



# MACROECONOMIC IMPACT OF THE RUSSIA AND UKRAINE CONFLICT ON THE GROSS DOMESTIC PRODUCT OF SERBIA

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## Abstract

*The conflict between Russia and Ukraine comes at a time when countries worldwide are still recovering from the destabilizing effects of the global COVID-19 pandemic, which has caused deep economic regression, significant loss of productivity, worsening inequality, planetary pressures, and in some cases, security challenges. The economic impact reverberated through multiple channels, including commodity and financial markets, trade, and migration links. At the same time, rising inflation is increasingly reducing the purchasing power of consumers. Such market tensions will reduce economic activity while accelerating inflation with the appearance of stagflation, where a general jump in prices and a decline in production characterize the state of the economy. The direct effects of this conflict lead to macroeconomic instability. This conflict causes a jump in global prices and affects economies worldwide. One can expect that developing markets and countries in the European region, especially the Western Balkan, will bear the brunt. On the side of macroeconomic stability, the effects differ depending on their exposure to the market of Russia and Ukraine. The Republic of Serbia does not have significant, direct trade ties with Ukraine, but the conflict faced Serbia with new challenges, considering Serbia's energy dependence on Russia, as well as the agricultural sector, where products, primarily fruit, have a significant share in total exports to Russia. The crucial question is in which direction the conflict will affect the macroeconomic stability of the Republic of Serbia.*

**Keywords:** Macroeconomics, Economy, Conflict, Russia, Gross Domestic Product

## 1 INTRODUCTION

Numerous global economic crises of the 20th century made macroeconomic instability with its

impact on GDP a key issue in the analysis of the determinants of economic growth. The multitude of ways in which macroeconomics affects GDP, its various causes, and the range of measurement methods makes economic volatility a complex and multidimensional phenomenon. Understanding the nature and causes of economic progress is the

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fundamental challenge for economics. We believe that the countries' total number of products and services produced is the best measure of economic progress. An economy is like a machine that transforms inputs into outputs, and the input size determines the size of the outputs. Thus, economic growth responds to changes in macroeconomic policy patterns. Therefore, we conclude that to achieve sustainable economic growth in the long term, macroeconomic stability is necessary.

Macroeconomic instability has stunted growth in many developing economies over the past two decades. As a result, states are looking through the economy for ways to better manage the economic factors that contribute to instability. Encouraging the creation of diverse financial markets, characterized by a wide range of financial institutions, may be one such option for better macroeconomic policy management. Greater institutional diversity could expand the reach of financial markets, thereby reducing liquidity constraints. That diversity can offer some insurance against the effects of boom-and-bust cycles in each type of institution since each type covers only a limited market segment. But greater institutional diversity could contribute to instability. That may be the case especially if states try to encourage institution-building in otherwise underperforming markets through regulatory preferences and subsidies.

Macroeconomic instability has widespread and severe consequences. It tends to reduce long-term economic growth domestically and abroad, as instability can spread to other countries due to trade and capital flows. Macroeconomic instability also negatively affects the poor more than higher-income households because lower-income households have fewer ways to smooth consumption over time due to a lack of access to financial markets, lower savings, and limited coverage.

The conflict in Ukraine has delayed the global response to the COVID-19 pandemic and the recovery of the global economy from it. Before the conflict, the world focused on the health and economic challenges posed by the pandemic: reversing the severe loss of human capital and supporting the global economy amid an uneven recovery characterized by prolonged supply bottlenecks, withdrawal of political support, and

rising inflation, including food and energy. The war has already added an immediate global negative impact, particularly through commodity markets.

The conflict worsens the short-term global economic outlook. It has significant economic spillovers through commodity and financial markets, trade and migration links, and investor and consumer confidence. Because of their direct trade, financial, and migration links with Russia and Ukraine, countries in Eastern Europe are expected to suffer significant economic damage. Several major European economies depend on Russia for natural gas and oil and will also continue to be adversely affected. Although most of the effects have so far been limited to the region, there are also important implications for the global economy.

Significantly higher food and energy prices are contributing to inflationary pressures and leading to expectations of a much faster tightening of monetary policy worldwide. Moreover, since Russia and Ukraine are the biggest exporters of raw materials and are upstream in many global value chains, shortages of these commodities could seriously affect a wide range of industries globally, including food, construction, petrochemicals, and transportation.

