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The role of monetary policy response to COVID-19: The case of Algeria

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Abstract:

The main purpose of this paper is to identify and analyse the contribution of monetary policy in mitigating the economic and social effects of the pandemic Covid-19. The descriptive and analytical methodology is adopted to achieve the objective of this study.

The results showed that one of the most urgent measures adopted by the Central Bank of Algeria (CBA) consists on rescheduling the payment of the due loans for the benefit of businesses directly and highly impacted by the pandemic. Also, the obligatory reserve ratio was revised at a minimum level beside lowering the leading interest rate by the CBA to increase the bank's lending capacity and reduce the cost of funding for both public and private sector. In addition, the CBA exempted the banks and the financial institutions from the constitution of a safety cushion and reduced the minimum liquidity ratio.

Keywords: Covid-19; Central Bank of Algeria; Monetary Policy; Minimum Liquidity Coefficient; Loan instalments; safety cushion.

JEL Classification Codes: E50, E52, E58, E59, I10, I15, I18.

1. INTRODUCTION

The banking activity is considered as an important pillar in the economies of countries to support investment projects, by mobilizing

unemployed savings and making them both productive and useful in the development process. In this context, the Central Bank of Algeria (CBA), as the monetary authority responsible for monitoring banks and financial institutions, and as the authority overseeing the implementation of monetary policy by its quantitative and qualitative tools. This authority institution seeks to increase the financial efficiency of banks and financial institutions, which contributes to improving the performances of the economic institutions .

To achieve these goals, the CBA compels all banks and financial institutions to respect some specific indicators longer considered as determinant by the CBA to monitor how a country's economic conditions, such as money, credit, balance of payments and external debt evolve over time. Based on these aforementioned indicators the CBA may guide banks how to preserve and protect the interests of depositors and owners, and accordingly help to achieve the approved economic policy goals.

In light of the Corona pandemic outbreak and its impact on the national economy, the CBA has taken a series of exceptional and circumstantial measures that fall within the national endeavours to confront the consequences of the Corona pandemic and mitigate its economic impacts to protect the national economy and ensure that firms maintain the production activity regularly and effectively. Given the above, we address the following research question:

What role has monetary policy played for mitigating the impacts of the Covid-19 pandemic?

To provide answers to this research question, this paper is organized as follows: Section 2 deals with the impact of the Covid-19 pandemic on the global economy. Section 3 discusses the role of monetary policy for facing the Corona pandemic around the world. In the section 4, we present the evolution of some macroeconomic indicators in Algeria during the pandemic. The section 5 tackles the different actions and measures taken by the Bank of Algeria to mitigate the effects of the Covid-19 pandemic. Finally, we conclude in Section 6.

2. The impact of the Covid-19 pandemic on the global economy

The COVID-19 is defined by the World Health Organization (WHO) as an infectious disease caused by the most recently discovered corona virus. This new virus and disease have appeared in Wuhan, China, in December 2019. On March 11th, 2020. The World Health Organization declared the outbreak an official pandemic (WHO, 2021). At the time of writing this paper, the virus has been detected in over 216 countries, areas or territories, there have been 166.860.081 confirmed cases of COVID-19, including 3.459.996 (WHO, 2021).

Table 1. Situation by WHO region (May 2021).

Region	Confirmed Cases of COVID-19
Americas	66.158.798
Europe	54.147.639
South-East Asia	30.332.591
Estern Mediterranean	9.892.010
Africa	3.451.770
Western Pacific	2.876.509

Source: (WHO, 2021)

Before the COVID-19 outbreak, the trade war between China and the United States of America had a negative impact on the global economy leading to a significant drop in commodity and energy prices and some uncertainty in Europe with regard to the impact of the Brexit (Christopher & Whoriskey, 2020). To confront and contain the spread of the virus, many countries have taken a series of measures and actions, such as full or partial lockdowns. Which had a negative impact on different economic activities, from tourism, medical supplies, and other global chain values and financial markets to energy, food and other social activities.

The China's production decrease has had immediate, direct and indirect consequences for the worldwide economy given the role played by China as a major provider of the different items and wares to countries, and as a major demand for raw materials and products as well (OECD, 2020, p. 5)**.** From December 2019 to March 2020, Both the Chinese manufacturing and fixed investment indices declined by 30%. In March 2020, European manufacturing indices have fell by similar percent (Ilzetzki, 2020).

