

# THE OVERVIEW OF ECB'S AND NBS' COVID-19 CONTAINMENT MEASURES\*

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## **Abstract**

*The COVID-19 influenced crisis represents an unprecedented event that has to some extent affected all segments of the economy of countries worldwide. The outburst of the contagious coronavirus and its adverse effects did not bypass the banking sector, which has consequently faced numerous challenges. Although the banking sector usually played a central role in periods of global instability, primarily as a vital part of the problem, during the ongoing pandemic, it has been perceived as a part of the solution. To strengthen the liquidity of national banking systems and ensure the smooth transmission of monetary policy measures, central banks have resorted to a wide range of conventional and unconventional measures and activities. Given the context, the chapter aims to present and analyze the impact of measures ECB and NBS have undertaken to mitigate the adverse effects of the crisis triggered by the outburst of the contagious coronavirus. Research results indicate that ECB primarily resorted to injecting additional liquidity through the temporary asset purchase program (PEPP) worth 1,850 billion EUR and lowering key interest rates at historically low levels to encourage lending and reduce borrowing costs. Analogously, NBS responded to the crisis along with the first measures of the Government of the Republic of Serbia by reducing key policy rate and providing additional domestic and FX liquidity to the banking sector. By providing deeper insights into the key activities ECB and NBS have undertaken to mitigate the COVID-19 crisis adverse effects, the*

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*chapter contributes to the growing body of literature in the field of central banking and monetary policy.*

**Keywords:** *banking sector, COVID-19, pandemic emergency purchase programme, European Central Bank, National Bank of Serbia*

## INTRODUCTION

In decades prior to the COVID-19 pandemic, the process of globalization radically transformed international trade by offering better profit growth prospects, reduced dependence on known markets, and chances for overall business expansion (Surugiu & Surugiu, 2015). In addition, globalization increased the countries' interdependence by integrating different aspects of the economy, which was led by technological progress in the private sector (Baldwin, 2016) but was also allowed by public policy (IMF, 2021). Accordingly, during 1995-2010, global trade growth was twice as fast as global GDP growth (IMF, 2021). At the same time, global value chains differentiated themselves as a new paradigm for the organization of production worldwide (Amador & Cabral, 2014). Furthermore, it is estimated that one percentage point rise of measures of globalization on average led to an increase of the five-year growth rate by 0.3 percentage points (Lang & Tavares, 2016).

Nevertheless, the emergence of COVID-19 disease in 2020 has caused the world to stop. Extensive lockdowns and quarantining measures have had devastating impacts on the global economy, mainly through disruption of international trade and global value chains (Eppinger et al., 2020). On the one hand, trade integration allows the national economy's growth to be less dependent on swings in domestic conditions (Kose et al., 2003) which proved to be of great importance for EU countries in the wake of the sovereign debt crisis (IMF, 2021). On the other hand, however, trade integration leads to a greater exposure to global shocks, which becomes much more pronounced in case mitigation policies designed to suppress crisis adverse effects prove to be inadequate.

Compared to the Global financial crisis, the COVID-19 influenced crisis has disrupted the global economy's supply side, shutting down businesses and entire industries worldwide (Papanikolaou & Schmidt, 2020). Extensive lockdowns lowered consumer demand and consequently substantially reduced industrial activity. "As lockdowns have lifted, demand has rocketed" (Ellyatt, 2021), but supply chains are still handling to bounce back.

To adequately mitigate the crisis' harmful effects on national economies, central banks worldwide have implemented a set of monetary policy and banking supervision measures. However, an expansionary monetary policy that proved to be a good solution for the Global financial crisis seems partially inadequate for the ongoing global health crisis. According to the latest data (Amaro, 2021), in September 2021, Eurozone inflation has hit its record level in the last 13 years, mainly due to the energy prices rocketing. Expansionary policy measures designed to recover demand in combination with the global supply chains disruptions have led to increased inflation rates worldwide.

Given the context, the subject of this chapter is a brief analysis of the comprehensive sets of measures that ECB and NBS have implemented to mitigate the COVID-19 crisis adverse effects. The paper aims to provide a deeper insight into the type and effects of the measures taken, with particular emphasis on the inflation rate.

The remainder of the chapter is organized as follows. After Introductory remarks, Section 2 provides the overview of relevant crisis literature covering the last couple of decades. Section 3 gives valuable insights into developments of key macroeconomic indicators in the Euro area, while Section 4 presents the main containment measures introduced by ECB to suppress the COVID-19 crisis negative effects. Sections 5 and 6 are devoted to the analysis of the situation in the Republic of Serbia. Regarding that, Section 5 reviews the trends of key macroeconomic indicators in the Republic of Serbia, while Section 6 presents the main containment measures introduced by NBS to mitigate crisis adverse effects. Finally, Section 7 concludes the chapter.

