

Oil and Covid-19 in Algeria: Addressing Economic Growth in Times of Pandemic Outbreak

| ADLA Lilia* | BENSAID Mohamed |
|--|--|
| Djilali LIABES University, Laboratoire | Djilali LIABES University, Laboratoire |
| Management des Entreprises | Management des Entreprises |
| Sidi Bel Abbes, Algeria | Sidi Bel Abbes, Algeria |
| <u>Lilia.adla@univ-sba.dz</u> | <u>bensaide@yahoo.fr</u> |
| Received: 03/06/2021 | Accepted: 13/02/2022 |

Abstract

One of the detrimental effects of the resource curse in oil-dependent countries is their susceptibility to global oil market fluctuations and their vulnerability when opposed to the different unparalleled global shocks. The coronavirus disease outbreak shook global economy and tested the countries' preparedness to face such a large-scale threat, especially for oil-dependent economies.

In a descriptive and analytical method, this paper aims to analyze the impact of the coronavirus on oil prices and consequently on economic growth through the study of the case of Algeria as country ailed with the resource curse. The harmful effects of the pandemic are endogenous and exogenous. Data undertaken for the study illustrate that, even before declaring the first case, the Algerian economy was already vulnerable to face the outbreak because of the exogenous effects showcased in the form of oil prices and supply chains.

Keywords:

Algerian economy, coronavirus, economic growth, oil-dependency, resource curse.

Résumé

L'un des effets négatifs de la malédiction des ressources naturelles dans les pays dépendants du pétrole est leur sensibilité aux fluctuations du marché mondial du pétrole et leur vulnérabilité face aux différents chocs mondiaux. L'épidémie de coronavirus a secoué l'économie mondiale et a mis à l'épreuve la disposition des pays face à une menace de grande échelle, en particulier pour les économies dépendantes du pétrole.

En employant une méthode descriptive et analytique, cet article vise à analyser l'impact du coronavirus sur les prix du pétrole et par conséquent sur la croissance économique à travers l'étude du cas de l'Algérie en tant que pays atteint par la malédiction des ressources naturelles. Les effets négatifs de la pandémie sont endogènes et exogènes. Les données collectées pour l'étude illustrent que, même avant de déclarer le premier cas de COVID, l'économie algérienne était déjà vulnérable pour faire face à l'épidémie en raison des effets exogènes présentés sous la forme des prix du pétrole et des chaînes d'approvisionnement.

Mots Clés : L'économie Algérienne, Coronavirus, Croissance économique, Dépendance au pétrole, Malédiction des ressources naturelles

* Corresponding author:

Title: Oil and Covid-19 in Algeria: Addressing Economic Growth in Times of Pandemic Outbreak

1. Introduction

Today, the world is undergoing some of the most profound change waves ever witnessed since the Great Depression. As the number of infected people and deaths keeps increasing, COVID-19 has become a global emergency causing a great threat on the entire global population, and consequently affecting the economy as well. Different world organizations and research facilities adopted multiple scenarios to forecast the effect of the COVID-19 on economic growth specifically, and though the methods varied, the results were one. There was no avoiding a global economic slump of unparalleled proportions.

The harmful effects of Covid-19 fall under two types, according to an International Council for Small Business (ISCB) working paper, an endogenous impact that will trigger an exogenous one (2020). Evidently, COVID-19 started as an endogenous shock hitting the health sector for some countries and consequently turned into an exogenous shock generating from an intertwined economy and touching some countries even before the contagious virus reached their territories. Algeria is one of the countries that were attained by the harmful effects even before the first case of COVID-19 was declared by the health minster on the February 25, 2020 (APS, 2020). Since the spread of the virus, many studies emerged trying to assess the impact of the health crisis on different economic aspects. Before the outbreak reached a global level, the first studies focused on its disruption on the Chinese economy and its effect on world economy. With the aim to investigate the impact of the virus on the global energy demand in China, Maijama's et al. (2020) concluded that the impact of the outspread on international prices of crude oil was "negative and significantly related to the cases of the virus.", while Sansa (2020) found a negative and insignificant impact.

The Algerian economy, attained by the resource curse, is highly dependent on oil revenues; therefore, the unavoidable impact came as result of an avalanche of circumstances all revolving around the pandemic outbreak. The health shock transformed to an economic one when the virus kept spreading around the world. Consequently, the global oil supply and demand continued to suffer because of the travel ban imposed on all the countries and the constraints hindering economic activity in general. The impeding effects might have reached most of the energy markets including gas, coal and renewable energies; however, the oil industry has been the most affected.

In accordance, this study aims to illustrate, using a descriptive and analytical method the different insightful changes stirring up global economy due to the spread of the virus while observing the way that health global emergency effected the Algerian economy.

