

The extent to which developing countries can implement quantitative easing in monetary policy during the spread of the COVID-19 pandemic

Raheem Abed Mohammad

*Karbala Technical Institute, AL-furat Al-Awsat Technical University Karbala, Iraq.
ralmwsy980@gmail.com*

Abstract: When the economy enters the stage of economic downturn, or is hit by a financial or banking crisis, the central bank resorts to an unconventional monetary policy due to the ineffectiveness of traditional monetary policies by reducing the main interest rate through multiple tools, such as the re-discount rate, the legal reserve ratio, open market operations, and others. The resort of economic institutions and the productive sector to an unconventional monetary policy called quantitative easing, through the central bank playing the role of mediating in the credit process to compensate for the interruption of private mediation and the main advantage in the mediation of the central bank is the ease of obtaining funds through the issuance of government bonds without restrictions or risks in order to provide a means to stimulate the economy, There is another explanation for the policy of quantitative easing, which is the printing of a monetary block that has no interviews, and therefore we are in front of a monetary block from a vacuum in economic and real terms, which is raised in the economy in the event of an economic downturn through the open market process, which is fundamentally different from traditional monetary policies in terms of interviews. Cash block used, This policy, which is an unconventional monetary policy tool, is used in financial crises for urgent financial and banking rescue, in addition to returning the economic cycle to the stage of economic boom in the event the economy entered a phase of deflation, and is rarely resorted to to finance the public budget.

Keywords: Quantitative Easing, Qualitative Easing, Monetary Policy, Zero Interest Rates.

Introduction:

Monetary policy is considered one of the most important economic policies due to the role it plays in achieving the goals of society in tandem with other policies and its importance comes from its great impact on the economic system, so any imbalance in the performance of the monetary system casts a shadow on the performance of the economic system in terms of growth rates, level of production, operation and distribution of wealth and real income.

The development of the economic situation at the international level, thanks to the increasing financial liberalization policy and the liberalization of the movement of goods and services, the development of financial innovations, and the emergence of new financial practices led to the emergence of financial crises more severe than the crises that prevailed before the seventies of the last century, The emergence of these crises coincided with the adoption of expansionary monetary policies by central banks based on the theory of credibility, through which the traditional tools of monetary policy proved their inability to address these crises. The inability of traditional monetary policy appeared clearly in the 2008 financial crisis, Among the most important tools for dealing with these crises that the central banks used to solve the crises, such as the interest rate tool, the compulsory reserve rate, and the re-discount policy, but they faced a catastrophic failure in resolving these crises.

The previous economic situation and the inability of the traditional monetary policies of central banks led to the discovery of new tools for managing monetary policy, which were called unconventional monetary policy tools aimed at revitalizing the economy and reducing inflation in case of crises. Among these tools, we find the policy of quantitative easing, which is the basis of the topic of research.

The first topic: research methodology

First: the research problem.

When the financial crisis occurs, central banks use the traditional monetary policy to solve crises, such as the interest rate tool, the compulsory reserve rate, and the re-discount policy. Because of the ineffectiveness of these traditional tools, the monetary authorities resort to the quantitative easing mechanism, when all solutions and possibilities in applying traditional tools are exhausted, in improving the economy. Or move it from a state of economic downturn to a state of economic boom, and accordingly the quantitative easing mechanism works in cases where traditional tools cannot be applied, Which is applied in cases of economic boom, when the economy begins to enter into a phase of economic downturn, or as a financial rescue policy in financial and economic crises, in addition to achieving many economic goals, the problem of research revolves around the possibility of applying quantitative easing policy in developing countries, in the case of existing economic conditions.

Second: the research hypothesis.

In light of the research topic, the following hypotheses were formulated:

- There is a possibility to implement the quantitative easing policy, no matter how different the considerations required by the quantitative easing mechanism in the state of the economies of countries.
- The quantitative easing policy was able to raise growth rates, reduce unemployment, and stimulate the economy, which contributed to bringing the economies of the economically advanced countries out of recession.

In order to know the reality of the possibility of using the quantitative easing mechanism in developing countries, and to achieve economic revival, through a supportive monetary policy, we therefore assume the possibility of applying the quantitative easing mechanism. Comparing the considerations of the quantitative easing mechanism among the developed countries that used this policy with the developing countries to find out the effectiveness of the quantitative easing mechanism in addressing the economic downturn.

