

## The effect of the COVID-19 pandemic on the Algerian share of oil products exports market

تأثير جائحة كورونا على حصة الجزائر من سوق صادرات المنتجات النفطية

Dr.Guelmine Mohame Hichem<sup>1\*</sup>

Dr.Benmakrelouf Khaled<sup>2</sup>

1- University of Mouloud Mammeri - Tizi-Ouzou, Algeria; Mohamedhichem2013@yahoo.fr

2- CREAD, Algeria; K.benmakrelouf@cread.dz

Received on: 2020/10/27

Accepted on 2022/01/10

### Abstract:

Our descriptive study entitled the effect of the COVID-19 pandemic on the Algerian share of oil products exports market, aims to study the impact of the pandemic on oil revenues and the market share of Algeria, with a focus on risk management for Algeria's petroleum portfolio, which is made up of four products: crude, liquefied petroleum, refined petroleum, and the Condensates.

The results of the study show that Algeria's oil crisis does not only lie on the crises affecting the prices of the four products, but rather lies on the fierce competition that prompted Algeria to lose a large part of its market shares during the period from 2010 to 2014 with 28.68% of its crude market, 34.24% of During the period from 2010 to 2018, in favor of competitors with high-quality contracts in terms of pricing, product quality and the opportunities of investment in the hydrocarbon sector for the IOC, such as Iraq, Kazakhstan, Azerbaijan.

This is the same market value that Algeria lost during the pandemic period by 27.43%, and 52.7% of its crude oil revenues, which makes us confirm that there's a quality crisis for our crude contracts.

**Key words:** COVID-19 pandemic - crude oil - risk management of the petroleum portfolio. Code JEL : F13 - G11 - K32 - L23 - O13.

### المخلص:

تهدف دراستنا الوصفية والمعنونة بأثر أزمة جائحة الكورونا على الحصة الجزائر السوقية للتصدير المنتجات النفطية، إلى دراسة أثر أزمة الجائحة على مداخيل النفط والحصة السوقية للجزائر،

\* Auteur correspondant : Guelmine Mohame Hichem

مع التركيز على تسيير المخاطر للمحفظة البترولية للجزائر المكونة من أربع منتجات أساسية وهي الخام، والبتترول المميع، البترول المكرر، والكوندونسا.

نتائج الدراسة تبين أن أزمة الجزائر النفطية لا تكمن فقط في الأزمات المؤثرة على أسعار المنتجات الأربعة، وإنما تكمن في المنافسة الشرسة التي دفعت الجزائر إلى فقدانها جزءا كبيرا من حصصها السوقية خلال المرحلة من 2010 إلى 2014 بـ 28.68% من سوقها للخام، و 34.24% من خلال الفترة من 2010 إلى 2018، لصالح منافسين بعقود ذات جودة عالية من حيث التسعير ونوعية المنتج وإمكانية الاستثمار في قطاع المحروقات للشركات الأجنبية، مثل العراق، كازاخستان، أذربيجان.

هذه هي نفس القيمة السوقية التي خسرتها الجزائر خلال فترة الجائحة بـ 27.43%، و 52.7% لعائداتها من النفط الخام، وهو ما يجعلنا نؤكد أن هناك أزمة جودة لعقودنا للخام.

الكلمات المفتاحية: حائجة كورونا - النفط الخام - تسيير مخاطر المحفظة البترولية. ترميز الجال: F13  
- 611 - K32 - L23 - 013

## Introduction:

Since the spread of the COVID-19 pandemic, the crude oil prices had been hit and reach a new low level worse than effect of the hydrocarbons prices crisis of 2014, hitting the demand and pushing for an oversupply of 8.92 million b/d in the second quarter of 2020 according to OPEC.

Algeria after suffering from the oil prices crisis of 2014 for several year, reducing it resources especially the foreign currency exchange reserve with 69.21%, have to face the ramification of the widespread of the virus and its effect on its hydrocarbons exports.

But the observers of the oil market argues that Algeria lost it shares of its oil product exports wide before the start of the pandemic or the 2014 crisis, and that the OPEC+ declaration of cooperation D.O.C°, which is an agreement by major oil producer to cut 9.7 million b/d from their oil production, on its first phase, than 7.7 million and 5.8 million on its second and third phase, and that's due it lack and poor quality of its contract.

In this paper we try to measure the effect of the pandemic on it oil revenues and compared with loses in the last decades due to the competitions with other major oil producers.