Specifically, the paper attempts to answer the following sub-questions:

- 1. What is the effect of pandemics on the world economy?
- 2. How can the Coronavirus impact oil prices?
- 3. How is the Coronavirus influencing the Algerian economy?



Consequently, the research is conducted based on two hypotheses:

20

- 1. The Coronavirus affects world economy through endogenous and exogenous effects.
- 2. The uncertainty caused by the pandemic outbreak has increased oil prices volatility.
- 3. The oil dependency attaining the Algerian economy made it vulnerable to face the double shock of oil prices crushing and the weight of the economic implications of the attempts to contain the pandemic outspread.

The present paper objectives consist of trying to divulge the impact of the double shock caused by the Coronavirus outbreak accompanied with a steep decline in oil prices and to showcase the detrimental effects the outbreak has had on world economy in general and on the Algerian economy in specific. The discussion in this paper contributes to the COVID outbreak literature by exposing the vulnerabilities of oil-dependent countries to face the combined shocks caused in the wake of the outbreak and to shed light on the economic situation in Algeria during the pandemic outbreak. This paper is divided into three parts, the first part tackles the impact infectious diseases have on the economy and how government face such economic challenges. The second part highlights the impact of the pandemic outbreak on oil markets around and the world. Finally, the last part deals with the implication of the pandemic on the Algerian economy and the measures taken by the Algerian governments to face the medical crisis.

2. Review of Literature

Dissecting the volatility of oil prices under the impact of Covid-19 has been under the scrutiny of many scholars since the outbreak. (Bildirici et al., 2020; Bourghelle et al., 2021; Mzoughi et al., 2020; Tan et al., 2020; Wheeler et al., 2020; Yu et al., 2022) Bourghelle, Jawadi and Rozin (2021) tackled the issue using a VAR framework. Their study shows that the pandemic had a significant negative impact on oil prices volatility by affecting global oil demand because of the increasing uncertainty and through causing a supply shock instigated by the oil trade war (between Saudi Arabia and Russia).

Bildirici, Bayazit and Ucan (2020) propose a new hybrid modelling technique to analyze crude oil prices under the impact of Covid-19. Their model mixes between a the LSTARGARCH (Logistic Smooth Transition Autoregressive Generalized Autoregressive Conditional Heteroskedasticity) model and LSTM (long-short term memory) method for analyzing oil prices volatility in an attempt to determine the different characteristics of oil prices volatility.

Wheeler et al. (Wheeler et al., 2020) conducted a three- pronged study to examine the implications of oil price crush on emerging markets and developing countries. Their objective was to assess the oil price plunge using a structural vector autoregression model while examining the previous oil market disruptions since 1970 and at the same time estimating the impact of previous oil prices declines using a local projections model. The study resulted in four outcomes. First, the measures taken to contain the pandemic affected demand factors which lead to a high decrease in oil prices. Second, this price plunge is not new to world economy since history has witnessed six other plunges

Authors : ADLA Lilia et BENSAID Mohamed

of similar nature. Third, the outlook for global economy does not bode well with the implemented confinement and restrictions. And last, most of emerging economies faced the pandemic with "precarious" fiscal positions therefore, it is primordial to reassess energy pricing policies.

In regards to the Algerian economy, several studies investigated the impact and the consequences COVID-19 had on the overall economic outlook (Benihhi & Bouriche, 2020; Bensalem, 2021; Gadi & Debeche, 2021; Mousserati & Beddiar, 2021). Bennihi and Bouriche study the impact of COVID-19 on the Algerian economic performance by focusing on informal economy. They expand the SIR epidemiologic model to comprise the economic decision made by the individuals and the availability of treatment. Their study concluded that the size of the informal economy would impact the research on the impact of COVID-19. Furthermore, the confinement restrictions have shrunk the Algerian Gross Domestic Product GDP and increased recession from 2.15 percent to 7.87 percent. Whereas Bensalem (2021) focused on the effect Covid-19 had on the labor market.

3. The influence of infectious diseases on the economy

History has witnessed the outbreak of many epidemics and infectious diseases that affected society with more than a great death toll spreading to impinge different aspects of daily life. Governments from all over the world agree that, "biological threats not only have global health impacts but also wide-ranging socioeconomic disruptions" (Smith, Machalaba, Seifman, Feferholtz & Karesh, 2019). The effects of pandemics are similar to those caused by disasters and the Ebola epidemic in West Africa proves to be a prime example. Many countries suffered through economic downfalls because of spread of that virus, from decreasing Gross Domestic Product (GDP) to a decline in government revenues. However, until recently, the consequences emanating from sectors other than the health sector were all considered as, "the context of negative externalities in driving disease events..." (Smith, Machalaba, Seifman, Feferholtz & Karesh, 2019) Hence, it was primordial to address the issue to help alleviate the burden of the spread out of diseases. Accordingly, in 2009, WHO issued the *WHO Guide for Identifying the Economic consequences of Disease and Injury*, which is, "a framework within which broader economic impact of diseases can be calculated." (Smith, Machalaba, Seifman, Feferholtz & Karesh, 2019). A guide to help broadens the examinations of multi-sectorial impacts of a severe pandemic.