Third: The research community and sample. The research community and sample are represented in two groups, as follows:

The first group: the sample of this group that used tools in the quantitative easing mechanism, while the research community is represented by the central banks of countries that used the quantitative easing mechanism to confront financial crises, and these countries are economically advanced such as (the US Federal Bank, the European Central Bank, the People's Bank of China).

The second group: This group consists of the central banks of countries that did not use the quantitative easing mechanism, as they used the traditional monetary policy. This study seeks to find out the extent to which the quantitative easing mechanism can be used to confront financial crises during the outbreak of the Corona virus(COVID-19). These countries are economically developing, such as (the Central Bank of Egypt, the Central Bank of Algeria, the Central Bank of Tunisia).

Fourth: the importance of research.

- The importance of the research comes from the knowledge of the mechanism of quantitative easing in monetary policy, which is one of the topics that have become of importance to researchers, especially in developing countries during the occurrence of financial crises.

- Also, the importance of research in studying modern tools comes from monetary policy tools that are used on a small scale in a specific number of developed countries.

-Knowing the extent to which developing countries can benefit from the quantitative easing mechanism in monetary policy in the face of the financial crisis during the outbreak of the Corona pandemic.

Fifth: Research objectives.

The study seeks to achieve the following objectives:

1- Briefing on the theoretical aspect regarding quantitative easing, its concept and its relationship to the economic and financial variables that will be studied in the research.

2- Using descriptive analysis to determine the considerations of the quantitative easing mechanism among the developed countries that used this policy and compare it with the developing countries to find out the effectiveness of the quantitative easing mechanism in dealing with the case of economic downturn.

Sixth: Research methodology.

The descriptive approach was followed in order to clarify the various concepts and relationships dealt with in this research, and the method of analysis was used in order to determine the reality and prospects for implementing the quantitative easing policy in developing countries, through a theoretical analytical study to find out the circumstances surrounding the application of this policy as a mechanism to be resorted to. , in dealing with the case of economic downturn, and we have used the theoretical analysis of non-application of quantitative easing policy in developing countries.

Seventh: Time limits for research.

The time limits of the research are to study the possibility of applying the quantitative easing policy, as a non-traditional financing mechanism for financial institutions in developing countries during the period of the outbreak of the emerging pandemic of the Corona virus, COVID-19.

The second topic: the theoretical side, quantitative easing.**First: the concept of quantitative easing:**

The term quantitative easing expresses one of the unconventional monetary policy tools, which central banks can use in some exceptional economic situations such as major financial crises. The unconventional character of these tools stems from the inability of central banks to use their traditional tools, which are mainly the re-discount rate tool, the legal reserve ratio, open market operations and others that aim to control the monetary mass. The quantitative easing policy is also known as quantitative easing policy and is considered an unconventional monetary policy tool, used for the first time by the Central Bank of Japan during the 1990s to be widely used after the global financial crisis in 2008 by the central banks of developed countries such as the Federal Reserve, the Central Bank of the United Kingdom and the European Union, in order to increase the amount of money circulating in the economy as well as, to save major global institutions from the risk of bankruptcy and stimulate real investment.

The quantitative easing policy is defined as a monetary policy that is used in times of crisis through which enhanced credit support, credit facilities, quantitative easing and currency interventions in the stock market are implemented, and liquidity is provided in local and foreign currencies, all to support the functioning of the financial sector and protect the real economy from the repercussions of crises (Ali: 2013, 60). It is also known as a modern tool for monetary policy, through which the central bank purchases monetary bonds to increase the money supply. (D.williams: 2014,2).

It also means “central banks pumping money directly into the economy by purchasing government debt bonds and important bonds in the economy in order to relieve them of the financial burdens arising from their credit schedules. Thus, companies can invest and grow and countries can spend in economic sectors, and usually the central bank By buying bonds and then selling the bonds later that he bought after an economic improvement, and perhaps making profits when the economic cycle returns to recovery (Abdul Qadir and Rashidi: 2016, 17).

Second, the characteristics of quantitative easing

Quantitative easing has a set of characteristics, the most important of which are as follows (Firas: 2018,18)

- Quantitative easing is a long-term plan that includes the use of several tools, such as the purchase of internal assets, the amendment and diversification of the central bank's balance sheet of assets, as well as the expansion of the central bank's budget, which is not a single tool as described by some definitions.
- The use of quantitative easing is limited to difficult cases such as financial and economic crises, which is what happened with the Federal Reserve, the Bank of England, the Bank of Japan and the European Central Bank after the 2008 crisis.
- The financial assets purchased by the Central Bank include government debt securities and private ones, such as mortgage-backed securities and debts of financial institutions;
- Reducing interest rates is an interim goal that mediates the relationship between intervention in the financial market through the stages of the open market and achieving the final economic goal by supporting macroeconomic indicators, foremost of which is stimulating economic growth.