Beside this, the travel restrictions imposed by most of governments have led to a decrease in goods and services demand, and thus, caused a major economic loss, particularly, in highly trade dependant nations as Canada, Germany, Italy, Japan, Mexico, and South Korea. (OECD, 2020, p. 7). Export revenues and balance of payments of these countries have witnessed extreme difficulties.

On March 2, 2020, the Organization for Economic Cooperation and Development (OECD) anticipated a 0.5 % to 2.4% decline of the global economic growth if the economic effects of the virus reach the peak in the first quarter of 2020. However, if the virus effects do not peak in the global economic growth could be declined by 0.5%, or 1.5% (OECD, 2020).

Table 2. OECD Economic Outlook Forecast, March 2020
(% change in real GDP Growth)

2019		2020		2021	
		Interim EO Projections	**Difference from November EO**	**Interim EO Projections**	**Difference from November EO**
World	2.9	2.4	-0.5	3.3	0.3
G20	3.1	2.7	-0.5	3.5	0.2
Australia	1.7	1.8	-0.5	2.6	0.3
Canada	1.6	1.3	-0.3	1.9	0.2
Euro area	1.2	0.8	-0.3	1.2	0.0
Italy	0.2	0.0	-0.4	0.5	0.0
Japan	0.7	0.2	-0.4	0.7	0.0
Korea	2.0	2.0	-0.3	2.3	0.0
Mexico	-0.1	0.7	-0.5	1.4	-0.2
Turkey	0.9	2.7	-0.3	3.3	0.1
United Kingdom	1.4	0.8	-0.2	0.8	-0.4
United States	2.3	1.9	-0.1	2.1	0.1
China	6.1	4.9	-0.8	6.4	0.9
India	4.9	5.1	-1.1	5.6	-0.8

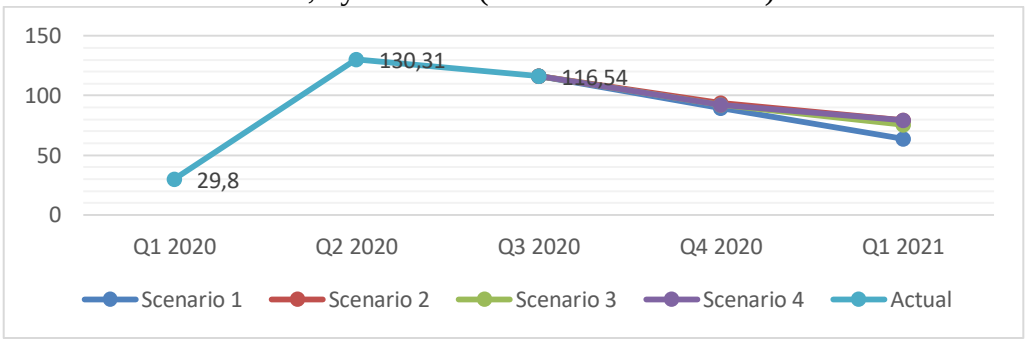
Source : (OECD, 2020, p. 2).

2.1 Other Sectors Affected by the Pandemic

It is worth mentioning that the Corona virus has also impacted other various areas. For instance, industry experts expected that because of travel

bans, almost airlines would go bankrupt by May 2020. (Jamie , Edgecliffe-Johnson, & Holl, 2020). In February 2020, worldwide traffic capacity dropped by 8% mainly from/to countries encountering an early outbreak as well as the major economic partners of China (ICAO, 2020, p. 8). In March 2020, when Covid-19 has gone worldwide, the global traffic capacity decreased by 33 %. The Expectations demonstrate that airlines around the world, will face an income deficiency of 92.26 billion U.S. dollars in a U-model scenario, in the final quarter of 2020 (Statistica, 2020) .

Fig.1. Airline revenue loss due to coronavirus (COVID-19) from Q1 2020 to Q1 2021, by scenario (in billion U.S. dollars).