## LITERATURE REVIEW

The global economy has suffered 14 global recessions since 1870 (VoxEU, 2021). In the last 50 years, the world evidenced four global recessions, i.e., in 1975, 1982, 1991, and 2008. All mentioned crises were characterized by the reduction of the key macroeconomic indicator - real global GDP and other important indicators of economic activity (Kose et al., 2020).

The 1975 recession was caused by the Arab oil embargo that started in 1973. Embargo resulted in a dramatic increase in oil prices which contributed to the rise in inflation and caused a negative effect on economic growth. As a result, monetary

policy, which implied monetary easing, was applied to recover economic growth (Kose et al., 2020).

The triggers of the 1982 global recession were oil shock (1979), US and other advanced economies' monetary tightening, as well as debt crisis of Latin America, while the recession in 1991 was caused by numerous factors such as Gulf War and the dramatic rise in oil prices (Kose et al., 2020).

Before the COVID-19 crisis, the world had faced The Great Recession started in mid - 2007. The initial cause of The Great Recession was the collapse of the US sub-prime mortgage market. Insufficient and inadequate regulation and supervision of financial markets and institutions contributed to lending characterized by high levels of risk. Also, the collapse, i.e., the bankruptcy of Lehman Brothers additionally worsened the situation. The high level of the financial markets interconnection at the global level contributed to the severe spread of the crisis to advanced economies as well as several emerging and developing ones. The crisis grabbed numerous European countries in 2011-2013 and resulted in a significant reduction of the asset prices, credit crunches and problems in global trade (Kose et al., 2020; Lazić & Zorčić, 2020).

From the above mentioned, it can be concluded that monetary policy played a critical role in times of global uncertainties. To respond to the crisis, central banks of advanced economies usually resort to lowering interest rates and providing liquidity to the financial system (Kose et al., 2020) to encourage investment and stimulate economic activity (Praščević, 2011). In other words, in times of crisis, monetary policy tends to become expansionary to accelerate economic recovery. (Kose et al., 2020).

Jannsen et al. (2019) confirmed that the transmission of monetary policy to GDP and other key macroeconomic indicators is faster in times of crisis. Also, the authors found that expansionary monetary policy has an immediate positive impact on inflation and GDP in times of the most severe period of financial turmoil. Feldkircher et al. (2020) also stated that expansionary monetary policy contributed to GDP growth and provided more favourable financial terms. The expansionary monetary policy has proved to be highly effective as it, along with expansionary fiscal policy, led to the ending of the US recession in June 2009 (Praščević, 2011).

Aghion et al. (2012) stated that countercyclical monetary policy strengthens growth in the long term. Contrary to the mentioned claims, Morten et al. (2012) found that

based on a sample of 24 developed countries, monetary policy that implied lowering the real interest rates didn't lead to economic growth when a financial crisis was involved.

Thus, the monetary policy represents a very useful tool for reaching aims related to inflation and growth. Also, it is often the first line of shelter during recessions (except for the countries with fixed exchange rate regime). Most central banks reacted to the global financial crisis in 2008 by significantly lowering the key policy rate. Several central banks reduced the key policy rate to zero and consequently exhausted the possibility for additional reductions (Mathai, 2012).

One of the critical roles of the monetary policy is to provide liquidity to the financial system, which was exceptionally well pronounced during the ongoing health crisis considering the existence of supply-side shock, i.e., problems related to production which consequently influenced demand-side shock (Bruni & Serrate, 2020). Guerrieri et al. (2020) also confirmed that changes related to supply-side shocks caused by the outburst of the COVID-19 pandemic have severely affected aggregate demand.

Furthermore, it is widely accepted that globalization is a crucial driver of the COVID-19 crisis's adverse effects transmission (Shrestha et al., 2020; Ludovic et al., 2020). The high level of economic and geographical interconnections among countries has induced the rapid crisis spillover at the global level.

