Attempts to solve economic crisis by a massive injection of money into the financial system have caused inflation in most highly developed countries. World economy is burdened by a high inflation, excess demand, over indebtedness, in one word unready for the challenges that followed on the geopolitical level, and have spilled over into the economy. This situation has also affected agriculture, while the rise in food prices was particularly sensitive because it has affected the population life standard. All existing weaknesses of the economic and agrarian policy of Serbia and absence of a serious long-term strategy in this seriously in crisis sector’s development have surfaced. This paper analyses a situation in the Serbian agricultural sector, which has been pressured at the same time by bad agrarian policy, numerous internal weaknesses and big geopolitical risks.

Introduction

Since 2008, the developed countries have started printing large amounts of money, and lowering interest rates even below zero. These measures were first announced as temporary, but they have lasted more than a decade. In the beginning, the central banks assessed that the prices increase was a transient phenomenon caused by the post-
pandemic demand growth and bottlenecks in production and transport. This is how a low interest rate policy was explained despite of more and more obvious inflation. The inflation in the west developed countries nowadays have achieved a level last seen forty years ago. Economies of many countries have already facing a recession and the great debt crisis. The biggest victims of such economic processes will be developing countries, because due to pandemic their budgets are in serious problems, while they are additionally threatened by the energy and food cost growth. The only solution is to take on additional debt, but now at higher interest rates, which leads to recession, increase in unemployment and a real drop in wages.

The financial markets ongoing has separated from the real economy a long time ago, while the central banks have cared more about the interests of a financial sector than the real economy. The global economy has been facing the prices growth and has been necessary to determine a cause-and-effect relationship between causes and factors, which have been causing the growth of prices and economic policy conducted in the modern economy. As a rule, the inflation is a monetary phenomenon, i.e. it occurs due to disruption of the ratio of available money and available products and services in one country. During 2022, the pandemic was seized high developed countries of the west, and its negative effect was reflecting to all economic sectors and the population life standard. Agriculture has found itself under the impact of inflationary trends, so it has become, together with energetics, a sector of the highest inflation, particularly in the field of food prices.

The agricultural sector in Serbia is in big problems for a long time, and since this crisis was occurred, all weaknesses of the economic and agrarian policy following this sector have come to the surface. Primarily, there has come to a lack of goods we traditionally produce – sugar, oil, milk, meat, as well as their prices increase. Serbia wasn’t supporting the agricultural production as necessary trough the subsidy system, and it was affecting the price increase for products we produce sufficiently. On the other hand, traders (middlemen) profit from the prices increase, and the least profit manufacturers (the example of raspberry, etc.), in the overall chain the least profit direct manufacturers, farmers. There are fewer and fewer people in villages engaged in agriculture, and we are still not capacitated to produce more (and better quality) with much less people. Domestic manufacturers are put out by an indiscriminate import although Serbia is a country with comparative advantages in the agricultural production and the traditional food exporter.

This paper’s goal is to indicate the need for improving policy, programmes and initiatives in term of competitiveness increase of the Serbian agricultural production, pointing out the significance and role of agricultural sector in a complex geopolitical surrounding, and suggesting future activities according to the previous experience in order to come closer to agriculture production opportunities of the developed European countries. Thus, this paper can be useful to the agricultural policy holders and professional public interested in these problems.
Global monetary policy – the biggest cause of inflation in developed world

Macroeconomists took credit for the results in the beginning of nineties until the economic crisis emergence in the middle of 2007, which referred to positive tendencies such as relatively low and steady inflation, and significantly milder income fluctuation. That is why Bernanke (2004, p. 1) named this period a period of „Great Moderation“, which occurrence he explained by the structural changes in economy, the improvement of economic policy, but also by favourable circumstances owing to smaller and less frequent shocks that hit economies.