Source: (Statistica, 2020)

Moreover, some freight companies have estimated that the reduction in international trade and the disruptions in the movements of goods and people are likely to constrain these companies to shut down if prices do not rebound quickly (Lynch & David J, 2020)**.**

2.2 On Financial Market

In addition, uncertainty with regard to the term of this pandemic and the public measures set to contain its spread are fuelling risk perceptions in financial markets and corporate decision making. Hence, the volatility in the financial markets from the United States to Asia and Europe (Samson & Lockett, 2020)**.** The US stock Market indices declined sharply between 8 to 15 March 2020 which pushed the stock exchange authorities to automatically interrupt any trading if the indices fluctuate around ± 5% (Philip, Samson, & Locket, 2020).

By the end of February 2020, financial markets entered a critical stage of instability. Equity markets began to decline at a rapid pace, losing around 30% of market value within a few weeks, with a speed of selloff operations

surpassing those of the global financial crisis 2008-2009 (GFC). By early March, short-term funding markets and international US dollar funding markets began to show some indications of stress and, during the following weeks, the deepest and most fluid financial market on the planet, the US Treasury market has shown serious indicators of illiquidity. These anxieties quickly spread to credit markets, making to firms and governments hard to get funds at any term. Central banks responded rapidly to the arising indications of stress. In late March, equity markets started to rebound just after the policy makers of developed countries have announced substantial bundle of tax advantages (WEF, 2020, p. 4).

3. Monetary Policy Measures to Mitigate the Covid-19: The Case of Some Monetary Authorities Around the World

The arising uncertainty regarding the effects of this pandemic coupled with some restrictive measures across populations such as the imposed quarantine pushed the households and businesses to spend less, particularly on non-essential goods and services. These circumstances have implied high liquidity constraints and severe credit market tightening in global financial markets.

Accordingly, many governments responded to this situation to mitigate the pandemic's effects. The implemented measures consist in general on providing either fiscal support to workers and businesses highly impacted, or monetary support by adjusting monetary policies to address the credit market issues. The Centre for Macroeconomics (CM) in UK has conducted a research study to identify the most appropriate measures to deal with the economic crisis. The research outcomes end up with a consensus about the necessity of helping households and businesses through providing unemployment benefits, credit support (low interests), and direct transfer while some market experts are in favour of direct cash transfers (Ilzetzki, 2020).

In this context, the US Federal Reserve, the European Central Bank, and the Bank of England announced unprecedented quantitative facilities including the acquisition of government bonds, commercial bills, and hypothetical mortgage securities in the US (Ilzetzki, 2020). In the same

path, Finance ministers and Central Bank governors of the G-7 released a statement on March 3, 2020, in which they commit to undertake all appropriate policy instruments to sustain economic growth (post, 2020).

First, the U.S. Federal Reserve brought down its federal funds rate by 0.5% point, the cut was the biggest one-time decrease in the interest rate by the Fed since the financial crisis of 2008 (Bank F. R., 2020).On March 15, the Fed slashed the federal funds rate another full percentage point to a range of 0 to 0.25%. (Cúrdia, 2020).

The policy rates below zero has been used by many European states, yet in the United States, the effective lower bound is considered to be around zero. Consequently, regardless of whether economic conditions require further boost and stimulus policies, interest rate cuts are not, at this point an option once we reach the lower bound. Similarly, the Bank of Canada declared on March 13, 2020, a 0.5% cut to 0.75% in its Bank Rate interest rate. (Canada, 2020).

To increase liquidity, the Central Bank of Australia engaged into additional money market operations (Australia, 2020). For his part, on March 13, 2020, the Norway's central bank brought down its principal interest rate by 0.5% to 1.0%, issued loans to the banking sector and lowered its countercyclical capital reserve standards for financial institutions (Bank N. C., 2020). Besides, Italy has proclaimed proposals to place a freeze on debt payments, including mortgages (Times, 2020), (Martin & Chazan, 2020).

On 11 March 2020, the Bank of England confirmed his intention to introduce a series of four steps to tackle the economic uncertainty. First, Unsecured reduction in the benchmark interest rate by 0.5% to a record low of 0.25%. Second, reintroduce the Term Funding scheme for Small and Medium Businesses, which provides banks with more than $110 billion for loans at low interest rates. Third, lower banks' countercyclical capital buffer to zero percent, which is estimated to support over $200 billion of bank lending to businesses. And, four, freeze banks' dividend payments (Romei, 2020).