Technology and transportation have made of the world an interconnected globe with an intertwined economy, facilitating the movement of people from side to side in a fast and effective way. This, in turn, has made it easy for viruses to move from one country to another in matters of days. The first response to a largely spreading pandemic is to impose a general shut down as an attempt to contain the threat. Consequently, in addition to the death toll that pandemics engender, sick people will not be able to join their workplace at the beginning, then, companies close. People will be forced to stay home, traveling is on hold, shops and restaurants close their doors, entertainment and leisure are part of history. The initial costs of containing the outbreak of pandemic can be very

Economic Sciences Review



Volume : 17 / N° : 1 (2022), p 322-339

heavy on an economic scale. Generally, economic activity slows down, government expenditure increases to cover for medical and health expenses and to reduce the consequences in addition to the decrease in tax revenues because of the incurred curfews and imposed quarantines and this all leads to added stress on the fiscal system especially in governments with low and medium income (Madhav, et al. 2017). Almost all economic sectors will suffer accordingly, except for some that will benefit marginally; mainly health care. Burns, Van der Mensbrugghe, and Timmer (2006) estimate that World Global GDP could be reduced by 5 percent, which is caused by the fear-induced "aversive behavior" (Qtd. in Madhav et al., 2017).

A study on outbreak readiness illustrates the threat that a pandemic poses on global economy. Economists presume that pandemics can have a yearly cost of \$570 billion, what totals to 0.7 percent of global GDP (WEForum, 2019). The losses caused by the SARS virus outbreak, for example, which spread in China in 2003, amounted to \$50 billion (Raga, 2020). Another example is the spread of MERS in South Korea in 2015, which brought a decline in the country's tourism by 41 percent. As for the West African Ebola virus outbreak, in 2014, the economic burden on the attained countries surmised to \$53 billion. Although the consequences of these outbreaks are documented and analyzed, the world is not sufficiently prepared to face the outcomes and according to a conducted study on trying to model the economic impact of pandemics, it is estimated that pandemics might possibly cost world economy \$6 trillion in the 21st century (Sands, Mundaca-Shah and Dzau, 2016). With a worldwide death toll of 899,916 (WHO, 2020), the coronavirus has pushed the world into an economic recession never witnessed ever since the Great Depression.

4. Coronavirus Impact on Oil markets

Oil plays a major role in the world economy as it is different from other commodities because of its features and made more precious because of its lack of renewability. Oil markets are highly volatile and the risk involved is unparalleled. In the following part, the impact of COVID-19 will be studied in terms of oil markets, how it affects the prices and oil demand and how does that impede economic growth.

4.1. Oil Prices

The coronavirus pandemic amplified the volatility of crude oil prices causing turmoil for global economies on a global level. Although the daily reported cases of Covid-19 might not have a major direct impact on oil prices, the contingency plans implemented by governments have forced energy agencies to modify their oil and other energies' data forecasts. The volatility of oil prices intensified because of a set of factors including, change in the levels of energy demand and supply, curbed industrial production, quarantines, social distancing and lockdowns, a slowing down in domestic and industrial activity and closing off borders and preventing travel (Kingsly & Kouam, 2020).

Fig.1. Global Monthly Prices of WTI and Brent, U.S. Dollars per Barrel, January 2015 to July 2020





Source: FRED monthly data, 2020

Oil prices as any other commodity, are subject to the laws of supply and demand. Demand started the year 2020 in moderate trends; therefore, agreements were signed between Russia and OPEC to cut production lowering it by 2.1 million barrels per day (MBD). Despite a lacklustre demand, the prices rose up by the end of 2019, because of the high-risk factor induced by the tension between the USA and Iran. According to the US Energy Information Administration (EIA), Brent and WTI crude oils averaged \$64 and \$57 per barrel respectively (French, 2020). Despite the fact that the prices traded lower than the daily prices 2018 (Figure 1), both traded in a relatively narrow range and that remained mostly the case all throughout 2019. WTI crude oil prices reached its daily high of \$71/b in April, rising from a lower value of \$51/b late January (as figure 1 shows).