And that's the problematic of our research : **what is the effect of the pandemic on Algeria share of oil exports ?**

To respond to this question we will suggest two hypotheses:

1. Algeria share of oil exports decreased due to poor quality of its contract compared to its major competitors.
2. The D.O.C had a positive effect on the Algerian share of oil exports.

### **1. The evolution of the Algerian oil exports in the last decade :**

According to the Algerian central bank, Algeria lost a huge part of it share of market in a period where the oil prices cover the losses of market, and the C.B clear it on its every quarterly report

**Table 01: the decease of the Algeria oil export in the last decade**

**Unit: Barrel/Day**

The financial year	Crude oil export	Condensates Exports	Refined oil exports	LPG exports	Total oil product exports
2010	708.767	148.767	305.753	176.164	1.339.451
2011	697.534	145.479	292.329	179.178	1314.520
2012	684.153	124.590	266.667	163.388	1.238.798
2013	611.232	132.603	277.808	159.178	1.180.821
2014	505.479	117.534	361.644	215.312	1.200.000
2015	532.329	121.096	352.877	225.205	1.231.507
2016	541.257	127.322	343.716	216.940	1.229.235
2017	529.863	102.739	337.534	206.301	1.176.437
2018	466.027	105.479	309.315	196.986	1.077.807

Source: The central bank (2019), the 48th trimestrial report of the Algeria central bank of 2019, P

27.

If we analyze the development of our oil export share we witness that in the last decade Algeria lost a huge part of it exports. The crude oil was the most affected with

the decrease of 34.24%, but weirdly we witness that Algerian crude oil share was mostly affected in the period before the crisis of the hydrocarbons prices in mid-2014, because in the period from the 2010 to 2014 our crude oil export dropped by 28.68%, and in the period of the crisis our crude drop only by 7.8%.

It was the same situation for the oil condensates with a total drop from 2010 until 2018 with 29.1%, most of the lost was in the period pre-oil prices crisis, because in the period from 2010 to 2014 the volume dropped with 21%, and in the period after that until 2018, the condensates volume exported fall with 10.25%.

And that is a prove that crude oil and its condensates losses wasn't due to the crisis that hit the oil market in the last decade that push the oil producer countries to cut it production and decrease it export, but its due to losses of a several market facing fierce competition especially from Iraq and Kazakhstan and Azerbaijan in the European market.

The positive side was the export of refined oil products and liquefied petroleum gas, both categories experienced an increase in their exported volume, especially in the period post-oil prices crisis, because before 2014, the refined oil exported volume decrease with 9.14%, but in the period post the crisis it volume increase with 16.91%, some with the LPG who dropped with 9.64% before the crisis and increase with 23.75% after the crisis, meaning that the hydrocarbons prices crisis of 2014 had positively affected these two categories.

**Table 02: Algeria oil revenue Unit: Million Dollar**

The financial year	Oil crude exportation revenues	Condensates + refined oil + LPG	Percentage of crude oil in Algeria oil export
2010	20.729,9	17.571,1	54.11%
2011	28.744,8	22.670,5	55.9%
2012	27.750,4	20.518,5	57.49%
2013	24.326,5	20.134,5	54.71%
2014	18.343,5	22.285,3	45.15%
2015	10.037	11.714	46.14%
2016	8.876	9.774,4	47.6%
2017	10.459	11.895	46.79%
2018	12.117	13.969	46.45%
2019 (3 quarters )	8.190,6	8.694,9	48.51%

Source: The central bank (2019), the 46th trimestrial report of the Algeria central bank, P 27.

In the last decade we witness a drop in the share of the crude oil export to the total revenues from all oil product export, dropped with 14.15%, and this is due to the fall of the crude oil crisis, but before the 2014 crisis, the crude oil exports were able to maintain it statue as the major sources of revenue compared to other oil product due to the high prices of the crude oil at that period, raised from an average 80.2 dollar/b in 2010 to 112.9 dollar/b dollar in 2011, than faced a slow drop in 2014 with an average of 100.2 dollar/b.

But after the oil prices crisis in mid-2014, crude oil revenues drastically dropped from a level of 54.71% of the total revenues of the exported oil, to a level of 46.45% and because the oil prices have drastically dropped from an average 100.2 dollar/b at the beginning of the crisis to a level of 45 dollar (bank, 2019) ( for Saharan blend average price in 2016 ), than know a rise in 2018 and 2019 with an average prices of 71.3 and 66 dollar respectively, and that explain the slow rise of the share of the crude oil revenues from the total oil export revenues in 2019 with 48.51%, but not in 2018 even the prices level grow with 58.44%, but our share of the oil prices at the same year decrease with 12.04%.

