

The macroeconomic effects of COVID-19 pandemic in Algeria- 2020 review-

الآثار الاقتصادية الكلية لجائحة كوفيد-19 في الجزائر-مراجعة لعام 2020-

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Abstract

ملخص

This study aims to assess the impacts of COVID-19 outbreak on Algeria's economy, by presenting and analysing a set of macroeconomic indicators.

The results of study showed that COVID-19 outbreak led to a significant contraction and stagnation in Algerian economy on the different levels as a result of the twin shocks of containment measures and the fall hydrocarbon export revenues due to the sharp drop in oil prices, leading to a significant increasing in macroeconomic imbalances in 2020.

Keywords: COVID-19, twin shock, macroeconomic indicators, impact, Algerian economy.

تهدف هذه الدراسة إلى تقييم آثار تفشي كوفيد-19 على الاقتصاد الجزائري، من خلال عرض وتحليل مجموعة من المؤشرات الاقتصادية الكلية. أظهرت نتائج الدراسة أن تفشي كوفيد-19 أدى إلى انكماش وركود كبير في الاقتصاد الجزائري على مختلف المستويات نتيجة للصدمة المزدوجة لإجراءات الاحتواء والانخفاض في عائدات الصادرات الهيدروكربونية بسبب الانخفاض الحاد في أسعار المحروقات، مما أدى إلى زيادة كبيرة في اختلالات الاقتصاد الكلي سنة 2020. الكلمات المفتاحية: كوفيد-19، صدمة مزدوجة، مؤشرات الاقتصاد الكلي، تأثير، الاقتصاد الجزائري.

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1. INTRODUCTION

The oil sector has been a dominant feature of Algeria's economy for decades making it vulnerable to changes in world oil markets. Algerian economy is highly relies on petroleum and natural gas exports as the main source of foreign exchange earnings. Thus, the evolution of the Algerian economy performance has been largely determined by the evolution of its oil export revenues.

The Covid-19 pandemic outbreak hit almost of the world's economies. In 2020, Algeria faced significant economic vulnerabilities and deep contraction caused by the lockdowns restrictions imposed by the government to contain the spread of Covid-19 and a sharp fall in oil prices. This twin shock have caused further deterioration on key macroeconomic indicators, which plunged the Algerian economy into recession.

1.1 Statement of problem

This study is sought to addressing the following main problem:

What is the extent impact of twin shock have caused by Covid-19 pandemic on Algerian macroeconomic developments?

This research aims to answer to the main following questions:

- Does the measure taken by the government to contain the Covid-19 spread affected the Algerian macroeconomic level?
- What is the performance of Algerian economy during the Covid-19 pandemic?

1.2 Objectives of study

The following objectives shall be pursued for this study:

- To analyse the Algerian macroeconomic performance during the Covid-19 pandemic.
- To examine the extent resilience of the Algerian economy facing exogenous shocks.

1.3 Methodology

The study adopts the qualitative method by using the macroeconomic indicators, in order to analyse the performance of Algerian economy during the Covid-19 pandemic.

1.4 Study outline

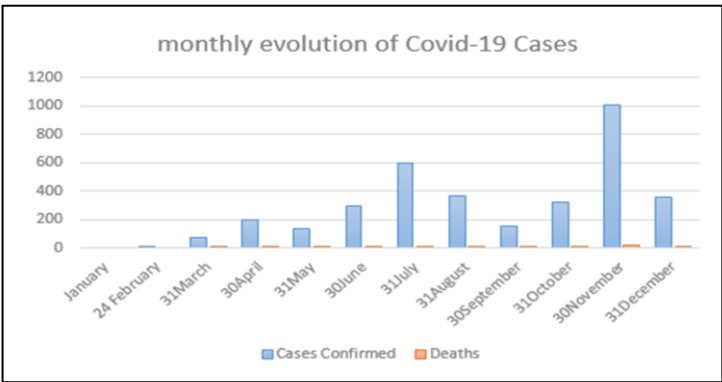
The present study has been organized in two main axes. Outlines of those axes are given below:

- The first axe give an overview about the evolution of Covid-19 outbreak in Algeria.
- The second axe the macroeconomic indicators developments during Covid-19 pandemic will be analysed.