To provide short-term lending, the Bank of Japan injected 4.6 billion USD of liquidity into Japanese banks, and doubled this amount into exchange-traded funds to help Japanese companies (Robin , Lockett , & Spurs, 2020). Similarly, in early February, China's central bank has taken the following measures: i) pumping 57 billion USD into the banking sector, ii) setting an interest rate cap on loans for big companies, and extending deadlines for banks to limit shadow lending. Iii) Maintaining the stability of the exchange rate to decrease its volatility. To encourage small businesses, the People's Bank of China declared on 13 March 2020 it would provide 78.8 billion USD in funding, mainly, by decreasing bank's reserve requirements (Weinland, 2020).

To guarantee liquidity in sovereign and private credit markets in the Euro area, the support monetary policy is centred on three key measures (Monnin, 2020):

- First, the ECB added 120 billion Euro to its Asset Purchase Program (APP) and launched an extra new Pandemic Emergency Purchase Program (PEPP) with an envelope of 750 billion euro until the end of 2020. It additionally abandoned eligibility requirements for Greek sovereign obligation inside the PEPP and extended its buys inside the APP and the PEPP.
- Second, conditions for granting loans were facilitated, specifically to small and medium-sized businesses. The ECB added extra longer-term refinancing operations (LTROs) and reduced at a record low of 0.75 % the financing cost at which it provides funding through its targeted longer-term refinancing operations (TLTROs). The maximum borrowing funds for banks were increased from 30% to 50 % of their stock of eligible loans and the bed limit per operation removed.
- Third, the ECB banking supervision lowered capital requirements for banks below Pillars II guidance, below capital conservation buffer and below liquidity coverage ratio. Banks are allowed to use new capital instruments to meet their capital requirements.

It should be would be noticed that uncertainty and fears over the pandemic's impacts incited investors in the financial markets to search out safe-haven investments such as the benchmark U.S. Treasury 10-year

security, which experienced a historic drop in yield to below 1% on March 3, 2020 (Levisohn, 2020). The expectations that the Federal Reserve would bring down interest rates for a second time in March 2020, and the drop in main stock indices has additionally forced investors to moved out stocks into bonds (Colby, Henderson, & Georgiadis, 2020).

Besides, banks and financial institutions that deal in trading U.S. Treasury securities had started to pull back from facilitating trades to shield themselves from market instability (Rennison & Colby , 2020).For this reason, the Federal Reserve reported on March 12, 2020, that it will supply liquidity to the financial system by providing $5 trillion through a series of funding operations.

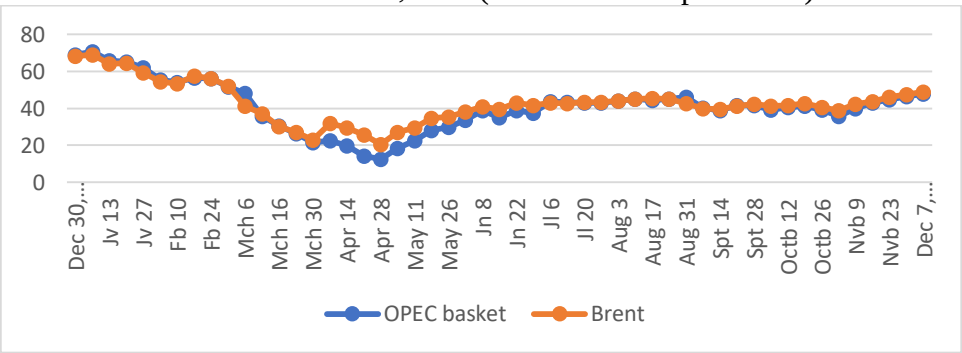
In this context, the ECB has affirmed that it would do more to help financial markets in crisis, including changing self-imposed limits on sovereign debt purchases. (Martin, 2020).In the wake of the historical decline in the stock and bond markets on March 12, 2020, financial market regulators in the UK, Italy, and Spain intervened on March 13, 2020 to stabilize prices (Stafford & Samson, 2020).