Whereas Brent crude oil prices started the year 2019 with the value of \$59.27/b to reach a daily high of \$71.20/b in April as well. The year started relatively better compared to the previous year, mainly, because of the imposing of deeper production cuts to end prices wars.

As a result, WTI and Bent crude oil prices started at a daily high of \$61.17/b and \$67.05/b respectively (FRED, 2020). However, these prices started plummeting mid-January because of the pandemic hitting China the biggest oil consumer (Figure 2).



Source: FRED daily data, 2020

Brent and WTI crude oil prices trend in a close range but they still diverge in time mainly due to different reasons, including ease of refining, production and transportation costs, political and economic conditions in the trading regions and other logistical details that affect the prices differently (FRED, 2020). On the 20th of April 2020, WTI crude oil prices witnessed a steep divergence. For the first time in history. As of 14th of April, WTI traded at \$20.15/b while BRENT prices were at \$21.74/b, just a few days later, the prices fall below \$0 and record a negative of \$36.98/b (Figure 3). Due to the spread of the pandemic and the economic slowdown, production exceeded demand and oil producers found themselves paying buyers to take oil as they run out of storage space.

Fig.3. Global Oil Demand from 2016 to 2020* (MBD) Source: FRED, 2020

4.2. Global Oil Demand

The spread of the virus across the continents has stunted the potential for growth of oil demand on a global level. This decline, according to the International Energy Agency, is the greatest shock the global energy system witnessed since Second World War. Comparing data of the last five years (as figure 4 shows), global oil demand has been gradually increasing from 95.70 MBD in 2016 to 99.67 MBD in 2019. However, and because of the measures taken to contain the covid-19, global oil demand plunged to 92.39 MBD in the first quarter of 2020 compared to 98.75 MBD (Figure 4).

Fig.4. Global Oil Demand 2019-2020 by Key Region, mb/d (MOMR June, 2020)

Authors : ADLA Lilia et BENSAID Mohamed

Title: Oil and Covid-19 in Algeria: Addressing Economic Growth in Times of Pandemic Outbreak



Source: MOMR June, 2020

In the OECD region, according to OPEC's Monthly Oil Market Report (MOMR), the oil demand is expected to drop by 5.2 MBD reaching a negative anticipated growth of 0.21 percent compared to the total levels achieved in 2019 (MOMR, 2020). Moreover, the oil demand in the non-OECD region is anticipated to drop to 3.9mb/d, which is a first for this region. China's oil demand witnessed a slight improvement around the third quarter of the year. However, the steep decline remained deeply in the negative with -4.67 percent (MOMR, 2020). Demand of oil contracted in the Middle East countries as well. OPEC reports an increase of 0.08mb/d in 2019 and a forecasted decline by 0.6 MBD in 2020. It is most noticeable in both Iran and the UAE falling to 0.5 MBD year-over-year (y-o-y), whereas in Saudi Arabia demand dropped to more than 0.1 MBD y-o-y explains the IEA in its short-term report (2020).

5. Implication of Covid-19 and Falling Oil Prices on Algerian Economy

The OPEC describes oil and natural gas as the backbone of the Algerian economy. Algeria is the OPEC's largest member country and the largest in Africa. The country is rich in natural resources including, iron, uranium, phosphate and many other minerals with abundant reserves. Yet, the greatest assets of this economy are its potential in oil and natural gas, which, make up the backbone of economic activity as OPEC has described it. Both amount to 20 percent of the gross domestic product and 85 percent of Algerian exports.



5.1. The Detrimental Effects of the Oil Curse on Algerian Economy

Despite the numeral attempts and strategies adopted by the Algerian government to achieve economic diversification, the economy is still heavily dependent on oil revenues illustrating the working of a "temporal resource curse" according to Djaflat and Lundvall (2016). Studies tackle the curse from different angles. On the one hand, the oil curse tightens its clutches on the Algerian economy driven by oil price volatility. Moreover, studies display a negative relationship between oil volatility and economic growth, which consequently offsets the positive impact of oil booms (Benramdane, 2017; Chekouri, Chibi & Benbouziane 2016; Ilias Elhannani, Boussalem & Benbouziane, 2016). On the other hand, empirical findings illustrate the impact of a weak institutional framework on impeding economic development (Chekouri, Benbouziane & Chibi, 2017; Akacem & Cachanosky, 2017).

5.2. Monitoring economic growth during the Outbreak

Algeria has been barely recovering from an economic crisis for the past six years because of the crashing oil prices back in 2014 when social uprising took place against the political system. After a year of social and political turmoil, Algeria's economic growth slowed down to 0.9 percent in 2019 compared to 1.4 percent in the previous year (World Bank, 2020). As for 2020, revenues were expected to reach \$140 billion (Trading Economics, 2020), however, considering the double shock from the economic disruptions caused by the COVID-19 outbreak and the crushing of oil prices, Algeria fared no different from the rest of the world.