Third: The objectives of the quantitative easing policy.

The quantitative easing policy aims to: (Walid and Ahmed: 2018, 256)

- 1- The effect on the long-term interest rate: Central banks' purchase of long-term assets causes a decrease in the supply of them by investors, if we assume the stability of the increased demand for them through the policy of quantitative easing, which contributes to a rise in long-term asset prices and a decrease in long-term interest rates.
- 2- Reducing the risks of bond prices: where bond prices are exposed to the risks of a change in the interest rate, through the length of the bond's duration, and therefore one of the most important considerations for quantitative easing programs is to reduce these risks on sovereign bonds, which positively affect the return on commercial and investment bonds, This is what encourages investors to trade them and create appropriate liquidity in the market.
- 3- Neutralizing bankruptcy and non-fulfillment of financial obligations: Bankruptcy and the inability of borrowers to fulfill their financial obligations towards lenders is one of the most important manifestations of financial crises, but the adoption of a policy of quantitative easing works to neutralize this effect according to what it provides as a financial rescue plan for institutions prone to bankruptcy and to preserve their assets from collapse. Also, restoring banking confidence in the financial markets and limiting the transmission of the repercussions of this to other regions of the world in light of financial globalization and the interconnection of global financial markets.

Fourth: Channels of transmission of the effects of the quantitative easing policy.

The effects of the quantitative easing policy are transmitted to the real economy through the following channels: (Younesi and Madhoukh: 2019, 339)

- 1- The signal channel: Announcing the programs for purchasing financial assets indicates that interest rates will remain low until the end of the program at least, and this leads to a decrease in long-term interest rates.
- 2- Confidence channel: If the economic elements believe that the quantitative easing policy is an effective policy, this will lead to an increase in demand for consumption and investment on the one hand, and lead to an increase in asset prices and a decrease in their returns on the other hand.
- 3- Portfolio rebalancing channel and the impact of wealth: Central banks' purchase of securities leads to an increase in their prices and the prices of other assets in order to provide liquidity to the selling investors who are restructuring their investment portfolios, thus increasing the demand for alternative assets, so their prices rise and their returns decrease, and then the financing costs of the economic elements decrease. On the other hand, the increase in the prices of financial assets leads to an increase in the wealth of the holders of these assets, and thus increases the demand for investment and consumption.
- 4- Bank lending channel: The Central Bank's purchase of long-term securities from banks and financial institutions leads to an increase in their reserves and thus a rise in the volume of credit provided by it to companies and individuals. It is required for the effectiveness of this mechanism that the banks are willing to provide credit and that there is a desire for this credit.
- 5- The exchange rate channel: As a result of central banks buying securities, their returns decrease. This prompts investors to switch to foreign securities that achieve higher returns,

which leads to an increase in demand for foreign currency against the country's local currency, thus decreasing the value of the local currency and improving competitiveness.

The second topic: the theoretical side, monetary policy.

The concept of monetary policy:

Monetary policy means a set of procedures applied by the monetary authorities in charge of managing monetary and credit affairs to achieve the objectives of the economic policy, and these procedures are either by making changes in the quantity of money, or in the quantity of means of payment in line with the surrounding economic conditions, and the main objective of monetary policy for most banks Centralization is to achieve stability by maintaining the value of the national currency internally and externally. At the level of the local economy, it means keeping inflation low and stable, while on the external level, it means targeting the stability of the exchange rates of the currency (Ali: 2013, 58).

There are many definitions of monetary policy among economists, but they remain similar in content:

Monetary policy is defined as "those procedures that countries use to influence the money supply, to find expansion or contraction in the purchasing power of society (Ali: 2004,112). Monetary policy is also defined as: a set of rules, means, procedures, and measures undertaken by the monetary authority to control in Money supply to match economic activity to achieve certain economic goals, during a specific period of time (Abdul Hamid: 2003,90), It is defined as a set of procedures and measures taken by the monetary authorities in order to control the money supply to influence the macroeconomic variables (production, consumption, investment, saving, prices and employment...) to reach the general objectives of a certain economic policy (Elias: 1985, 19). GEORGE PARIANTE defines it as "a set of measures taken by the monetary authorities in order to have an impact on the economy and to ensure the stability of exchange rates (Qadi: 2006, 53).