2. THE OUTBREAK OF CVID-19 IN ALGERIA

Since the first case confirmed in Algeria on February 25th 2020, the Covid-19 disease that broke out in Blida has continued to spread to the other departments. The first case it was an Italian citizen tested positive in the department of Ouargla. Algeria was the second country affected in Africa. According to World Health Organization, form February 25th 2020 to 31th December, there have been 3510 confirmed cases of Covid-19 with 91 deaths. In November 30th 2020, Algeria registered the highest number of cases reached 1009 confirmed cases and 17 deaths. It should be note that, the number of confirmed cases is much lower than the true number of cases due to limited testing.

Fig.1.Monthly Evolution of Covid-19 Cases, (24 Feb-31 Dec 2020)



Source: (World Health Organization, 2022)

The Algerian government developed a set of measures in order to contain the pandemic outbreak, represented mainly in widespread lockdown measures, social distancing movement's restriction, imposing high levels of restriction on mobility and closure of borders.

3. RESULTS AND DISCUSSION

The Algerian economy has sharply depressed by the Covid-19 outbreak, due to strict lockdown to contain the outbreak and the sharp

decline in oil revenue. This caused, macroeconomic imbalances increased significantly.

3.1 Data set

In this study secondary data are used, which collected from different sources contained in websites, reports and journal articles. The data used covers different periods and it is varied between monthly and annually.

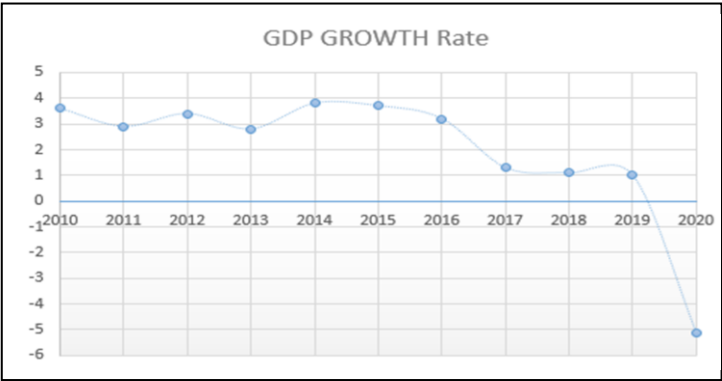
3.2 Macroeconomic indicators:

➤ In terms of GDP growth

During the period of 2010-2013, the real GDP growth was fluctuating between increase and decrease where it registered 3.18% in average, mainly due to the fluctuation in oil prices on the one hand and for other reasons on the other hand. Over the period of 2014-2019, the real GDP growth rate recorded a continuous successive decreases where decreased from 3.8% in 2014 to 1% in 2019. The growth rate of the Algerian economy slowed down for a fifth consecutive year in 2019 amid the protracted social mobilization and political transition, with weaker consumer and business, confidence and spending (World Bank Group, 2020, p. 1) (see Fig.2).

In 2020, The Algerian economy contracted sharply due to measures to contain the pandemic and a significant fall in hydrocarbon production, contributing to a major deterioration of the twin deficits (World Bank, 2021). The real GDP growth registered a negative growth rate -5% in 2020, due to the outbreak of COVID-19. The impact of the COVID-19 disease on Algeria's economic growth was obvious, mainly due to the sharp drop in oil prices, which plunged the Algerian economy into recession.

Fig.2. Real GDP Growth (%) in Algeria, (2010-2020)



Source: (The World Bank Indicators, 2022)

➤ **In terms of trade:**

The Algerian exports growth is heavily depends on the oil prices since the oil exports represent the most percentage of total exports, so the increase in oil prices will lead to increase the oil exports which lead in turn to increase in total exports. Due to the slowing down of oil prices in the international markets forced by the outbreak the Algerian export and import trade registered a significant decrease in 2020 compared to 2019, both exports and imports of goods and services were negatively affected in 2020.

In 2020, the exports amounted to 23796.6 million US dollars that represent a decline by 33.57% compared to 2019, while the imports recorded 34391.64 million US dollars a decrease of 17.99% compared to 2019 due to the tightening of import restrictions and the fall in demand for machinery and equipment (World Bank Group, 2020, p. 12). As a result, the balance trade deficit widened to 10595.04 million US dollars in 2020 from 6110.59 million US dollars in 2019. This is due to the combined effect of the deterioration in hydrocarbon exports (1170 million US dollars) and the decrease in exports of semi-finished products (345.74 million US dollars) (Ministry of Finance and General Directorate of Cus, 2021, p. 9).