Finally, considering its origin, the COVID-19 influenced crisis is specific. The differences between the COVID-19 crisis and the Great Recession are as follows (VoxEU, 2021):

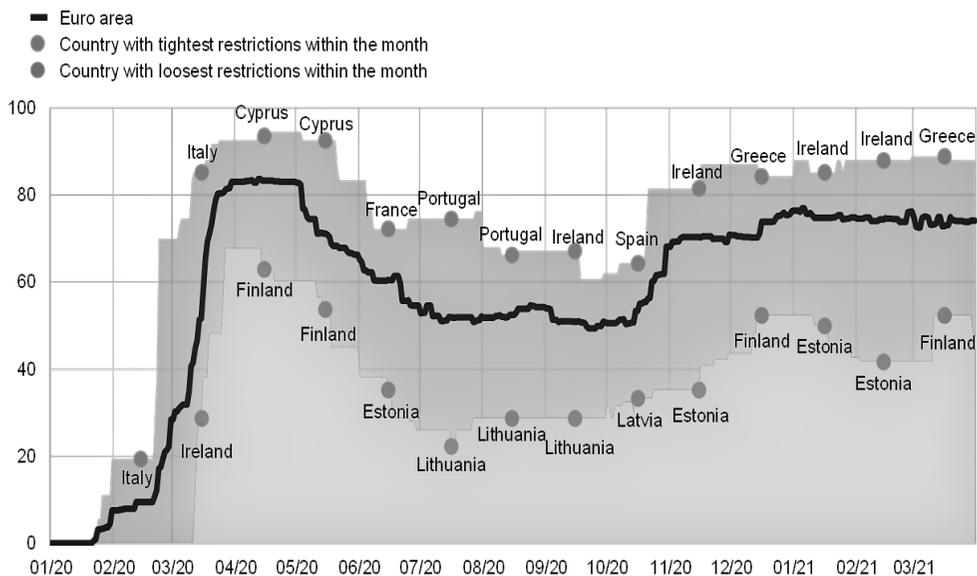
- The trigger of the Great Recession was internal, while in the case of the COVID-19 crisis, it was caused by an external event – the outburst of the contagious coronavirus.
- If we compare the values of the key macroeconomic indicators in the first quarters of the COVID-19 crisis and the Global Recession, the more significant reduction of GDP and employment was recorded in case of the ongoing pandemic.
- Compared to the Great Recession, the recovery period from the COVID-19 crisis is expected to be shorter.

## A BRIEF REVIEW OF KEY MACROECONOMIC INDICATORS IN THE EURO AREA DURING THE COVID-19 PANDEMIC

While the COVID-19 pandemic has hit the world in general, its economic impacts are considered to be asymmetrically distributed among countries, regions, and industries. Differences among euro area countries are primarily caused by the severance of mitigation measures designed under the varying intensity of the health crisis, as well as individual country's economic structures and institutional settings (Muggenthaler et al., 2021).

Due to the severance of adverse health conditions, Italy was the first euro area country to adopt a set of containment measures, and Estonia was the last. The gap between the severance of measures adopted determined the gap in countries' economic developments (Muggenthaler et al., 2021). Finland, Estonia, Lithuania, and Latvia have implemented relatively loose measures, whereas Italy, Ireland and Portugal have adopted more stringent ones (Figure 1).

**Figure 1.** Mitigation policy measures and economic structures in cross-country comparison

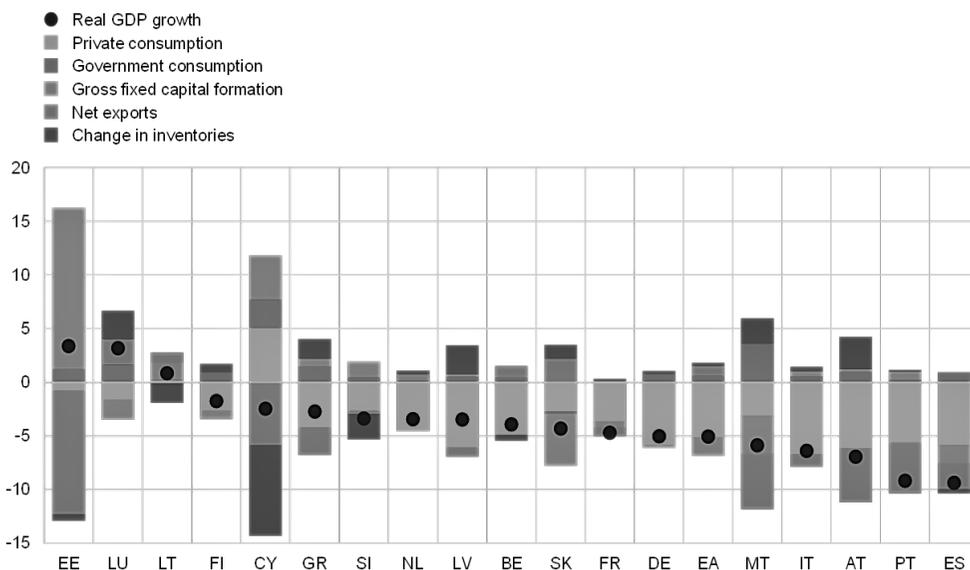


Source: Muggenthaler et al. (2021).