Types of Monetary Policy Instruments:

First: the traditional tools of monetary policy.

1- Quantitative tools:

A- Re-discount rate.

It is known as the discount rate, which is the interest rate that the central bank obtains in return for what it re-discounts of commercial papers, and for borrowing from the central bank in its capacity as the last lender to commercial banks. Where the central bank aims through this tool to influence the cost of commercial banks to obtain monetary resources (Al-Douri and Al-Samarrai: 2004, 204).

B- open market policy

Open market policy in its narrow sense is defined as the buying and selling of government bonds by the central bank, either in its broader sense that it buys or sells securities, gold and foreign currencies, in addition to government bonds and treasury bills (Al-Douri and Al-Samarrai: 2004, 204).

C- Legal reserve ratio:

The legal reserve is a legal percentage on the public's deposits (demand deposits and term deposits) imposed by the Central Bank on commercial banks upon receipt of these deposits, and they are kept in an account opened with it in the name of these banks, and

through monetary policy, and the central bank's objective is to use the reserve Legal in order to directly influence commercial banks in the desired direction (Latrash: 2013, 40)

2- Qualitative tools of monetary policy:

Loans framing: In order to influence the trends in the use of granted credit at the level of the national economy, the Central Bank takes measures that prevent credit being directed to certain sectors as they do not have priority, or because they have acquired most of the granted funding for certain reasons (Sulaiman and Daoud, 2003).

B- Loan selective policy: It is a method used by central banks in friendly and informal ways with commercial banks in implementation of a specific policy in the field of credit granting. The success of this method depends on the nature of the relationship between the central bank and commercial banks to deal with it, and the extent of the central bank's ability to face the pressures it is exposed to and adopt an independent policy (Amin, 1994).

C - Regulating interest rates: while granting loans, banks obtain interest and always strive to have this interest greater than the cost incurred by the bank when managing loans, especially when it borrows in the form of central money in order to complete them. Determining the ceiling of interest rates on deposits and loans results in the following (Al-Mousawi, 1993).

3- Other tools of monetary policy:

In addition to the aforementioned tools, the Central Bank sometimes uses other tools, especially when the Central Bank does not achieve the objectives of monetary policy or if it wants to increase its effectiveness, which also aims to achieve certain goals for it with bank credit, which are (Al-Hashimi and Tawfiq: 14,2020):

A - Literary Persuasion: It is just the commercial banks' acceptance of the Central Bank's Literary instructions and instructions regarding the provision of credit and directing it according to different uses.

B- Issuing directives and instructions: This is represented by the Central Bank issuing instructions directing the credit policy of banks and financial institutions, such as determining the volume of credit granted.

C- Dissemination of the media: This is through the Central Bank announcing its future policy by showing it the various strategies it wants to follow, expressing the facts and the measures it will take, and this media is to put all the facts and figures about the state of the national economy before the public opinion.

Second: the unconventional tools of monetary policy.

1- Quantitative easing: The quantitative easing policy means that central banks pump money directly into the economy by purchasing government debt bonds and corporate bonds that are important to the economy, in order to relieve them of the financial burdens arising from their credit schedules, and thus companies can invest and grow and the state can spend in economic sectors. Usually, the central bank that bought bonds sells them later after the economic improvement, and may make profits when the economic cycle returns to recovery from the financial crisis from the troubled banks and companies (Rashdi and Abdul Qader, 2016).

2- Qualitative easing: The term qualitative easing denotes another form of easing. Some economists classify the qualitative easing tool as a special tool for the quantitative easing tool. By this tool, the central bank focuses on the securities in its balance sheet assets

instead of focusing on its monetary base, as it purchases private or public bonds or shares, which automatically leads to an increase in the central bank's liabilities through the issuance of liquidity. Purchasing operations aim to raise asset prices with the aim of reducing long-term interest rates and stimulating the economy, as well as reducing the risk premium, which would stimulate investments (Walid, 2016).

3- Zero interest rates: Central banks follow the policy of zero interest rates in case of crises in order to facilitate individuals' access to credit, because the relationship between interest rates on credit and the quantity required of it is related to an inverse relationship, as higher interest rates on lending will reduce the demand for loans. And vice versa, and accordingly, the demand curve for credit takes the form of a normal demand curve, as it slopes from top to bottom and to the right, which is what central banks seek through zero interest rates, and zero interest rates also contribute to influencing currency exchange rates in the international currency markets through the number of units of the local currency in which units of another currency can be purchased (Ali: 59, 2013).