The conflict has increased risks to global growth and the likelihood of acute financial stress in emerging markets and developing economies, dampening inflation expectations and widespread food and energy insecurity. A protracted conflict could increase global political uncertainty and cause permanent fragmentation of global financial, trade, and investment networks. Human capital would also be further affected, including in neighboring countries, and many others affected by spikes in food insecurity, especially for vulnerable households. Each of these risks materialization could further degrade the underlying drivers of growth, weighing on long-term growth prospects and increasing poverty and inequality.

## 2 THE INFLUENCE OF MACROECONOMIC FACTORS ON THE GROSS SOCIAL PRODUCT

To understand macroeconomics, we must first understand economics. The size of a nation's total economy is usually measured by its gross domestic product, or GDP, which is the value of all

final goods and services produced in the country each year. Measuring GDP involves counting the output of millions of different products and services and all other non-financial products and services produced in the current year and summing them up into the total value of a national unit of payment. For all countries, regardless of whether they are developed or developing, one of the main goals of macroeconomic policy is economic stability. With that, monetary and fiscal policy aims to maintain high growth rates in terms of the gross domestic product together with low inflation through price stability.

Numerous factors influence the economic growth and development of the country, and one of the most important is the gross domestic product (GDP). On the other hand, many factors important for the functioning of the economy also affect the gross domestic product. Some of them are market openness, supply and demand for products and services, unequal distribution of income, population, political situation, etc. Natural factors such as climate change, diversification, and sustainable development are also significant for economic growth. The effects of these factors directly affect macroeconomic stability and its impact on the country's economy. Literature on all these factors is available but very scattered.

Some of the factors that affect countries' macroeconomic instability and GDP are structural factors. Because of them, vulnerability arises from several factors linked to economic and political resilience. As far as structural factors are concerned, the difference is between the size and frequency of shocks (commercial or natural) and the country's exposure to such shocks. Factors affecting exposure to shocks (such as population size, degree of economic diversification, distance from global markets, and geographic isolation) increase the propensity of economies to suffer shocks and the negative impact of such shocks on GDP. Macroeconomic stability is affected by the negative relationship between access to global markets and macroeconomic instabilities.

" Countries that are isolated from global markets tend to lack diversity in terms of exports and experience greater macroeconomic instability about GDP. Although it depends to some extent on structural factors, when we analyze the resilience of individual countries, we primarily

think of economic policy and institutions" (Miljković & Miljković, 2010). As a result, development strategies must focus on foreign trade, procyclicality, and countercyclicality of economic policy. The quality of crisis management can determine the magnitude of instability experienced by countries and its impact on their development. The second set examines the sources of macroeconomic instability. They distinguish between external forms (exports, global prices, terms of trade, or international interest rates) and internal forms (economic policy, agricultural production, and natural or climatic disasters).

Similarly, it is possible to distinguish between exogenous sources of macroeconomic instability (related to international trade, agricultural production, and natural disasters) and endogenous sources (related to economic policy instability or domestic socio-political conditions). Finally, several studies distinguish between so-called *normal* fluctuations and *crisis* fluctuations, the magnitude of which exceeds a certain threshold. The paper "On the Economic Vulnerability of Low-Income Countries" (Guillaumont, 2000) highlights the significant contribution made by the size and frequency of external and natural shocks to the structural vulnerability of developing countries.

When analyzing the relationship and possible effects of macroeconomic factors on the GDP of the countries of the Western Balkans, it is necessary to take into account the unfavorable structure of foreign direct investments, export/import, instability of political and social conditions, (non)compliance of legislation with EU regulations and directives, as well as many others factors, positive effects of the analyzed phenomena on GDP cannot be expected in a short period. (Estrin, 2013)

The economy of the Republic of Serbia has experienced significant changes in trade, fiscal, industrial, agricultural, and financial policies in the last two decades. Despite this, the growth trend and structural changes in the GDP of Serbia are still not satisfactory. Many problems are responsible for this unsatisfactory GDP: lack of domestic food production, narrow export structure, increasing import growth rate, failure to attract more foreign direct investment, a dysfunctional banking system with cumulative interest on loans,

continuous loss in public enterprises, poor infrastructure, ineffective taxation, high inflation rate, political instability and serious deterioration of the law-and-order situation. The Republic of Serbia has adopted a set of short-term and medium-term economic management. External factors such as exports, imports, and foreign aid have always played an important role in the Serbian economy, although the relative importance of various external factors has changed over time. Serbia's economy is growing at 4 to 5 percent per year despite inefficient government-controlled enterprises, delays in the exploitation of natural gas resources, insufficient electricity supply, and delayed implementation of economic reforms.