5.2.1 Algerian Macroeconomic outlook

The pandemic has had a great toll on the macroeconomic outlook of the Algerian government. In addition to government restriction and the oil prices plunge, the Algerian economy took a dive into recession. GDP growth continued to slow down for the fifth year in a row after the political turmoil and the social uprising shaking the economic environment. GDP growth fell from 1.1 percent in 2018 to 1 percent in 2019 plunging into a negative 5.1% in 2020 what amounts to \$171.76 billion in 2019 to \$145.1 billion (figure 5).





Source: World Bank Data, 2021

Furthermore, the measures taken to contain the pandemic's outspread has engendered a slowdown in both public and private consumption alike (*World Bank, 2020*; Mousserati & Beddiar, 2021). Government consumption fell from 2.3 percent in 2018 to 1.9 percent in 2019. As for private consumption, the report shows that it slowed down from 2.8 percent in 2018 to 2.1 percent in 2019. The year 2020 witnessed a negative 2.9 percent for private consumption (World Bank, 2021). Investment took a hit as well, the confinement and the freeze of most of business activities slowed down private investment in addition to a lower business confidence cause by the political uproar happening just a few years back. Unemployment, another macroeconomic indicator that has been influenced by Covid-19 outbreak. Since 2017, the unemployment rate started to rise reaching 12 percent coming up from 10.2 percent back in 2016. Leading to 2020, the rate went through 11.89 and 11.81 percent for 2018 and 2019 respectively to reach the highest rate in the last decade at 12.83 percent (World Bank, 2021). The public sector remained the main creator of jobs and 232,000 jobs were created between April 2018 and May 2019 (World Bank, *2020*).

5.2.2 Agriculture

The agriculture sector has been attained by the negative effects of Covid-19 through the supply and demand chains. President Abdelmajid Tebboune decided, back in March 2020, to temporarily suspend all imports of all products that can be produced locally, saying that the Algerians have enough food supply to last all through 2021. In the same regards, the president prohibited the exports of food and pharmaceutical products to face off the outbreak. Improving the agricultural sector has been one of the main pillars of the president's economic agenda, official sources report (APS, 2020).



Fig.6. Agriculture, forestry and fishing, value Added Algeria 2014-2020

B

Source : World Bank Data, 2021

The sector of agriculture, and in response to the structural reforms performed the previous years, fared well in the times of the outbreak. The share of the sector of GDP witnessed a gradual albeit modest growth of 11.87 percent, 12.33 percent and 14.13 percent for the years 2018, 2019 and 2020 respectively. The share amounted to \$20.49 billion, a slight decrease from 2019 when it reached \$21.19 billion. The government prioritized agricultural investments in order to achieve food security. Investors were encouraged to engage in large-scale agricultural investment. Foreign Direct investment in this sector has been promoted, as well especially in the cereal productions, sugar production, oil seeds and all products that can be produced locally.

5.2.3 Industry

Although the hydrocarbon industry continued to decelerate because of the plummeting oil prices, the non-hydrocarbon industry witnessed a slight growth. The government saw the need for foreign direct investment in the exploration and exploitation of oil and gas that is why the Hydrocarbon law was introduced in December 2019 (World Bank, *2020*). Furthermore, and to cover for the deficit caused by the low oil prices, the government stressed the importance of diversification for uplifting economic growth and reducing import bill. Industrial contribution to GDP decelerated from 39.14 percent in 2018 to 37.44 percent in 2019 and it continued to decrease in 2020 by reaching 34.25 percent (Statista, 2022). According to the World Bank forecast, the value added of non-hydrocarbon sector which, comprises mainly of services, manufacturing, construction and oil products exploration, fell by 4.4 percent in 2020 (Leow, 2021). In addition, exports outside the hydrocarbon sector amounted to \$ 478 million in the first quarter of 2020 (Mousserati & Beddiar, 2021).

6. Measures against the Outbreak

With the implemented production cuts and oil prices recovering considerably, the Algerian government drafted a budget based on the assumption of oil prices reaching \$60/b and economy was estimated to grow by 8.1 percent (APS, 2020). Nevertheless, the government did not fare well in face of the falling prices to less than \$30/b in the first quarter of 2020, which made it more vulnerable against the health crisis. In the beginning of February, foreign exchange reserves dropped from \$62 billion in the last quarter of 2019 to \$55 billion (Tradingeconomics, 2020). By mid-July 2020, the reserves fell further to \$53.6 billion (CEIC, 2020). Compared to previous years, Algerian foreign exchange reserves are depleting considerably.