4- Currency war: The term currency war re-emerged after the financial crisis of 2008, which was the most prominent actor in the loss of the basic role of the dollar as the global reserve currency and the currency of global trade exchanges, and the emergence of the role of gold as the reserve currency in the world and as a stockpile for difficult periods, and the magazine "Branda Kelly" believes that the currency war refers to A country's intervention to deliberately weaken its currency, and this is done through several means such as selling the local currency and buying foreign currencies, lowering interest rates, printing more local currency. This process (deliberate devaluation of the local currency) aims to support exports and the labor market (Ali, 2013).

The third topic: the practical side: international experiences of central banks in facing the crisis caused by the Corona pandemic.

First: the most important global central banks.

1- US Federal Bank: The United States of America reduced the Federal Reserve, through benchmark interest rates, by 150 basis points to range between 0.25%, 0%, and decided to boost its holdings of bonds by \$700 billion, and provided facilities to support the flow of credit and financing commercial paper. To facilitate the issuance of commercial paper and credit facilities to provide financing to primary dealers by guaranteeing a wide range of investment grade securities and credit facilities for companies in the primary market for the purchase of new corporate bonds and loans.

2- European Central Bank: At the level of the European Union, the European Central Bank decided to provide support for monetary policy in the countries of the Union through additional asset purchases worth 120 billion euros until the end of 2020 and provision of temporary auctions of temporary liquidity allocations at a fixed rate at the rate of deposit facilities and more favorable terms for operations. The current targeted long-term refinancing, additional measures included an additional program of asset purchases of €750 billion in public and private sector securities and a relaxation of additional criteria for European System Refinancing Operations (MROs, LTROs, and TLTROs), and recommended banks to avoid pro-cyclical assumptions.

3- The People's Bank of China: The People's Bank of China injected 3.27 trillion yuan of liquidity into the banking system through open market operations, expanded re-lending and rediscounting facilities through 1.8 trillion yuan to support manufacturers of medical

supplies and reduced 7-day and 14-day repo rates by (10), (30) basis points in a row and medium-term lending facilities for a period of one year by 30 basis points, and reductions by 50-100 basis points for large and medium banks that meet comprehensive financing criteria that benefit small companies, and at the level of the exchange rate and balance of payments the exchange rate was allowed for flexibility, and the financing ceiling was raised within the framework of The overall prudential assessment of 25% for banks, non-banks and institutions. As shown in Table No. (6)

Table No.(6):The stimulus package taken by developed countries to confront the crisis in the months of 2020.

	financial stimulus GDP	interest rate cut	Microfinance	Other monetary procedures	Balance procedures Payments (GDP)	Other Balance of Payments Measures	motivation index
Belgium	12.3	0.00	7.31	1.00	0.00	0.00	2.46
China	1.20	0.00	14.14	1.00	0.00	1.00	1.20
Cyprus	3.30	0.00	7.77	1.00	0.00	0.00	1.07
Estonia	7.00	0.00	7.71	1.00	0.00	0.00	1.66
Finland	1.00	0.00	7.31	1.00	0.00	0.00	0.64
Germany	4.80	0.00	12.49	1.00	0.00	0.00	1.96
Greece	5.00	0.00	7.31	1.00	0.00	0.00	1.28
Ireland	2.58	0.00	7.31	1.00	0.00	0.00	0.89
Italy	1.70	0.00	7.31	1.00	0.00	0.00	0.75
Japan	4.90	0.00	0.30	1.00	0.00	0.00	0.40
Latvia	3.30	0.00	7.31	1.00	0.00	0.00	1.01
Lithuania	5.30	0.00	7.31	1.00	0.00	0.00	1.33
Luxembourg	15.6	0.00	7.31	1.00	0.00	0.00	2.99
Malta	12.3	0.00	13.31	1.00	0.00	0.00	3.28
Netherlands	2.30	0.00	7.31	1.00	0.00	0.00	0.84
Panama	3.25	0.00	2.00	1.00	0.00	0.00	0.26
Portugal	4.70	0.00	7.31	1.00	0.00	0.00	1.23

Slovak Rep.	0.30	0.00	7.31	1.00	0.00	0.00	0.52
Slovenia	6.60	0.00	7.31	1.00	0.00	0.00	1.54
Spain	1.00	0.00	7.31	1.00	0.00	0.00	0.64

Source: European central bank. **Our response to the corona virus emergency**. brouksel Belguem: European central bank. Consulté le 2020.

