (tourism, hospitality, transport companies), same as for agriculture. Additionally, it included credit schemes financed from the general government budget (found in Serbia, Bulgaria, Montenegro, Poland, Estonia) and programmes aimed at fixed cost coverage (rent, etc.). The expenditure-based measures were, broadly observed, homogeneous – most of the countries applied conceptually very similar instruments and the amounts spent differed mainly due to the degree of selectivity, duration and part of the salary (and other costs) the state decided to cover.

From the standpoint of good budget practice, Serbian tax measures were adequately

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[27] See the report "The effect of the health crisis on fiscal and economic trends in 2020 and recommendations for fiscal policy in 2021", Chapter 5.1 (available only in Serbian).

designed, since the priority was given to deferrals rather than write-offs. To facilitate the operation of companies, most of the countries adopted revenue-side measures which were, as already mentioned, of a smaller scale than the expenditure-based ones. CEE countries frequently opted for a *reduction* in tax liabilities, more precisely: write-offs of a part of liabilities (Croatia for corporate income tax, personal income tax and contributions, Lithuania for personal income tax and contributions and others), reducing specific tax rates like VAT on certain goods and services (for example, Hungary, Bulgaria, the Czech Republic), reduced excise fees (Estonia), reduced customs duties (North Macedonia) and reduction or temporary abolition of specific fees and levies. On the other side, some countries have enabled companies to *defer* payment of tax liabilities (labour taxes, corporate income tax, VAT) for several months in 2020 (for example, Lithuania, Latvia, the Czech Republic, Serbia), which is in terms of costs, by far a much more favourable option.[28] In summary, tax measures implemented in Serbia in 2020 amounted to 1.8% of GDP, while being lower in CEE countries (on average a bit over 1% of GDP). It should be kept in mind that Serbia opted for the deferral of tax liabilities (unlike most of the CEE countries), which implies that businesses will still settle the major part of the deferred tax liabilities – which is, as we already mentioned, an economically efficient and fiscally far more responsible approach. One part of the deferred liabilities has already been repaid to the budget in 2021 given a relatively fast economic recovery, with the remaining amount of liabilities expected to be settled in 2022.

4.3. Selectivity of anti-crisis measures

Contrary to the CEE practice, the anti-crisis package in Serbia was predominantly comprised of non-selective measures. To assess the efficiency of anti-crisis packages in more detail, we developed selectivity criteria for specific measures, which enables us to divide the entire package (in total and by categories) into the selective and non-selective portions. The focus is on measures for the economy and population; healthcare costs were selective by definition and the category Other is small and narrowly targeted. The *selective measures for the businesses* include the measures: 1) covering specific sectors most affected by the crisis (tourism, hospitality, transport) and 2) covering companies from different areas registering a sharp decline in turnover due to the pandemic (measured by the drop in revenue in specific percentage, most frequently in the range between 20 and 50% compared to the pre-pandemic period). In case the adopted measure does not meet either of the two criteria, i.e. it is not directly linked to the effects of the pandemic, it is categorised as non-selective. On the other side*, selective measures for the general population* include the measures targeting: 1) vulnerable categories of the population on any grounds (the unemployed, social welfare beneficiaries, lower-income pensioners, etc.) and 2) employees prevented from being at work due to the specific circumstances caused by COVID (having to take care of their children due to the closed kindergartens, etc.). Other types of direct assistance are considered non-selective. Chart 3. shows that in Serbia over 90% of the total support to the economy and population (7.2% of GDP in two years) is comprised of non-selective measures, which is three times more than the average share of non-selective measures in CEE countries (with ca. 30% or 1.4% of GDP).

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[28] The most frequently found example in practice is the combination of different tax measures. We draw attention to the fact that some countries included the accelerated VAT refund in the set of fiscal measures (Romania, Hungary, Latvia), however, we have not included this in the anti-crisis tax measures due to the inability to accurately assess their effects.

Chart 3. Selectivity of the anti-crisis budget measures for the economy and population (*total*), in % of GDP
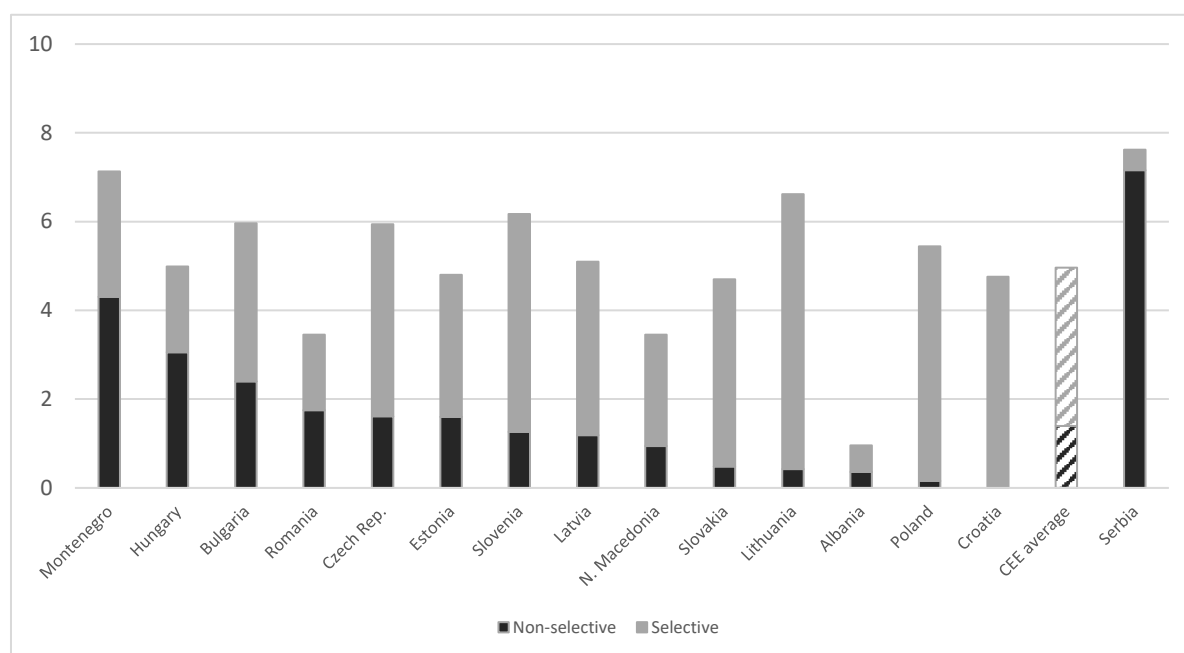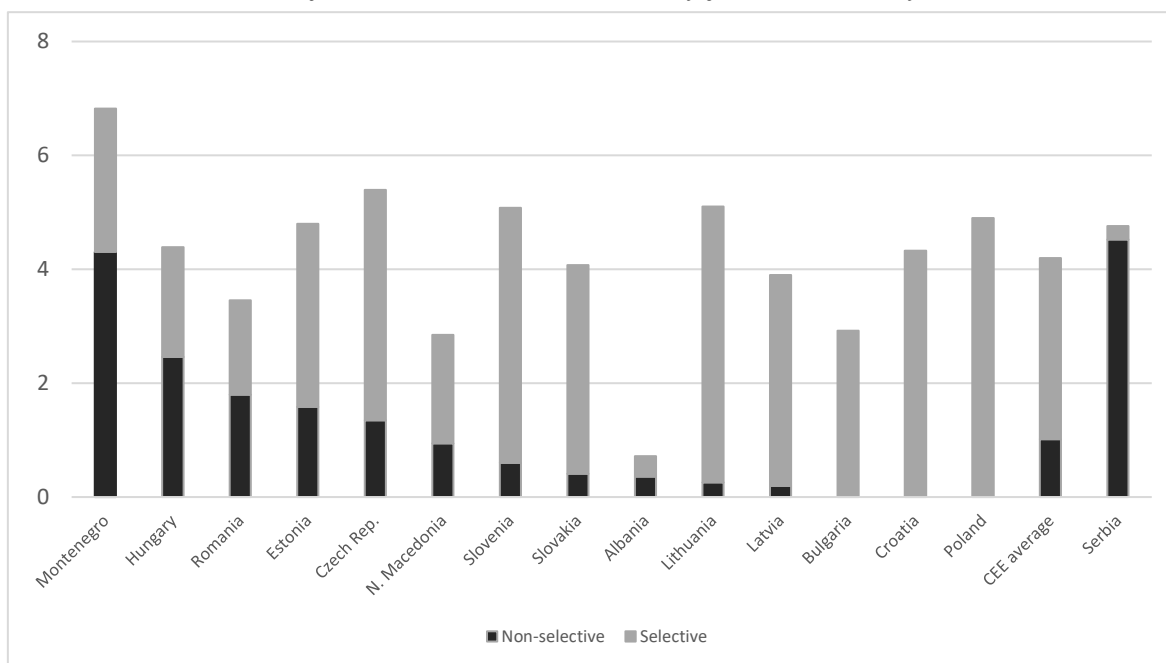

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

The support package to the economy was, in relative terms, 15% larger than in CEE countries due to its non-selectivity. If we take a closer look at the size of the packages for the economy, we can see that it was ca. 15% larger in Serbia than in CEE countries. Such a difference is a consequence of the lower degree of selectivity in awarding the funds – Serbia allocated over 90% of its package for the economy non-selectively, which means that the assistance was provided also to companies operating in sectors not affected by the pandemic (information and communications technology, pharmaceutical industry, trade, etc.). CEE countries implemented a opposite practice: in greater part, already in 2020, their packages were allocated based on some criteria pertaining to the level of being affected (the most frequently taken factor was a drop in revenues compared to the pre-pandemic period). This is why in CEE only ca. 25% of the support packages to businesses were paid out non-selectively, and 75% were targeted at vulnerable companies and sectors.