4. Evolution of macroeconomic indicators during the pandemic COVID-19 in Algeria

Algeria, like the rest of the world, was affected by the COVID-19 pandemic, as result of an unexpected cessation of economic activity in oil importer countries. The decline in industrial activity has reduced demand for energy products causing prices to drop sharply (Derek, 2020)**.**

With this regard, the oil prices have decreased, not only due to a global decline in demand for oil (particularly, the demand from China). But also because of the oil price “war” between Russia and Saudi Arabia (Gaines & REC Research Staff, 2020, p. 1).These circumstances have driven oil prices below $50 per barrel, the estimated break-even point for most oil producing countries (Strauss, 2020) and (Steve & Englund, 2020).

Fig. 2. Weekly Brent, OPEC basket, and WTI crude oil prices from December 30, 2019 to December 7, 2020(in U.S. dollars per barrel).



Source: (Statistica, 2020)

Undoubtedly, this has had a negative impact on Algerian exports, the main engine of the economic growth, thus exacerbating trade and current accounts of Algeria. The government and central bank of Algeria have adopted robust and often unprecedented short-run stimulus measures. Algeria has introduced public spending programs to counter the economic effects of the COVID-19 pandemic, by mobilizing the public resources available to provide assistance to poor population and stimulate local consumption, especially, with disrupted supply chains and low stocks. In particular, Government support funds was focused on activities greatly impacted, such as the retail trade, catering and entertainment, taxi's drivers, café owners…, etc.

Meanwhile, an unconventional monetary policy was conducted to cushion the blow of lockdowns and other measures that have shut down businesses. The Central Bank of Algeria (CBA) has played a key role to inject liquidity in the economy. It is also working on some national macroeconomic tools to support business, and rescheduling some creditors. The main objective from these measures was to maintain and expend the lending activity to both private and public sector.

4.1 Banking and Monetary Indicators

Due to the COVID-19 pandemic combined with the decline of the

hydrocarbon revenues and despite the efforts engaged, the liquidity of public banks has considerably declined during the first semester of 2020, which led to a decrease in commercial banks and CBA deposits. Algerian banks have increased their funding by 404 billion dinars from the CBA using open market operations (+36%). Amongst the six public banks which hold around 90% of the country's total deposits, four banks are facing extreme need of liquidity while private banks are in excess of liquidity. Thus, the monetary base held by the BCE has been decreased from 1100 billion dinars in December 2019 to 840 billion dinars in July 2020 (- 24%) to 840 billion dinars in July 2020 (W.B, 2020). The tightening of liquidity conditions has led individual depositors seeking to withdraw their savings, thus exerting pressure on deposits of Algeria Post, where 35% of Algerians hold an account. Accordingly, Algeria Poste had to impose a cap on daily withdrawals (See Fig 3).

Fig.3. Contribution of M2 to growth

Source: Central Bank of Algeria CBA

Fig. 4. Contribution of PCI to growth

Source : National Statistics Office

Inflationary pressures on the economy remains relatively contained during the year 2020, with divergent trends between the national Consumer Price Index CPI of food and non-food items. The CPI rose at an annual rate of 2.0% during the first ten months of 2020. Despite the unconventional funding program set between September 2017 and March 2019 with the injection of 4,726 billion dinars in the economy (W.B, 2020). The CPI of

food and non-food items, yet, showed divergent trends. The first evolved by 0.3 % over the first ten months, against a background of price controls on basic food products and government efforts to limit price increases for fresh produce. The second grew by 3.3% over the same period (See Figure 4).

4.2 External Accounts Indicators

The current account has considerably suffered due to the decline of the earnings exports of hydrocarbons (A 10 Billion USD drop in the first semester of 2020 compared to 17 Billion USD in the same period of 2019) . Therefore, exports have contracted by 39 %. In other hand, imports fell by $ 23.3 billion EUR in the first semester of 2019 to 18.1 billion EUR in 2020 (–22%) due to weak domestic demand and according to IMF, after 10 months in 2020, foreign exchange reserves declined by 13 billion USD to reach 48.5 billion USD in October 2020 (see Fig. 5).

As a response, the authorities have implemented some restrictive measures by reducing the import bill at least US $ 10 billion, or 6% of GDP. These measures were particularly facilitated by the controlled depreciation over the national currency since the beginning of the year, the Algerian dinar thus lost value against the US dollar (–6.3%), the euro (–9.2%) and the yuan (–6.8%) (W.B, 2020), leading to higher import prices (see Graph 6). Other reduction policies have been introduced, relating in particular to the extension of restrictions the importation of vehicles, including the ban on the import of cars over the three past years. The Government is also taking steps to reduce the country's dependence on imports services.