We note in Table No. (6) that the stimulus package taken by the developed countries in 2020, which includes the provision of microfinance and the reduction of the interest rate. The table reflects the low interest in small and medium enterprises compared to the developing Arab countries, as shown in Table (6), and for all the countries included in the table, where the funding rates in these countries were somewhat low, in contrast to the developing Arab countries. The table also shows that all developed countries did not resort to the policy of mandatory reserve to meet the financial crisis due to the Corona epidemic, and the table also shows that China has taken measures related to the balance of payments to mitigate the repercussions of the crisis in the recent period, and the table also shows that all developed countries have used the zero monetary policy represented by reducing the interest rate to the zero limit, which is one of the unusual monetary policies (quantitative easing policy).) to face the financial crisis, due to the repercussions of the epidemic crisis. And the use of the mandatory reserve policy in the Arab countries to confront the financial crisis has contributed to raising the percentage of the financial stimulus index to confront the crisis, as the use of the mandatory reserve policy is considered effective in facing the financial crisis, but it leads to a reduction in the proportion of cash reserves and this leads to a double crisis in the event of continued The financial crisis, so this policy is considered ineffective in the long run. Many countries have used this policy, such as Bahrain, Egypt, Jordan, Oman, Qatar, Saudi Arabia, Tunisia and the UAE. On the contrary, we note that the economically developed countries that use the unconventional monetary policy represented by quantitative easing have a positive impact in the long run if the zero-sum fiscal policy succeeds in reducing the price of the leader As well as the financing policy for small projects.

The use of unconventional monetary policy is only in exceptional circumstances, and there is no justification for its use in normal circumstances, so developing countries have used unconventional monetary policy to meet the exceptional circumstances of the Corona pandemic. Therefore, we find that the market has not returned to its normal state in the face of stagnation in the economy, and that central banks are seeking to return the market to its normal state, to eliminate the need to use unconventional tools. Undoubtedly, the aggravation of deflation in the monetary authority's policies has pushed the most important developed countries since the beginning of the crisis to monetary stimulus measures called unconventional policies, and central banks rely on such measures in the event that the traditional monetary policy transmission channels are no longer effective to support real activity. The main objective of applying the quantitative easing policy is to transfer the effect of this policy to the real economy to eliminate the crisis or mitigate its severity through a set of channels such as the liquidity and inflation channel. The implementation of the quantitative easing policy requires a set of criteria that must be adhered to, otherwise this policy will turn from a tool to solve the crisis into a tool that

must be hedged as one of the causes of the crisis. The success of the quantitative easing policy depends first on the country's domestic markets and not only on the increase in its exports. With the major countries racing to reduce their currencies -in an indirect way- this leads to their success in improving the conditions of unemployment, spending and investment within the country.

In order to ensure the success and effectiveness of the quantitative easing policy, a set of proposals must be drawn up, and a set of conditions and criteria must be met to ensure the effectiveness of this policy and stimulate real economic activity, such as having a flexible productive apparatus and a modern and effective banking apparatus while working to improve the technological base. We note that the quantitative easing policy cannot be used under normal conditions, but only in exceptional cases to raise economic activity by making the cost of credit low and avoiding what is known as currency war. Quantitative easing must be controlled and directed towards the productive and investment sectors; And opening the way for owners of local and foreign capital to contribute to the productive and investment activity of the state to alleviate the financial crisis caused by the Corona pandemic, and to ensure economic recovery through reforming the infrastructure necessary for the growth of economic sectors, as well as supporting and encouraging productive families for the contribution of all segments of society to the development process economical.

Second: Central Banks' Actions in Arab Developing Countries.

Arab central banks were at the forefront of financial institutions to confront the crisis caused by the Corona pandemic, by relying on the application of monetary policy mechanisms to provide liquidity to banks active in local economies. However, the package of these incentives adopted by the central banks of Arab developing countries differs from one country to another, based on the indicators of banking safety for each banking system. The packages of measures and measures included reducing interest rates, pumping liquidity, reducing reserve ratios, and postponing payments to individuals and small and medium-sized enterprises. In Saudi Arabia, the Saudi Arabian Monetary Agency cut its policy rates twice in March, and lowered the repo and reverse repo rates to (0.5,1.0), respectively.