The evident non-selectivity of the support to the economy is also reflected in the high collection of the corporate income tax in 2020. For the anti-crisis package to the economy, Serbia allocated ca. 15% more funds compared to CEE countries: however, over 90% of its package was paid out non-selectively (unlike ca. 25% in CEE). This means that with somewhat less total funds spent, CEE countries assisted individual vulnerable companies much more than it has been the case in Serbia, where a large share of this assistance was dissipated on companies not having problems doing business. A good indication that the support to the economy in Serbia was excessively non-selective is reflected in the fact that a record-breaking level of the corporate income tax was collected in Serbia in 2020 despite it being the recession year. The government revenue from the corporate income tax for 2020 was collected in an extraordinarily high amount (by ca. EUR 200 million more than usual). The more detailed data of the Serbian Business Registers Agency confirms that relatively strong growth of the 2020 profits was mainly based on the increased state aid, which means that a large number of companies received subsidies from the budget although this was not necessary. Contrary to that, if the Government assistance had really been necessary, companies would have spent them on the regular business operations (salaries and

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other unavoidable expenditures) and these funds would not be spilt over to profit.[29]

Chart 4. Selectivity of anti-crisis measures *only for the economy*, in % of GDP

Over 90% of the *support package to citizens* in Serbia was non-selective, which is a considerable deviation from the practice in CEE countries. As already mentioned, along with Bulgaria, Serbia had by far the largest outlays for the assistance to the general population among the CEE countries, of which an overwhelming majority of 92% was paid out non-selectively (see Chart 5). CEE countries focused their significantly more modest packages targeting predominantly vulnerable citizens – low-income pensioners, social welfare beneficiaries, families with more children and/or children with mental disabilities, the unemployed, etc. Due to this, a part paid out non-selectively to the general population in CEE countries amounted only to 35% (ca. 0.3% of GDP) in comparison with over 90% (2.6% of GDP) as it was in Serbia. Implementing more carefully tailored measures, other countries have managed to assist the most vulnerable categories of the population at considerably lower cost, and therefore, the total cost of these measures (and governmental borrowing) was significantly lower than the one in Serbia. These major non-selective payments to citizens are not economically efficient since they have little effect on economic growth (which we already discussed), while strongly contributing to increased public debt.

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[29] The extraordinary 2020 increase in the profit of companies which actually did not have any problems in their business could be benevolently interpreted as some kind of non-selective capital subsidy to the private sector – if the funds spilt over into profits would later be used to increase investments and thus stimulate economic growth. However, there are several issues here. First, the surplus of funds does not necessarily have to be spent on investment, and this extraordinary profit could be distributed to shareholders or spent for other purposes. Second, the funds were ensured through state borrowing that will have to be repaid from future taxes.

Chart 5. Selectivity of anti-crisis measures *only for the population*, in % of GDP
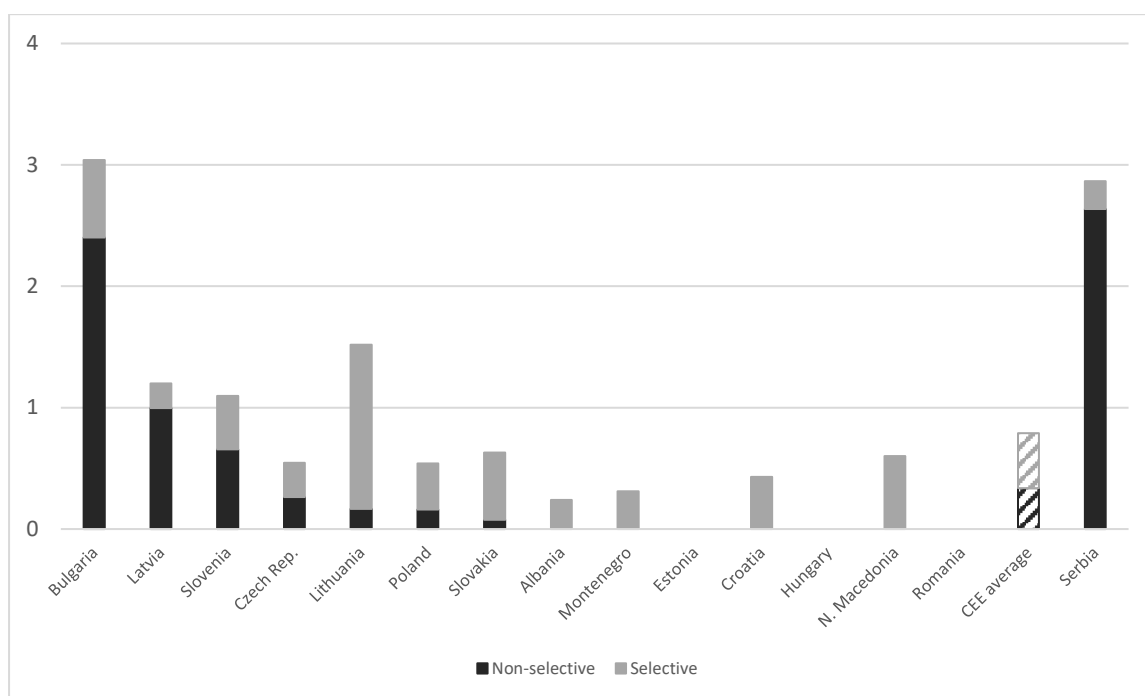
Source: Fiscal Council calculation based on the publicly available data

4.4. Comparative analysis of the effects of anti-crisis measures on the fiscal deficit and public debt

CEE countries have managed to preserve the stability of public finance during the pandemic, which can also be said for Serbia. The Central and Eastern European countries have entered the crisis with stable public finances. As of 2015, public debt registered a declining trend and by the end of 2019 it reached 42% of GDP, with the fiscal deficit being maintained at a low level, amounting to ca. 0.5% of GDP in 2019 on average. Serbia entered the crisis with a similar performance: in 2019, the budget deficit was only 0.2% of GDP, public debt was slightly below 53% of GDP and on a declining trajectory. The pandemic interfered with these trends – in CEE countries deficits exploded to record-breaking levels, resulting in a sharp public debt increase. Still, our calculations show that the deterioration of fiscal performance in the analysed countries was only temporarily. The average annual deficit without anti-crisis measures in almost all considered countries remained low in almost all considered countries – amounting 1.9% of GDP in CEE and 0.9% of GDP in Serbia (Table 5). In other words, the pandemic did spur relatively strong growth in public debt in all CEE countries, but it did not cause permanent/structural worsening of the fiscal deficit either in CEE or in Serbia.

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Table 5. CEE countries and Serbia: The impact of anti-crisis measures on fiscal deficit in 2020 and 2021 (% of GDP)

	Fiscal deficit			Anti-crisis measures			Fiscal balance excl. anti-crisis measures		
	2020	2021*	Average 2020-2021	2020	2021	Average 2020-2021	2020	2021*	Average 2020-2021
Bulgaria	-4.0	-3.0	-3.5	3.5	5.3	4.4	-0.5	2.3	0.9
Bulgaria	-5.6	-6.1	-5.9	3.5	3.8	3.7	-2.1	-2.3	-2.2
Estonia	-5.7	-3.4	-4.6	3.4	3.3	3.4	-2.3	-0.1	-1.2
Croatia	-7.4	-3.6	-5.5	1.7	5.8	3.8	-3.8	2.2	-0.8
Latvia	-4.1	-7.0	-5.6	5.0	5.8	5.4	-2.4	-1.2	-1.8
Lithuania	-7.1	-1.4	-4.3	5.5	3.4	4.5	-2.1	2.0	-0.1
Hungary	-8.0	-5.5	-6.8	4.1	2.4	3.3	-2.5	-3.1	-2.8
Poland	-7.1	-2.9	-5.0	3.3	2.1	2.7	-3.0	-0.8	-1.9
Romania	-9.4	-7.5	-8.5	6.2	1.2	3.7	-6.1	-6.3	-6.2
Slovakia	-5.5	-6.3	-5.9	2.6	3.4	3.0	-2.9	-2.9	-2.9
Slovenia	-7.7	-6.5	-7.1	6.2	3.5	4.9	-1.5	-3.0	-2.3
Average CEE11	-6.5	-4.8	-5.7	3.8	3.6	3.7	-2.7	-1.2	-2.0
Serbia	-8.0	-4.1	-6.1	7.9	2.4	5.2	-0.1	-1.7	-0.9

* Estimate based on the available data

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

The experience of Romania sheds light on the problems that may occur in countries failing to implement responsible fiscal policy in stable times. Romania has been singled out as practically the only CEE country that entered the crisis with unsustainable public finance. Before the crisis, this country faced with the problem of a high and growing structural deficit (4.4% of GDP in 2019) – which was not the case with any other country in our sample – and it went additionally up during the pandemic (at the end of 2021 more than 6% of GDP). The structural mismatch between public revenues and public expenditures harms the country's macroeconomic stability and undermines opportunities for achieving satisfactory economic growth rates – these are the challenges the Romanian government will have to address in the mid and long term. Apart from this, the immediate current threat is reflected in the shrinking budget space for an adequate fiscal intervention during the crisis; namely, Romania had the smallest size of anti-crisis package among the CEE countries that are EU Member States[30] which increased the risk of a temporary disruption caused by the pandemic transforming into a long-term economic downfall. This is the scenario that other countries, including Serbia, had mainly avoided. Romania's experience is a good reminder of importance of maintaining the sound public finances in peaceful times, because this ensures space for timely and sufficient response once the crisis had emerged.

In the past two years Serbia recorded a slightly higher deficit than CEE countries because its anti-crisis package was more generous. In 2020 and 2021 CEE countries generated a cumulative deficit of 11.3% of GDP on average, whereas the Serbian budget deficit was a bit higher – 12.1% of GDP. The higher deficit in Serbia compared to CEE was actually expected, given that Serbia spent 3.7% of GDP more on anti-crisis measures than other countries. On the other hand, Serbia registered a minor GDP drop and a faster recovery during the crisis, which contributed to its fiscal deficit experiencing only a slightly lesser increase compared to other CEE countries (besides the anti-crisis measures). The combination with these two factors resulted in a cumulative deficit of Serbia in 2020 and 2021 which was ca. 1% of GDP higher than in comparable countries (Table 5).