"Recent global financial and economic crisis analyses include the possibility that the crisis has bottomed out and that the worst is behind us. However, since most analysts agree that this crisis will be Z-shaped, we may face another fall before the final recovery. This opinion is shared by some of the leading officials of financial institutions, although they do not rule out the hypothesis that the recovery and the end of the recession may take several years". (Miljković, Miljković, & Miljković, 2012)

### 3 ECONOMIC CONSEQUENCES OF THE RUSSIAN – UKRAINIAN CONFLICT

Escalating conflict in Ukraine has caused turmoil in financial markets and dramatically increased uncertainty about the recovery of the global economy, two years after the COVID-19 pandemic started. Given that Russia is the world's third-largest oil producer, the second-largest producer of natural gas, and among the top five producers of steel, nickel, and aluminum, any significant reduction in energy supply and metal shipments is very likely to lead to a spike in global prices for these products.

For this reason, on the day the conflict began, financial markets worldwide began to plummet, and the prices of oil, natural gas, metals, and food products (especially grains) rose. While high prices of key products are one of the risks we have already identified as potentially hindering the recovery, the escalation of the conflict between Russia and Ukraine increases the likelihood that

prices of critical products will rise further. In turn, this increases the threat of prolonged high inflation, not least for basic needs, thus increasing the risk of social unrest in both advanced and developing economies. Industries such as automotive, transport, chemical, and generally all sectors that use the above raw materials as inputs appear to be particularly vulnerable.

Many countries reacted immediately after the crisis by easing monetary policy by pumping large amounts of money at very low-interest rates into insolvent banks and other financial institutions. Fiscal policy has stimulated economic activity, but the overall stabilization of the financial system is necessary for long-term recovery, creating conditions for faster economic growth and encouragement of investment in infrastructure and human resources as key factors of long-term growth and unemployment reduction. Macroeconomic imbalances addressing is essential for reducing the possibility of future crises. (Miljković, Miljković, & Miljković, 2013)

While the economic fallout will be felt mainly through rising commodity prices, fueling pre-existing inflationary pressures in much of the pre-conflict world, falling demand from Europe will disrupt global trade. As always when product prices rise, energy and food importers will be particularly affected, and even more so in an environment of uncertain and volatile prices, with the prospect of major disruptions in supply in the event of further escalation of the conflict, and further sanctions and retaliation by each country could undertake.

#### 3.1 Macroeconomic factors affecting GDP

Exports to Ukraine and Russia have fallen significantly and are likely to decline further as a result of a combination of EU sanctions and restrictions imposed by the Russian government and supply issues. Evidence suggests that, even in the absence of legal restrictions, European firms are already reluctant to trade with Russia, fearing legal and payment problems.

According to EU trade statistics, exports of goods to Russia amounted to EUR 89 billion in 2021; and if they stopped, which is an unrealistic assumption, it would, under equal conditions, lead to a decrease in the total demand for goods from the

EU. A decrease in goods exports to Russia by 50 percent would reduce aggregate demand by 0.3 percent of GDP. The European Union also accounts for three-quarters of foreign direct investment in Russia, totaling more than 300 billion euros. We can assume that half of the value of that investment will be lost, which will be around 1% of the EU GDP and slightly less than 2% of their direct investments toward Russia. Although significant for several banks and companies, such a loss cannot be considered of major macroeconomic importance. (EU, 2022)

Evidence suggests, however, that this is unlikely to lead to major problems for the EU's financial system. Branches of Russian banks have already been closed and liquidated without endangering the financial system. The import of non-energy and non-food products from Russia and Ukraine is of minor economic importance. However, their disruption may contribute to the wider disruption of supply chains from the pandemic.

**Refugees.** The flow of refugees from Ukraine has reached 4.6 million people (not counting the 7.1 million displaced persons in Ukraine) at the time of writing, mostly women and children. Estimated annual fiscal costs of providing accommodation, food, healthcare, and refugee education vary from 9,000 to 25,000 euros per person and year. Assuming the cost of €10,000 per refugee and year, the financing cost for five million refugees for one year is €50 billion, or 0.35 percent of the EU GDP. (UNHCR, 2022)

The outflow continues (albeit at a slower pace), so 5 million, and possibly more, is a likely number. This is a human drama of gigantic proportions and presents great problems in organization and distribution across countries. However, the likely macroeconomic costs appear relatively limited. Even this number overestimates the cost because, in a few months, some refugees will return, some will find work, and some will emigrate from the European Union.