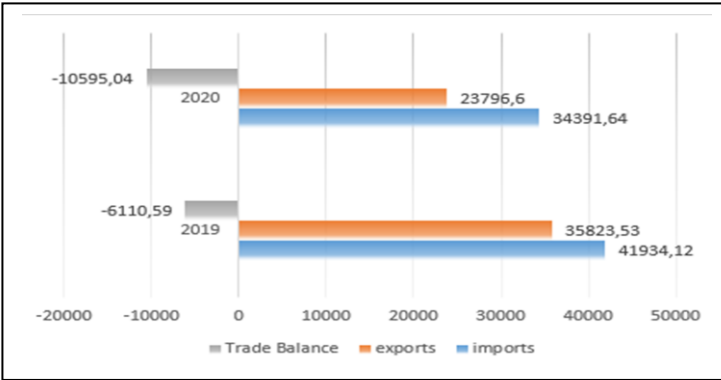
Table 1. Evolution of foreign trade in Algeria, million USD

Trade	2019	2020	Evolution (%)
Imports	41934.12	34391.64	-17.99
Exports	35823.53	23796.6	-33.57
Trade Balance	-6110.59	-10595.04	73.39
Coverage (%)	85.43	69.19	

Source: compiled and calculated by the author' based on: (Ministry of Finance and General Directorate of Cus, 2021, p. 8)

Accordingly, the value of export/import coverage dropped from 85.43% in 2019 to 69.19% in 2020 (see Fig.3), the value of the coverage index was less than 100%, which means that the exports value was less than the imports value, which means in turn that the imports are not fully paid by exports (Brika , 2016, p. 13). This result is partly due to the drop in the prices and quantities sold of hydrocarbons, where the international oil prices fall from USD 64 per barrel in 2019 to USD 42 per barrel in 2020. The Covid-19 pandemic (containment measures, import-export difficulties in a country with closed borders, declining global demand) has further accelerated the decline revenues (Département fédéral des affaires étrangère DFAE, 2021, p. 2).

Fig.3. Evolution of foreign trade of Algeria, million USD



Source: prepared by the author based on the table 1.

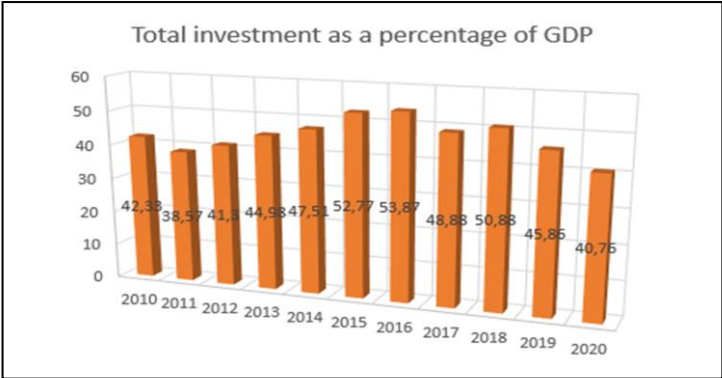
➤ **In terms of consumption and investment:**

Due to the outbreak, the Algerian authorities have been forced to impose containment measure of various levels of stringency, which have restricted mobility outside the home and domestic activity. The limitation of activities that has affected both business and the informal sector, as well as import-export difficulties (Département fédéral des affaires étrangère DFAE, 2021, p. 1). Consumption spending grew by 1.2% in Q1/2020 against 2.4% in Q1/2019, led by a 0.8% rise in private consumption and contraction in public consumption by 2% (World Bank Group, 2020, p. 11).

The pandemic markedly affected behavior of consumer who has changed drastically due to the lockdown. The Covid-19 pandemic revealed two segments of consumers: those in the civil service sector and socio-professional enterprises whose incomes have not been affected and those in the free economic sector and the self-employed – in industries such as building, tourism, transport, etc. – whose incomes have been affected severely (Chikhi, 2020, p. 3). The sudden imposition of strict containment by the state generated an unusual buying rate for some product categories especially sanitary disinfection products to prevent infection by the Covid-19, organic food and healthy food (Vitamin C, Zinc...). In this context, the demand for food products increased by 40% according to the president of Algeria’s National Association of Traders and Craftsmen (Chikhi, 2020, p. 3), which led to the creation of a crisis in some products such as semolina, oil and hygiene products, because of irrational storage of products due to

fears of food shortages.