Fig. 5. Balance of payments (Billions USD)

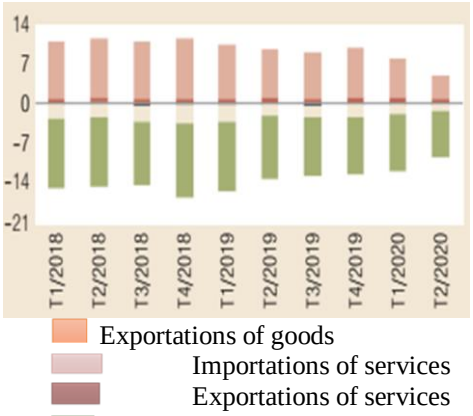
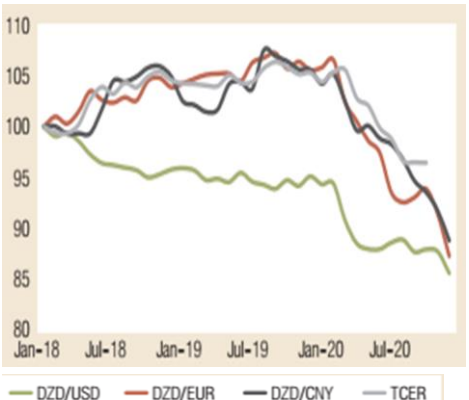


Fig. 6. Evolution of national Currency depreciation (Index: January 2018 = 100



Source: Central Bank of Algeria **Source:** IMF (2020)

4.3 Public Finance Indicators

The pandemic has caused a substantial drop in the budgetary revenue leading to an increase in health and social protection spending. According to the World Bank projections hydrocarbon revenues will grow from 13.1% of GDP in 2019 to 9.5 % in 2020 in line with the contraction of production and prices of hydrocarbons. The nine first months of 2020 witnessed a decline of 10.1% of the production, and the prices of Sahara Blend have dropped by 39.4% (W.B, 2020). Direct and indirect tax revenues should decrease. In the stride of the economic activity recession, the tax fraud could amplify given the economic difficulties facing individuals and businesses. In contrast, the depreciation of the currency against the US dollar will cushion the fall in hydrocarbon revenues. The government reduced its operating and investment spending by 5.7 in 2020, nevertheless, the budgetary deficit increased considerably in 2020 to reach 15.5% of GDP.

5. Mitigating COVID-19 Effects in Algeria with Monetary Policy

From the perspective of economic, social and psychological effects of the Corona pandemic over the national economy and the Algerian citizen as well. Moreover, being aware about the urgent need to protect the national economy by providing the necessary conditions that permit the productive institutions to operate on a regular and effective basis. The CBA has taken a series of exceptional and circumstantial measures that fall within the national endeavours to confront the consequences of the pandemic spread and mitigate its economic impacts. Hence, the CBA has issued instruction No. 05-20, which aims to reduce some of the precautionary measures that were imposed on banks and financial institutions residing in Algeria to raise the financing capacity for them towards the economic firms affected by the

Corona virus. The most important actions and measures taken by the CBA are represented in the following points:

5.1 Loan Instalments Deferral

One of the measures taken by the Bank of Algeria in the context of mitigating the effects of the Covid-19 pandemic was to defer (postpone) the payment of the due loan instalments, or reschedule the loans of customers who are experiencing financial hardship associated with the coronavirus. These measures can be considered as the qualitative instruments of monetary policy that aims to monitor loans, frame them and direct them towards the priority sectors that contribute to creating wealth and that were negatively affected by this pandemic. These measures also included the continuation of financing the clients who already benefit from deferment (postponement) or rescheduling of loans. These credit facility measures are reinforced by reducing the cost of funding, thus, The CBA's main interest rate applied to major refinancing operations is set at 3% instead of 3.25% (CBA, 2020). Furthermore, to increase the banks' credit granting capacity, the obligatory reserve ratio was revised downwards three times, from 12% in February 2019 to 10 % in December 2019, and finally, the ratio is set at 2% in February 2020 (CBA, 2021).