**Food.** Russia and Ukraine are major producers and, more importantly, major exporters of food, especially wheat. "According to data from the Food and Agriculture Organization (FAO), Russian and Ukrainian wheat exports accounted for 23 percent of world exports and 7 percent of world production in 2019. In Ukraine, planting for the next harvest can be difficult. Distribution

problems, given the fighting in ports along the Black Sea, may further reduce exports. The market price of wheat has already risen nearly 50 percent from \$7.70 a bushel before the war to \$11, a level that was last seen for just a few days in 2008." (FAO, 2022)

Since the European Union is an exporter of agricultural products, global price increases could improve its terms of trade. However, there are two important caveats. The first is that the loss to EU consumers (as opposed to the European Union as a whole, i.e., producers and consumers together) can be large. The second is that elevated food prices are already having dramatic consequences for many emerging markets and developing countries, affecting their growth and macroeconomic stability, and in turn potentially affecting the European Union.

**Oil and gas.** Energy data is easily confusing due to the heterogeneity of measurement units, so a summary of the situation is a useful starting point. EU energy supply (excluding the UK) relies essentially on oil (33 percent, virtually all imported), gas (24 percent, primarily imported), and coal (12 percent, primarily imported). Other sources include renewable (domestic), nuclear (essentially domestic, as fuel alone is a small part of the total cost), and imported electricity.

Before the conflict, the Russian export price closely tracked the global market price for Brent, an indicator of high substitutability. Russia is one of the several oil suppliers to the European Union. Therefore, we assume the EU can replace imports from Russia with imports from other countries. With lower exports to the West, Russia can partially compensate by selling to India and China.

Unlike oil, the gas market is regional. In simple terms, there are three global markets: Europe, North America, and Asia. Therefore, the relevant market for discussing the impact of the EU sanctions is the European market, not the world market. Electricity production uses approximately one-third of gas. Industry and services also use about one-third, and households use a smaller third. Gas consumption is highly substitutable in some uses. Electricity obtained from other sources can replace gas-fired electricity, but a gas-fired heating system cannot burn oil or coal. "On average, Russian gas accounts for 8.4 percent of the primary energy supply in the

European Union, but there are large variations among member states. For example, Portugal does not import any gas from Russia, but in Hungary, Russian gas accounts for 28.5 percent of the primary energy supply.” (Pisani-Ferry, 2022) Although not fully interconnected (e.g., Spain and Portugal have limited pipeline connections to northern Europe), the European Union can balance price differences to a great extent through internal transactions on imports from the rest of the world.

**Inflation.** The immediate and most visible macroeconomic effect is inflation. The effect can be quite large. “In 2021, electricity, fuel for heating, and fuel for transport accounted for 9.6 percent of personal consumption expenditures in the Eurozone, and food represented 15.7 percent of the consumer basket on average.” (PKS, 2022) Overall, the share of consumption that is directly affected by price increases is high. Empirical estimates generally show that the transmission of commodity price increases to consumer prices is partial but rapid.

Producers using energy or agricultural products as inputs raise their prices to restore their margins. Workers whose wages lagged in consumer prices in the first round are demanding an increase in nominal wages to restore their real wages. This leads to further increases in prices and wages. All this depends on how hard companies try to restore margins and how hard workers try to maintain their real wages. Ultimately, if commodity prices remain high, inflationary pressures cease only when companies using these products accept lower margins and/or workers accept lower real wages.

### 3.2 Global macroeconomic effects on GDP

GDP forecasts for 2022 will certainly be reduced considering the Russian-Ukrainian conflict. Production in the war zone will be directly reduced, while economic sanctions will impose costs on Russia and its trading partners. Higher food and energy prices will devalue income realities and reduce consumption and investment worldwide, which in turn will reduce global import demand. A small number of food and energy exporters may benefit from these price movements, but for most countries and the global economy, they are net negative.