Fig.4. Total investment (%GDP) in Algeria, (2010-2020)



Source: prepared by the author based on (Statistica, 2021)

On the investment side, the average value recorded during the period (2010-2020) was 46.16% with a minimum of 38.57% in 2011 and maximum of 53.87% in 2016. In 2020, the investment percentage diminished to 40.76%, compared to 45.86% in 2019, led to a contraction in investment by 11.12%. Where the investment spending posted a steep contraction of 5% in A1/2020 (World Bank Group, 2020, p. 11).

➤ **In terms of unemployment:**

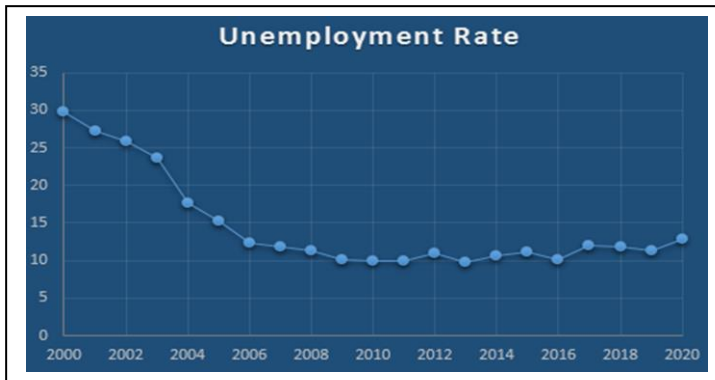
Despite the noticeable decrease in unemployment rates since 2000, but it remained high particularly among women and educated people, due to the many reasons such as insufficient job creation and mismatches between labour market demands and education supplies (see Fig.5). Algeria's labour markets have changed dramatically since the implementation of the 1994 reform program (structural adjustment program) supported by the World Bank and the IMF The unemployment rate has dipped from nearly 30% in 2000 to 13% in 2020. In 2019, the unemployment rate stood at 11.4% decreased slightly compared to 2018.

The fact that the state has been the main employer for many years has not favoured self-initiative (such as entrepreneurship) and has made employment in the private sector less attractive. Self-employment has been increasing slightly, reaching 32.4% in 2019 (European Training Foundation, 2020, p. 9).

Under pressure from Covid-19 outbreak, the unemployment rate

increase by 12.3% compared to 2019, where it rose to 12.8% in 2020 from 11.4% in 2019. The lockdowns resulted in an increasing trend of unemployment following the sharp economic downturn caused by the Covid-19 pandemic.

Fig.5. Unemployment rate (%) in Algeria, (2000-2020)



Source: compiled by the author based on:

- (IMF Country Reports, (2001, 2006, 2009, 2012, 2013))
- (Statistica, 2022)

➤ **In terms of inflation:**

Due to the Covid-19 pandemic, the Algerian economy faced a significant challenge with adverse consequences for inflation, where consumer price inflation accelerated markedly in 2020. Accordingly, the inflation rate has increased from 1.9% in 2019 to 2.4% in 2020. In 2020, the inflation rate went up from 1.92% in January to 3.52% in December, due to the increase in service prices and manufactured products (see fig.6).

At 10.15%, Algeria had the highest inflation rate in the fourth quarter of 2020. The biggest increase was in food prices, medical care price and transportation/ communication prices. Food price inflation increased obviously to reach 2.46% in December 2020; reflecting higher international food prices, which affected negatively household's purchasing power. The pandemic has affected the price of food commodities, partly due to the

increase of world food and shipping costs (Ferrah, 2021, p. 2), and due to the depreciation of Algerian dinar.