The fiscal position of euro area countries in 2020 diverged substantially. Following the data presented in Figure 2, it can be concluded that in the vast majority of euro

area countries the most prominent negative contribution to the recession appeared to be private consumption cutback, which was especially pronounced in Germany, Belgium, and the Netherlands.

**Figure 2.** Decomposition of the real GDP change in the period 2019 Q4 – 2021 Q1 by its demand components

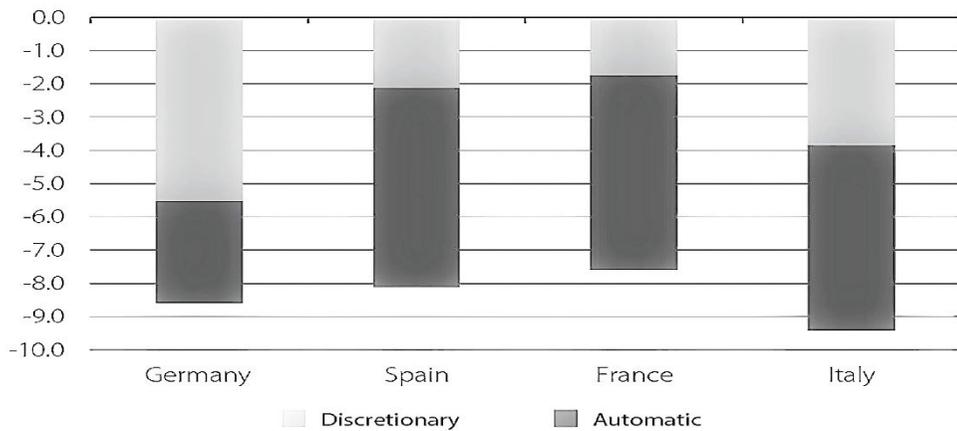


Source: Muggentaler et al. (2021).

Even though the ECB “has once again been the first player to move decisively and effectively” (Leandro, 2020), monetary policy alone was considered to be insufficient in mitigating crisis adverse effects. As expected, the euro area policymakers have introduced a large number and wide variety of fiscal measures designed to suppress crisis adverse effects. Nevertheless, it is essential to bear in mind that the deterioration in the fiscal balance is due not only to discretionary measures taken but also to automatic stabilizers.

Change in the fiscal balance of the major euro area countries in 2020 is presented in Figure 3.

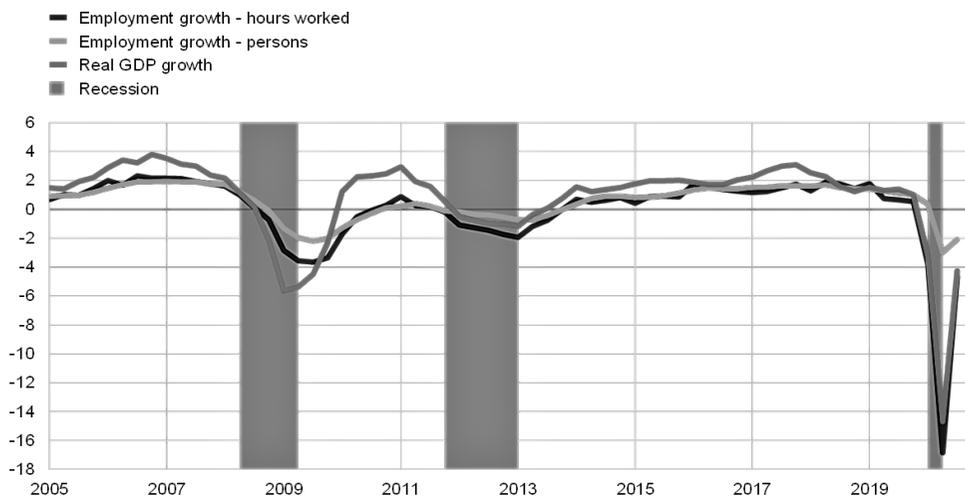
**Figure 3.** Change in the fiscal balance (as a percentage of GDP) in 2020



Source: Leandro (2020).

The ongoing pandemic and associated mitigation measures have strongly affected the euro area labour market (Figure 4). The COVID-19 pandemic led to the sharpest contraction of employment rate and total hours worked. According to Anderton et al. (2020), in 2020 Q2, the quarter most affected by mitigation measures, the employment rate decreased by 3.2 per cent, translating to 5.2 million persons left out of the job market.

**Figure 4.** The employment development in the Euro area



Source: Anderton et al. (2020).