Under the new consensus in monetary policy Mishkin (2006, p. 1) considered, *inter alia*, the acceptance of postulates that there were no long-term „trade off“ between output (employment) and inflation, and then that expectations were of great importance for the monetary policy results, as well as the central banks independence was helpful in improving the monetary policy efficiency. On the other hand, Goodfriend (2007, pp. 24-31) recognized four key elements of this consensus: (1) Stability of prices; (2) Base inflation targeting; (3) The importance of credibility for low inflation; (4) Preventive policy of interest rates supported by transparent goals.

Blanchard, Dell’Ariccia and Mauro (2010, p 10) considered that a steady and low inflation in the period of consensus was the primary, if not the only goal of the central banks. Lavrač (2002, p 4) suggested that if there were the alternative goals beside the price stability, such as the stabilisation of an economic growth rate or an unemployment rate, they would have to be subordinated to a primary goal. However, after the Great Moderation period, with the onset of the crisis in August 2007, it was clear that there was necessary to reassess the previous comprehension, strategies, effects, i.e. the role of monetary and fiscal policy in forthcoming period.

The prices of raw materials are globally increasing, especially energy sources, after a long-term period of the expansive monetary policy, relying on the inflation targeting and a general price level. The significance of so-called “nominal anchor" as a lock for the excessive growth of inflation has opened the gate to different targeting regimes as the monetary policy strategies (targeting exchange rate, money supply, price level and inflation). The inflation targeting mostly respects attitudes defined within the new consensus, making the monetary policy a significant factor for the establishment of macroeconomic stability (Marjanović, Mihajlović, 2012; Pantić et al., 2022).

Regardless of which variant of targeting inflation is used, the great importance is attached to the transparency of monetary policy and public communication. Thereby, there can be set aside four transparency standards a central bank should be complied with (Blinder, 2002): 1) clarity in public communication, 2) announcing a crucial relevant information, 3) openness of the central bank for public control, 4) enabling the general public insight into all central bank’s activities. Compliance with these standards is crucial owing to the public trust, and especially owing to the economic subject’ correct expectations forming, as an important condition of the monetary policy success.
An important issue regarding the monetary policy operationalization in targeting inflation regime is about an optimal inflation rate. It often points out that the central bank should not target an inflation rate of 0%, because a positive and low inflation rate (around 2%) can have more positive effects (Sinclair, 2003; Rakić et al., 2021). The positive inflation rate can alleviate the establishment of balance on market, particularly in case of an aggregate demand. Besides, the impact of a nominal interest rate reduction, under the central bank control, can have better effect on a real interest rate reduction at a higher inflation rate, since the nominal interest rate cannot be negative. This argument gain its importance after the crisis in 2008, so there were some recommendations that the inflation target level should be increased to 4%, in order to expand the manoeuvring space for the real interest rate reduction as a necessary respond to the recession (Blanchard, Dell Ariccia, 2010).

Numerous researches have shown that targeting inflation provides also good macroeconomic results. For example, the monetary policy regime based on targeting inflation affects a job market in a way it provides lower unemployment in regard to targeting exchange rate, although this relationship significantly depends on the economy openness level (Larsson, Zettererg, 2003). Some studies show the positive impact of targeting inflation on the economic growth, as well as on the loss reduction in output in case of the disinflation process implementation (Mollick, Torres, Carniero, 2008.).

On the other hand, there is an opinion that inflation has been significantly reduced in those countries which have adopted this regime, primarily owing to initially high inflation rates and the existence of a global trend of falling inflation, and not exclusively as a result of the implementation of targeting inflation (Ball, Sheridan, 2003).

The situation on financial markets have separated from the real economy a long time ago, while the central banks, as it seemed, have cared much more about financial than the real economy. Thanks to cheap money, in 2021 were recorded the historical records in purchasing, merging and consolidation of companies, therefore the global companies and monopolies were becoming more and more powerful, and the wealth centralization more pronounced (Katić, 2022).