The International Monetary Fund's (IMF) latest forecast earlier this year predicted global GDP would grow by 4.4 percent at purchasing power parity in 2022, but a recent estimate had global output growing at just 3.2 percent this year. There is an unusually high degree of uncertainty associated with this projection, which is based on limited data and strong assumptions. As a result, it should be interpreted with caution. (IMF, 2022)

Using a global economic simulation model, the World Trade Organization (WTO) predicts that the crisis and related policies could reduce global GDP growth by 0.7-1.3 percentage points, bringing growth to somewhere between 3.1 and 3.7 percent. The model also predicts that global trade growth could be cut in half this year, from the 4.7 percent the WTO forecast last October 2 to between 2.4 and 3 percent. (Góes, 2022)

Some regions will be more affected by the war than others. Europe, as the main destination for Russian and Ukrainian exports, is likely to experience the brunt of the economic impact. Reduced shipments of grain and other foodstuffs will also push up agricultural prices, with negative consequences for food security in poorer regions. Apart from these first-order effects, economic sanctions could lead major economies to move towards separation based on geopolitical considerations, to achieve greater self-sufficiency in production and trade. This second-order effect would ultimately be a waste, as it would reduce long-term economic growth by limiting competition and stifling innovation.

The main impact of the conflict between Russia and Ukraine on the world economy is reflected in higher energy prices and weaker confidence and financial markets, supported by strong international sanctions against Russia. Ukraine is not a significant trading partner of any major economy. Russia has a large exposure to the European Union and Great Britain. “Countries such as China, the USA, Germany, France, and Italy represent some of the main import partners for Russia, where Russian product demand accounts for between 1-3.7 percent of its GDP (See Figure 1). Russia's share of global GDP is expected to increase in 2022 and will be 1.6 percent, according to the International Monetary Fund, while it is predicted that Ukrainian economic output will make up 0.2 percent of world output.”

(IMF, 2022) While the Ukrainian and Russian economies in the aggregate are small relative to the global economy, they are significant in some key areas, particularly in energy and food. The impact of the conflict on commodity prices, and thus on household consumption, is more important than potential contagion through trade links with other countries.

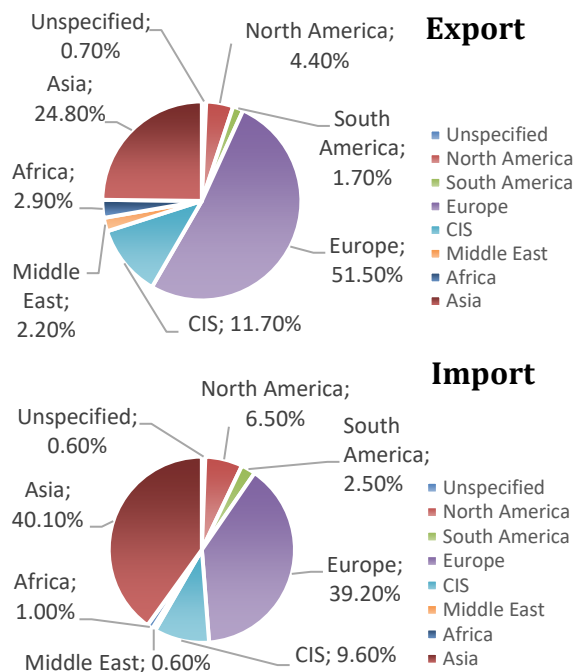


Figure 1. Export and import of products from Russia by region.  
Source: (WTO, 2021)

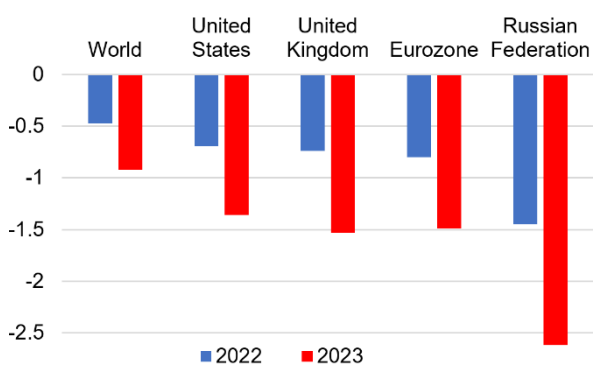


Figure 2. GDP movements due to conflicts in the global economy  
Source: (EC, 2022)

All in all, we see that the conflict contributes to the decline of GDP in the world, especially in Russia. (See Figure 2). Global inflation will rise due to higher import prices and higher inflationary expectations. The negative effect will result in lower confidence, lower real incomes, and disrupted trade. Higher energy export revenues

will not fully mitigate the overall effect on the GDP. If the EU extends sanctions to energy imports, the implications for the global economy would be much more severe. Costs would continue to rise, and higher energy prices would be a bigger blow to growth, increasing the chances of a recession followed by significantly higher inflation.