1- The Central Bank of Egypt: In Egypt, the Central Bank reduced the interest rate by 300 basis points to 3% to support companies, and loan payments to small and medium-sized companies were suspended. Therefore, the Bank of Egypt decided to provide liquidity to the banking sector and credit guarantees to include public and private debt instruments (including loans real estate) and increasing and prolonging the Central Bank's refinancing operations to support bank credit for small and medium-sized companies and the use of electronic payment methods and tools through the abolition of fees and commissions applied to point-of-sale fees and ATM withdrawals.

2- The Central Bank of Algeria: The Central Bank reduced the mandatory reserve rate, from 10% to 8%, and reduced the Bank of Algeria's guideline interest rate by 25 basis points (0.25%) to fix it at 3.25%. It also took several measures to reduce the import bill by at least \$10 billion, equivalent to 6% of GDP. And the licensing of banks operating in the local exchange market, to deal in Islamic banking, where every operation does not result in the collection or payment of interests in order to restore confidence in financial

institutions, attract immigrant and hoarded financial resources, and direct them towards banks.

3- Central Bank of Tunisia: The Tunisian Central Bank decided to establish investment funds. A government credit guarantee and an official interest rate cut of 100 basis points in March 2020. As well as asking banks to postpone the payment of existing loans and suspend any fees on electronic payments and withdrawals, to activate a mechanism for the state by the Central Bank of Tunisia to cover the difference between the nominal interest rate and the actual interest rate on investment loans in the range of 3%. As well as calling on banks and financial institutions to suspend all procedures related to the distribution of profits for the year 2019. As indicated in the following table No. (5):

Table No.(5)The stimulus package taken by Arab countries to confront the crisis for the year 2020.

	financial stimulus GDP	interest rate cut	mandatory reserve	Microfinance	Other monetary procedures	Balance procedures Payments (GDP)	Other Balance of Payments Measures	motivation index
Algeria	-2.2	14.3	40.0	0	1.0	6	1.0	-4.25
Bahrain	7.0	52.3	40.0	28.0	1.0	0	0	4.85
Djibouti	2.4	0	0	0	1.0	0	0	-0.53
Egypt	1.8	23.5	0	2.2	1.0	0	1.0	0.21
Iraq	0.1	0	13.3	1	1.0	0	0	-1.48
Jordan	0.5	37.5	28.6	2.2	1.0	0	0	0.40
Lebanon	1.9	0	0	0	1.0	0	0	-0.53
Libya	1.0	0	0	0	0	0	0	-1.62
Mauritania	6.1	25.4	28.6	0	0	0	0	-0.05
Morocco	2.7	33.3	0	0.8	1.0	3	1.0	-0.58
Oman	-5.0	60	50.0	26.2	1.0	0	0	3.61
Qatar	13.0	53.7	0	5.7	1.0	0	0	2.55
Saudi Arabia	-2.6	63.5	0	4.0	1.0	0	0	1.00
Sudan	9.4	0	0	0	1.0	0	0	-1.62

Tunisia	1.8	12.9	0	1.0	1.0	0	0	0.16
UAE	2.1	62.5	50.0	28.6	1.0	0	0	1.81
Yemen	0	0	0	0	0	2.7	0	-1.62

Source: European central bank. **Our response to the corona virus emergency**. brouksel Belguem: European central bank. Consulté le 2020.

The stimulus package taken by the Arab countries included fiscal and monetary policies, the exchange rate and the balance of payments, and these countries vary in the type of policies taken to confront the Covid-19 crisis. Table No. (5) shows the type and size of policies taken in each of the Arab countries, according to the data of the International Monetary Fund and the index In different periods of the crisis (Elgin et al 2020)).

On the monetary policy side, the interest rate (rate-cut) was reduced as a percentage of the pre-pandemic rate in certain percentages in the Arab countries, in addition to the monetary stimulus package other than the interest rate as a percentage of GDP, and the average of these policies amounted to 3.8% of GDP in the countries Arabia . As for the balance of payments policies as a percentage of the gross domestic product (BOP-GDP), they were only implemented in one country, Algeria. The remaining columns of the table refer to monetary procedures and other balance of payments procedures that are not included in the previous policies in succession by the Arab countries, and these procedures are symbolized by binary variables that take the value zero when the procedure is not present and the value of the correct number one when it is present.