Targeting inflation as a monetary strategy belong to a group of so-called new Keynesian theories based on the assumption that the monetary policy role reflects in anchoring the economic subjects’ expectations. It is very important as well to have a consensus on conducting monetary policy often based on clear rules, in order to provide the stable inflation, and not determined on a discretionary basis (Djukić et al. 2010). Besides, targeting inflation reflects also through the increased transparency through public communication and markets regarding the plans and goals of a monetary policy creators, as well as greater responsibility of a central bank in the inflation goals achievement (Erić, Živković, 2006).

The strategy of targeting inflation has applying for a long time and has been the monetary policy regime accepted by many countries (Milenković, Kalaš, 2020; Ilić et al., 2022). It represents a consequence that in some developed market economies
such as Scandinavian countries, USA, United Kingdom, Austria, Spain...haven’t been achieved the expected results by implementing a strategy of monetary aggregates’ strategy (Tešić et al., 2021; Krstić et al., 2019).

The inflation as an indicator of the situation in economy shows the time delay of at least 18 months. At the same time, this is the greatest difficulty in conduction of the monetary policy considering the modern economic conditions, which are becoming more complicated and unpredictable, more susceptible to various economic factors (Andrić, 2021). Critics of economic theorists, which were directed to the strategy of targeting inflation, were referred mostly to delay in finalization, excessive rigidity of the strategy, a real possibility in increasing fluctuations in production, increased exposure to currency shocks, as well as weak and slow economic growth (Bungin, 2014).

Many economies, the leading ones at the most, have experienced in last two years an unprecedented level of monetary and fiscal expansion, planned to encourage the economic activity weakened by the pandemic. Similar to the previous recessionary episodes, there were made conditions for the emergence of a new recession – supply side problems (exceeded demand, supply problems), financial turbulences (over indebtedness, growth of interest rates) and strong turns in economic policy. Due to everything previously mentioned, the IMF and the World Bank have revised their economic growth forecasts in 2023, in terms of their reduction (Kovačević, Stančić, 2022).

Situation and perspectives of the Serbian agricultural sector

Serbia realizes the unfavourable macroeconomic results compared to the Central and Eastern Europe countries, regardless to a relatively low level of FDI. However, a total share of investments in GDP is significantly under the necessary 25% for fast and sustainable economic growth. It implies to insufficient public and especially domestic economic investments, which furthermore leads to a business climate in the environment in which companies do business. Corruption represents a large limiting factor for the country development, and the consequences for the economy are unfathomable, especially in long-term sense. It causes a lack of resources in every area financed from the budget, ending with education and research-developmental activities that should provide in perspective a competitive advantage of countries on the international market.

<table>
<thead>
<tr>
<th>Table 1. Macroeconomic indicators</th>
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<tbody>
<tr>
<td>Export of goods and services (in billion euros)</td>
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<tr>
<td>Import of goods and services (in billion euros)</td>
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<tr>
<td>International trade deficit (in billion euros)</td>
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<tr>
<td>FDI (in billion eur)</td>
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<tr>
<td>-----------------------------</td>
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<tr>
<td>Public debt (% GDP)</td>
</tr>
<tr>
<td>Fiscal deficit/surplus (% GDP)</td>
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<tr>
<td>Unemployment rate (15 +)</td>
</tr>
<tr>
<td>Inflation (end of a period)</td>
</tr>
<tr>
<td>Reference rate of the NBS (end of a period)</td>
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<tr>
<td>Gross investments (% of GDP)</td>
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</table>


Data in table no.1 show that Serbia had the GDP growth, but insufficient for reducing the difference in development in regard to the EU country members or other developed countries. In an overall observed period was realized an international trade deficit, i.e. import higher than export, which provokes many other negative consequences on the total development and the competitiveness of a country. Public debt still has a high share in relation to GDP. At the end of 2021, the inflation has achieved the level of 7.9%, which was a signal of its acceleration in a period to come.

In most of countries, the agricultural production has been made significantly difficult by insufficient approach to financial resources. It is often realized in a vicious circle of low incomes, insufficient savings and low investments, which unconditionally leads to the dependence on a state aid. Most of farmers have no access to the financial funds in order to modernize and increase their production. On the other hand, there should be taken into consideration that financing through financial institutions hasn’t always been easy. Many financial intermediaries work in highly competitive environment, and therefore, when approving loans to an agricultural sector, they take care of their repayment possibilities (Sogo-Temi & Olubiyo, 2004, pp. 101-116).