**Table 03: The development of oil product export revenues of Algeria in the last decade**

The financial year	Crude oil	Condensates	Refined oil	LPG
2010	54.11%	11.14%	24.07%	10.67%
2011	55.9%	10.68%	23.28%	10.12%
2012	57.49%	9.73%	22.88%	9.89%
2013	54.71%	10.88%	24.53%	9.87%
2014	45.15%	9.56%	32.47%	12.81%
2015	46.14%	10.28%	31.21%	12.35%
2016	47.6%	10.66%	29.83%	11.91%
2017	46.79%	8.72%	31.16%	13.31%
2018	46.45%	9.68%	30.82%	13.03%
2019	48.51%	9.75%	30.68%	11.05%

Source: The central bank (2019), the 46th trimestrial report of the Algeria central bank, P 27.

If we analyze the other oil product exported, we witness a stability in two categories (LPG and Condensates) with a slow drop in the condensates revenues, in the period pre-2014 crisis with a drop of 2.33%, than a drop of 10.38% in the post crisis period.

Same with the LPG, this later knew a slow drop in the pre-2014 crisis with 7.49%, than an increase in the year of the crisis with a growth of 29.78%, and after than the LPG faced a decrease on it share on the national oil export with 13.73% until 2019.

But the exception was the refined oil, this category in the pre-2014 crisis know a stability on it share in the oil export, but after the crisis the refined oil know an increase with 32.36% on it share on the oil export revenues, jumping from 24.53% in 2013 to 32.47% in 2014, and succeeded to maintain it share at a level of 30% in the years of the oil prices crisis.

After the hydrocarbons prices crisis in 2014, we witness a significant drop, especially in the period from 2014 to 2016, with a drop in the prices of the LPG with

57.7% than refined oil product with 55.8% than crude oil with 55.09%, and finally the condensates with 52.92%.

But in general in the post 2014 crisis the prices had significantly been reduced by the rise of the supply especially from the American shale industry, rising the American oil production from a level of 5.45 million B/d in 2010 to a level of 8.74 million B/d in June 2014, than a peak in November 2019 with an average of 12.86 million B/d, pushing the world supply 4.095 million tons in 2010 to 4.346 million tons in 2014, to a peak of 4609 million tons in 2019 ( a rise of 12.55% in the world supply), according to the international energy agency most of the rise came from the OECD countries with a rise of 48.75%, while OPEC members saw their production rises with only 0.84%. (agency, 2020)

If we analyze the effect of the 2014 crisis on the prices of our oil product export we witness a significant drop, especially the LPG, who is the most affected with a negative 46.22%, in the period from 2014 to 2019, than the condensates with a drop of 38.8%, than the refined oil with a drop of 37.8%, and finally the crude oil with 35.62%.

From our analysis we observe that the drop in our oil revenues are not only due to the corona-pandemic, true that this later had a significant effect on the national hydrocarbons revenues, but there is also another factors that led to the decrease of our exports, facing a severe competitions from competitors who had a better product in terms of quality and pricing ( especially from Iraq in the oil market and Qatar in the gas market ), and after 2014 Algeria had to submit to a several product cut especially since the establishment of the OPEC+ initiative in November 2016, to balance the oil prices, this later affected by the US shale industry, and since 2014 Algeria had to face a new competitors (the united states and Norway), who had the

ability to take over a significant part of the Algerian share especially in the European market.

In general before the pandemic, Algeria lost 34.24% of its share of the crude oil, 29.1% of its condensates and gained 1.16% in the refined oil products, and 11.82% in its share of the LPG export, and for the national revenues, the revenues from the oil export reduced with 35.78% during the 2014 crisis, and crude oil with 33.94%.

## **2. The effect of the COVID-19 pandemic on the Algerian hydrocarbons revenues:**

Since the beginning of the oil crash in mid-2014, the Algerian national treasury had extremely been affected by the crisis, well before the start of the pandemic, the national treasury suffered to fulfil its liabilities, and even the sovereign funds on which the treasury relied on to balance its deficit, most of them run-out of their resources, in the image of the resources regulation fund (FRR in French), whose resources decreased from 58.5 billion dollars in 2014, to 2.36 billion dollars in late 2019.

The problem with oil and its condensates falling revenues is not only the effect of the prices, but also the effect of the decrease of the Algerian share in the oil exportations market, from 2007 until July 2020, the size of the oil exported by Algeria dropped by 79.02%, from 1.253.500 B/d exported to 263.000 B/d in July 2020, this will negatively affect the national resources, especially the oil export represents from 65% to 67% of the total hydrocarbons export from 2015 to 2018 (except 2019 in which oil export represents only 52.11% of the total hydrocarbons revenues).