Serbian public debt-to-GDP ratio has increased less than in CEE countries, which is the consequence of the faster economic growth in Serbia and the large difference in the inflation and dinar exchange rate. During the pandemic, CEE countries have increased their

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[30] In our sample including in CEE the Western Balkan countries, smaller crisis response packages than Romania were only found in North Macedonia and Albania.

public debt by almost 11 p.p. of GDP (Table 6), which is only a bit less than the cumulative fiscal deficit. The situation in Serbia is different: public debt was increased by only 4.3 p.p. of GDP (from 52.8% of GDP in 2019 to 57.1% of GDP at the end of 2021), which is significantly less than the cumulative fiscal deficit (12.1% of GDP) in the corresponding period. The reason underlying the evidently lesser growth of Serbian public debt in percent of GDP is the strong GDP growth expressed in Euros – in the period of the crisis, Serbia recorded a GDP growth (in Euros) of ca. 15% while CEE countries grew at the rate of only 6% on average (which is a difference of almost 10 p.p.). A part of the difference regarding the GDP growth in Euros can be ascribed to *faster real growth in Serbia* compared to CEE countries and this is an economically sustainable difference. Namely, Serbia registered a cumulative real GDP growth in 2020 and 2021 of almost 6.5%, while CEE countries recorded ca. 2% on average. The second part is a consequence of the *relatively large difference between inflation* and *exchange rate trends* in Serbia, which are not observed, at least not to such an extent, in other CEE countries. Specifically, in 2020 and 2021 Serbia recorded higher inflation than the CEE average and nominally unchanged Dinar exchange rate, while other CEE countries with fluctuating exchange rates (the Czech Republic, Croatia, Hungary, Poland and Romania) experienced a nominal depreciation of their currencies by ca. 4.5% in the same period. If Serbia had had nominal Dinar depreciation like other CEE countries with a floating rate, its public debt would equal to ca. 60% of GDP at the end of 2021.

Table 6. Public debt in CEE countries and Serbia, GDP %

	2019	2021*	Increase 2021-2019
Bulgaria	20.0	24.2	4.2
Czech Republic	30.0	40.5	10.5
Estonia	8.6	19.6	11.0
Croatia	71.1	82.4	11.3
Latvia	36.7	43.6	6.9
Lithuania	35.9	45.1	9.2
Hungary	65.5	80.3	14.8
Poland	45.6	56.6	11.0
Romania	35.3	48.5	13.2
Slovenia	65.6	79.6	14.0
Slovakia	48.1	61.1	13.0
CEE average	**42.0**	**52.9**	**10.8**
Serbia	52.8	57.1	4.3

* Estimate based on the available data
Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, and Eurostat

5. PRELIMINARY ANALYSIS OF ECONOMIC IMPLICATIONS OF ANTI-CRISIS PACKAGES

Although it is still too early to come to sound conclusions, preliminary estimates have shown that the anti-crisis packages principally had positive economic effects. The analysis of the impact of anti-crisis measures on the most important macroeconomic aggregates – GDP, employment, inflation, etc. – is rather complex. The causality assessment in social sciences mainly calls for the use of complex econometric models, requiring more comprehensive and more detailed data sets. Final 2020 data and preliminary estimates of the most important economic indicators for 2021 have been published to date, and this data was mainly used in the majority of papers published so far. Additionally, when it comes to anti-crisis measures, there is no systematised database with execution by country – most of the records and even sector studies are based on the announced/ planned measures, and not on execution. However, the initial estimates show that the anti-crisis packages were effective and that they have contributed to faster economic recovery, while the thorough analyses of the measures, their comparison, assessments of the optimum duration of economic stimuli, etc. could be expected in the coming period after comprehensive data for the entire period of the crisis has been made available.[31] Further in this chapter, we will outline the findings of the studies undertaken to date, and then our preliminary analyses for the more narrow group of countries[32] based on the data from national sources on the amounts, structure and selectivity of measures in 2020 and 2021.

The economic research shows that the anti-crisis packages have helped the recovery, but the results greatly depend on other factors as well. Based on the studies published so far, a joint conclusion could be drawn that the anti-crisis measures implemented to mitigate the consequences of the pandemic, along with other factors, have contributed to achieving higher economic growth (or mitigating the downfall). In their study, *Arsić et al. (2022)[33]* have concluded that the achieved economic growth, apart from the fiscal policy, was strongly affected by certain characteristics of the countries, such as the pre-crisis growth and structure of the economy, and that the inflation growth in 2021 was positively correlated with the expansive monetary and fiscal policies. Furthermore, *Deb et al. (2021)[34]* pointed out that even announcements of fiscal measures positively influenced economic activity, growing trust and unemployment reduction, but also that final results depend on the type of measures and specific characteristics of a particular country. Moreover, *Chudik et al. (2021)[35]* conclude that anti-crisis measures contributed to mitigating economic downfall, but also that there are differences between the countries depending on the structure of the economy and institutions, international spillovers, as well as the volume and structure of implemented measures. Finally, the regular quarterly publication of the European Commission[36] indicates that there is evidence that monetary and fiscal measures have helped mitigate economic shock that was consequence of the pandemic and implemented lockdown

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[31] Likewise, the final analysis of the impacts of fiscal stimuli will require taking into account their impact on the public debt increase during the crisis, namely, if and to what extent the public debt increase will lead to a future tax increase or introduction of austerity measures. Another important factor to be considered is the impact of such stimuli on inflation or whether the increased inflation will call for restrictive monetary and fiscal policy measures in the future that will bring down the economic growth.

[32] The analysis covered CEE, Western Balkans, as well as the five largest economies of Western Europe (France, Germany, Spain, Italy, the Netherlands), which makes up a sample of 20 countries.

[33] Arsić, M., Nojković, A. i Maksimović, E. (2022), Uticaj fiskalne i monetarne ekspanzije na kretanje BDP i inflacije u periodu pandemije *COVID-19*. U Zec, M. i Radonjić, O. (redak.) (2022) Ekonomska politika u Srbiji i svetu u uslovima nezavršene pandemije, rastućih deficita budžeta, puzajuće inflacije i štampanja novca, NDES. (only in Serbian)

[34] Deb, P., Furceri, D., Ostry, J. D., Tawk, N. and Yang, N. (2021). The Effects of Fiscal Measures During *COVID-19*, IMF *Working Papers*, *2021*(262).

[35] Chudik, A., Mohaddes, K. and Raissi, M. (2021). *COVID-19* fiscal support and its effectiveness. *Economics Letters*, *205*, 109939.

[36] European Commission, Directorate-General for Economic and Financial Affairs, *Quarterly report on the euro area. Volume 20, No 2 (2021)*

measures, while the structure of the economy of particular country is the fundamental reason underlying the different impact of the crisis on GDP trends.

Preliminary analyses of the Fiscal Council show there is an association between the size of the fiscal package and specific macroeconomic indicators. In the initial analyses, we focused on examining the relationship between the size of fiscal packages (in % of GDP) and the most important macroeconomic indicators. The selected sample includes the Central and Eastern European and Western Balkans countries, but also five largest economies of Western Europe (France, Germany, Spain, Italy and the Netherlands), making a total of twenty countries.[37] For these countries, we have gathered detailed data of the execution of measures from public sources, structure (the economy, citizens and healthcare system) and selectivity of the fiscal packages in 2020 and 2021. The data shows that there is a moderately positive correlation between the size of the fiscal package for businesses and employment trends, a moderate correlation between the total assistance and the speed of recovery, while no correlation was found between the volume of fiscal packages and the GDP growth rate. Ultimately, we draw attention to the fact that correlation does not imply causality, since drawing such conclusions would require more extensive data sets and additional analyses.

In the case of the selected European countries, there is no clear unambiguous correlation between the implemented fiscal measures and achieved economic growth. In the first step of the analysis, the goal was to examine whether there is a correlation between the total anti-crisis fiscal interventions and achieved economic growth in the period 2020-2021. The data for the selected set of countries, as illustrated in Chart 6, shows that there is no clear association between the economic growth and the size of the fiscal package. The countries with the implemented measures of comparable volume have had notably different growth rates. For example, Serbia, Slovenia and Italy implemented a fiscal package of ca. 10% of GDP, but the achieved economic growth was significantly different – Serbia registered a cumulative growth of 6.5%, Slovenia of 3.1%, while Italy recorded a drop of 2.4%. A similar comparison can be applied to Hungary and Montenegro which had fiscal packages of ca. 8% of GDP, achieving growth of 2.1% and a drop of 5% respectively. Therefore, our preliminary analyses point to the conclusion that, besides the fiscal packages, some other factors also had an important effect on the economic growth, which corresponds to the findings presented in the relevant international and local studies published to date. Based on the literature we have already mentioned, these factors could be: the economic structure of the country, the pre-crisis growth level, stringency of epidemiological measures, size of monetary interventions, etc.

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[37] Final data for 2021 was not available for a certain number of countries at the moment of writing this paper, therefore we used the latest available estimations.