Traders (middlemen) profit from the prices increase, and the least profit manufacturers (the example of raspberry, etc.), in the overall chain the least profit direct manufacturers, farmers. There is no serious and stable, long-term agrarian policy that should provide the stability and protection of domestic market, while manufacturers, and in the second instance, consumers – population and domestic processing industry benefit from the budget subsidies. We shouldn’t export raw food of which benefit others.

Today, in the field of agriculture (as well as in other activities) dominate the agri-food conglomerates organized as the multinational companies or the regional monopolies and oligopolies. There comes to a convergence, i.e. a vertical integration in which these organisations control industry and eliminate competition, since they determine all aspects of a market. An extended arm of these processes is big shopping centres, which remove the small traders’ competition by a „social dumping“. In this way were bypassed the free market principles, and a globalist period has brought low economy growth rates and high rates of unemployment (Aničić et al., 2016).
The domestic market belongs to a category of small and underdeveloped markets in which there are no conditions for a propulsive economy and the development of enterprises according to global standards. Therefore, it is necessary to redefine the target markets, create a structure of supply in accordance with the consumers’ requirements and adjust the strategy in order to gain and maintain a competitive advantage.

Natural resources and the environmental protection are of an utmost importance for the current and future generations, and this is the reason why enterprises in the field of agriculture should adjust their development to the principles and goals of the sustainable development. This adjustment, in long-term sense, can slow down an economic growth, but in long-term sense, it provides better effects, since it results in economic growth, as well as in better quality of life of the population. Therefore, the preservation of nature and its resources imposes itself as a primary aim of all developmental efforts, ahead of all other production, economic and regional aims (Pokrajac, 2009).

The significance of agriculture in the EU can be observed through several data, which illustrate its role in this community’s economy. The agricultural and food industry ensure over 15 million work places in the EU, i.e. 8.3% of all employees of the Union. It is an average size for all EU, which significantly vary from country to country. In so-called „old” EU members (15 industrially developed countries of the West Europe), the average size is 4%, while in „new” EU members (Romania, Bulgaria, Slovakia, Hungary) more than 12% of the total manpower is engaged in agriculture and food industry (Vapa-Tankosić, Stojsavljević, 2014).

The agricultural production participates in the European countries’ GDP with 2-3%, but in countries like Bulgaria and Romania, it can participate up to 10% of the national GDP. In 2008, a total value of production in agricultural sector was assessed at 635 billion euros (European Commission, 2012).

The vision of agricultural development and rural areas, according to the strategy, foresees that in 2024, the agriculture in the Republic of Serbia will be a sector that will develop on knowledge, modern technologies and standards, offering the innovative products to the domestic and foreign markets, and a sustainable and stable income to manufacturers. The goal is as well to manage the natural resources, environment and cultural heritage of rural areas in accordance with the principles of sustainable development, in order to make rural areas an attractive place for young people and other residents of rural areas to live and work.