The fall of the hydrocarbons prices since 2014, affected also Algeria's biggest resources, which is the exchange reserve, which fell from 201.4 billion dollars in late 2014 to 62 billion in February 2020 (before the crash of the hydrocarbons prices affected by the COVID-19 pandemic).

But after the widespread of the COVID-19 pandemic, especially when the government worldwide opted for a national lockdown, and cutting the transportations (nationally and overseas), the oil market enter in a historic crisis, decreasing the future contract prices from a level of 70 dollar/b in January 2020 (for Saharan blend) to a low of 11.28 dollar/b in April 2020, and even after the sign of the declaration of cooperation, ending the oil prices war between Saudi Arabia and Russia, and agreeing on 3 faces of production cut from May 2020 until April 2022, and the level of compliances of 102% of the OPEC+ members, the prices didn't reach the required level and stagnated at the level of 40 dollar/b, which is under the aspirations of the oil producer (especially the shale producer), and that will put the agreement in a danger of a second price war between Saudi Arabia and Russia.

### **The effect of the declaration of cooperation on the Algerian share of oil export:**

In 12 April 2020 the OPEC+ agreed on a declaration of cooperation in which they will have to cut 9.7 million B/d of their production in period from May to 30 June 2020 (extended to late July), and 7.7 million B/d in the period from August until December 2020, than 5.8 million B/d in the period from January 2020 until 30 April 2020.

The first phase, marked by additional cut from Saudi Arabia with 1 million B/d, UAE with 100t B/d, Kuwait with 80t B/d, and Oman from 10 to 15t B/d in June 2020, as an initiative to support the oil prices, making an compliance level with 107%, (but without the additional cutting the compliance level in June 2020 was only 95%, because of countries like Iraq that produced additional 520t B/d from it adjusted share, and also countries like Kazakhstan, Angola and Nigeria that produced 180t B/d, 130t B/d, 120t B/d respectively). (OPEC, 2020)

The Algerian share of production and export had been strongly affected with the implementation of the agreement:

**Table 04: The Algerian share of production and export in 2020: Unit: Barrel/Day**

Month/2020	The Algerian oil production	The Algerian oil exported
January 2020	1.011.000	491.000
February 2020	1.009.000	418.000
March 2020	1.033.000	395.000
April 2020	1.004.000	434.000
May 2020	812.000	377.000
June 2020	807.000	330.000
July 2020	809.000	263.000
August 2020	859.000	267.000

Source: Knoema enterprise data solution, Algeria exports of crude oil including lease condensates in 2020, online: [www.knoema.com/atlas/Algeria/topics/Energy/0il/Exports-of-crude-oil](http://www.knoema.com/atlas/Algeria/topics/Energy/0il/Exports-of-crude-oil), (visit the: 25/10/2020).

Since the implementation of the D.O.C in May 2020, the Algerian oil export from 377.000 in May to 263.000 B/d in July lost 23.21% of its oil share, meaning that the implementation of the D.O.C had more negative effect than the pandemic, but the implementation of the D.O.C had a positive effect of it revenues raising the prices with 82.9% (for the Algerian Saharan blend).

If we compare the Algerian share of export with the first four month before the signing of the D.O.C, of this year to the share of last year we witness a drop with 14.63%, aggravated with a drop of the Algerian Saharan blend prices with 70.93% (from January to April 2020), and after the signing of the D.O.C we witness a drop of 32.35% on its export share, in the first phase of the D.O.C (from May to late July).

**Table 05: The Algerian share of production and export in 2019**

Month/2019	The Algerian oil production	The Algerian oil export
January 2019	1.033.000	349.000
February 2019	1.025.000	792.000
March 2019	1.023.000	445.000
April 2019	1.027.000	450.000
May 2019	1.027.000	424.000
June 2019	1.033.000	410.000
July 2019	1.020.600	600.000
August 2019	1.023.600	630.000

Source: Knoema enterprise data solution, Algeria exports of crude oil including lease condensates in 2020, online: [www.knoema.com/atlas/Algeria/topics/Energy/Oil/Exports-of-crude-oil](http://www.knoema.com/atlas/Algeria/topics/Energy/Oil/Exports-of-crude-oil), (visit the: 25/10/2020).

According to SONATRACH, the company lost around 10 billion dollar during this pandemic, but this declaration can't reflect the exact effect of the pandemic on the national hydrocarbons companies, because this decrease is about it revenues from January to late September compared to last year results (41% decrease), but it not all due to the pandemic crisis or the fall of the oil prices, because in the past years we witness a drop in the Algerian exports shares of it hydrocarbons products (due to the competitions), and a fall of it prices due to supply effect since mid-2014.

