

Evolution of Romanian Imports and Exports in 2022, The Year with the Highest Inflation

Ioana Claudia Dobre

“Ovidius” University of Constanta, Faculty of Economic Sciences, Romania

dobre_claudia@yahoo.com

Abstract

The paper analyses the impact of the significant increase in inflation in 2022 on the volume of imports, exports and GDP in Romania.

Using a quantitative analysis, the value of the indicators will be compared over the last 2 years, before and during the inflation of over 13%, using half-yearly data.

The result of the analysis undertaken is that inflation has had an impact on imports, with the value of imports fluctuating significantly in 2022 compared to previous years and compared to exports and GDP.

Key words: import, export, inflation

J.E.L. classification: E31, F49

1. Introduction

Since 2022 quarter 1, inflation in our country has exceeded 13%, which is an unusual situation, considering that until that moment, the average inflation in the last ten years was 2.68%.

In this paper we will focus on the comparative analysis of the evolution of GDP, exports and imports of Romania starting from 2020, in order to capture the year 2022, when inflation was very high. Thus, we will analyse whether the significant increase in inflation in our country had an impact on GDP, exports or imports.

There are many reasons for the sudden rise in inflation, both cyclical and structural.

As a result of increased consumer demand after the COVID crisis, manufacturers and distributors have increased the prices of products and services without losing many buyers. The large retail chains increased their shelf prices to avoid being affected by the legislation which limited the possibility for them to claim colossal percentages of sales bonuses from suppliers. There were also additional costs incurred by the reopening of those stores that had to close during the pandemic, requiring not only expense, but also time and effort.

Since February 2022, Russian military intervention in Ukraine has pushed up the prices of many raw materials (oil, gas, oil, wheat). The drop in Ukrainian exports is drying up supply on the markets, pushing prices up. In addition, sanctions against Russia are forcing many countries to reorganize their supplies, a complex and costly process. The war in Ukraine is a geopolitical event with major economic consequences, both in the short term (by fuelling inflation) and in the longer term (with the probable reorganization of certain value chains). It is taking place against a backdrop already marked by strong price pressures, linked to the dynamism of the global recovery.

To avoid economic collapse and maintain revenues, many countries have increased their deficits in order to implement aid programs. This public spending stimulates demand and accentuates inflationary pressure.

2. Literature review

In line with our research objective, we proceeded to identify nationally and internationally similar research in the field.

Nalban (2015), in article “A small New Keynesian model to analyze business cycle dynamics in Poland and Romania”, conducted an analysis for the period 2003-2014, using New Keynesian DSGE, on the business cycles in Romania and Poland. He estimates the model with the following observed variables: quarterly real GDP growth, the harmonized index of consumer prices (HICP) quarterly inflation rate and the 3-month money market nominal interest rate. There was more variability in the level of shocks in Romania, and the responses to these shocks were much stronger. The Romanian inflation rate is nearly entirely (approximately 90%) governed by supply shocks (given the structure of consumer basket, administered prices hikes and weather conditions affected heavily prices’ dynamic). The shock decomposition of the inflation rate and the value of output actually identified what the business cycle impulses.

Mykytiuk *et al.* (2020) test the hypothesis on the interrelation between GDP and macroeconomic indicators such as inflation index, FDI and discount rate, through panel studies using data from Ukraine, Georgia, Serbia, and Romania, in the paper “Investment Determinants of Economic Growth: World Experience and Ukraine”. When carrying out a correlation and regression analysis (during 2008-2017), they consider the volume of GDP as the resulting attribute (dependent variable) and all other factors (inflation rate, foreign direct investment, discount rate) as explanatory attributes (independent variables). Following the analysis undertaken, Pearson’s correlation coefficient for GDP and the inflation index was negative (-0,57), which suggests a reverse relationship, meaning that the higher the inflation rate, the lower is GDP.

Hada (2020), based on a set of data for the period 2009–2019, studied a linear regression to investigate some macroeconomic determinant factors affecting the rate of nonperforming loans in “Macroeconomic Determinants of Nonperforming Loans of Romanian Banks”. The results showed that all the independent variables (inflation rate, exchange rates, unemployment rate) have a significant impact on the dependent variable nonperforming loans.

Stevanovic *et al.* (2022) examined the influence of the introduction and implementation of the monetary Inflation Targeting (IT) regime, the level of the inflation rate and GDP growth rate, as well as inflation and the GDP volatility, for the period 1993-2020 in the Republic of Serbia, Turkey, Albania and Romania. The GARCH model was used. Conclusion was that exist a positive impact of the inflation rate from the previous period on the movement of the current inflation rate in Serbia, Turkey and Romania. The descriptive statistics of the inflation rate and the GDP rate before and after the introduction of IT show that the analyzed countries faced lower average inflation rates and lower inflation volatility. If we refer to Romania, inflation volatility had a negative effect on the growth rate volatility, but this impact is not statistically significant.

3. Research methodology

In this paper we will use a quantitative analysis in order to compare the results reflected in a graph.

Quantitative analysis is extremely appealing for research as it is possible not only to quantify properties but also to quantify the relationships between them.