Furthermore, total hours worked was estimated to be the category hit even more substantially than the employment and real production (GDP). In 2020 Q2, total hours worked are estimated to have been decreased by 16.8 per cent, and average hours worked by 14.3 per cent (y/y).

In 2020 Q3, however, both employment and total hours worked recovered but remained considerably below the levels recorded in 2019 Q4.

### **ECB POLICY MEASURES IMPLEMENTED TO SUPPRESS THE COVID-19 CRISIS ADVERSE EFFECTS**

In an effort to avoid and suppress adverse effects of the COVID-19 crisis on the euro area economy, ECB has introduced a comprehensive set of measures comprising of the following six cornerstones (ECB, <https://www.ecb.europa.eu/home/search/coronavirus/html/index.en.html>):

- Help the euro area economy amortize the shock of the COVID-19 crisis through the increased liquidity programmes;
- Maintain borrowing to be affordable;
- Smooth access to credit for companies and households;
- Secure that short-term concerns do not damage the lending process;
- Increase banks' lending capacity;
- Secure financial stability through increased international cooperation.

Due to the rising global uncertainties, ECB substantially eased its monetary policy stance in 2020. The implemented set of measures and their subsequent recalibrations due to the changing conditions has lowered the risk of a liquidity and credit crunch by providing the necessary liquidity to the banking system while at the same time preserving the uninterrupted flow of credit to the real economic activity.

In late February 2020, the outburst of the COVID-19 pandemic soared uncertainties regarding the euro area's growth prospects while, at the same time, disruptions to global supply chains were perceived as possible determinants of raising euro area inflation. Nevertheless, perceived demand-side cutbacks along with the increased risk sentiment, which led to a severe tightening in financial and bank funding conditions, were expected to hold the euro area inflation rate on a steady level.

Against this background, at the beginning of the pandemic, ECB Governing Council (ECB, 2020) introduced additional longer-term refinancing operations (LTROs) at the borrowing rate equal to the deposit facility rate. Furthermore, the interest rate on targeted longer-term refinancing operations (TLTRO III) was cut by 25 basis points, and other terms within TLTRO III were also changed to be more favourable. The measure was designed to ease borrowing conditions for banks and consequently induce credit flows to the most vulnerable sectors of the euro area economy. In addition, the ECB Governing Council introduced a temporary envelope of additional net asset purchases of 120 billion EUR to the already existing asset purchase programme (APP), which was intended to last up until the end of 2020.

Nevertheless, due to the severance of the lingering health crisis, the Governing Council decided to implement a new temporary 1,850 billion pandemic emergency purchase programme (PEPP) aimed to fulfil two main goals (ECB, 2020):

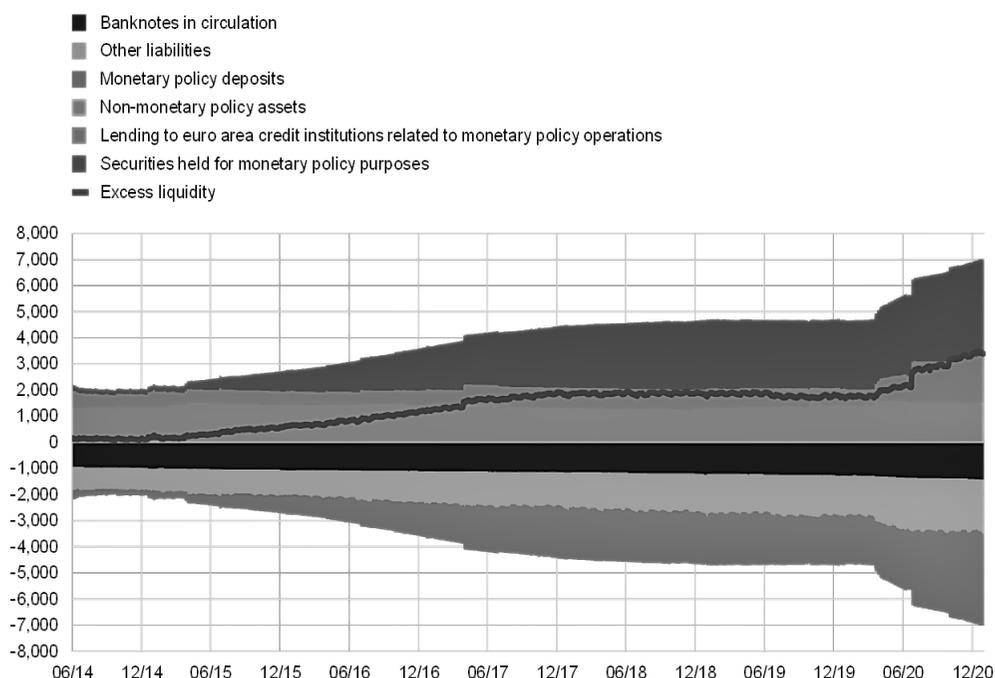
- To secure monetary accommodation necessary to enable the fulfilment of medium-term inflation goal as well as to support the economic recovery of the euro area;
- To provide flexible purchases under the PEPP aimed to “allow for fluctuations in the distribution of purchase flows over time, across asset classes and among jurisdictions” (ECB, 2020).