Not only in the oil market but also in the natural gas and the LNG market, where we lost our leads in several south European market like Spain, where we was once there main gas exporters with 58% share in 2015, dropped to 21.35% in June 2020 forced by fierce competition with American and the Russian LNG, and Qatar, this later become the biggest exporter of gas to Spain a month after, and it is the same situation with the Italian market, in which in one year (from 2018 to 2019) Algeria lost 26.5% of it share from 18 billion M cube to 13.4 billion M cube, due to the competition from Norway (gain 3 billion M cube from the Algerian share), and USA (gain 1.6 billion),

Libya (0.5 billion), and Trinidad and Tobago (1.4 billion). (حويشة، تراجع مخيف لصادرات الغاز إلى إيطاليا في 2019، 2020)

In general, and in a report made by the French national committee about the European union energy security, Algeria lost 53.2% of its European crude oil export from 2006 to 2016 (in 2006 Algeria secure 6.2% of the European import, and after 10 years its shares reduced to 2.9%), because of a fierce competition from Iraq, this later rise it share with 186.2% (securing 8% of the European crude oil import), and Kazakhstan (realizing 47.8% growth, securing 6.8% of Europe crude oil import), and Azerbaijan and Nigeria and Iran, which respectively saw their share grow with 104%, 58%, 12%. (حويشة، هذا ما ضيعته الجزائر بسبب "قانون محروقات بوتقلقة" في 10 سنوات، 2020)

### **3. The effect of the corona-virus pandemic on the Algerian economy in 2020 :**

According to the minister of energy, until September 2020 our revenues decrease with 41.83% compared to last year result, from 25.1 billion dollar in the first three quarter of 2014 to 14.6 billion dollar this year, that will affect our balance of payments realizing a deficit of 12.6 billion dollar this year, reducing our exchange reserve (our most important financial resources to finance the needs and imports) from 62 billion in January to 53.5 billion dollars in August, expected to fall to 46.8 billion dollar at the end of 2021, which represent 16.3 month of imports.

This year austerity in the hydrocarbons resources led to a decrease in our GDP with 4.6%, pushing our government to issue a several measure of austerities by rising taxes on the hydrocarbons product consumption, and on the vehicles imports, and establish a tax on the wealth (for those who had asset that surpass 100 million DA).

#### **3.1. The effect of the pandemic on the government budget:**

If we measure the effect of this crisis on the government budget we witness a reduction of the petroleum taxation from a level of 2.200,3 billion DA in the 2020 budget to 1394,7 billion DA in 2020 complementary budget with a drop of 36.61% (الجزائرية، 2020؛ الجزائرية، 2020), and with a stability in the other revenues, and even in the 2021 budget the petroleum taxation was expected to reach 1919.2 billion DA, which represent a rise with of 27.33%, and is the good effect of the declaration of cooperation that push the oil prices to a level (up 40 dollar/b), which permit to our government to plan a petroleum taxation at the base of 40 dollar/b, where in the complementary 2020 budget the government plan the petroleum taxation at the base of 30 dollars/b.

But the effect of the lockdown implemented by the government to contain the spread of the pandemic, we will have to face it with a huge drop in the total normal taxation (revenues outside the hydrocarbons sector), with a drop of 14.8% from 4001.3 billion DA this year to 3408.95 billion DA expected in the 2021 budget.

A 2021 revenues are not able to fulfil all the national liabilities expected to be at the amount of 8113.03 billion DA (5314.51 billion DA for the function budget and 2798.52 billion DA to the equipment budget), this imbalance will rise the treasury deficit to 3614.42 billion DA which represent 17.6% of the GDP (with a rise of 659.54 billion DA compared to last year deficit), and that push our government to choose the devaluation of the national currency vis-a-vis the US dollar to reduce it treasury deficit, by devaluating the dinars from a level of 1 dollar = 128 DA to 1 dollar = 142.2 DA in 2021, than to a level of 1 dollar = 149.31 DA in 2022, and finally to a level of 1 dollar = 156.78 DA (this technique could be a solution to reduce the treasury deficit, but in the end it is the Algerian citizen who will take the burden of this devaluation (by paying the difference in the prices of the imported goods and services).