The implications of the outbreak on the Algerian economy combined with oil prices plummeting forced the government to implement new financial and fiscal measures to maintain macroeconomic stability (World Bank, 2020). The government decided to cut budget expenses to 30 percent, which amounts to \$5.7 billion through limiting the employment of foreign expertise counselling to save around \$7 billion, cutting import bill by \$10 billion, and reducing exploitation costs and investment expenses (Reuters, 2020).

6.1 Direct and Indirect Tax Measures

Payment deferrals and rate reductions have been granted to tax payers like the Value Added Tax that has been postponed for tax payers not registered as large companies (Monthly G n°50 statement). The same was applied to Corporate Income Tax for tax payers not registered as large companies (CIT advanced payment) (CMS, 2020). As for Tax payers who find themselves in any financial difficulties were granted a rescheduling of their payment dates (Mousserati & Beddiar, 2021).

6.2 Measures Related to Employment

In terms of social security contributions, the ministry allowed employing bodies to pay at the level of all agencies throughout the country under the responsibility of la Caisse Nationale des Assurances Sociales des Travailleurs Salariés (CNAS). The government encouraged the use of tele-declaration services in addition to automatically extending the validity of the social security for adherents. Furthermore, the workforce of both the public sector and the private sector had been reduced to 50% of the staff (CMS, 2020).

6.3 Measures to Stimulate Economic Growth

To soften the impact of Covid-19 on the Algerian economy, the Bank of Algeria implemented some measures which include(CMS, 2020):

• Reducing the minimum threshold of the liquidity ratio from 100 percent to 60 percent.

- Banks and financial institutions are not obliged to build up a security cushion which was set at 2.5 percent.
- The required reserve ration was reduced from 10 percent to 8 percent.

20

- Banks and financial institutions are required to examine each customer on an individual level. Moreover, they are required to take the needed measures concerning:
 - Rescheduling or renewal of maturities of credits arriving on or after 31 March 2020.
 - As of March 31, 2020, unprocessed receivables are to be consolidated.
 - Allowing extension of deadline for deferrals of payment or appropriations.

7. Conclusion

The main idea of this paper was to analyze the impact of the Coronavirus disease outbreak on economic growth. The focus being on oil-dependent countries in general and Algeria in particular. Economies from all around the world braced themselves to face of an unprecedented shock. The containment measures to fend off the spread of the infectious disease have had a heavy toll on the levels of economic as governments imposed confinement, banned travel, and cut all trade networks with each other. In the beginning of the outbreak, analysts and research facilities had to adjust their prevision of future economic growth with a new factor involved, COVID-19. The later proved to have detrimental effect on the trend of economic growth that declined prominently compared to previous years outcomes. Furthermore, the energy sector, and oil market especially, suffered significant losses as well, as the oil demand trend witnessed a steep decline, which affected the oil prices in consequence.

The paper tackled the effect the pandemic outbreak had on the Algerian economy as this country suffers the costs of being dependent on oil. This factor, what researchers call the resource or oil curse makes the government highly unprepared in face to turmoil be it social uprising, oil prices crashing or the spread of a pandemic. Evidently, the study concludes that although implemented containment measures and the measures employed against the pandemic outbreak have helped stimulating the economy however; the exogenous effects of the pandemic such as low oil prices has had a heavy toll on the public finances and the economy overall. Hence, in the final analysis, it is clear that a resource-rich country is not necessarily a strong economy. Fluctuations of oil markets makes the Algerian economic growth bound to oil prices and the uncertainty involved. The outbreak of COVID-19 showed the vulnerability of the Algerian economic framework and the extent to which the government should seek out remedies to the resource curse. Furthermore, the study would recommend that the government should encourage with the set-up plan for diversification as it promotes the revival of non-hydrocarbon sectors in addition to public and foreign investment to attract flow of capital.

6. Bibliography List

Abdelkader Djeflat & Bengt Åke Lundvall (2016) The resource curse and the limited

transformative capacity of natural resource-based economies in Africa: evidence from the oil

and gas sector in Algeria and implications for innovation policy, Innovation and

Development, 6:1, pp. 67-85, DOI: <u>10.1080/2157930X.2015.1121564</u>

Agriculture, forestry, and fishing, value added (current US\$)—Algeria / Data. (n.d.). Retrieved

January 11, 2022, from

https://data.worldbank.org/indicator/NV.AGR.TOTL.CD?end=2020&locations=DZ&start

<u>=2014</u>

Akacem, Mohammed and Cachanosky, Nicolas, The Myth of the Resource Curse: A Case Study for Algeria (May 15, 2016). 2017. Journal of Private Enterprise, Vol. 32, No. 2, pp. 1-15, <u>http://dx.doi.org/10.2139/ssrn.2633793</u>