Chart 6. Selected European countries: The correlation between the anti-crisis package in 2020 and 2021 and cumulative economic growth
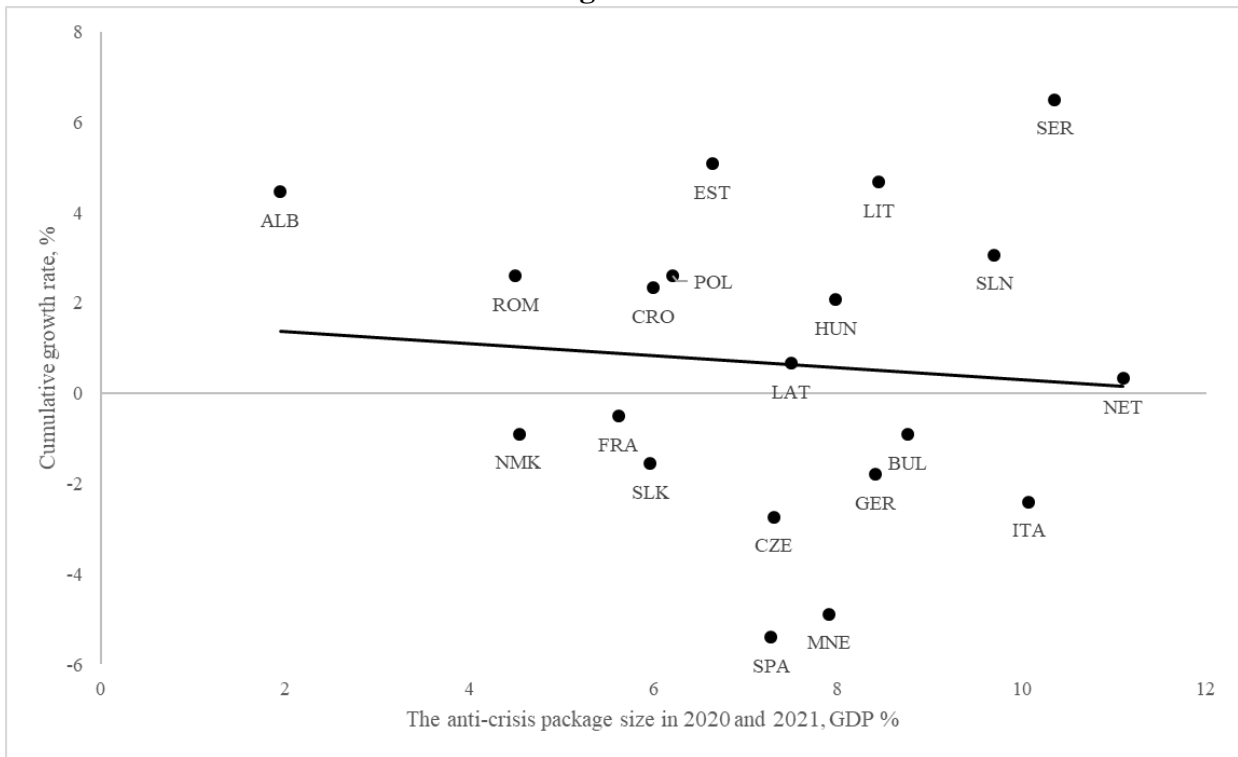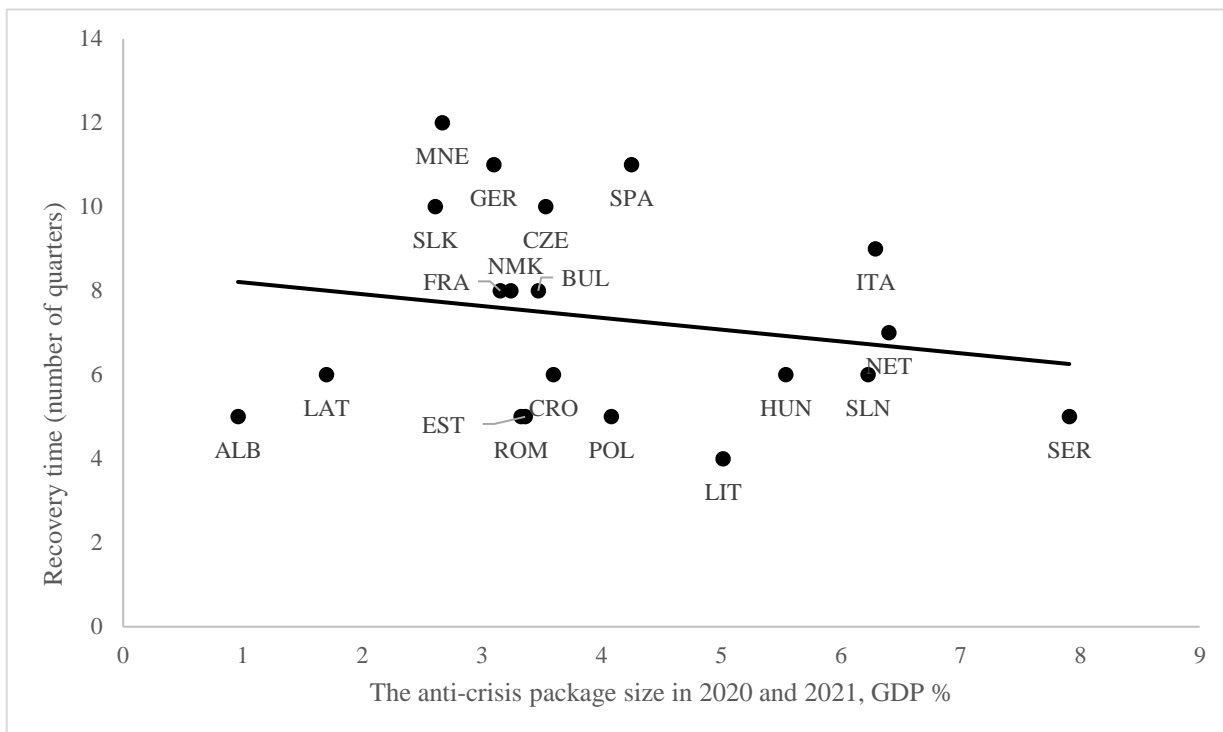

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

There are some indications that the countries which implemented larger packages in 2020 were faster in returning to the pre-crisis production level. Besides the analysis of cumulative economic growth in the period 2020- 2021, the goal was to examine the relationship between the economic growth and the size of the total fiscal package. The indicator of the pace of economic recovery is the number of quarters needed for a particular country to reach the pre-crisis production level.[38] The selected indicator shows notable differences among the countries. Some of them recovered relatively quickly (in four or five quarters), while others needed significantly more time (more than ten quarters). Chart 7 outlines that a weak correlation exists between the volume of the 2020 fiscal package and the speed of recovery. In other words, greater assistance in 2020 lead to faster attainment of the pre-crisis production level. If the 2021 fiscal package is included in the analysis, this relationship ceases to exist. This indicates that the fast and comprehensive implementation of measures in 2020 indeed contributed to good results, but also that the measures in 2021 were not that effective. An additional confirmation of the hypothesis that some other factors – besides the fiscal measures – have contributed to the speed of reaching the pre-crisis production levels could be seen from the fact that countries with a similar recovery pace (e.g. Latvia, Croatia, Hungary and Slovenia all reached the pre-crisis level in 6 quarters) had considerably different sizes of anti-crisis packages in 2020.

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[38] The pre-crisis production level is the average GDP in the third and fourth quarters of 2019. In this analysis, seasonally adjusted GDP data was used in constant prices, i.e. the 2015 chained volume measures.

Chart 7. Selected European countries' correlation between the anti-crisis package size in 2020 and the time of reaching the pre-crisis GDP level
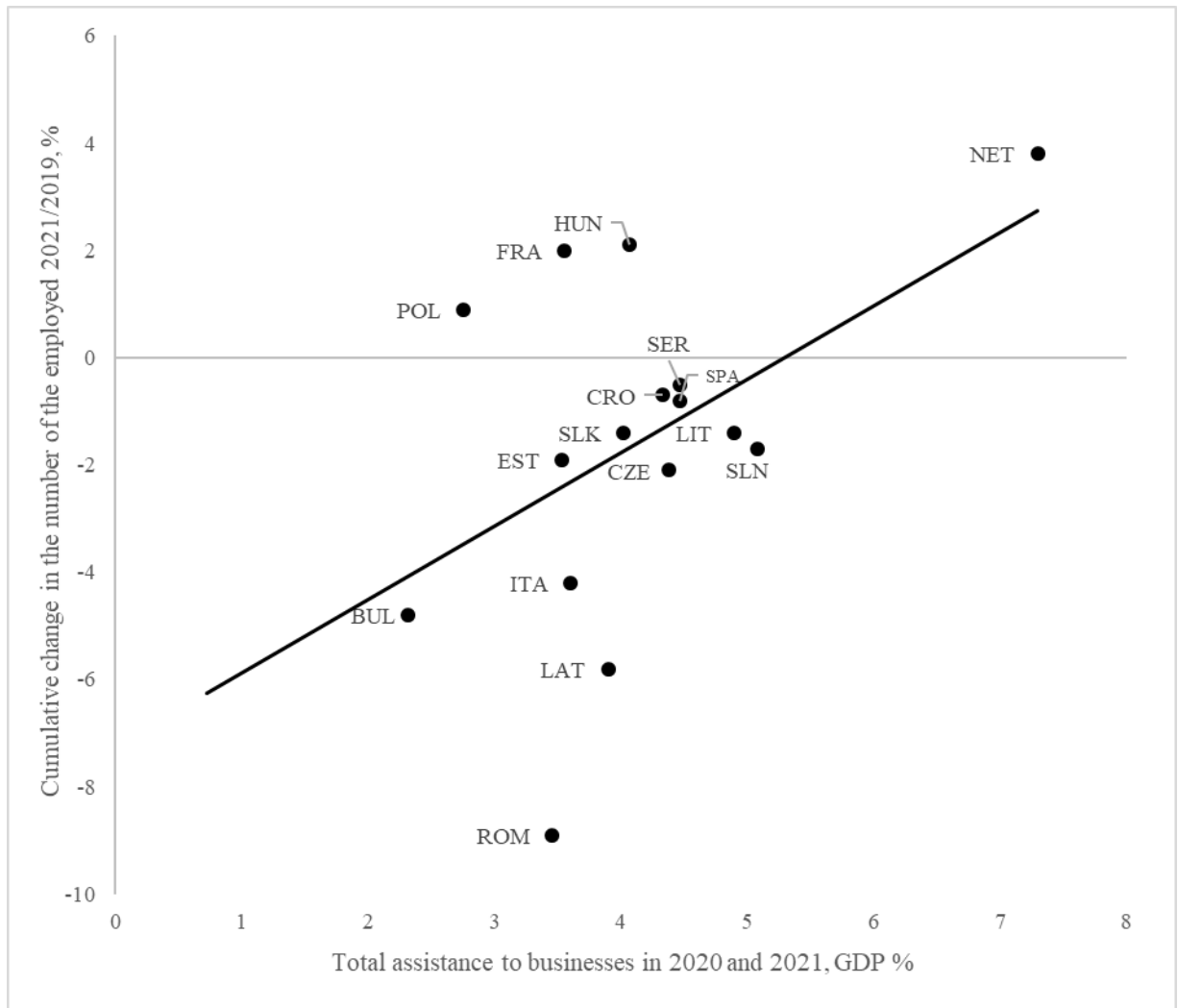

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

A positive correlation is identified between the size of assistance to the economy and the employment trend. As pointed out in Chapter 1, one of the main goals of anti-crisis packages was to preserve employment which would enable fast economic recovery after the pandemic was over. Generally speaking, this goal has already been achieved. When the health crisis is compared to the previous (financial) crisis, we can conclude that GDP was more drastically reduced during the pandemic than in 2009, but employment drop was smaller than in 2009. In this section, we analysed if there is any correlation between the fiscal assistance granted to businesses[39] (for payment of salaries, reduction in certain taxes, etc.) and the employment trends in the period 2020-2021. The data for countries from our sample are shown in Chart 8 illustrating that there is a moderate positive correlation between the implemented packages and the employment trends – which is in line with our expectations. In other words, the larger the measures targeting the private sector were, the higher the employment rate was.