### 3.2. The effect of the pandemic on the trade balance:

According to the Algerian customs service, Algeria exports of 2019 are accounted by 35.82 billion dollar, 33.24 billions of them from hydrocarbons products, meaning that 92.8% of our revenues are from the exploitation of the national resources, and in its first 3 quarter (75% of the year) the oil export represent 68.6% of it, meaning that from January to September 2019, oil export gained 16.88 billion dollar.

According to the minister of energy Abdelmadjid Attar, Algeria project to collect 23.5 billion dollars from it hydrocarbons export with a drop of 29.3% compared to last year result.

We will analyze the effect of the pandemic on the Algerian hydrocarbons exports, by dividing the 2020 year into 2 periods, the first we will measure it effect of the first trimester, at the beginning of the global crisis and the war prices between Saudi Arabia and Russia, than we will measure the effect of the whole year, and try to measure the positive effect of the declaration of cooperation signed in 12 April 2020.

In the first period we witness a drop in the oil prices, not just because of the fall of the hydrocarbons product demand, but it also due to the start of the oil prices war between Saudi Arabia and Russia, after this later refuse to cut it production and extend the OPEC+ agreement of September 2016, by continue in the 2.1 M B/d cut, and rise it to a level of 3.6 M b/d production to face the surplus in the oil market.

In the 6th March Russia withdraw totally from the OPEC+ agreement, pushing Saudi Arabia by March 8th the offer discount from 6 to 8 dollars for the barrel to its clients in Europe, Asia and the united states, and announcing that the kingdom have a plans to increase its oil production from 9.7 M b/d to 12.3 million m b/d, this

caused the oil prices to dramatically fall, with the Brent reach a 17 year low on March 18 with 24.72 dollars/b, and the WTI with 20.48 dollars/d.

And like we said before according to OPEC in the first quarter, the market witness a surplus with an average 2.75 million b/d, this surplus raised to an average 14.4 M b/d in the second quarter (Countries, 2020).

The impact of oil prices on Algeria was significant, the Saharan blend fall from 35.97 dollar/d on it future contract to 22.52 dollar/ d in April the 11th (a day before the signing of the D.O.C) a fall with 37.39%, worse than the Brent (31.74 dollars/d) and the WTI (22.76 dollars /d).

The national costumes service announce the result of the first quarter, where we witness the deep effect of the oil prices war, where our exports fall from a level of 10.141,55 million dollars in the first quarter of 2019 to 7.617,09 million dollars with a drop of 24.89%, the hydrocarbons export were the most affected with a fall from a level of 9.483,51 million dollar in 2019 to a level of 7.038,39 million dollar in 2020 with a drop of 25.78%, and that is logical because last year the hydrocarbons export represent 93.51% of the total export in 2019 in this year it degraded to a level of 92.4%.

This decrease in our export come from our major clients (especially in the European Union) who were in this period the most affected from the pandemic and also we must indicate that in march the major economies in the world start to issue from a travel restrictions to a total travel ban as a measure to contain the pandemic which represent a major hit to the hydrocarbons products consumptions (especially in March the 12th when the united states enacted a travel restrictions to 26 European countries), the travel restrictions between the nations caused a major fall in fuel consumption from a level of 96 billion gallons in 2019 to 60 billion gallons in 2020, which represent a flop of 37.5%, especially that the travel restrictions led to a fall in

the average flights from 70.000 flight per day in Januarys and February in 2020 to 25.000 flight per day in April, and if we measure this effect on the oil demand we observe that air –travel restrictions alone reduced the consumption from 4.3 million b/d in the first two months to 1 million b/d in April, most of the decline occur from March to April with a drop of 2.4 million b/d (Barnett, 2020).

If we focus on our major clients, we witness that they are the countries who in this period were the most affected by the pandemic, as we explain it in this table.

**Table 06: The list of the Algerian client in the first quarter of 2020**

Algeria top client	Algeria exports (by million dollars)	Evolution of the exports	Cases of COVID-19 in 31 March	Evolution of COVID-19 cases in March 2020
Italy	1175.9	- 33.04%	105.792	9278,78%
France	1005.35	- 31.22%	51.477	51377%
Turkey	705.03	+ 20.52%	13.531	1353100%
Spain	627.85	- 52.83%	94.417	209715,5%
China	471.27	+ 21.14%	82.631	3,33%
Netherlands	351.61	- 14.55%	12.595	179828%
USA	322.18	- 58.86%	163.199	263124%
Malta	283.47	+ 188161.49%	167	100%
Belgium	271.33	+ 18.73%	12.775	1277400%

Source: the Algerian customs services, statistics of the foreign trade in the first trimester of 2020, Algiers, 2020, P 20.