Fig.6. Inflation rate (%) in Algeria during 2020

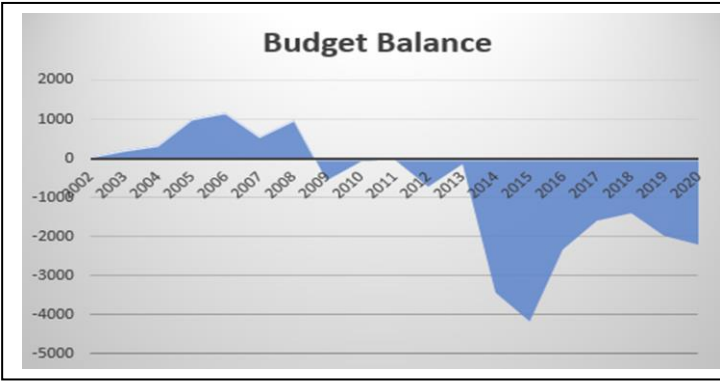


Source: (BANK OF Algeria, 2021, p. 29)

➤ **In terms of budget balance:**

From 2002 till 2008, the budget balance registered a surplus, that reached in 2008 around 1000 billion DZD due to the successive increasing in budget revenues from 1603 billion DZD in 2002 to 5191 billion DZD 2008 as a result of the rising the price of oil per barrel. Otherwise, the budget expenditures was continuously increased from 1551 billion DZD in 2002 to 4191 billion DZD in 2008, due to the implementation of economic recovery program (2001-2004) followed by support recovery program (2005-2009), where the realization of these plans requires a huge budget funded by oil revenues.

Fig.7. Evolution of budget balance (2002-2020) of Algeria, billion DZD



Source: compiled by the author based on:

- (La banque d'Algérie, 2000-2013)
- (Ministère de finances, 2014-2016)
- (IMF, 2021, p. 32)

Since 2009, the Algerian budget has experienced a deficit each year, due to the fall in hydrocarbon revenues and increased public investment, where the oil taxation revenues constitute the largest share of public revenues, where both of public revenues and expenditure are closely relies to oil prices and its fluctuations in world markets.

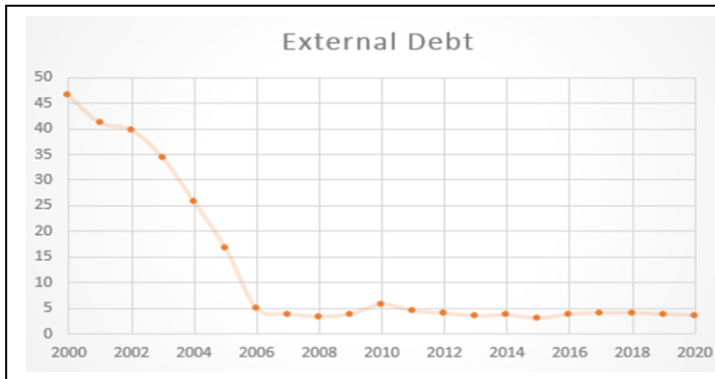
Covid-19 lockdown measures drove up public spending and hit oil revenues hard enough to produce the deficit. The Algeria's budget balance logged a deficit of 2198 billion DZD in 2020, compared with a deficit of 1964 billion DZD in 2019. The fall in hydrocarbon revenues contributed to a further widening of budget deficit by around 11.91%, due to the combined pressure of a fall in hydrocarbon revenue (by 14,56% compared to 2019), and high public spending to alleviate the economic effects of the health crisis.

➤ **In terms of external debt and foreign exchange reserves:**

During the nineties, the Algerian external debt witnessed high rates and achieved the maximal rate USD 33.42 billion in 1996, despite the reforms undertaken by the authorities. After that, the external debt brought down from USD 46.4 billion in 2000 to USD 3.5 billion in 2020 and achieved the smallest value USD 3 billion in 2015, as shown in Figure 8.

This slowdown is because the government ceased the external borrowing, and substitute it with unconventional financing, where the government changed the banking law and borrowed directly from the central bank. It also used monetary financing to buy back some of its own debt to public enterprises and debt owed by public enterprises to public banks, and as well as to finance the National Investment Fund, which led to a decrease in the proportion of external borrowing (IMF, IMF country Algeria reports, 2018, pp. 39-40).

Fig.8. External Debt of Algeria (2000-2020), billion USD



Source: compiled by the author based on:

- (IMF Country Reports, (2001, 2006, 2009, 2012, 2013))
- (IMF, IMF executive board concludes 2021 article 7 consultation with Algeria, 2021, p. 31)

After four consecutive years of rise in external debt caused by a fall in hydrocarbon revenues due to the collapse of oil prices and despite the Covid-19 pandemic, the external debt recorded a slight drop by around 7.9% in 2020. This is mainly because Algeria has not resorting to external debt during pandemic period in order to strengthen Algeria's sovereignty, as the president Tebboune has stated.