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[39] The analysis excluded the assistance to population and healthcare spending because these measures cannot be expected to be linked to the employment growth.

Chart 8. Selected European countries: support packages to economy and employment trends

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

6. THE EFFECT OF THE ANTI-CRISIS PACKAGE ON ECONOMIC GROWTH IN SERBIA

Serbian economy achieved better results than other CEE countries during the pandemic. In the crisis of 2020, Serbia recorded a significantly lower GDP drop than the CEE average, followed by a somewhat faster economic recovery in 2021 (Table 7). Due to such trends, Serbia experienced a cumulative GDP growth in 2020 and 2021 that was 4.7 p.p. higher compared to the CEE average, i.e. it amounted to 6.5% in relation to 1.8% in CEE – which is a significant difference. At the same time, as indicated in previous chapters, the anti-crisis package of fiscal measures in Serbia was over 50% larger than in CEE countries. In this chapter, we examine whether and to what extent the higher budget allocations for anti-crisis measures have contributed to the better performance of the Serbian economy. Namely, it is often being claimed in the public that the more lavish package of measures in Serbia was decisive for the stronger growth of its GDP than in CEE. Our analyses, however, show this was not the case. The larger package of measures did have a certain impact on the better performance of the Serbian economy compared to CEE countries, but these effects were relatively small. In other words, our analyses show that faster GDP growth was caused predominantly by other factors.

We estimate that the anti-crisis measures in 2020 and 2021 have contributed to faster growth of Serbian GDP compared to CEE countries by ca. 0.5 p.p. Serbia spent 3.7% of GDP budget funds more in relation to the comparable CEE countries on the anti-crisis package (10.4% of GDP against 6.7% of GDP). Serbia spent more funds for all three key components, i.e. allocations for 1) the healthcare system, 2) the economy, and 3) citizens. For each of these elements, we have separately analysed its potential impact on the faster growth of Serbian GDP compared to CEE countries. This analysis has shown that the larger package of anti-crisis measures in Serbia can explain only 0.3-0.8 p.p. of the faster cumulative GDP growth in 2020 and 2021 against CEE countries (the total difference in cumulative growth was several times higher, amounting to 4.7 p.p.). The reason for a relatively small impact of emergency fiscal interventions on economic growth lies in the fact that the main difference of the packages in Serbia against CEE stems from non-selective allocations to citizens, which by definition do not have a large impact on economic growth in small and open economies. The additional consumption generated by such measures consisted mostly of purchases of imported products which cannot considerably affect the increase in domestic production.

The relatively good performance of Serbian GDP during the health crisis can primarily be explained by the factors specific to the domestic economy. Since the anti-crisis package could not have had a large impact on the economic growth of Serbia, a question remains why the Serbian economy had better results during the health crisis than other CEE countries. There are several factors contributing to this. First of all, the structure of the Serbian economy compared to CEE countries involves a larger share of activities not directly affected by the crisis (agriculture, food processing industry, etc.), while having a smaller share of the activities that were hit by the crisis the most (tourism, automotive industry, etc.). Second, Serbia entered the crisis with a slightly higher economic growth compared to CEE countries where economic activity started slowing down even before the outbreak of the pandemic. Third, as of the mid-2020, epidemiological restrictions in Serbia were less stringent compared to the CEE countries' average, and there are also some indications that the implementation of already weaker epidemiological measures was less strict, which also contributed to better short-term output of the Serbian economy. Finally, along with all these factors, it should be mentioned that in 2020 and 2021 Serbia strongly increased public investment which is a good fiscal policy measure that has certainly influenced economic growth. Public investments in 2019 amounted to 4.9% of GDP in 2019, in 2020 they were increased to 5.3% of GDP, reaching 7.4% of GDP in 2021.

Table 7. Serbia and CEE countries: GDP growth and the anti-crisis package of measures, 2020-2021

	GDP growth (%)			Anti-crisis measures (% GDP)		
	2020	2021	Cumulatively	2020	2021	Cumulatively
Serbia	-0.9	7.4	6.5	7.9	2.4	10.4
CEE average	-3.8	5.6	1.8	3.5	3.1	6.7
Difference (Serbia - CEE)	2.9	1.8	4.7	4.4	-0.7	3.7

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc. Note: the average GDP growth of CEE countries was calculated as a weighted average

The higher *extraordinary costs in the Serbian healthcare system* can mostly be attributed to imports, and therefore, their effect on the faster GDP growth compared to CEE countries was relatively low – by our estimates only 0.1-0.2 p.p. Regarding the allocations for the healthcare system during the pandemic, Serbia exceeded CEE countries by 1.1% of GDP. Such difference emerged because 1) Serbia allocated more funds (as percent of GDP) for the purchase of medical equipment and supplies; 2) Serbia registered somewhat greater hiring and also increased salaries of medical workers; and 3) Serbia built and equipped entirely new healthcare institutions (COVID hospitals), which was not done by other CEE countries.[40] The *first* of these three factors implies the purchase of medical devices, equipment, vaccines and medicines, procured mainly through imports, which implies this could not have had a notable effect on the domestic GDP. The *second* factor relates to the employment of deficient staff with an extraordinary increase in the medical workers' salaries. This also could not have made a difference in the faster economic growth in Serbia compared to CEE countries since other countries undertook similar measures (extraordinary allocations in Serbia for these purposes were only 0.1% of GDP higher than in CEE). The *third* factor – construction and equipment of COVID hospitals – was the only factor that could have affected the faster GDP growth in Serbia. The construction of these facilities included engaging the domestic construction industry which had a certain influence on economic growth, but the outlays for their equipment were mostly spent on imported goods. Given that the total expenditures for the construction and equipment of COVID hospitals amounted to ca. EUR 150 million (ca. 0.3% of GDP), we estimate that about one half of these funds were used for the physical construction of facilities (affecting GDP), while the other half was used for the purchase of equipment (without a significant effect on GDP). Taking all factors into consideration, we estimate that the higher allocations for the healthcare system in Serbia compared to CEE countries (of 1.1% of GDP) could have affected the faster economic growth in Serbia by 0.1- 0.2 p.p.

The *package for the economy* could not have affected the faster GDP growth in Serbia compared to CEE countries. There are two reasons why the assistance to the economy could not have stimulated faster economic growth in Serbia. The first is that the total size of this package actually did not deviate much from those in CEE countries. For these purposes, Serbia spent 4.8% of GDP, and CEE countries 4.2% of GDP – which means that the difference was relatively small compared to other assistance packages, merely 0.6% of GDP. The second reason is the evident non-selectivity of package in Serbia which is why it was not a particularly efficient instrument for stimulating economic growth. Namely, Serbia allocated more than 90% of the funds non-selectively (also to the companies not in need of assistance) unlike CEE countries where only 25% was paid out non-selectively. The extensive allocation of public funds to companies not affected by the crisis could not have cushioned the drop in employment and economic activity in these companies (since such companies would not have reduced them drastically even without government aid). Additionally, it also could not have artificially stimulated the increase in their economic activity by a noticeable amount since production is primarily defined by market mechanisms, i.e. demand. Taking into consideration these two facts: 1) that Serbia had only a

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[40] See Chapter 4 for more details.

slightly larger package of support to the economy than other CEE countries (ca. 0.6% of GDP), and 2) that assistance in Serbia was less efficient than in CEE, we conclude that this portion of anti-crisis measures could not have affected the faster GDP growth in Serbia compared to CEE countries. Moreover, it cannot be excluded that the targeted and thus more efficient measures of support to businesses in CEE countries had a greater effect on stimulating economic activity than non-selective measures in Serbia (despite the slightly costlier package in Serbia). However, here we will stick to the more conservative estimate that the relatively small difference in the volume of the package of measures for businesses did not result in differences in economic growth, although it is possible that measures for the economy of a somewhat smaller volume in CEE countries might have had a higher impact on stimulating economic growth than in Serbia.

The assistance to the *general population* was almost four times higher than in CEE, which could have affected the faster GDP growth in Serbia by 0.2-0.6 p.p. As already indicated in the previous Chapters, by far the greatest difference in the fiscal anti-crisis package compared to CEE countries originated from the support to citizens. In Serbia this part of the package amounted to 2.9% of GDP whereas ca. 0.8% of GDP in CEE, meaning that cost of these measures in Serbia exceeded the CEE countries' average by a striking 2.1% of GDP. This type of measure represents current expenditure which does not have a significant effect on accelerating economic activity in small open economies like Serbia. The underlying reason is in the fact that additional spending mostly goes to the purchase of imported goods, thus not affecting the domestic GDP. Theoretical expectations are aligned with the large number of empirical studies concluding that the effect of the current public expenditure on the economic growth of countries like Serbia is rather small or statistically insignificant.[41] In the most optimistic scenario, the fiscal multiplier, namely the unit effect of the current spending on the increased Serbian economic growth could have amounted to 0.1-0.3, and in this crisis it is probably closer to the lower interval limit.[42] This is why we estimate that greater outlays for the assistance to the population, although considerably above the CEE average, can only explain a relatively small difference economic growth – only 0.2- 0.6 p.p. of GDP. If the goal of the Government was to use this channel to stimulate economic growth, much stronger effects would have been achieved by enhanced selectivity, namely, if the money was channeled only to those with severe financial problems. This segment of the population actually has a greater propensity to consume (and propensity to purchase domestic products) than it is the case with the general population.