As we witness from this table that the propagation of the pandemic in March has affected Algeria major clients, especially in the European Union and north America, where we found that our 15 top clients were victims of a high growth rate in their COVID-19 cases, pushing them to plan a severe restrictions measures, that hit their economics activities (especially transportations), which led to a decrease of their hydrocarbons imports from Algeria, and that what led to a reduction in Algeria export from crude oil in March 2020 with 5.5% compared to February 2020, and with 11.23% compared to March 2019.

And for the total first quarter, Algeria lost 17.78% of its share from crude oil and the Saharan blend lost 78.13% of its value (in January the 1st the Saharan blend traded at 67.18 dollar and in April the 1st it traded at 14.69 dollars/d, and in the first two months the Saharan blend lost only 24.27% of its value and in March 2020 lost 71.12%), and from a global view, the result of the first quarter led to a rise of trade balance deficit from 1.192,23 million dollar in 2019 to 1504.67 million dollars with a growth of 26.21%, which is better than the result of the first two months where the deficit rose from 686.51 million dollars in 2019 to 1229,92 million dollars, with a rise of 87,24%, and the reduction in the deficit rate between the two periods is due to the rationalization of the imports, because the imports in the two first two months decreased with 18.07% from 7481 million dollars to 9129,93 million dollars in 2020, and in the first quarter the imports decreased with 19.52% from 11.333,78 million dollars to 9.121,76 million dollars in 2020 (Direction Générale des Douanes, 2020).

And we could assure that the losses in the gas exports in the first two months, were bigger than the third month, for example in the Spanish market Algeria lost 48.31% of its share reducing its exports from 28.508 GWH (1491 LNG) in 2019 to 14.735 GWH (490 LNG) in 2020, and in March Algeria lost only 27.9% (from 6953 GWH in 2019 to 5013 GWH in 2020).

The effect of the declaration of the cooperation on the Algerian oil exports, from May 2020 until 31 July (which is the first phase of the OPEC+ production cuts), we witness a drop in our exports with an average 434.500 B/d in the first 4 months, to 323.334 B/d as an average in the 3 months of the first phase, Algeria knew its lowest level of export in July with 263.000 B/d which represents a drop of 54.98% compared to Algeria average exports in 2019.

And in general our average crude oil export in the first 7 months of this year was 371.875 B/d which represents a 27.43% fall compared to last year average.

But before the declaration of cooperation the average oil prices were very low that led several oil producer to insure oil deliveries with a major losses so they don't lose their market share, especially the IOC, where small companies (especially the shell producer) were forced to announce their bankruptcy.

In the first four month Algeria exports it crude oil from an average 65.01 dollar/b in January to an average 18.22 dollar/b in April (Prices, 2020), and with a small calculation we find that our revenues in the first 4 months were about 2.310,4 million dollar, the level of the prices after the D.O.C raised from a level of 18.22 dollar/b in April to a level of 44,46 dollar/b in August but which a significant loss of shares, calculating the revenues in the 4 months after the D.O.C we witness a decrease in our revenues with 1.378,5 million dollar (a fall with 40.33% in revenues after the D.O.C), and that mean in general the D.O.C couldn't reimburse Algeria it losses from it production cuts, losing 40.33% of its revenues.

**Table 07: Algeria revenues from crude oil in the first 3 quarters 2020**

The 3 quarters of 2020	Algeria crude oil export (B/D)	The average oil prices of the Saharan blend	The total revenues from crude oil exports (by us dollars)
January	491.000	65.01	989.517.210
February	418.000	57.07	691.802.540
March	395.000	32	391.840.000
April	434.000	18.22	237.224.400
May	377.000	29.34	331.835.400
June	330.000	40.2	397.980.000
July	263.000	42.99	350.497.470
August	267.000	44.46	367.995.420
The 3 quarters average	371.875	41.16	3.758.712.440

Source : oil prices, oil prices charts, online: [www.oilprice.com/oil-price-charts](http://www.oilprice.com/oil-price-charts), (visit: 25/10/2020).

We witness also a drop from January until April with 76.02% caused by the reduction of the prices level with 71.97% and the fluctuation in our export shares.

But since the signing of the D.O.C we witness a rise in our revenues from crude oil exports, especially in two first months of the first phase (May and June), with a rise of our revenues wit 67.76%, even with the fall of market share with 18.54%, but witness a rise in the level of Saharan blend prices with 91.04%, compared to April, and due to the reduction of our crude oil market our revenues fall with 47 million dollar in July and 30 million dollar in August, even there is a rise in the prices level with 6.9% in July and 10.59% in August.

