

**The repercussions of the Ukraine war in Russia on the Algerian economy****MADIOU EP-MALEK Lydia *¹****¹ Mouloud MAMMERI University of Tizi-Ouzou. (Algeria), lydia.madiou@ummtto.dz****Received (date) : 03/05/2025****Accepted (date) : 15/08/2025****Published (date) : 24/01/2026****Abstract:**

The objective of this article is to determine Algerian economic indicators represented by foreign exchange reserves, inflation, and oil prices. In other words, there is a relationship between the variables considered. Indeed, the increase in inflation impacts the price of oil since this liquidity from oil revenues will be used to finance the budget deficit. As for the increase in foreign exchange reserves, these are increasing following an increase in oil prices. This is how the armed conflict between Russia and Ukraine had consequences on the Algerian economy. Indeed, the current context of high oil prices strengthens Algeria's economic situation, offering it fairly wide room for maneuver for its budgetary spending. Likewise, it allows it to replenish its foreign exchange reserves. This is subject to the upward trend in oil prices over time.

Key words: Ukraine war, oil prices, foreign exchange reserves, inflation.

Jel Classification Codes : C15; L79; F3; E31

Introduction

The issue of Ukraine and the global economy is considered a turning point for Europe, a turning point for the world that has had economic implications. Indeed, Ukraine and Russia are key players in the energy and agricultural commodities sectors.

That said, the war between these two powers had an immediate impact in the very short term, particularly on Ukraine, which exports a lot of wheat; today, it is impossible to export, which has resulted in an appreciation of agricultural commodities. Indeed, this trend already existed before the outbreak of war. It is therefore a long-term accelerator of a trend that has already been evident for two years. The same is true for hydrocarbons. The price of a barrel of oil has increased to 100 \$ per barrel. Europe's dependence on the successful development of energy and agricultural commodities appears significant. This has become more pronounced in Germany, for example, where 55% of its natural gas comes from Russia.

Algeria, for example, maintains strong economic and trade relations with Europe, driven by strategic partnership agreements. Considered a major gas producer, Algeria has extremely limited gas refining capacity. Indeed, Algeria is unable to service production due to the lack of refining capacity. Moreover, Algerian gas exports to this European country increased by 9.2% in 2020. In 2021, Algeria increased its share of the Italian gas market by 9.2% compared to the previous year. Although Algeria is the world's fourth-largest gas producer, accounting for 3.37% of global production, Russia's market share is over 16%.

This is due to the conflict between Russia and Ukraine, which pushed oil and gas prices to record highs. Algeria generated more revenue, much needed for its economy, which has recently been struggling with problems exacerbated by the Covid-19 pandemic.

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Because Algeria depends on its energy exports as a major source of national income, the rise in oil prices to \$130 per barrel due to the Ukrainian crisis will guarantee Algeria additional revenue to meet its demand for increased wheat imports from Russia, which reached 363.5 tons in January, following an agreement signed between the two countries.

The Algerian economy is gradually recovering from the initial impact of the pandemic and the decline in oil prices during mid-June 2014 and throughout 2015.¹

Indeed, the conflict between Russia and Ukraine will inevitably have consequences for the Algerian economy. Imports will be the most affected. Indeed, the impact of the crisis on the food sector is particularly worrying. Some countries are particularly dependent on agri-food raw materials from the Russian Federation and Ukraine.

Therefore, dependence on grain imports, using oil revenues as a hedge for intervention by guaranteeing prices upstream and downstream, makes Algeria a vulnerable country in terms of its economic structure, facing a very difficult global economic situation marked by a strong wave of commodity speculation.

Thus, the main objective of this article is to answer the following question: **How can we determine the impact of this conflict on the Algerian economy?**

To provide some answers to this question, we have formulated the following hypotheses:

Hypothesis 1: The Ukrainian war in Russia had the effect of increasing Algeria's oil prices.

Hypothesis 2: The Ukrainian war in Russia had the effect of increasing Algeria's both foreign exchange reserves and inflation .

This work consists of determining a descriptive analysis of the impact of the conflict between Ukraine and Russia on oil prices and foreign exchange reserves, and more specifically on the Algerian economy. The results are analyzed through an investigation that suggests that the war in Ukraine has a significant effect on foreign exchange reserves, inflation, and oil prices.

1. Research methodology

This work consists of determining, through the model, a descriptive analysis of the impact of the conflict between Ukraine and Russia on oil prices and foreign exchange reserves, and more specifically on the Algerian economy. The results are analyzed through an investigation that suggests that the war in Ukraine has a significant effect on foreign exchange reserves, inflation, and oil prices.