Faster growth of GDP in Serbia than in the CEE countries is predominantly a consequence of the factors other than fiscal anti-crisis measures. To sum up the analyses presented above, it may be concluded that the large difference in the cost of anti-crisis packages (of 3.7% of GDP) made a relatively small contribution to the difference in GDP growth rate (ca. 0.5 p.p.). Out of that figure, 0.1-0.2 p.p. is estimated to stem from the construction of hospital capacities, and the remaining 0.2-0.6 p.p. from the non-selective package to the citizens. On the other side, the difference between the cumulative rate of Serbian growth in 2020 and 2021 and CEE countries is far greater – amounting to 4.7 p.p. This means that the major share of the difference to the benefit of Serbia (ca. 4 p.p.) is owed to the factors outside the fiscal assistance package. These are 1) the structure of the economy; 2) the growth trend prior to the outbreak of the crisis; 3) less stringent epidemiological measures; and 4) increased public investments. Each of the listed factors will be elaborated on in more detail in the text below.

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[41] See, for example, Petrović, P., Arsić, M. and Nojković, A. (2020), *Increasing public investment can be an effective policy in bad times: Evidence from emerging EU economies,* Economic Modelling, Vol. 94, p. 580-597

[42] Fiscal multipliers for the current budget expenditure are statistically almost insignificant in small and open economies in regular circumstances, with a slight increase in the recession times. However, the recession-based increase in fiscal multipliers relates to the crises primarily induced by reduced demand, while the current crisis was predominantly caused by the factors on the supply side (reduced production of goods and services due to restrictive epidemiological measures, labour force falling ill, etc.). Moreover, the detailed analysis (which is currently not possible) ought to take into account the potential negative effect of these measures on the inflation acceleration.

The structure of the Serbian economy is characterised by a relatively low share of sectors struck by the pandemic and a high share of activities not affected by the crisis. The pandemic disrupted the economic activity globally, and its impact on different economic branches was heterogeneous. Accordingly, the share of the most affected sectors played a major role in the effect of the crisis on the GDP of an individual country. If the sectors affected the most by the crisis are considered (tourism and hospitality, automotive industry, machine manufacturing industry and air transport) it becomes evident that their share in Serbia is almost two times lower than in CEE countries – only 3.5% of GDP against 6.5%. Moreover, Serbia not only entered the crisis with a low share of the most affected activities but also with a relatively higher share of the sectors not significantly affected by the pandemic or even those registering an extraordinary growth (agriculture, food industry, chemical industry, pharmaceutical industry and ICT sector). These sectors account for 18.7% of Serbian GDP which is considerably more than in CEE countries (14.3%). Taking into account a difference in the structure of the economy, this can be assessed as an important factor why Serbia registered a slightly higher GDP growth in 2020 and 2021 than CEE countries.

Serbia entered the crisis with more favourable economic trends than CEE countries. Serbia entered the health crisis with a 2019 growth rate of 4.3%, while CEE countries had a slightly lower average growth of ca. 4%. In addition, it is important to note that short-term GDP trends in Serbia exhibited signs of acceleration immediately prior to the crisis, while the opposite tendencies were recorded in CEE countries. These indicators are shown in Chart 9 where it can clearly be seen that the short-term economic growth in Serbia in 2019 was accelerating relatively strongly, while it was slowing down in CEE countries. Due to the fact that Serbia entered the crisis with higher growth compared to CEE, its GDP decline was lower in 2020.

Chart 9. Serbia and CEE countries: year-on-year GDP growth rates, 2019
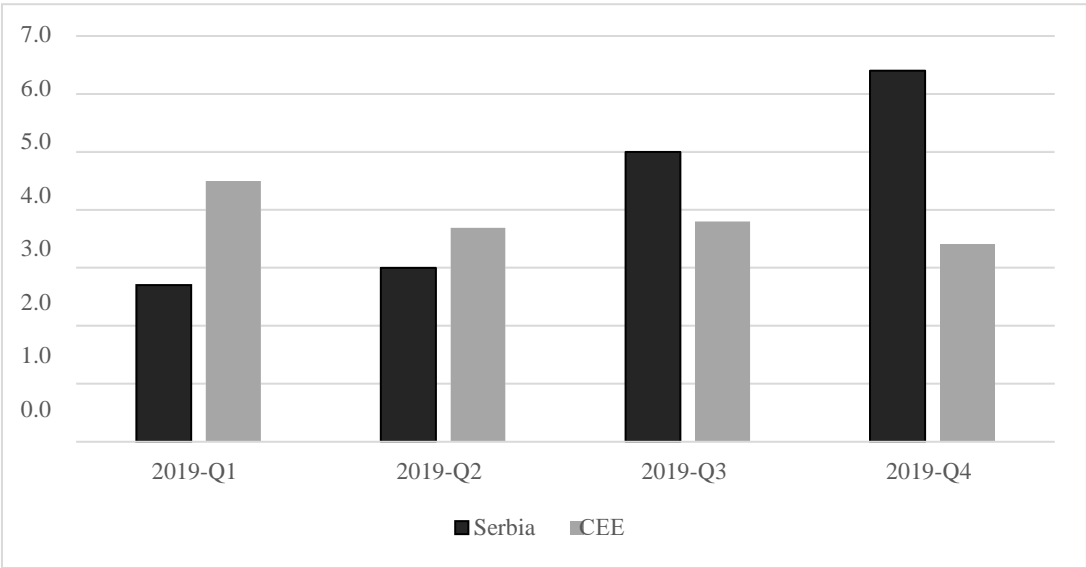
Source: Fiscal Council calculation based on the Eurostat data

As of mid-2020, epidemiological restrictions were less stringent in Serbia than in CEE countries. After the outbreak of the pandemic at the beginning of 2020, individual countries introduced various measures restricting movement, public gathering and doing business. On one side, these restrictions were successful in slowing down the spread of the pandemic, but on the other, they hurt short-term economic activity. At the very beginning of the pandemic, Serbia had the most restrictive measures by far, but already in the middle of 2020 they were significantly mitigated and since then kept in a relatively more relaxed form compared to CEE countries. According to the international Oxford Stringency Index, standardized measure often used in literature, from mid-2020 until the end of 2021 Serbia had the less strict epidemiological measures

in force than the CEE countries' average (stringency index 47.1 against 49). In addition, there are some indications that the control of the implementation of epidemiological measures was far weaker in Serbia than in CEE countries[43] thus implying that restrictions in Serbia had an even smaller effect than it could be concluded based on the measures "set on paper". The direct consequence of the less stringent epidemiological measures was a lower GDP drop in Serbia in the short term.[44]

Serbia strongly increased public investment in infrastructure during pandemic, which positively affected its GDP growth. The Government economic policy that considerably affected the stimulation of GDP growth was the increase of investments in infrastructure. These fiscal expenditures cannot be directly linked to the health situation (apart from the construction of COVID hospitals), but they represent a category of government spending with the strongest positive effect on GDP growth (given that construction of infrastructure requires engaging the domestic construction industry, materials, workers, etc.). The data shows that the majority of CEE countries increased public investment (ca. 0.5 of GDP on average) in 2021 compared to 2019, with Serbia demonstrating the strongest leap. The infrastructure spending in Serbia was increased in 2020 compared to 2019 by 0.4% of GDP, and then by an additional 1.5% of GDP in 2021. The stronger rise of public infrastructure investment in relation to other CEE countries is for sure one of the reasons for the realised higher cumulative GDP growth in Serbia in 2020 and 2021 – and this segment of Government policy is positively evaluated by the Fiscal Council.

The factors that could also have affected the more favourable economic trends in Serbia (although to a smaller extent) are monetary measures and guarantee schemes. The main focus of this report are the anti-crisis measures that directly influence the deficit in the years in which they were implemented. However, in addition to these measures, in 2020 and 2021 some other policy measures were undertaken that contributed to growth but were not included in the fiscal deficit. These are primarily monetary measures of the National Bank of Serbia (moratorium on loan repayment and credit lines for additional bank liquidity) and a credit scheme for private companies with a government guarantee. These measures were mostly focused on preserving the liquidity of the domestic economy to maintain the level of economic activity, and they undoubtedly positively influenced GDP trends. Still, the effects of such measures in Serbia and CEE countries are difficult to accurately measure at this point. It could be that monetary measures together with the guarantee scheme in Serbia had a slightly stronger positive effect on the economy compared to similar measures in CEE, which can be seen in the somewhat stronger increase in the credit activity during the crisis.[45] However, these policies cannot even closely explain the entire difference of 4.7 p.p. in the growth of Serbia in relation to CEE countries in 2020 and 2021.

The forecasts of international institutions at the onset of the crisis anticipated that the Serbian economy would be less affected by the health crisis, regardless of the economic policy measures. Immediately after the outbreak of the pandemic, in April and May 2020, the IMF and the European Commission (EC) published as a part of their regular reports the forecast economic activity trends for CEE countries in 2020, including Serbia (Table 8). According to these forecasts, at the very beginning of the pandemic, it was estimated that the health crisis would considerably

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[43] This is shown by the *Google Mobility* data (reports on the movement of people in the community), monitoring trends in the movement of population in different places like retail shops, recreation venues, public transport stops, workplaces, and places of residence, etc. Our preliminary analyses show that the activities of the Serbian population in all listed localities (except parks) were more intensive than in CEE countries (we observed the period between mid-February 2020 and mid-March 2022).

[44] The second issue pertains to whether the less stringent epidemiological measures had deepened and extended the duration of the pandemic and how this contributed to long-term negative effects of the pandemic on the Serbian economic growth (the loss of human resources, or a more durable worsening of their health). These long-term effects are currently impossible to assess.

[45] An additional problem here is that the moratorium on loan repayment affected the temporary distortion of monetary statistics.

less negatively affect the Serbian economy compared to other CEE countries – which turned out to be true in the end. These forecasts are analytically important because at the moment when they were made it was not yet known what kind of anti-crisis measures would be implemented by individual countries, meaning that these effects were not taken into consideration when estimating the expected economic growth in Serbia and other CEE countries in 2020. Since other factors affecting the better economic trends were indeed known at the time (GDP growth trend at the crisis outbreak and specific structure of the economy), it was estimated that the GDP drop in Serbia relative to comparable countries in 2020 would be ca. 2 p.p. lower.