5.2 Reducing the Minimum Liquidity Coefficient (MLC)

The liquidity issue is one of the important topics in banks as it is one of the important measures that is used to measure the extent of the bank's ability to meet its short-term obligation coming at maturity, such as the requirements for withdrawing deposits, paying debts, as well as customer requests for loans.

Given the fact that liquidity claims are extremely important for banks' depositors and owners and for the performance and stability of the banking system, the Bank of Algeria, like the central banks in other countries, obligated banks and financial institutions to maintain a minimum liquidity proportion to the total short-term debt obligations. The Bank of Algeria may impose any of the penalties stipulated on banks violating this obligation.

a. Concept of Liquidity

Liquidity term of a commercial bank's balance sheet has two interpretation. First, it refers to the ability of the bank to honour the claims of the depositors. And second, it shows the ability of the bank to convert its non-cash assets into cash easily and without loss (Carrow, 2012, p. 12).

b. Liquidity Risk

The Bank of Algeria defined the liquidity risk "as the risk of not being able to cope with its commitments or not being able to unravel or compensate a position owing to the Market situation within a set deadline and at reasonable cost" (CBA, 2011).

c. Measuring Liquidity Coefficient

After discussing the concept of Liquidity coefficient and Liquidity Risk, we explain the Measuring Liquidity Coefficient (MLC). Liquidity ratios measure the bank's ability to honour its obligations of liquidity to depositors and funding to creditors. Therefore, the CBA, as a responsible for the implementation of monetary policy, imposes on Algerian banks, financial institutions and foreign bank branches residing in Algeria '' to dispose, in all times, effective and sufficient liquidity to meet their commitments when coming at maturity, through a stock of liquid assets '' (CBA, 2014).

The CBA establishes a ratio of liquid assets to liquids liabilities, using a weighting scheme to reflect the like-hood of items being rolled over or being available in case of a liquidity squeeze. The liquidity coefficient belongs to the family of the ''asset-liability coefficients '', which are based on measures of both liquid assets and liquid liabilities. This ratio is called the minimum liquidity coefficient and should be at least equal, at all time, to 100% (CBA, 2011).

The Minimum Liquidity Coefficient is equal to the sum of the short-term available and tradable assets and the financing commitments received from banks over the sum of short-term liabilities and granted commitments.

d. The Minimum Liquidity Coefficient formation periods

By the end of each quarter, the central bank has compelled the banks and financial institutions to provide information about the minimum liquidity ratio of the current month and the last two months of the past

quarter (CBA, 2011). It also obliged them to establish a statement called "statement of projected cash flow" allowing for, at least, a weekly monitoring of their liquidity position including new transactions.

5.3 Exempting banks and financial institutions from the composition of a safety cushion

The CBA has compelled all banks and financial institutions to comply at all times, a minimum solvency ratio of 9,5% on individual or consolidated basis (CBA, 2014). The numerator of the ratio represents the total amount of the available bank's capital, whereas the denominator consists of the risk-weighted assets (Embrechts, Furrer, & Kaufmann, p. 1). Which means maintaining the minimum capital requirements to cover the total operational, credit and market risks in order to enhance its ability to operate effectively and absorb any potential loses. Moreover, the CBA has strengthened this measure by obliging banks and financial institutions to establish a safety cushion consisting of a core capital that covers 2.5% of its weighted risks (CBA, 2014). The safety cushion is intendent to mitigate the different risks by ensuring that the financial firm has at least some minimal level of resources.

5.3.1 Market, Credit and Operational Risk

These risks are not mutually exclusive; any product or service may expose the bank to multiple risks:

a. Operational Risk

In the banking and financial services industry, the bank of Algeria defines the operational risk as the risk of loss resulting from deficiencies or failures inherent to procedures, staff, internal systems or external events of banks and financial institutions. This definition excludes strategic and reputational risks but includes legal risk (CBA, 2014). The amount of weighted operational risks is calculated by multiplying by 12.5 the equity requirement (CBA, 2014). The requirement in capital equity needed for hedging operational risk is equal to 15% the annual net banking average income of the last three (03) financial years. Only positive net banking income shall be taken into account when calculating such average (CBA, 2014).