The PEPP, which provides for the purchases of bonds on secondary markets, is designed to maintain the continuity of the lending activity during the sharp decline in the gross domestic product recorded in all euro area countries due to the spread of the global pandemic.

Moreover, in order to smooth the lending process in the short run, ECB policymakers secured liquidity for the short-term needs of solvent banks by providing instantaneous borrowing possibilities at considerably beneficial terms. In addition, ECB officials are acting provisionally less rigorous regarding the volume of capital banks are required to hold as a buffer for hard times. The measure is designed to enhance their lending capacity further. At last, to preserve financial stability and satisfy foreign currency demand, ECB has reactivated and enhanced swap lines with central banks worldwide.

As a consequence of the measures taken, the Eurosystem’s balance sheet volume reached a historic maximum of 7 trillion EUR in 2020 (Figure 5), which was a rise of 2.3 trillion EUR compared to 2019 (y/y).

**Figure 5. Eurosystem’s consolidated balance sheet, 2014 – 2020**



Source: ECB (2020)

## A REVIEW OF KEY MACROECONOMIC INDICATORS IN THE REPUBLIC OF SERBIA FROM 2010 TO THE PRESENT

The most commonly used indicators for assessing the health of an economy are GDP growth rate, inflation rate, and unemployment rate (Semenova & Vitkova, 2019). To examine the effects of the COVID-19 crisis on the Serbian economy, we analysed the trends of macroeconomic indicators such as real GDP growth rate, inflation rate, unemployment rate, budget deficit (expressed as a percentage of GDP), and public debt (central government, expressed as a percentage of GDP) during the period 2011-2021 (Table 1).

**Table 1. Macroeconomic indicators for Serbia (2010-2020)**

	<b>Real GDP</b>	<b>Inflation</b>	<b>Unemployment</b>	<b>Budget deficit</b>	<b>Public debt</b>
2010	0.7	10.3	20.9	-3.2	39.5
2011	2.0	7.0	24.9	-3.8	42.8
2012	-0.7	12.2	25.9	-5.6	52.9
2013	2.9	2.2	24	-4.9	56.0
2014	-1.6	1.7	20.6	-5.9	66.2
2015	1.8	1.5	18.9	-2.7	70.0
2016	3.3	1.6	16.4	-0.2	67.7
2017	2.1	3.0	14.5	0.7	57.8
2018	4.5	2.0	13.7	0.6	53.6
2019	4.3	1.9	11.2	0.2	52.0
2020	-0.9	1.3	9.7	-8.4	57.4

*Note: All the observed macroeconomic indicators are expressed in percentages.*

*Source: National Bank of Serbia (Available at: <https://nbs.rs>. Accessed: 11/7/2021)*

Based on the data presented in Table 1, it can be concluded that during the observed period real GDP growth rate reached its peak in 2018. Nevertheless, a decline of 0.9 per cent was recorded in 2020 due to the coronavirus outburst. This is contrary to the IMF (2020) projections considering their forecast of a 3 per cent real GDP drop in 2020 and a 7.5 per cent real GDP growth in 2021. In addition, Tomić et al. (2021) confirmed that COVID-19 has had statistically significant negative influence on GDP per capita in the Republic of Serbia at a confidence level of 90 per cent. According to the World Bank (World Bank - GDP growth (annual %) - Serbia, Croatia, Bosnia and Herzegovina, North Macedonia, European Union, Albania, n.d.), a decline of 0.9 per cent recorded in 2020 was lower compared to the values of this indicator recorded in the neighboring countries such as Croatia (-8.4 per cent), North Macedonia (-4.5 per cent), Bosnia and Herzegovina (-4.3 per cent), Albania (-3.3 per cent) as well as European Union (-6.2 per cent).