Table 8. Forecasts of international institutions on the GDP decline in 2020 at the outbreak of the crisis for Serbia and CEE, in %

	2020 Forecast		Actual growth
	IMF (April 2020)	EC (May 2020)	
Serbia	-3.0	-4.1	-0.9
CEE average (weighted)	-5.2	-5.8	-3.8
Difference (Serbia - CEE)	**2.2**	**1.7**	**2.9**

Source: Fiscal Council calculation based on the data of the Ministry of Finance, SORS, IMF, Eurostat, etc.

The forecasts of relevant international institutions published at the onset of the crisis are basically in line with our calculations regarding the effect of anti-crisis measures on GDP. When we compare forecasts and achieved results, it becomes obvious that even at the outbreak of the crisis it was anticipated that the Serbian economy would grow by 2 p.p. faster than CEE countries – ultimately, Serbian GDP was 2.9 p.p. higher. Although those forecasts (from the onset of the crisis) were insufficiently precise and cannot replace sound quantitative analysis, they principally confirm our estimate that the more generous anti-crisis fiscal package was only one of many (although not particularly important) factors behind better results of the Serbian GDP. Namely, a major part of the difference in the realised output in 2020 was already expected at the outbreak of the pandemic, whereas all other reasons that were not identified at the time (larger anti-crisis package in Serbia, less stringent epidemiological measures, strong increase in public investment) cumulatively made a considerably smaller contribution to better economic results in Serbia in that year.

7. AN OVERVIEW OF THE MOST IMPORTANT RESULTS

The lavish fiscal policy measures during the pandemic were generally justified and all European countries implemented them. The crisis initiated by the pandemic was not evoked by structural economic weaknesses but rather external factors, which is why most countries could respond to it by implementing faster and more abundant fiscal (and monetary) measures than has been the case during 2008/09 crisis. The extraordinary budget funds were directed at the healthcare system, as well as businesses and the general population at risk, thus preventing a sharp drop in employment and stimulating a fast and strong global economic recovery.

Serbia, however, was not cost-effective in implementing its anti-crisis package. Broadly speaking, assistance implemented by the Serbian Government followed a pattern found in other countries (supporting the healthcare system, economy and citizens). However, it also ended up as an outlier by granting budget funds not only where they were needed and economically justified, but also where it was not a necessity. This is why Serbia holds the record in CEE regarding the total cost of anti-crisis measures, giving more than 50% of the budget funds for these purposes than comparable countries. In addition, Serbia allocated more funds than others for all three components of the anti-crisis measures: the healthcare system, the economy, and the citizens. Higher outlays for healthcare were justified (or inevitable), while the support measures to the economy and population were partially irrational. Our analyses show that the budget cost in Serbia could have been EUR 1.7-1.8 billion lower if the anti-crisis measures for businesses and citizens were at the same level as in peer countries.

Serbian economy was less affected by the crisis than in other countries, which is why budget allocations in Serbia would be expected to be lesser than in CEE – not larger. Due to the structure of its economy, Serbia was less hit by the crisis than other European countries. Specifically, the businesses that suffered the most during the crisis (air transport, tourism, hospitality, automotive industry) do not hold a significant share of Serbian GDP, with the larger share of areas not affected by the crisis (agriculture, food processing industry) higher than in other countries. This is the reason why the anti-crisis package was expected to be lower in Serbia than in comparable countries, not the other way round.

In our estimation, a similar economic effect of anti-crisis measures could have been achieved with ca. EUR 2 billion less of the funds spent. Taking into account both factors – that Serbian anti-crisis measures for the economy and population EUR were 1.7-1.8 billion higher than in comparable countries and that the Serbian economy was less affected by the crisis – we conclude that the anti-crisis package in Serbia could have easily been by ca. EUR 2 billion smaller. In other words, it would have sufficed for Serbia to allocate ca. 3.5 billion instead of EUR 5.4 billion for the anti-crisis measures during the health crisis. In that case, cumulative economic growth in Serbia in 2020 and 2021 would have been only slightly lower than the realised one (estimation is by 0.5 to 1 p.p.), but on the other side, public debt would have been significantly lower (by ca. EUR 2 billion). Such an immense dissipation of funds in Serbia was the consequence of the less targeted anti-crisis packages. Namely, over 90% of total funds for economy and citizens in Serbia were paid out non-selectively, compared to only ca. 30% which was the average in CEE countries.

The extensive anti-crisis measures were financed by borrowing and this is the main reason for the excessive debt increase in the past two years. Public debt grew by ca. EUR 6 billion between the end of 2019 to the end of 2021 (namely from EUR 24.4 billion to EUR 30.5 billion, i.e. for almost 25%). Had the anti-crisis measures in Serbia been targeted, the public debt accretion could have been by ca. EUR 2 billion lower. It is important to outline here that the major increase in public debt-to-GDP ratio did not occur despite its record-breaking strong rise in absolute terms. At the end of 2021 public debt amounted to only 57.1% of GDP, compared to 52.8% of GDP at the end of 2019. There are two phenomena behind this result: the first was a

faster real growth in Serbia compared to CEE countries, and the second was a real strengthening of Dinar. To illustrate this, had Dinar depreciated in the previous two years as much as the CEE countries' currencies with flexible exchange rates weakened (Hungary, Poland, Romania, the Czech Republic, Croatia), Serbian public debt at the end of 2021 would have accounted for ca. 60% of GDP.

The major irrationality in the Serbian package of anti-crisis measures was recorded in *assistance to citizens*. After the first payment (EUR 100 to all citizens above 18 years of age) in June 2020, a whole set of similar measures followed. For these purposes, Serbia spent a huge amount equal to EUR 1.8 billion since the outbreak of the pandemic to date. Once the remaining EUR 100 allocated to citizens between 16 and 29 years of age has been paid out (June 2022), the total cost will rise to EUR 1.9 billion. Other CEE countries channeled the crisis assistance predominantly to categories of population affected by the crisis. Due to this fact, Serbia spent almost four times as much for these purposes compared to CEE countries during 2020 and 2021. The analyses we have published on multiple occasions in the previous period show that these measures were not economically efficient, since they implied major borrowing to achieve relatively modest results. The effect of these measures on the acceleration of economic growth is insignificant and temporary by definition, while the increased tax revenues due to the increased spending of the population cannot even closely be compared with the cost of such measures. From the social policy perspective, the non-selective payments equally targeting the rich and the poor are also not an efficient measure, because they have a relatively small and temporary impact on the reduction of poverty and inequality. Finally, this practice is contravening the launched reform of the social protection system (introduction of social cards).

In the case of the *support to the economy*, **the main source of irrationality was non-selectivity and not the volume.** Unlike other European countries where the assistance was granted only to affected companies, Serbia opted to allocate over 90% of the budget support to the private sector non-selectively. Because of such broad-based approach, budget costs of the assistance to the economy were 15% higher in our country than in other CEE countries, although, as already mentioned, the contrary was to be expected (due to specific structure of the economy). Our conclusion on the non-selectivity of the package for the economy can also be confirmed from a different angle – the 2020 corporate income tax was collected in a record-breaking amount (an extraordinary increase of EUR 200 million) despite economic activity registering a decline of 0.9% in 2020. This rise can only be explained by the fact that the assistance was awarded to companies not having objective problems in their business during the crisis. This means that by better targeting its assistance to businesses, as other CEE countries were doing, Serbia could have saved money and at the same time ensure considerably greater support to sectors which really were at risk. A positive aspect of the Serbian package of support measures to the economy was that a great deal of the package (EUR 850 million) includes deferred, as opposed to written-off liabilities; the economy recovered fast, and deferred liabilities are already being paid back to the budget.

The support for public health was also greater than in CEE countries, but such scenario was inevitable in given circumstances. The decades of insufficient investments in the healthcare system have led to Serbia awaiting the pandemic with undercapacitated healthcare institutions: lack of necessary equipment, relatively low wages and a shortage of medical workers. This is one of the main answers to the question of why spending in Serbia for these purposes was higher during the crisis than in comparable countries (construction of COVID hospitals, intensified import of medical equipment, hiring and increased salaries in the healthcare system). The other part of the answer is of technical nature – Serbian GDP per capita is considerably lower than the CEE average, therefore even when similar medical equipment is being purchased on the international market (vaccines, medicines, etc.), this cost stated as the share in GDP is greater for Serbia than in CEE countries.

In our estimate, a significantly larger package of measures in Serbia compared to CEE made a relatively small contribution to its faster economic recovery. Only ca. 0.5 p.p. of faster economic growth in Serbia in 2020 and 2021 against CEE[46] can be attributed to the larger package of anti-crisis measures. On the other side, the cost of such measures was even 3.7% of GDP higher than in other CEE countries. Therefore, our assessment is that the excessively high price was paid (reflected in high public debt increase) for a relatively small benefit, which is inefficient in the long run. Additionally, the excessive cost of anti-crisis measures during the COVID crisis has unnecessarily increased the vulnerability of public finances at the moment when new crises are about to emerge (the war in Ukraine, high and rising global inflation, energy crisis, etc.).

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[46] Let us recall that our analyses have shown that the larger anti-crisis package in Serbia did affect the faster cumulative growth in Serbia compared to CEE, but the value of this contribution lies within the interval of 0.3-0.8 p.p. of GDP. This is only a small part of the total difference in growth between Serbia and CEE which in 2020 and 2021 amounted to 4.7 p.p. of GDP cumulatively.