#### 4 MACROECONOMIC EFFECTS ON GDP IN EUROPE

Given the highly uncertain environment, several risks stemming from the conflict and protracted pandemic that could undermine growth stand out. The most worrying risk is the sudden stop of energy flows. However, we can also identify other risks, such as an increase in the risk of social unrest (due to higher food and energy prices, the risk is prevalent in countries hosting many refugees). There is also the risk of another wave of the highly contagious strain of COVID-19.

The main channel through which the conflict in Ukraine and sanctions against Russia affect the Eurozone economy is the rise in global energy prices and energy security. Because they are energy importers, higher world prices represent a negative terms-of-trade shock for most European countries, leading to lower output and higher inflation. Supply chain disruptions have also hurt some industries, including the automotive sector. The special operation and sanctions have further hampered the production of crucial inputs.

As a result, the euro area GDP growth in 2022 has dropped to 2.8 percent (1.1 percent lower than in January), with the biggest drops in economies such as Germany, Italy, and France, which have relatively large manufacturing sectors and higher dependence on energy imports from Russia. Across the eurozone, increased fiscal support partially offset the impact on activity. In the UK, the GDP growth for 2022 has dropped to 1%, with consumption forecast to be weaker than expected as inflation erodes real disposable income. The OECD expects that tighter financial conditions will cool investment. (OECD, 2022)

According to forecasts, EU countries will spend more than 9% of their GDP on energy in 2022. This is the largest share in 40 years and more than double the predicted rates, although two years ago the figures for both economies were around 2%. Higher product prices are exacerbating

already high inflationary pressures around the world. According to the European Central Bank, half of the recent rise in inflation was driven by higher energy prices. (ECB, 2022)

“Because of the sharp rise in commodity prices, the growth index of industrial production prices in the Eurozone countries in March 2022 was 30.9%. In April, it rose to 33.5%. At the end of March 2022, inflation rose for another month in a row and amounted to 7.8% in the EU, while the most affected countries were Lithuania at 15.6%, Estonia at 14.8%, Latvia at 11.5%, and Germany at 7.6%”. (ECB, 2022b) “Consumer prices in Europe rose by 2.5 percent in March 2022 compared to February, seasonally adjusted. However, despite inflation already being high and rising in March 2022, the inflation rate continued to rise in April, to 8.1% (by 0.3 percentage points), to 16.6%.” (ECB, 2022b)

The IMF's latest regional economic outlook for Europe is assumed based on assumptions and identified transition channels, where GDP growth of 3.0% is predicted in developed European economies. Some of the largest economies, such as France, Germany, and Italy, forecast weak or negative quarterly growth in mid-2022. This stall in the recovery is hidden in the annual growth projections for these economies due to a large carryover from 2021. Also, as mentioned earlier, higher product prices and supply disruptions are creating inflationary pressures, which should lead to average inflation reaching 5.5% in 2022 (up 2.2 percentage points from World Economic Outlook projections from January 2022). Inflation is predicted to grow more in countries where food and energy represent a larger share of consumer baskets (Romania, Slovak Republic, and Spain), and where exchange rates have weakened (Hungary, Poland, and Turkey).

Summarizing this section, we note that the increase in inflation in 2021 and 2022 is mainly due to the increase in demand and, accordingly, the increase in energy prices. The main factors that can affect the persistence and even increase of high inflation are shocks in the prices and supply of energy and goods. The high rate of inflation in the EU and several other countries may remain for several years or longer and pose a significant threat to both economies and companies.

## 5 THE MACROECONOMIC IMPACT OF THE CONFLICT ON THE GDP OF THE REPUBLIC OF SERBIA

The state of the economic environment depends on the totality of macro and micro economic parameters on which the coordinated action of the state and individual circles according to these parameters should ensure such a sustainable economic development of the country or region, it is necessary to have a good resource base and an appropriate macroeconomic policy and to support sustainable competitive winners through continuous raising total productivity. (Miljković, Trnavac, & Veselinović, 2021)

Covid-19 and the conflict between Russia and Ukraine, according to the available data, had less of an impact on Serbia compared to most European countries, due to the achieved macroeconomic and financial stability, growth momentum, fiscal space created in previous years, a large and timely monetary and fiscal package, and the structure of the economy. The economic policy measures adopted by the state minimized the drop in GDP in 2020, while additional aid packages in 2021 contributed to further growth of GDP and its return to the path of sustainable growth in the medium term. The recovery of GDP to the pre-crisis level was already achieved in the first half of 2022, while according to the data of the Republic Institute of Statistics (RZS), real GDP growth at the beginning of 2022 was higher than planned. Such developments are the result of growing activity in the industry, construction, and service sector.