Structural changes in Serbian agriculture have appeared as a consequence of different external factors (globalization, liberalisation, technological progress, climate changes, limited opportunity in using natural resources, demographic changes...) and internal factors (size of agricultural husbandries and a sector structure, sources of productivity growth and use of technology, knowledge and information...). Regardless to numerous difficulties that accompany agriculture in an entire transitional period, this sector realizes the positive foreign trade results and contributes to the reduction of a total international trade deficit.
Table 2. Production of agricultural products and services in prices of production in a current year, 2015-2021 (in millions of RSD)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>I Production of goods and services</td>
<td>534,779.5</td>
<td>589,817.8</td>
<td>543,746.5</td>
<td>589,704.3</td>
<td>605,291.2</td>
<td>667,854.8</td>
<td>724,332.4</td>
</tr>
<tr>
<td>1. Production of agricultural products</td>
<td>520,965.6</td>
<td>574,817.9</td>
<td>529,890.4</td>
<td>574,703.9</td>
<td>589,978.3</td>
<td>651,631.7</td>
<td>707,213.2</td>
</tr>
<tr>
<td>1.1. Plant production</td>
<td>351,927.4</td>
<td>419,400.1</td>
<td>357,056.3</td>
<td>398,513.5</td>
<td>414,528.6</td>
<td>473,693.3</td>
<td>544,202.2</td>
</tr>
<tr>
<td>1.2. Livestock production</td>
<td>169,038.2</td>
<td>155,417.8</td>
<td>172,834.0</td>
<td>176,190.4</td>
<td>175,449.7</td>
<td>177,938.3</td>
<td>163,011.0</td>
</tr>
<tr>
<td>2. Agricultural services</td>
<td>13,813.9</td>
<td>11,999.9</td>
<td>13,856.1</td>
<td>15,000.5</td>
<td>15,313.0</td>
<td>16,223.2</td>
<td>17,119.2</td>
</tr>
</tbody>
</table>


In table 2, we can see that the total agricultural production in 2021 was increased in regard to 2015 for 36%, but the increase was a result of the plant production increase of 54%, while the livestock production in 2021 was reduced relative to the initial year 2015. This speaks enough on the unfavourable trends in the field of livestock production and its stagnation and decline, which is mostly caused by inadequate agricultural policy and unreasonably high imports, primarily of meat from foreign countries. The primary livestock production, by its structure, reflects in mostly fragmentized agricultural husbandries. In a total value of agricultural production in 2021, the plant production had participated with 68.4%, and the livestock production with 31.6%.

The livestock development of Serbia, beside the economic and financial limitations, has facing serious barriers in a process of the continuity of animal breeding for a long time. Nowadays, the livestock production has been on exceptionally low developmental level, although it has a significant interest for the economic development of the Republic of Serbia. The expected results through forming the sustainable and efficient livestock production can achieve a high level of these products’ competitiveness on other markets too, which would contribute to the GDP increase, provide stability in the production of animal origin food, and satisfy the consumers’ needs in terms of quality and food safety.

On an export side, there are big opportunities for improving their structure in terms of a greater share of the final processing products with a higher added value in regard to the primary products. It is characteristic for import that some dubious quality and lower price products have often been imported, although Serbia has production surpluses.
on the domestic market (meat, milk, maize, some products in the field of vegetable growing, etc.). According to data of the Serbian Chamber of Commerce, in the structure of agricultural production value 70% origin from the plant production, and 30% origin from the livestock production.

According to the Serbian Business Registers Agency data, a sector A – Agriculture, Forestry and Fishing has realized positive business results in 2021, which have been increased in regard to the previous year 2020 in the most important segments - table no.3. According to data, it can be concluded that a negative result in the financing field had significantly increased in regard to the previous year, even 64.7%. Also, the results show that one part of enterprises in this sector have operated at a loss, but in a debit amount there have been realized a positive net result for an entire sector of 11,330 million RSD, which had represented increase of 51% in regard to 2020.

Table 3. Structure of income, expenses and business results of a sector A – Agriculture, Forestry and Fishing (in millions of RSD)

<table>
<thead>
<tr>
<th>Category of results</th>
<th>Amount</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business incomes</td>
<td>422,021</td>
<td>110.7</td>
</tr>
<tr>
<td>Business expenses</td>
<td>402,838</td>
<td>110.4</td>
</tr>
<tr>
<td>Business result</td>
<td>19,183</td>
<td>116.9</td>
</tr>
<tr>
<td>Financial income</td>
<td>1,849</td>
<td>69.0</td>
</tr>
<tr>
<td>Financial expenses</td>
<td>4,862</td>
<td>107.9</td>
</tr>
<tr>
<td>Result from financing</td>
<td>-3,013</td>
<td>164.7</td>
</tr>
<tr>
<td>Net gain</td>
<td>24,705</td>
<td>127.4</td>
</tr>
<tr>
<td>Net loss</td>
<td>13,375</td>
<td>112.5</td>
</tr>
<tr>
<td>Net result of the sector</td>
<td>11,330</td>
<td>151.0</td>
</tr>
</tbody>
</table>