8. METHODOLOGICAL APPENDIX

For the purpose of this research, a separate database was compiled. It contains the data on the executed anti-crisis budget assistance for the region of Central and Eastern Europe including the Western Balkans, that were collected from multiple publicly available sources.[47] Although there are already several public data sets covering the entire region and even the entire world, none of them can be used as the only reliable source of information. The most comprehensive systematized database, and at the same time the one most frequently used in the literature, was published by the International Monetary Fund (IMF).[48] An advantage of this database is its broad coverage (it includes a large number of developed and underdeveloped countries) and also the fact that it defines meaningful criteria for the classification of a broad range of different anti-crisis instruments. Its main limitation, as outlined by its authors, lies in the fact that it "is not meant for classifying the measures for fiscal reporting, nor for comparison across economies". In the process of our research the major barrier was the following: 1) it gives an overview of the announced measures and not the execution, 2) it lists cumulative values without a breakdown into 2020 and 2021, 3) non-health measures are presented aggregately for a large number of countries, without the breakdown into subcategories and/or sectors, therefore it remains unclear which part of this sum was granted to businesses and which to citizens, 4) it does not provide a detailed structure for all CEE countries like Croatia, Hungary, Slovenia, Slovakia and Baltic countries. Apart from the IMF, some other international institutions published their databases, like *EUIFIS* (*European Independent Fiscal Institutions*), *OECD* and *ESRB* (*European Systemic Risk Board*). Although they provide useful information about different aspects of fiscal and monetary measures implemented during pandemic, there are certain limitations preventing us from fully relying on them. For example, *EUIFIS* does not offer a full overview of measures in all countries, and there are also cases when elementary descriptions are lacking, *OECD* offers a good database of tax measures, but not for the expenditures, while *ESRB* does not list total amounts.

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[47] In one part of our analysis (Chapter 5), our sample was extended to include the five largest Western European countries (Germany, France, Spain, Italy and the Netherlands).
[48] *Fiscal Monitor: database of country fiscal measures in response to the COVID-19 pandemic, October 2021.*

8.1. Data sources

The database was created based on the large number of interim reports on economic and fiscal trends for each individual country. These are primarily the documents of the European Commission: *Convergence and Stability Programmes* for 2021 (used to obtain the data for Hungary, Poland, etc.) as well as the *Annual Draft Budget Plans* for 2022 (used to get the data for France, Slovakia, etc). The second important source were the IMF reports on intergovernmental consultations,the so-called *Article IV* (for Albania, the Czech Republic, Croatia, etc). There are also countries for which even these direct sources failed to provide up-to-date and detailed data, so this gap was bridged using the information presented in the official governmental acts like the reports on the budget and fiscal strategies (e.g. Montenegro, Bulgaria) and studies of independent fiscal institutions (e.g. Slovenia). A detailed overview of sources by all countries in our sample, with a direct link to the website is presented in Table A1.

Table A1. Data sources by countries

Country	Source
Albania	*IMF Article IV Staff Report for Albania 2021.*
Bulgaria	*Bulgarian Ministry of Finance: Budget Execution Report 2020;*
	Bulgarian Ministry of Finance: Budget Execution Report 2021.
Montenegro	*Vlada Crne Gore: Program ekonomskih reformi za Crnu Goru 2021-2023. godina;*
	Vlada Crne Gore: Mjere podrške građanima i privredi prvi kvartal 2021. godine;
	Vlada Crne Gore: Mjere podrške građanima i privredi drugi kvartal 2021. godine.
Czech Republic	*IMF Article IV Staff Report for Czech Republic 2021.*
Spain	*AIReF Report on the 2021-2024 Stability Programme Update;*
	AIReF Report on Budgetary Execution, Public Debt and the Expenditure Rule 2021.
Estonia	*IMF Article IV Staff Report for Estonia 2021 .*
France	*French Draft Budgetary Plan 2022.*
Germany	*IMF Aticle IV Staff Report for Germany 2021.*
Croatia	*IMF Article IV Staff Report for Croatia 2021.*
Hungary	*Hungarian Convergence Programme 2021.*
Italy	*EUIFIS: European Fiscal Monitor January 2022.*
Latvia	*Latvian Draft Budgetary Plan 2022.*
Lithuania	*Lithuanian Stability Programme 2021;*
	Lithuanian Draft Budgetary Plan 2022.
The Netherlands	*IMF Article IV Staff Report for the Netherlands 2021.*
North Macedonia	*Government of North Macedonia: Fiscal Strategy for 2022-24;*
	Ministry of Finance of North Macedonia: Fifth set of anti-crisis measures;
	IMF Article IV Staff Report for North Macedonia 2021.
Poland	*Polish Convergence Programme 2021.*
Romania	*Romanian Convergence Programme 2021.*
Slovenia	*Slovenian Fiscal Council: Monthly Information January 2021;*
	Slovenian Fiscal Council: Monthly Information January 2022.
Slovakia	*Slovakian Draft Budgetary Plan 2022.*

8.2. Definition of anti-crisis measures

We have limited our research only to only fiscal (budget-related) part of anti-crisis policies; more precisely, to the measures directly affecting fiscal result of a country. In other words, the anti-crisis measures not making a direct impact on the budget balance – like the monetary policy instruments (moratoriums on loans, central banks' lines for additional liquidity to commercial banks) and loans to businesses via guarantee schemes[49] – were not covered by the analysis.

In addition, there were certain marginal cases where it was required to define/estimate the fiscal cost of implemented measures. *The first* are tax deferrals that increase the deficit in the year in which they were granted (most often 2020), whereas in the later stages (as of 2021 most often) the budget registers inflows based on the payback of these liabilities. In that case, the total value of the measure was calculated on the net principle, i.e. as a difference between the value of deferred liabilities and the portion repaid by the companies in the meantime. *The second* case is the measure of accelerated VAT refund. This concerns the funds that would be paid from the budget at some point either way, and they affect the deficit increase only under special circumstances.[50] However, these measures were implemented very rarely with negligible impact on the budget. Therefore, this measure was excluded from the analysis (this does not alter our main conclusions because it was delivered only in three countries in our sample and did not require substantial funds).

During the pandemic, certain countries recorded an additional rise in public expenditures, most often in the form of public investments (healthcare excluded) and higher subsidies to specific state-owned enterprises (national air carriers, railway companies, etc.). In most cases, these costs could not be clearly broken down into a portion directly resulting from the pandemic-caused emergency, and a portion which would have been incurred even if the crisis did not emerge. This is why they were not treated as part of the anti-crisis package.

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[49] In terms of the guaranteed loans, in the part of this paper dedicated to the calculation of anti-crisis measures' costs in Serbia (where we have the most in-depth data), the total cost included only a smaller portion estimated to be borne by the budget.

[50] The potential deficit rise in one year (2020) is possible if, instead in January or February 2021, regular refunds were realised a bit earlier, i.e. by the end of 2020.

8.3. Structure of anti-crisis packages

Observed by countries, fiscal measures considerably vary, both in regard to their volume and specific instruments applied. For the purpose of making the analysis more comprehensive, we started by breaking down the heterogeneous set of all measures into four larger groups. The basic criterion used was the final beneficiary of the measures – public health, private sector, citizens, other. Below we will discuss each of the mentioned sections in more detail:

- *Support to public healthcare* includes expenditures for the increase in the medical staff salaries, purchase of necessary equipment, medicines and vaccines, purchase of personal protective equipment for the public administration staff, exemption from customs duties and taxes (VAT) on the purchase of medical equipment, same as the costs of construction and equipment of COVID hospitals.

- *Support to the economy* was materialised in two ways:

    o *Expenditure-based measures* include assistance to employers for the employees' salaries, assistance for payment of fixed costs (office space rent), incentives for additional investments (grants for small and medium-sized companies, technological development), subsidies to companies in vulnerable sectors (tourism, transport), support to agriculture.

    o *Revenue-based measures*, the so-called tax expenditures, like the write-off of tax liabilities (corporate and/or personal income tax, social contributions), deferred payment of tax liabilities and reduced taxes (VAT on certain goods and services, excise duties, local fees).

- *Assistance to the general population* implies all types of assistance governments allocated directly to citizens. This group includes allocations for the unemployed, additional social welfare allowances, allowances for families with children pensioners, persons with disabilities, but also measures like cash vouchers, bonuses for the vaccinated, financial assistance to students (for scholarships and accommodation) and youth (additional courses and training) and for all citizens above 18 years of age.

- *Other measures* imply financial support for specific, mostly non-market oriented sectors like culture, education, art, sports, and religious communities.

8.4. Criteria for determining the selectivity of measures

According to the selectivity criterion, anti-crisis measures are divided into two groups: 1) selective measures, i.e. the measures targeting only a limited segment of the economy and population affected by the crisis more than others (or more vulnerable to the pandemic); 2) non-selective measures – comprising the payment of budget funds without taking into account the objective vulnerability of beneficiaries. The division into non-selective and selective measures was applied both in the case of support for the economy and general population.

The *extraordinary support to public health* was excluded from this division because this sector was directly affected by the crisis, therefore all pandemic-related funds paid out for the health system are considered fully targeted/focused. Moreover, the category *Other* contains the assistance focused on rather specific activities, which is why it has been practically entirely regarded as selective. Due to the aforementioned, the issues of selectivity in this paper were considered for the remaining two portions of the anti-crisis packages where such division was possible – assistance to the economy and assistance to the general population.

The *selective measures for the economy* include the measures meeting at least one of the two criteria: 1) targeting sectors most affected by the crisis like tourism, hospitality, transport; 2) available for all sectors, but with the assistance being conditioned on proving that the pandemic had caused major problems in doing business (e.g. drop in operating revenues by 20-50% compared to the pre-crisis period). The *selective measures for the population* include instruments meeting one of the following requirements: 1) allocated for socially marginalised and/or materially vulnerable citizens – like social welfare beneficiaries, the poorest pensioners (minimum pension), and unemployed persons due to the small possibility of them getting a job during the pandemic; 2) targeting citizens unable to perform their regular activities due to the specificity of epidemiological measures, e.g. when due to the closure of kindergartens parents had to look after their children or an infected family member. All measures not meeting any of the above criteria were categorised as non-selective. In addition, the non-selective measures also include all measures for which it was impossible to determine (using the official sources) whether they were based on any criteria or not.

8.5. Additional remarks

In addition to all research-related efforts focused on collecting data from multiple sources, there were some situations when even the official sources – both national and international – were incomplete. Specifically, there are some countries where, based on the adopted measures, we had to estimate their execution by ourselves (e.g. none of the official documents in Montenegro include an overview of the funds spent on anti-crisis measures during 2021). Such cases were rare, and do not affect the fundamental conclusions presented in this paper, more so because their relative importance is negligible against the whole sample.

A more detailed database compiled for the needs of this analysis is available upon request (please send a query to kabinet@fiskalnisavet.rs).