**Inflation.** Food and energy prices drive inflation. Rising food and oil prices on the world market caused higher inflation in the first half of 2022. These two factors that monetary policy cannot significantly influence conditioned about 70% of interannual inflation. The average inflation in 2021 was 4.0%. Total inflation until June 2021 was 11.9%. Core inflation in the first half of 2022 was lower than overall inflation and amounted to 6.7%, which was contributed by preserving the relative stability of the exchange rate and preserving business and consumer confidence. Short-term inflation expectations of the financial sector hovered around 6.0%. Medium-term inflation expectations of the financial sector ranged between 3.5% and 4.0%. (NBS, 2022)

The main uncertainties of the projection arise from the ongoing conflict in Ukraine, geopolitical tensions, and their impact on the prices of energy, grain, and other products and metals and other raw materials in the future. Risks also arise from the conflict's impact on the global economic recovery and the duration of disruptions in global supply chains. It is also related to the domestic market, the agricultural season, and the movement of regulated prices. Overall, projection risks are elevated and tilted to the upside.

**Gross domestic product.** In the coming years, Serbia will maintain strong, sustainable, and broad growth, with GDP growth in 2022 revised in the range of 3.5%-4.5%. "Medium-term growth between 4%-5% According to RZS data, in 2021, Serbia achieved real GDP growth of 7.4 percent, fueled by the recovery in the service sectors, as well as the growth of construction and industrial production. GDP growth was 4.4% in the first quarter of 2022. Growth of at least 4% is expected in the second quarter, driven by service sectors and industrial production, despite the conflict between Russia and Ukraine, which has negatively affected supply chains as well as product prices Bearing in mind the uncertainty regarding the further duration of the conflict, as well as the economic effect of rising energy, food and product prices on world markets, they revised down the GDP growth projection for 2022 from a range of 4-5% to a range of 3.5-4.5%. (ekapija, 2022)

Growth is expected to be driven by higher growth in the service sectors, as well as construction and industrial production. In the conditions of the conflict between Russia and Ukraine, the risks of the projection being tilted downwards are assessed. This particularly applies to the supply chain disruption, the energy crisis, and the prices of primary products, as well as the pace of normalization of the monetary policy of the major central banks.

**Macroeconomic and financial stability.** In the period January-May 2022, the inflow of foreign direct investments (FDI) amounted to 1.14 billion euros (net inflow of 1.0 billion euros), and a full recovery was recorded in May. The processing sectors with the largest inflow of foreign direct investments (metals, cars, food, rubber, and plastics) recorded high growth in employment,

production, and exports. Serbia attracted about 60% of total investments in the Western Balkans region. In 2021, the inflow of FDI amounted to a record-high amount of 3.9 billion euros (net inflow of 3.6 billion euros). In the first five months of 2022, Serbia's balance of payments amounted to 2.3 billion euros. Considering the growth in prices of energy, food, manufactured goods, metals, and industrial raw materials, the projection was revised to 6.5% of GDP. The temporary widening of this gap in 2022 was fueled by global price growth and, on the other hand, the growth of savings in conditions of increased uncertainty. (NBS, Inflation Report, 2022)

The fiscal deficit in 2022 was smaller than planned. Public debt was back on a downward trajectory. Fiscal deficit in the first quarter of 2022 driven by capital expenditures and fiscal support to the population. In 2021, the fiscal deficit amounted to 259.4 billion dinars (4.5% of GDP). The deficit was most affected by the new stimulus package of 2.2 billion euros (4.2% of GDP). (Fiscal Council, 2022)

In the first half of 2022, a consolidated deficit of 58.8 billion dinars was recorded, while the projected deficit is 3.0% of GDP, and its return to 1.0% of GDP in the medium term. The share of public debt in GDP at the end of May 2022 was 52.3% and thus decreased compared to April, primarily due to the reduction of dinar debt. Public debt is expected to return to a downward trajectory in the coming years with further reliance on dinar and euro debt and a reduction in currency risk.

**Import/Export.** During the pandemic and crisis in Ukraine, new investments and continued expansion of export capacities will ensure high export growth in the medium term. Projections show that the new investment cycle will have increased equipment and raw materials import. The first half of 2022 saw a 32.5% increase in exports of goods, driven by growth in manufacturing and mining exports. The export of services increased by 34.7%. The import of products increased by 46.9% during the first five months of 2022. (Rancic & Stojanovic, 2022) Intermediate products made the biggest contribution, partly due to the rise in energy prices. Serbia's exports are mostly directed to the EU and the countries of the region, and it relies on demand in those countries that recovered during 2021.