Thus, the drop in hydrocarbon sales that resulted in the fall in hydrocarbon export earnings pushed the government to utilise foreign exchange reserves to cover the fiscal deficit, which caused the sharp slowdown in this foreign reserves, where Algeria depends on oil and gas revenues to provide around 95% of its foreign currency revenues. Accordingly, the total foreign exchange reserves in Algeria was declining significantly to 48.9 billion US dollars in 2020 from 63.3 billion US dollars in 2019, due to manage the high overall budget and external financing requirements, while ensuring domestic liquidity to finance a recovery, and monetary stability to protect purchasing power (World Bank Group, 2020, p. 17).

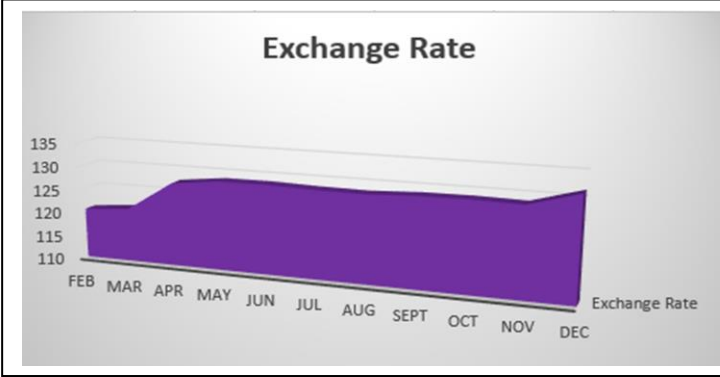
➤ **In terms of exchange rate:**

The authorities set an objective to cut the import bill by at least 10 billion US dollars, or 6% of GDP, notably through a local currency devaluation (World Bank Group, 2020, p. 14). Moreover, in order to conserve its foreign exchange reserves, the government devaluated the Algerian dinar.

Algerian economy faced sharp slowdown since the pandemic outbreak, due to measures to contain the pandemic and a significant decrease in hydrocarbon production and revenues, which contributed to a significant economic contraction in 2020. Since the beginning of the Covid-19, the Algerian Dinar has consequently lost value against US dollars. Exchange rate of Algeria increase substantially and continuously from 120.527 LCU per US dollars in February 2020 to 131.596 LCU per US

dollars in December 2020 as shown in the Figure 9, that means the Algerian dinars depreciated by around 9.183% against USD during this period.

.Fig.9. Exchange Rate DA/US dollar, (Feb 2020-Dec 2020)



Source: compiled by the author based on: (CEIC data, 2022)

The cheaper Algerian dinar has translated into a sharp rise in the prices of imported goods, a consequential change for consumers in a country that imports virtually all of the goods that it consumes (Riccardo, 2021).

4. CONCLUSION

The main objective of this paper has been to analyze the impact of Covid-19 pandemic on Algerian macroeconomic developments. Algerian as an oil exporting country faced the Covid-19 pandemic with significant economy challenges. The Algerian economy has sharply shrunk by the Covid-19 outbreak, due to strict lockdown imposed by the government to contain the outbreak and the sharp decline in oil prices. In turn, this twin shock led to a significant increasing in macroeconomic imbalances in 2020.

The results of the analysis showed that, Algeria's real GDP growth contracted by around 6% in 2020, and the unemployment rate increase by 12.3% compared to 2019. The balance trade deficit widened to USD 10595.04 million in 2020, due to the combined effect of tightening of import restrictions, the fall in global demand, and the deterioration in hydrocarbon exports. Meanwhile, the budget deficit increased by around 11.91%, due to the combined pressure of a fall in hydrocarbon revenue, and high public spending. However, the external debt dropped by around 7.9% in 2020.

Due to manage the high overall budget and external financing requirements, while ensuring domestic liquidity, the total foreign exchange reserves in Algeria was declining significantly to 48.9 billion US dollars in 2020 from 63.3 billion US dollars in 2019. With the fall in hydrocarbon revenues, the government decreased the public investment, as well as devaluated of the local currency by around 9.183% against USD in 2020. In return, the inflation rate went up from 1.92% in January 2020 to 3.52% in December 2020.