With the implementation of Inflation targeting, NBS has officially started on January 1, 2009 (NBS, Memorandum of the National Bank of Serbia on inflation targeting as a monetary strategy, 2008; Lazić & Domazet, 2019). Within this regime, the goal of monetary policy is defined by determining the inflation corridor, which was set on 4.5 per cent  $\pm$  1.5 percentage points in 2011 (NBS, Inflation Report - February 2012), changing to 4.0 per cent  $\pm$  1.5 percentage points in 2012 (NBS, Inflation Report - February 2013). Since the beginning of 2017, the inflation target has been reduced to 3 per cent  $\pm$  1.5 percentage points (NBS, Inflation Report - February 2017). Accordingly, inflation measured by the consumer price index in 2011 and 2012 was

above the upper limit of the allowed deviation from the defined target. After 2012, inflation was within the corridor. Inflation targeting, unlike previous strategies of monetary policy implemented by NBS (monetary aggregates and exchange rate targeting), positively contributed to maintaining price stability and strengthening confidence in the domestic currency. According to the latest available data from the NBS, the inflation rate in August 2021 was 4.3 per cent, but in September 2021, it accounted for 5.7 per cent, which means that it was not within the target range. Higher inflation rate in September was a result of increase in prices (food and fuels) and supply chain bottlenecks (NBS, 2021). Accordingly, it can be stated that NBS should monitor and undertake adequate measures to prevent a further rise of the overall price level.

Despite the appearance of COVID-19, unemployment rate decreased in 2020. However, there were some activities which recorded the highest reduction in the number of employees: administrative and support service activities, professional, scientific, and technical activities, and agriculture, forestry and fishing (Pavlović et al., 2020). Compared to the other Western Balkan countries unemployment rate in Serbia was lower than in North Macedonia (18.4 per cent), Bosnia and Herzegovina (16.8 per cent), and Albania (11.7 per cent), but higher than in Croatia (7.2 per cent) based on the World Bank data for 2020 (World Bank - Unemployment, total (% of total labor force) (modeled ILO estimate) - European Union, Serbia, Croatia, Bosnia and Herzegovina, North Macedonia, Albania, n.d.).

In the observed period, the budget deficit reached its highest value in 2020, i.e., with the coronavirus outburst. This can be the consequence of a package of measures taken, i.e., fiscal stimulus program including direct payment to all adult citizens, and additional payment to pensioners and unemployed. However, the high value recorded for this indicator was not in line with the criteria established by the Maastricht Treaty, which imply that the planned or realized budget deficit rate should not exceed 3 per cent of GDP (NBS, n.d.).

Analyzing the trend of public debt according to data presented in Table 1, it can be noted that this indicator recorded higher values in 2020 in comparison to the previous two years. Still, it was in line with the Maastricht Treaty criteria, which imply that public debt should not exceed the level of 60 per cent of GDP.

## MEASURES TAKEN BY NATIONAL BANK OF SERBIA TO MITIGATE THE NEGATIVE IMPACT OF THE COVID-19 CRISIS

The COVID-19 pandemic has significantly influenced the changes in all segments of the world economy (Lazić et al., 2021). The outburst of the contagious coronavirus has urged countries to react to the new circumstances. According to the OECD report (2020), Serbia was classified in the group of countries the least affected by the COVID-19 crisis. Nevertheless, according to Pejtin Stokić (2020), adverse effects of the 2008 financial crisis on the Serbian economy were less severe compared to those induced by the ongoing health crisis.

Serbian economic policy measures taken by the government to mitigate the adverse consequences of the COVID-19 pandemic amounted to 5.8 billion EUR in 2020, i.e., about 13 per cent of the country's GDP. In 2021, an additional package of 2.2 billion EUR (approximately 4 per cent of GDP) was implemented to further stimulate economic recovery (National Bank of Serbia, 2021).

When it comes to NBS, after the first case of the coronavirus was confirmed in Serbia (Covid19.rs, 2020), and before the president of the Republic of Serbia announced a state of emergency on March 15, 2020 (The Government of the Republic of Serbia, 2020), NBS promptly reacted (March 11, 2020) by taking specific measures to support domestic economy.

The first decision of the NBS Executive Board was to cut all main interest rates. Thus, the initial measure represented a reduction of the key policy rate to 1.75 per cent (previously amounted to 2.25 per cent). Consequently, the deposit facility rate and the lending facility rate were lowered to 0.75 per cent and 2.75 per cent, respectively. NBS changed the key policy rate three more times (Table 2).

**Table 2.** Changes in key policy rate - Serbia

Date	Key policy rate
April 9, 2020	1.5%
June 11, 2020	1.25%
December 10, 2020	1%

Source: National Bank of Serbia (Available at: <https://nbs.rs>. Accessed: 10/14/2021)

Note: In October 2021, NBS decided to maintain the key policy rate at the same level (Available at: <https://nbs.rs/en/scripts/showcontent/index.html?id=17417>. Accessed 10/14/2021).