Source: Serbian Business Registers Agency, 2022

In accordance to the Serbian Chamber of Commerce (2022), the foreign trade exchange of agriculture and food industry between Serbia and world was amounted more than 5.7 billion euros, from January to September 2022, which represents the growth of over 20% compared to the same period in 2021. Export of goods was amounted 3.6 billion euros, as an increase of 15.4% compared to the same period last year. An export share of agriculture and food industry in a total Serbian export in this period was 17.8 %. At the same time, there was also increased import for 29% in regard to the same period last year, and a share of agriculture in a total export was 7.7%. The most important foreign trade partners of Serbia in export in this period were the EU countries, where there was sold more than a half of agrarian goods (51.4%), the CEFTA region countries, the Russian Federation, etc. In this period, a foreign trade surplus of over 1.4 billion euros was realized in the exchange of agri-food products.

Generally observed, the agriculture in future will be exposed to the requirements of increasing food production in the world. In addition to this requirement, it is expected that the agriculture contributes to a general economic development and poverty reduction, and face with the increased competition for an alternative use of limited land resources.
and water resources, also to adopt to climate changes, and give their contribution to the biodiversity preservation and the renewal of sensitive ecosystems, etc. The answer to these requirements will be more efficient with coordination of private and public sectors, through the public-private sector projects, by the association of manufacturers, etc.

In time to come, the economic policy has to create equal conditions for domestic and foreign investors, which aim to invest in economic development of Serbia. The state should have an impact on the increase of domestic and foreign investments and private sector, by increasing public investments in infrastructure. In such conditions, for domestic enterprises would also be easier to invest, regardless to a relatively modest own funds. The state should support, by its economic policy, the incentive factors for investments, and reduce the influence of limiting factors. Numerous factors, which help in this achievement, are an import substitution, stimulating export, credit and monetary policy, predictable business conditions, stable exchange rate, controlled inflation, etc.

**Conclusion**

Many economies, the leading ones at the most, have experienced in last two years an unprecedented level of monetary and fiscal expansion, planned to encourage the economic activity weakened by the pandemic. The interest rates were reduced to unprecedented low levels, government spending was directed to various forms of assistance to the economy and the population, which caused issuing an enormous amount of debt for their financing. Although these moves have contributed to recovery after the corona virus (5.7% growth of the global GDP in 2021), the world economy has becoming “overheated” – burdened by high inflation, excessed demand, over indebtedness and with spent capacities and a lack of fiscal space, in one word – unready for the forthcoming challenges on the geopolitical level, and have moved to a sphere of economy. The biggest challenges the world economy is facing with are the acceleration of inflation, the interest rate increase, energy crisis, interruption of the global supply chains, geopolitical risks, etc.

The high inflation hit the agricultural sector, while the prices of food, together with the energy sources, were significant for the population standard, especially in developing countries. Besides the food prices growth, there came to a shortage of products which Serbia had traditionally exported, and had a comparative advantage in their production. Traders (middlemen) profit from the prices increase, and the least profit manufacturers (the example of raspberry, etc.), in the overall chain the least profit direct manufacturers, farmers. There are fewer and fewer people in villages engaged in agriculture, and we are still not capacitated to produce more (and better quality) with much less people. Domestic manufacturers, especially the fragmented family farms, were kicked out by an indiscriminate import. This is all the consequence of the absence of the economic/agrarian strategic approach in previous period. The economic and agrarian policy in the future must create *inter alia* the equal conditions for domestic and foreign investors, which aim to invest in the country’s economic development, while agriculture is indisputably one of the key economic branches in our country.
Conflict of interests

The authors declare no conflict of interest.

References