Based on our findings, several policy recommendation for Algeria will address them as follows:

- The diversification of the economy could reduce the adverse effects of oil price fluctuations and help to maintain sustainable economic growth. Therefore, one of the policy implications is that the policymakers should take into consideration the non-oil export sector and continue to support this sector.
- Externality is one way of supporting the non-oil exports. The government should sustain the non-oil sector using revenues from the oil-sector. This positive externality could lead to faster economic growth.
- The service industry should be explored as well, which will give a rise to educational development in order to boost the nation's technological base.
- The Algerian government has to encourage domestic and foreign investors to produce the non-oil exported goods in Algeria. Investment from foreign firms will help to transfer the technology to Algerian so as improve production efficiency through learning by doing, and to create more value added products. As a result, this will lead to higher economic growth in Algeria and enable the country to maintain a healthy economy.

5. Bibliography List:

1. Journal article :

- Brika , S. M. (2016). Analysis of Algerian trade performance: from 1970 to 2014. Journal of behavioural economics, finance, entrepreneurship, accounting and transport, United States, Vol.4, N^o.1.
- Chikhi, K. (2020). Consumption behavior of Algerians during the period of the Covid-19 pandemic crisis. Market, Globalization&Development Review, USA, Vol.5, N^o.4.

2. Reports:

- BANK OF Algeria. (2021). Quarterly statistical bulletin, report No.53. Algeria: Bank of Algeria.
- Département fédéral des affaires étrangère DFAE. (2021). Rapport économique Algérie. confédération Suisse.
- European Training Foundation. (2020). Algeria: Education, training and employment developments 2020, EU institutions.
- Ferrah, R. J. (2021). Agricultural situation, Agriculture in the news. United Department of Agriculture, Global Agricultural Information Network.
- IMF Country Reports. ((2001, 2006, 2009, 2012, 2013)). IMF annual country reports , Algeria: Statistical Appendix. Washington.
- IMF. (2018). IMF country Algeria reports. Washington: International Monetary Fund.
- IMF. (2021). IMF executive board concludes 2021 article 7 consultation with Algeria. Washington: IMF.
- La banque d'Algérie. (2000-2013). Les rapports annuels de la banque d'Algérie (2000-2013). Algérie.
- Ministère de finances. (2014-2016). Les rapports annuels du ministère de finances (2014-2016). Algérie.
- Ministry of Finance and General Directorate of Cus. (2021). Foreign trade statistics of Algeria. Algeria.
- World Bank Group. (2020). Algeria economic monitor: navigating the Covid-19 pandemic, engaging structural reforms. World Bank Group.

3. Internet websites:

- CEIC data. (2022), Algeria exchange rate against USD: <https://www.ceicdata.com/en/indicator/algeria/exchange-rate-against-usd>, (consulted on 20/12/2021).

- Direction générale du trésor. (2021), Commerce extérieur de l'Algérie, sur Ministère de l'économie, des finances et de la relance: <https://www.tresor.economie.gouv.fr/Pays/DZ/commerce-exterieur-de-l-algerie#:~:text=En%202020%2C%20les%20%C3%A9changes%20commerciaux,de%2033%25%20sur%20un%20an>, (Consulté le 15/12/ 2021)
- Riccardo, F. (2021), Algeria: Amid concerns about the pandemic and its economic impact, some optimism for the future: <https://www.mei.edu/publications/algeria-amid-concerns-about-pandemic-and-its-economic-impact-some-optimism-future>, (consulted on 20/ 12/2022)
- Statistica. (2021), Total investment as a percentage of the gross domestic product (GDP) in Algeria from 2010 to 2022: <https://www.statista.com/statistics/1238204/total-investment-as-share-of-gdp-in-algeria/>, (consulted on 30/ 12/ 2021)
- Statistica. (2022), Algeria: Unemployment rate from 1999 to 2020: <https://www.statista.com/statistics/408055/unemployment-rate-in-algeria/>, (consulted on 15/01/ 2022).
- The World Bank Indicators. (2022), World Bank: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=DZ>, (consulted on : 03/01/2022)
- World Bank. (2021), Algeria Economic Update-April 2021: <https://www.worldbank.org/en/country/algeria/publication/economic-update-april-2021>, (consulted on: 25/12/2021)
- World Health Organization. (2022): <https://covid19.who.int/region/afro/country/dz>, (Consulted on 05/01/ 2022)