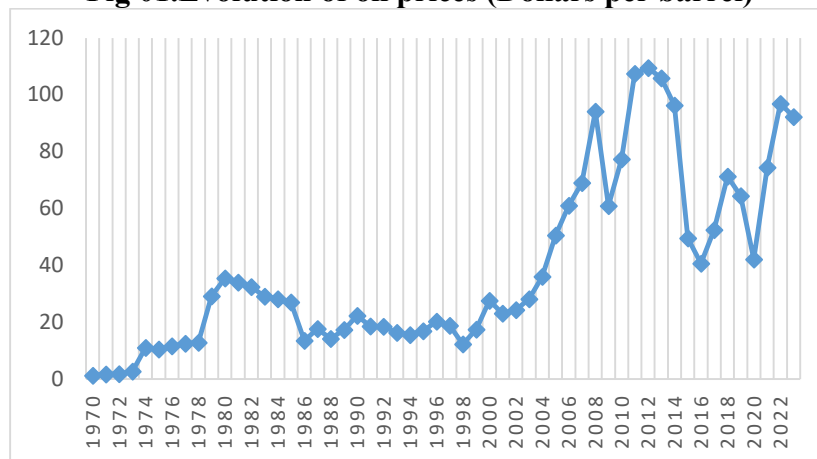
2. Stylized facts on the macroeconomic situation of Algeria

The current context of high oil prices strengthens Algeria's financial situation, giving it a fairly large margin of maneuver for its spending. A priori, the economic situation is virtuous for Algeria.

2.1 The Impact of the Ukraine-Russia War on Oil Prices

The surge in oil prices due to the war in Ukraine is automatically boosting the coffers of a country with the third largest oil reserves in Africa. Thus, the war in Ukraine comes at a time when Algeria is still struggling to recover from the destabilizing effects of the global Covid-19 pandemic.

¹ HARB M, 2021. L'Algérie à un carrefour, In :<https://www.imf.org/> consulté le :21.7.2021.

Fig 01. Evolution of oil prices (Dollars per barrel)

Source: Designed by ourselves based on reports from the Bank of Algeria and the World Bank.

We can see from the graph above that oil prices continued to rise in 2021 and 2022, rising from USD 74.4/barrel to USD 96.8/barrel.

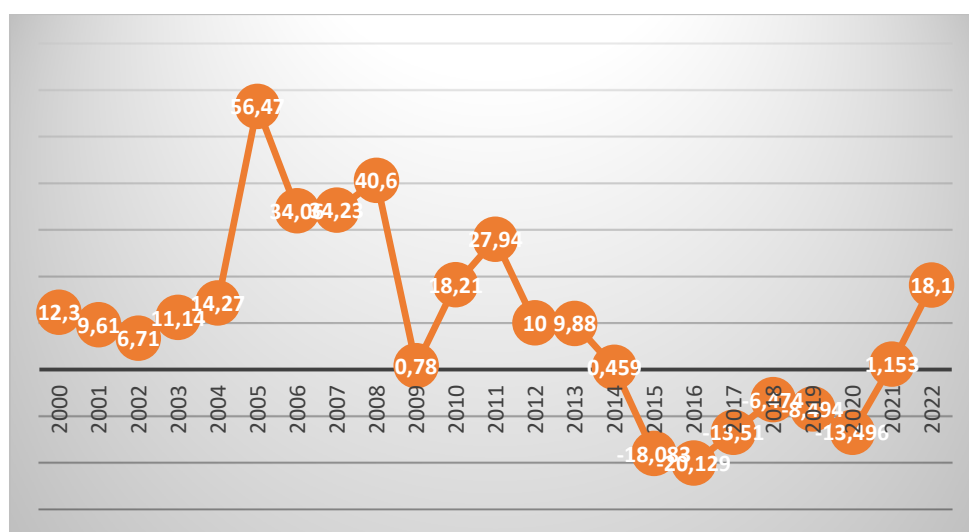
The surge in hydrocarbon prices due to major tensions between Russia and Ukraine is boosting Algeria's coffers but risks deterring the diversification of the Algerian economy, which will once again cause the Algerian economy to become heavily dependent on oil.

Thus, the conflict between Ukraine and Russia has been supporting oil prices since September 2020, which has improved Algeria's financial situation, once again providing it with an economic fuel to finance its budgetary and commercial expenditures.

Negotiations regarding Algeria's position regarding the war in Ukraine appear, a priori, to be promising for Algeria.