Algeria Economic Monitor — Fall 2020: Navigating the COVID-19 Pandemic, Engaging

Structural Reforms. (n.d.). World Bank. Retrieved January 11, 2022, from

https://www.worldbank.org/en/country/algeria/publication/algeria-economic-monitor---

fall-2020-navigating-the-covid-19-pandemic-engaging-structural-reforms

Algeria-GDP distribution across economic sectors 2020. (n.d.). Statista. Retrieved January 11,

2022, from https://www.statista.com/statistics/408037/algeria-gdp-distribution-across-

economic-sectors/

Algeria's Economic Outlook — April 2020. (2020). Retrieved 12 August 2020, from https://www.worldbank.org/en/country/algeria/publication/economic-update-april-2020

Algeria Foreign Exchange Reserves | 2013-2020 Data | 2021-2022 Forecast | Historical. (2020). Retrieved 11 August 2020, from <u>https://tradingeconomics.com/algeria/foreign-exchange-</u>reserves

Algeria GDP DATA. (2020). Retrieved 8 August 2020, from <u>https://tradingeconomics.com/algeria/gdp#:~:text=GDP%20in%20Algeria%20is%20expected,</u> <u>according%20to%20our%20econometric%20models.</u> Anissa Benramdane (2017) Oil price volatility and economic growth in Algeria, Energy Sources, Part B: Economics, Planning, and Policy, 12:4, 338-

.....

343, DOI: <u>10.1080/15567249.2015.1128015</u>

development and the oil curse: Evidence from Algeria. Published in: Topics in Middle Eastern and African Economies , Vol. Vol. 1, No. Issue No. 1, May 2016 (May 2016): pp. 112-125.
Benihhi, A. S., & Bouriche, L. (2020). ASSESSMENT OF THE IMPACT OF COVID-19

PANDEMIC ON THE ALGERIAN ECONOMY: THE IMPORTANCE OF THE

INFORMAL ECONOMY. 36, 23.

Bensalem, K. (2021). Impact de la pandémie de la COVID-19 sur le marché de travail en Algérie. 361–345 (1)، مجلة قانون العمل و التشغيل. 6(1).

Bildirici, M., Guler Bayazit, N., & Ucan, Y. (2020). Analyzing Crude Oil Prices under the Impact of COVID-19 by Using LSTARGARCHLSTM. *Energies*, 13(11), 2980. https://doi.org/10.3390/en13112980

Bourghelle, D., Jawadi, F., & Rozin, P. (2021). Oil price volatility in the context of Covid-19.

International Economics, 167, 39–49. https://doi.org/10.1016/j.inteco.2021.05.001

Covid-19 tax relief in Algeria—Law and regulation / CMS. (n.d.). Retrieved January 11, 2022, from https://cms.law/en/int/expert-guides/cms-expert-guide-to-covid-19-tax-relief-measures/Algeria

Elias Elhannani, Farah and Boussalem, Abou Bakr and Benbouziane, Mohamed (2016): *Financial*

- French, M. (2020). Today in Energy: Crude oil prices were generally lower in 2019 than in 2018.Retrieved 30 August 2020, from https://www.eia.gov/todayinenergy/detail.php?id=42415
- Gadi, O., & Debeche, I. (2021). Impact de la crise sanitaire Covid-19 sur le marché pétrolier: Cas de l'Algérie. *Revue droit international et développement*, 9(1), 410–426.

GDP growth (annual %)—Algeria / Data. (n.d.). Retrieved January 11, 2022, from

https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2020&locations=DZ& start=2014

Households and NPISHs Final consumption expenditure (annual % growth)—Algeria / Data.

(n.d.). Retrieved January 11, 2022, from

https://data.worldbank.org/indicator/NE.CON.PRVT.KD.ZG?locations=DZ

Sidi Mohammed Chekouri, Abderrahim Chibi & Mohamed Benbouziane(2017) Algeria and the natural resource curse: oil abundance and economic growth, Middle EastDevelopment Journal, 9:2, pp. 233-255, DOI: 10.1080/17938120.2017.1366772To