By country, the largest share of exports was made to Germany (12.7%), followed by Italy (8.5%), Bosnia and Herzegovina (7.2%), Romania (5.5%), Hungary (5.0%) ) and Russia (3.9%). Exports to China in 2021 continued to grow in comparison to 2020 while recording growth in 2022 as well so China is highly positioned on the list of Serbian export partners. (RSZ, Publikacije, 2022)

**Job market.** According to the employment office, the unemployment rate in the first quarter of 2022 decreased by 2.2% compared to 2021 and amounted to 10.6%. That is below the entire year 2021 average of 11.0%. The employment rate was 49.3%. That is a 3.0% increase compared to the same quarter of the previous year, with an increase in the rate of informal employment from 10.9% to 13.3%. The nominal wages continued to grow faster than annual inflation, which continued real wage growth and preserved the population's disposable income and purchasing power. The average net salary real growth in April 2022 was 2.6%. (RSZ, 2022)

## 6 CONCLUSION

The Serbian economy ended the pandemic with a minimal recession since the state used most of the available fiscal space during the pandemic beginning. The program's impact on the economy and living standards was favorable, but the financial cost was significant. Due to limited room for future stimulus packages, to return the economy to sustainable growth and secure jobs and incomes while strengthening resilience to shocks Serbia must apply further reforms.

Due to the negative effects of the conflict between Russia and Ukraine, the uncertainty regarding its duration and the economic consequences of further EU sanctions against Russia, and Russia's countermeasures against the EU GDP, the Serbian government revised growth projections for the second part of 2022. For the same reasons, the new average inflation forecast was on a higher path compared to the planned one. In 2022, the account deficit was expected to increase but remain within sustainable limits. Thanks to production-geographic diversification and export-oriented investments, the export of goods increased by as much as 29.1% at the beginning of 2022.

Due to rising food prices and world oil prices, inflation was higher in the first half of 2022. On the other hand, thanks to preserved foreign exchange and macroeconomic stability, core inflation remained stable and lower than overall inflation. The exchange rate's relative stability and businesses' and consumers' confidence contributed to and preserved this. A recovery in the service sector and construction and industrial production growth fueled real GDP growth. The GDP growth in the first quarter of 2022 was driven by service sectors and industrial production, despite the conflict between Russia and Ukraine, which negatively affected supply chains and product prices.

The fiscal deficit increased significantly in 2022 and reached an estimated 8.1 percent of GDP. This increase is primarily the result of the large fiscal stimulus program. Public debt is estimated to be 58.2 percent of GDP by the end of 2022. Supported by significant interventions by the NBS in the foreign exchange market, the Serbian dinar was stable against the euro (the NBS sold reserves worth 1.5 billion euros in 2022).

In July 2022, the NBS decided, for the fourth month in a row, to increase the reference interest rate, driven by persistently high global upward cost pressures due to international energy prices, primary agricultural products, and industrial raw materials, as well as prolonged disruptions to global supply chains, while considering the preserving the continuity of economic growth. The stability of the banking sector has been preserved and additionally strengthened.

Urgent focus is needed on measures to improve the business environment and governance to reduce the cost of doing business and ensure safety and security, as well as efforts to improve the quality of infrastructure. The pace of labor market recovery will be critical to continued poverty reduction. The new package should support citizens and economic recovery. Poor and vulnerable households, more dependent on self-employment and with less secure jobs, may take longer to recover their income levels.

Because of the uncertainty regarding the further duration of the conflict, and the economic effects of rising energy, food, and commodity prices on world markets, they revised the GDP growth projections for 2022. At the time of the special

operation of the Russian Federation in Ukraine and due to assessing the risks, the development projections tend to lower expectations. This is especially true for disruptions in supply chains, the energy crisis and prices of primary products, and the pace of normalization of the monetary policy of the major central banks.

In the medium term, the Serbian economy expects to return to its pre-COVID-19 growth pattern.

However, some challenges will remain and limit growth in the short, medium, and long term. Most importantly, Serbia must continue its efforts to remove the bottlenecks to private sector growth arising from a deteriorating governance environment, underdeveloped infrastructure, and an unreformed education sector that creates growing concerns about skills mismatches.

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