b. Market risk

Market risks may be defined as the possibility of banking loss caused by the changes in the markets variables (e.g., interest rates, currencies prices, financial instruments…, etc). (Thirupathi & Manoj, 2013, p. 148). The amount of weighted market risks is calculated by multiplying by the equity requirement by 12.5. The equity capital requirements with respect to market risk cover the risk exposure in trading portfolio and exchange risk. Trading portfolio includes securities listed in trading assets other than those evaluated at the fair value. Market risk on trading portfolio is assessed from two elements (CBA, 2014):

- General risk related to the overall market trend;
- Specific risk related to the specific condition of the issuer.

c. Credit risk

Credit risk can be defined as the risk of loss from borrower/counterparty's failure to repay the amount owed (principal or interest) to the bank on a timely manner based on a previously agreed payment schedule (Constantinos & Juan Carlos, 2005). To determine weightings of credit risk, banks and financial institutions rely on, either, the ratings assigned by external bodies of credit assessment in which the list is set by the Banking Commission, or if unrated, the standard weightings provided in the regulation 14-01 is applied. In case of plurality of external ratings assigned to the same counterpart, the less favourable rating is retained for the risk weightings (CBA, 2014).

6. Conclusion

This paper aimed at identifying the contribution of monetary policy in mitigating the economic and social effects of the pandemic Covid-19. We discussed how uncertainty and fears over the pandemic's impacts incited governments of different countries around the world to take unprecedented and often radical measures to deal with the economic crisis caused by the pandemic. With regard to the monetary policy response, three key measures have been commonly adopted by different central banks around the world. The first consists of bringing down the principal interest rate and the capital reserve standards. The second

measure involves a temporary suspension of the debt payments and the third measure deals with the injection of more liquidity into the financial markets. In this paper, we stressed our analysis on the monetary policy responses to COVID-19 in Algeria's economy.

In fact, an unconventional monetary policy was conducted by the Central Bank of Algeria (CBA) to make sure that businesses and households continue to operate on a regular basis. One of the most urgent measures adopted consists on rescheduling the payment of the due loans for the benefit of businesses directly and highly impacted by the pandemic. The obligatory reserve ratio was revised at a minimum level beside lowering the leading interest rate by the CBA to increase the banks' lending capacity and reduce the cost of funding for both public and private sector. In addition, The CBA exempted the banks and the financial institutions from the constitution of a safety cushion and reduced the minimum liquidity ratio. The main purpose of relaxing such risk-taking measures is to allow the different financial institutions to dispose more liquidity.

Despite the importance of these measures, their effectiveness in achieving the desired goals remains circumstantial and depends on the efficiency of banks during the implementation process. It is a common knowledge that banks when badly managed, or are under stress for any reason, are likely to lobby the government for relief through any available channels and to undermine the functioning of monetary policy. In another side, the efficiency of the central bank's monetary policy depends also on the degree country's financial markets development and its stability.

Moreover, the inherent uncertainty of the environment in which central banks operate makes the task of ensuring a consistent and effective monetary response policy a problematic issue. Several dimensions should be taken on considerations (Robert H & Marcela M, 2007): (i) lack of accurate information about the contemporary state of the economy, (ii) inability to forecast accurately the future path of the economy, and (iii) lack of accurate information about how policy actions affect the economy.

As the Corona Pandemic persists, the role of the banking sector remains important to increase the pattern of financing economic activities within the country. The Central Bank has to continue its

contribution to prevent the effects of the Covid-19, by adopting a package of measures such as lowering interest rates, stimulating credit, implementing huge programs for quantitative easing, and alleviating pressures on the household and corporate sector.

The monetary authority should also continue allowing banks to postpone the instalments of credit facilities granted to customers for the benefit of sectors affected by the virus, and inject additional liquidity to banks and thus by reducing the mandatory reserve ratio beside freezing interest and principal payments from SMEs through the Directed Lending Initiative. As an additional measure, the use of electronic payments should be promoted to contain the transmission of the virus. In order to achieve the desired objectives, the Central Banks is required to monitor the implementation of these procedures efficiently and effectively . To conclude, however, we need to stay positive and believe that the covid-19 outbreak will run its course as other pandemics have done before.

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