If we compared this year crude oil revenues compared to last year we witness a drop with 50.6%, and if we compared crude oil revenues of this year compared to average crude oil export revenues from 2014 to 2019 (the years of the oil prices crisis) we witness a drop of 47.23%.

**Table 08: Crude oil export revenues of 2020 compared to average revenues from 2014 to 2019**

Period	Average crude oil revenues from 2014 to 2019 ( million dollar)	Crude oil revenue in 2020 ( million dollars )	Evolution
First quarter	2413.04	2073.16	- 14.08%
Second quarter	2744.92	967.03	- 64.77%
July	986.95	350.497	- 64.51%
august	978.75	367.995	- 62.40%
Average month	890.45	469.839	- 47.23%

Source: Established by the researchers.

### Conclusion:

The pandemic had a negative effect on the Algerian oil exports shares and revenues, with a loss of 27.43% of its shares of crude oil and 52.7% of its revenues, and even the D.O.C had a positive effect to raise it revenues, but it couldn't reimburse Algeria from it lost of shares this year due to the two first phases of product cuts implemented by the OPEC+, and since the signing of the D.O.C Algeria also lost 32.35% of its share of crude oil exports and 54.79% of its revenues on it first phases, and after 4 months of the implementation of the D.O.C Algeria lost 40.06% of its share

and 45.93% compared to last year result. But we should also indicates that the loss of Algeria oil export share equally worst in the last decade, especially in the period from 2006 to 2016, and most of our revenues from exporting oil and its products is caused by 2014 hydrocarbons crisis.

Algeria in the period of 2010 to 2014 lost 10.41% of its oil products market share, affected most by the reduction of crude oil market share with 28.68%, and in the period from 2006 to 2016 Algeria lost 52.3% of its European oil clients, due to fierce competitions from Iraq, Kazakhstan, Azerbaijan, Nigerian, and Iran.

From 2014 to 2018 Algeria lost another 10.18% of its oil market share, but realizing a growth on it crude oil export share with 15.58%, and that mean that even with the effect of the 2014 crisis Algeria succeed to hold it crude oil market share.

At the end, we must indicate that the effect of competitions with a weak hydrocarbons law and code, resulting in a weak and poor exploitation contract, had more negative effect than the 2014 prices crisis, and equal effect on the corona pandemic crisis.

## References:

- 8- agnecy, t. i. (2020, october 29). *World oil production by region, 1971-2019* . Retrieved from the international energy agnecy : <https://www.iea.org/data-and-statistics/charts/world-oil-production-by-region-1971-2019>
- 9- bank, t. a. (2019). *thecentral bank 48th trimestrial report*. algiers.
- 10- Barnett, J. (2020, 07 07). *COVID-19's impact on commercial jet fuel demand has been significant and uneven*. Retrieved 11 02, 2020, from Energy Information Administration: <https://www.eia.gov>
- 11- CORES. (2020). *spain natural gas imports by Geographic area and Country*. Madrid.
- 12- Countries, O. o. (2020). *OPEC monthly oil market report* . Vienna: Petroleum Studies Department.
- 13- Direction Générale des Douanes, D. d. (2020). *STATISTIQUES DU COMMERCE EXTERIEURE, Période : Premier trimestre de l'année 2020*. alger: Direction des Etudes et de la Prospective.
- 14- OPEC. (2020, 10 25). *The 11th OPEC and non-OPEC Ministerial Meeting* . Retrieved from OPEC: [www.opec.org/opec\\_web/en/press\\_room/5966.htm](http://www.opec.org/opec_web/en/press_room/5966.htm)
- 15- Prices, O. (2020, 06 01). *Oil Prices charts*. Retrieved 11 02, 2020, from Oil Prices: <https://oilprice.com/oil-price-charts/46>
- 16- الجزائرية، ا. ا. (2020, 06 04). القانون 20-07، يتضمن قانون المالية التكميلي لسنة 2020/الجزيرة الرسمية العدد ) 16، 133. ا. للحكومة (، الجزائر العاصمة، الجزائر العاصمة، الجزائر.
- 17- حسان حويشة. (2020, 04 06). *تراجع مخيف لصادرات الغاز إلى إيطاليا في 2019*. تاريخ الاسترداد echoroukonline: [www.echoroukonline.com](http://www.echoroukonline.com) من 11 04، 2020،
- 18- حسان حويشة. (2020, 11 02). *هذا ما ضيعته الجزائر بسبب "قانون محروقات بوتفليقة" في 10 سنوات*. تم الاسترداد من echoroukonline : <https://www.echoroukonline.com>