In addition, NBS narrowed the interest rate corridor firstly from  $\pm 1.25$  percentage points to  $\pm 1.0$  percentage points in March 2020, and secondly from  $\pm 1.0$  percentage points to  $\pm 0.9$  percentage points in December 2020 (National Bank of Serbia, 2021). By lowering the key policy rate, NBS created more favourable financing conditions to enhance lending and further contribute to the recovery of the Serbian economy. The second decision relates to the implementation of measures designed to support dinar and foreign liquidity through the following activities (National Bank of Serbia, 2021):

- Additional 3-month swap auctions during March and April 2020, accompanied by the weekly auctions during the period from October 2020 to October 2021;
- Reduction of interest rate on FX swaps in May 2020;
- Repo purchases of government securities (7 days maturity) during March and April 2020;
- Repo purchases of government securities (3 months maturity) as well as additional auctions performed daily during the period from November 2020 to September 2021;
- Outright purchases of government securities in the secondary market (RSD 97 bn) (National Bank of Serbia, 2020);
- Purchase and sale of corporate bonds during the period May 2020 - October 2021.

Through swap auctions and repo auctions, NBS enabled around 41 billion dinars of domestic-currency liquidity and 96.0 million euros of foreign-currency liquidity in 2020. NBS stopped conducting additional FX swap auctions on March 15, 2021, and auctions of repo purchases of dinar securities on October 7, 2021. Nevertheless, NBS provided liquidity to the banking sector using these measures in around 145 billion dinars (National Bank of Serbia - COVID-19 – Our response, n.d.).

Liquidity of Serbian banking sector during the period 2010-2019 was on the satisfactory level considering that values of liquidity ratio and ratio of the bank's first-degree liquidity were above the regulatory minimum i.e., 1.00 and 0.7, respectively (Ljumović & Antonijević, 2020). These indicators were more than two times higher than regulatory requirements in 2020, Q1 2021 and Q2 2021, according to the latest NBS statistics (National Bank of Serbia – Data, n.d.).

The third decision relates to providing more favourable lending conditions for domestic currency loans (Guarantee Scheme loans) during July 2020 and October 2021 (National Bank of Serbia, 2021). The measure was designed to enable smooth functioning of credit channel which was hit by the outburst of the global pandemic. Finally, additional NBS measures included the following ones (National Bank of Serbia, 2021):

- Providing moratorium on debt payments;
- Extension of the repayment term for housing and household loans.

From the above mentioned, it can be concluded that the monetary policy reaction of NBS during the acute phase of the COVID-19 crisis compared to that during the outburst of the Global financial crisis differs substantially. During the acute phase of the Global financial crisis, the measures of fiscal and monetary policy were not aligned, considering that monetary policy was restrictive and fiscal policy expansionary (Petrović, 2009). The emphasis was put on the defence of the value of the domestic currency through the rise of key policy rate on the one hand, and FX intervention, on the other. Petrović (2009) consider that the implementation of expansionary monetary policy represented a better solution during the outburst of the Global financial crisis.

Banking sector represents the main cornerstone of the Serbian financial system (Lončar et al., 2016). Accordingly, the impression that NBS promptly reacted by taking appropriate measures (lowering key policy rate, providing additional liquidity to the banking sector, providing favourable financing conditions etc.) to mitigate the negative impact of the COVID-19 crisis on the Serbian economy imposes itself. Nevertheless, considering the soar in the inflation rate (from 4.3 per cent in August 2021 to 5.7 per cent in September 2021), NBS officials should closely monitor the situation and implement timely reactions to achieve the inflation target. According to NBS projections (National Bank of Serbia, 2021), inflation will probably be above the upper limit of the target tolerance band until the end of the first quarter of 2022 due to the influence of temporary factors. After Q1 2022, inflation is expected to return to its target range.

## CONCLUSION

The COVID-19 influenced crisis has had devastating impacts on all aspects of economic activity of countries worldwide. The simultaneous shock that affected both, aggregate supply and demand have had strong adverse effects on key

macroeconomic indicators. To strengthen the liquidity of national financial systems and ensure the smooth transmission of monetary policy measures, central banks have resorted to a wide range of conventional and unconventional measures and activities.

ECB primarily resorted to injecting additional liquidity through the temporary asset purchase program (PEPP) worth 1,850 billion EUR and lowering key interest rates at historically low levels. Analogously, NBS responded to the crisis along with the first measures of the Government of the Republic of Serbia by reducing key policy rate and providing additional domestic and FX liquidity to the banking sector.

Future recovery is not expected to be evenly distributed among countries which is why the overall conclusion of the effects of the measures contained will be possible only after the end of the pandemic.

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