Any analysis starts with the sketching of a conceptual scheme, keeping the phenomenon of interest (also called the dependent variable) in focus. Measured metrically, any phenomenon has a certain amount of variation caused by one or more factors (also called independent variables), either directly, through a causal chain or through mutual connections. (Duşa, 2014)

We chose the comparative method to evaluate the impact of inflation on the selected indicators. The comparative approach has a number of pluses and minuses that the researcher must take into account in his work. As for the positive aspects, they are the following: The method allows you to reflect the real and real situation in relation to the object or phenomenon under study. All data are statistically valid. During the study, you can make adjustments to the compared phenomena or objects. In the presence of a large amount of information, the method is very simple to implement and gives reliable and safe results.

The first step in the comparative analysis we want to perform is to select statistical data on GDP, exports, imports and inflation for the years 2020, 2021 and 2022, quarterly data.

We consulted INSS and the results are presented in the following table:

Table no. 1 GDP, export, import and inflation rate in Romania

	GDP	Export	Import	Inflation rate
2020 - Q1	43445.4	27875.6	52211.7	2.6
2020 - Q2	39284.1	19749.3	38514.9	2.6
2020 - Q3	40722	27123.4	49336.6	2.6
2020 - Q4	42148	28296.3	51729.7	2.6
2021 - Q1	43003.6	27955.9	53417.5	5.1
2021 - Q2	43788.6	28549.8	54643.5	5.1
2021 - Q3	44152.6	28873.8	55084.4	5.1
2021 - Q4	44419.6	30392.2	56475	5.1
2022 - Q1	45000.5	30364.9	58021	13.8
2022 - Q2	45551.7	31584.9	58468.5	13.8
2022 - Q3	46110	32330.8	65290.7	13.8
2022 - Q4	46591.8	31273.9	58952.7	13.8

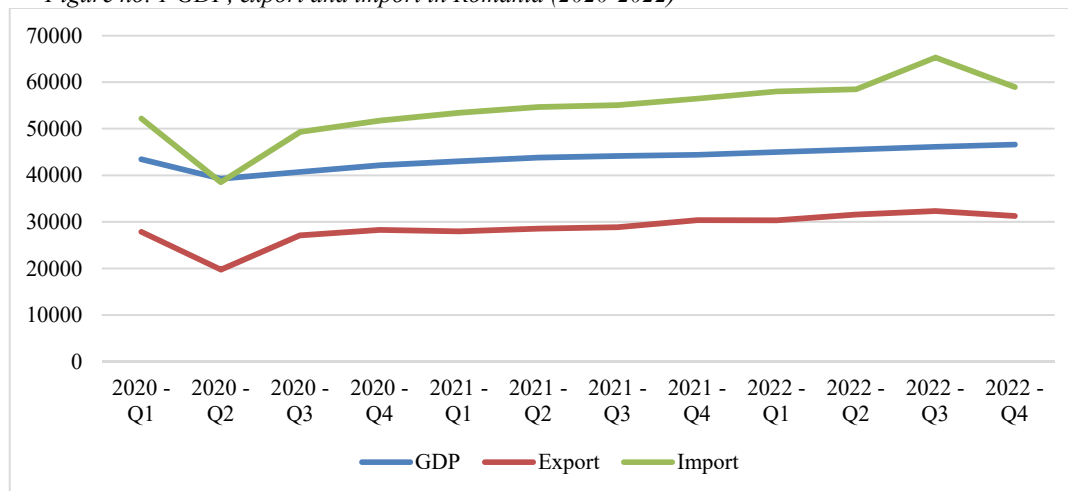
Source: National Institute of Statistics

4. Findings

The data collected we have plotted in a graph in order to compare the evolution of GDP, exports and imports over the last 2 years.

We are interested in whether in 2020, semester 1, we will register a deviation due to the high inflation registered.

Figure no. 1 GDP, export and import in Romania (2020-2022)



Source: Author's contribution

We will focus our analysis on the year 2022, the year in which inflation recorded the highest rate, exceeding 13 percent.

As we can see from the graph above, in 2022, a year in which inflation exceeded 13%, the only indicator that recorded a significant fluctuation was imports.

With an increase in the 2nd and 3rd half of 2022, it subsequently recorded a decrease.

This development is not surprising, as the increase in inflation not only in Romania, but also worldwide, has led to an increase in the value of Romanian imports, even if quantitatively they have not changed much.

In the medium and long term, imports have been affected by the the decrease in citizens' purchasing power and demand, both of which are caused by inflation.

5. Conclusions

The inflation of 2022, although it reached a very high level, exceeding 13 percent as a rate, did not significantly affect GDP and exports, but had an influence on the value of Romanian imports.

Imports registered an increase starting with the year 2022, an increase that intensified in the 2nd semester and a decrease starting with the 3rd semester. The explanation for the increase is inflation itself, which caused an increase in the value of imports, at a constant or slightly lower volume. And the explanation for the subsequent decrease is the decline in the purchasing power of the population and demand, as a result of inflation.

Unlike other opinions, I believe that the current analysis suggests an impact of inflation on the value of imports, to the detriment of an explanation regarding imported inflation. If it had been so, we should have seen in the graph an immediate increase in imports in 2022 or even from 2021. And subsequently, an increase in the inflation rate.

6. References

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