2.2. The effects of the war on the trade balance

The following figure presents a snapshot of Algeria's external position, represented by the improvement in the trade balance following the war between Ukraine and Russia in 2021 and following actions taken by the government to limit its imports by banning the importation of many materials, including those intended for consumption.

Fig 1. evolution of the trade balance in Algeria in billions of dollars

Source: Designed by us based on reports from the Bank of Algeria.

As can be seen from the graph above, the trade balance recorded a significant improvement in the overall deficit, which reached 18.1\$ billion in 2022 compared to 1.153\$ billion the previous year.

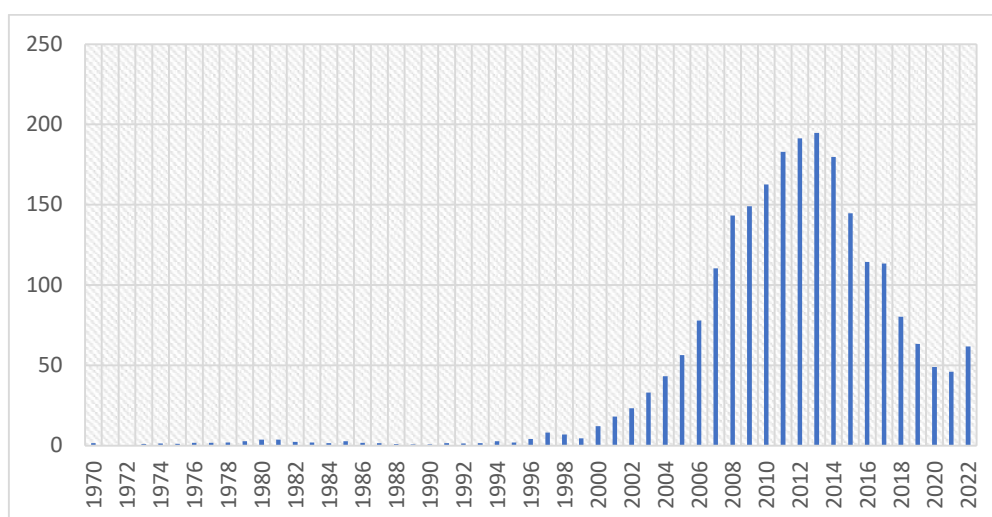
Since the 2014 oil shock and the 2019 health crisis, the cumulative deficits in the balance of services, primary income, and capital accounts have generated current account and capital account deficits, which were absorbed following the Ukraine-Russia tensions, resulting in a change attributable mainly to the improvement in the trade balance, which recorded a surplus of 1.53\$ billion in 2021 compared to a deficit of 6.49 \$ billion in 2020, in the context of rising oil prices, which reached 4.5\$ billion.

In total, according to the reports According to the Bank of Algeria's report, the overall external position remains solid, despite the decline in foreign exchange reserves, which fell from 48.17 \$billion at the end of 2020 to 45.30\$ billion at the end of December 2021, in a context of low external debt.

2.3. The impact of the Ukrainian invasion of Russia on Algeria's foreign exchange assets

At the start of the Ukraine-Russia war, the euro fell against the dollar. The current value of European bonds depreciated due to rising yields to absorb inflation, created by a supply problem of oil and wheat, etc., consequently, a decline in the value of investments denominated in euros. Furthermore, the value of the US dollar rose against the basket of benchmark currencies as it established itself as a safe haven. Foreign exchange reserves in Algeria gradually recovered.

Fig 2: Evolution of foreign exchange reserves in Algeria in billions of dollars



Source: Designed by ourselves based on World Bank data.

We can see from figure 3 that on the one hand, despite the decrease in the stock of foreign exchange reserves from 2014, their level nevertheless remains still appreciable, and represents nearly 13 months of possibilities for importing goods and services.

The level reached by these reserves explains the resilience of the national economy to the drastic drop in oil prices that occurred during this period.

This is why, in addition to the necessary preservation of an adequate level, in months of imports, in accordance with international good practices, it becomes imperative that the allocation of these foreign exchange reserves is oriented towards financing the diversification of the national economy and the increase in non-hydrocarbon exports.

On the other hand, following the Russian invasion of Ukraine, foreign exchange reserves improved significantly with an upward trend following the rise in oil prices, which favored this

reconstitution of 85 \$ billion; an increase of approximately 25 \$ billion compared to the end of 2022, when they stood at 60.99 \$billion.

Macroeconomic indicators, including oil prices estimated at around 83 \$ per barrel on average, as well as a trade surplus, contributed to this increase. In addition, the revenue regulation fund recorded an exceptional positive result, reaching its highest level in a decade at the end of 2022, at 17.17 \$ billion.