- IEA (2020), *Oil Information: Overview*, IEA, Paris. Retrieved 11 September 2020, from https://www.iea.org/reports/oil-information-overview
- Impact of The Coronavirus (COVID 19) On The African Economy. (2020). Retrieved 11 September 2020, from <u>https://icsb.org/covid19ontheafricaneconomy/</u>
- International Monetary Fund, Global price of Brent Crude [POILBREUSDM], retrieved on 01 September 2020 from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/POILBREUSDM
- Kingsly, Kelly & Kouam, Henri. (2020). COVID-19 and Oil Prices. SSRN Electronic Journal. 10.2139/ssrn.3555880.
- Leow, I. (ECO). (n.d.). Algeria Economic Update. 3.
- Madhav N, Oppenheim B, Gallivan M, et al. Pandemics: Risks, Impacts, and Mitigation. In: Jamison DT, Gelband H, Horton S, et al., editors. Disease Control Priorities: Improving Health and Reducing Poverty. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 27. Chapter 17. Available from:

Monthly Oil Market Report August 2020. (2020). Retrieved 09 September 2020, from

https://momr.opec.org/pdf-

download/res/pdf_delivery_momr.php?secToken2=12e0cf5af00746a254b9cb878a2504306e6e
aa85

السنة الأولى من عهدة الرئيس تبون: الفلاحة حجر الأساس لبرنامج التجديد الاقتصادي . (n.d.). السنة الأولى من عهدة الرئيس تبون: الفلاحة حجر الأساس لبرنامج التجديد الاقتصادي .

Retrieved January 11, 2022, from https://www.aps.dz/ar/videos/economie/98636-2020-12-24-14-25-46

- Mousserati, A., & Beddiar, A. (2021). The impact of the crisis of covid 19 on the Algerian economy (impact based on the nature and characteristics of the Algerian economy). 17, 16.
- Mzoughi, H., Urom, C., Uddin, G. S., & Guesmi, K. (2020). The Effects of COVID-19 Pandemic on Oil Prices, CO2 Emissions and the Stock Market: Evidence from a VAR Model. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3587906
- OPEC : Monthly Oil Market Report June 2020: Appendix Tables. (2020). Retrieved 3 July 2020, from <u>https://www.opec.org/opec_web/en/publications/5844.htm</u>
- Tan, Y.-L., hee, yiew thian, & Habibullah, M. S. (2020). Oil Price and Covid-19: Pandemic Vs Epidemic [Preprint]. In Review. https://doi.org/10.21203/rs.3.rs-122616/v1

Unemployment, total (% of total labor force) (modeled ILO estimate)—Algeria / Data. (n.d.).

Retrieved January 11, 2022, from

https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?end=2020&locations=DZ&start=

- Raga, S. (2020). Economic vulnerabilities to the coronavirus: top countries at risk. Retrieved 12 September 2020, from <u>https://www.odi.org/blogs/16639-economic-vulnerabilities-coronavirus-top-countries-risk</u>
- Ravelo, J., & Jerving, S. (2020). COVID-19 a timeline of the coronavirus outbreak. Retrieved 13 September 2020, from <u>https://www.devex.com/news/covid-19-a-timeline-of-the-coronavirus-outbreak-96396</u>

- Sands, Peter & Mundaca-Shah, Carmen & Dzau, Victor. (2016). The Neglected Dimension of Global Security - A Framework for Countering Infectious-Disease Crises. The New England journal of medicine. 374. 10.1056/NEJMsr1600236.
- Sidi Mohammed, Chekouri; Mohamed, Benbouziane; and Abderrahim, Chibi, "Oil rents and institutional quality: empirical evidence from Algeria". *Topics in Middle Eastern and North African Economies*, electronic journal, 19, 2, Middle East Economic Association and Loyola University Chicago, 2017, <u>http://www.luc.edu/orgs/meea/</u>
- U.S. Energy Information Administration, Crude Oil Prices: West Texas Intermediate (WTI) -Cushing, Oklahoma [DCOILWTICO], retrieved on 01 September 2020 from FRED, Federal Reserve Bank of St. Louis; <u>https://fred.stlouisfed.org/series/DCOILWTICO</u>
- WHO Coronavirus Disease (COVID-19) Dashboard. (2020). Retrieved 2 September 2020, from https://covid19.who.int/
- World Economic Forum, Risks to Global Businesses from New Era of Epidemics Rival Climate Change. (2020). Retrieved 11 September 2020, from

https://www.weforum.org/press/2019/01/risks-to-global-businesses-from-new-era-of-epidemicsrival-climate-change/

Wheeler, C. M., Baffes, J., Kabundi, A., Kindberg-Hanlon, G., Nagle, P. S., & Ohnsorge, F. (2020). Adding Fuel to the Fire: Cheap Oil during the COVID-19 Pandemic. The World Bank. https://doi.org/10.1596/1813-9450-9320

Yu, Y., Guo, S., & Chang, X. (2022). Oil prices volatility and economic performance during COVID-19 and financial crises of 2007–2008. *Resources Policy*, 75, 102531.

https://doi.org/10.1016/j.resourpol.2021.102531