The FRR's cash flow, financed by oil tax surpluses, also contributed to this increase, rising to 5.2 \$ billion in September 2022, thus consolidating Algeria's economic situation.

Overall, the war in Ukraine has led to a rise in oil prices, thus revitalizing the Algerian economy. In 2024, the Algerian government forecasts continued growth in foreign exchange reserves, bringing them to around 85\$ billion by the end of the year. Including monetary gold reserves, Algeria's revenues increased by 25 percent in 2023 to reach 8.9 trillion dinars, although budget expenditures also increased by 52 percent, reaching 14.7 trillion dinars.

Despite a slight drop in oil prices in 2023, it remains a high range, as do gas prices, which Algeria is rich in. The government has not specified the exact breakdown.

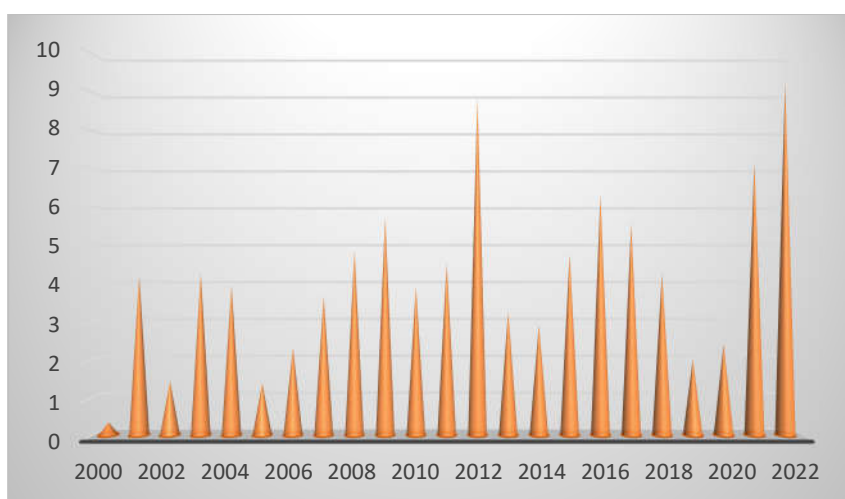
between gold and foreign exchange reserves but anticipates a future increase in these reserves due to market activity.

2.4 The impact of the Ukraine-Russia war on inflation

The combination of very high food and fuel prices and macroeconomic tightening will put severe pressure on the purchasing power of households in developing countries: real incomes will be reduced and economic growth will be limited.

Even in the absence of disorderly movements in financial markets, developing economies will face severe constraints on growth and development.

Fig 3: Evolution of inflation in Algeria in percentage.



Source: Designed by ourselves based on World Bank data.

Figure No. 4 shows that inflation in 2022 has increased and the reason for this inflation according to the Ministry of Finance is that the global economic situation in 2022 was favorable to Algeria, hydrocarbon prices soared and the country experienced a trade balance surplus. However, this improvement did not have the expected effect on inflation, which remains high and worrying.

Ask about this question during the project on currency and credit, the Ministry of Finance explains in particular about this period when prices beat all the records.

Indeed, the latter was not due to monetary reasons but to multiple exogenous factors such as disruptions in the supply chain caused by the 2019 pandemic.

These factors led to a shortage of certain products and an increase in the prices of products also available, which led to increased demand in certain sectors, leading to an increase in prices.

Furthermore, the rise in food and fuel prices resulting from the war has already accelerated inflation in many countries, particularly those of Algeria.

The negative effects will hit the poorest segments of the population, as they tend to spend a disproportionate share of their income on food.

At the same time, countries dependent on fuel and food imports will experience a deterioration in their balance of payments and increased pressure on exchange rates.

In addition to soaring prices, the transport of goods from Ukrainian and Russian ports is also likely to pose problems. Exports from Russia and Ukraine are no longer possible. This means a disruption in flows.

3. Measures and prospects taken by the Algerian government to mitigate the effects of the Russo-Ukrainian crisis

Among the measures taken by the Algerian government to address the effects of the war, following Sonatrach, the Algerian hydrocarbon giant's announcement of the discovery of three oil and natural gas fields in the Sahara, Algeria is expected to increase its exports of energy raw materials to European countries seeking to reduce their ties with Russia.

In one step, regarding food products, the Algerian government has decided to suspend all taxes and duties on certain widely consumed food products in order to protect the purchasing power of Algerian citizens.

In a further step, Algeria has determined to double its international wheat purchases, which is why the country has a safety stock of cereals that allows it to continuously meet its citizens' needs. However, one of the most important constraints for Algeria is to reduce its dependence on hydrocarbons, while promoting and developing other wealth-producing economic and commercial sectors and integrating a new economic model built on the creation of added value. Algeria plans to increase its non-hydrocarbon exports to 10\$ billion by 2023. This increase will be the result of the government's effective policy on economic diversification.

To reduce Algeria's dependence on natural gas, which accounts for over 93% of total electricity production, the renewable energy and energy efficiency program has been amended. Algeria is building momentum by launching an ambitious energy transition program to develop renewable energies.

This improvement by the Algerian government is based on a strategy focused on harnessing inexhaustible resources such as solar energy and using them to diversify energy sources. Algeria is embarking on a new era of sustainable energy.

Also, in terms of shale gas, Algeria ranks fourth in the world in terms of its reserves, which can be considered a natural gas bridge. Algeria can increase its foreign direct investments in the field of conventional gas, provided that it develops the necessary technologies.

Improving the business climate is essential for the diversification of the Algerian economy.

The private sector is limited and dominated by low-productivity activities. Its development is constrained by the establishment of a business environment considered unfavorable by foreign investors and by the important role of public enterprises.

3.1. Interpretation of results

rising oil and gas prices are causing a significant negative shock for non-oil exporting countries, which is worsening their trade balances and increasing the negative impact of their budget balances, particularly for those that provide subsidies to the energy sector.

Thus, the conflict between Ukraine and Russia has been supporting oil prices since September 2020, which has improved Algeria's financial situation.

Furthermore, the rise in food and fuel prices resulting from the war has already accelerated inflation in many countries, particularly those of Algeria. The negative effects will hit the poorest segments of the population, as they tend to spend a disproportionate share of their income on food. At the same time, countries dependent on fuel and food imports will experience a deterioration in their balance of payments and increased pressure on exchange rates.

A relationship was noted between the price of oil, foreign exchange reserves, and inflation following the outbreak of this war, thus concluding that the analyzed variables have a significant influence on oil price fluctuations which allowed us to verify our two working hypotheses.

Overall, Algeria should focus more on diversifying its economy and seizing opportunities for rising oil prices to mitigate its macroeconomic imbalances.

For the outlook, it would be very useful to use other variables where the crisis in question had positive effects.

The limitations of the research, from an empirical point of view, are the lack of statistical data for some data.

Conclusion

This article examines the global economic impact of the Ukraine-Russia war in Algeria. Indeed, the war in Ukraine strengthens the country's financial situation, and Algeria is gaining momentum and moving toward economic strength.

Thus, the beginnings of the Algerian economy's recovery are beginning to appear. Figures for major economic players show that Algeria is on the right track. However, many world leaders remain skeptical about the impact of the Ukraine-Russia conflict on the world. Indeed, this magnitude has never been recorded since the Second World War.

Certainly, the war in Ukraine and the energy crisis were predicted by the United States in a detailed report provided by Europe, whose objective is the collapse of the continent's economy so that the United States is less of a competitor in the global market. Furthermore, the rise in oil prices and the increase in the oil and gas sector caused a significant negative shock to the terms of trade of non-oil-exporting countries, worsening their trade balances and increasing and deteriorating their budgetary balances. Thus, European countries turned to the United States, which would subsequently assume a monopoly.

In the context of ideological conflicts, it was imperative for Algeria to neutralize itself, and the impact of this war on Algeria strengthened its financial position by providing sufficient room for maneuver to cover expenditures, which resulted in an increase in foreign exchange reserves given the rise in oil prices. The war also caused a surge in import prices for wheat, soybeans, and sunflowers, among others. In addition to wheat and oilseeds, Algeria imports other products from Russia: industrial and military equipment. In this context, we sought to identify that the increase in the inflation rate and foreign exchange reserves were recorded following the increase in Algeria's oil prices following this war.

The results of the analysis are very conclusive. A relationship was noted between the price of oil, foreign exchange reserves, and inflation following the outbreak of this war, thus concluding that the analyzed variables have a significant influence on oil price fluctuations which allowed us to verify our two working hypotheses.

Indeed, the increase in inflation impacts the price of oil since this liquidity from oil revenues will be used to finance the budget and trade deficit, which will promote the increase in the general price level. As for the increase in oil prices, these lead to an increase in foreign exchange reserves as a direct consequence of the crisis.

Furthermore, Russian supplies to the Algerian market increased considerably at the end of 2021, with around 300,000 tonnes of wheat exported to Algeria due to the relaxation of wheat import conditions since 2020. This dependence on what is vital for Algeria and the dependence on hydrocarbon exports is a double fragility for the Algerian economy.

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