We note in Table No. (5) that the stimulus package taken by Arab countries in 2020, which includes changing the mandatory reserve ratios, providing microfinance and reducing the interest rate, is a traditional monetary policy. The table reflects the great interest in small and medium enterprises in some Arab countries such as Bahrain, Egypt, Jordan, Oman, Qatar, Saudi Arabia and the UAE, as shown in the percentages, respectively (28.0, 2.2, 2.2, 26.2, 5.7, 4.0, 2.7), where the financing ratios in these countries were very high. Contrasted with developed countries, where funding rates were very low. The table also shows that Algeria, Bahrain, Iraq, Jordan, Mauritania, Oman and the UAE, as indicated by the ratios, respectively (40.0, 40.0, 13.3, 28.6, 28.6, 50.0, 28.6), as this procedure is an application of a traditional monetary policy through the operations of the mandatory reserve to confront the financial crisis Because of the Corona epidemic, and on the contrary, we note that the developed countries did not resort to the mandatory reserve in the face of the epidemic crisis, and the table also shows that Algeria, Egypt, Morocco and Yemen, as indicated by the ratios, respectively (1.0, 1.0, 1.0, 1.0), as these countries worked on measures related to the balance of Payments to mitigate the repercussions of the crisis in the recent period, and Table No. (5) also shows that Algeria, Bahrain, Egypt, Jordan, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Tunisia and the UAE have used the monetary policy, which was to reduce the interest rate by certain percentages, and we consider that this procedure is a traditional monetary policy To face the financial crisis due to the repercussions of the epidemic crisis, as indicated by the percentages, respectively (14.3, 52.3, 23.5, 37.5, 25.4, 33.3, 60.0, 53.7, 63.5, 12.9, 62.5).

We note that the actions of central banks in Arab developing countries in addressing the financial crisis due to the Corona epidemic, relying on traditional monetary policy, whose role is effective in normal cases to curb inflation. This policy is represented by using

quantitative tools such as the rediscount rate, the legal reserve ratio, open market operations, and others, as it did not exceed its classic role in facing the financial crisis, and these tools have a very limited impact to limit the negative repercussions of the Corona crisis on economic activity, employment and price stability, and that the use of unconventional monetary policy depends on the economic strength of the country and the degree of independence of central banks that it enjoys from political authority.

Results:**First: Conclusions:**

1-The practice of quantitative easing has provided central banks with additional tools to manage monetary policy in light of the shortcomings of other traditional tools in achieving the monetary policy objectives targeted by these banks.

2- The direct objectives of the quantitative easing policy were to maintain interest rates within the limits desired by the concerned central bank, as in the developed countries. Maintain target inflation rates as in the UK. Maintaining appropriate liquidity rates with the banking system, as in the United States. Improving the prices of financial assets in the financial markets as in the United States and the European Union.

3- Theoretical research and preliminary analyzes showed that quantitative easing has direct and indirect effects on inflation, interest rates, exchange rates and the prices of financial assets, but the dimensions and duration of these effects have not been accurately diagnosed. Research is still underway to generalize understanding of the effects and consequences of quantitative easing.

4- Despite the direct and immediate advantages of quantitative easing, many economists and analysts oppose the expansion of its use or the recurrence of its use because of their pessimistic view of its long-term effects on currency exchange rates and inflation rates, because it contributes to increasing the monetary mass.

5- The officials in the central banks that have practiced the policy of quantitative easing have repeatedly declared that this procedure is temporary and subject to the disappearance of the reasons that justified resorting to it. However, the succession of financial crises and the failure to reach radical solutions to them may make the process of using it a continuous (context) for these banks that cannot Abandoning quantitative easing due to its lack (at least for the foreseeable future) of alternative tools and having to use it under difficult economic conditions.

6- The main objective of applying the policy of negative interest rates is to keep commercial banks away from depositing their money in the accounts of the Central Bank to use their money in lending to companies and individuals, as reducing the interest rate below zero will make lending easier by commercial banks and increase the demand for loans and stimulate the spending and investment.

7- It appears by following the course of the global economy that the bet of the major countries on the success of the policy of negative interest rates depends first on the ability of commercial banks to invest and provide soft loans to the economy. It also remains the bet of their success in improving unemployment numbers and creating job opportunities by enhancing spending and investment within the country.

8- The application of the policy of negative interest rates is based on the relationship between commercial banks in developed countries with the Central Bank, and there is no

implementation of this policy between commercial banks in developing countries with the Central Bank.

Second: Recommendations:

- 1- Urging developing countries to study and apply unconventional monetary policy tools.
- 2- Paying more attention to unconventional monetary policy tools because they are considered the last resort for policy makers in despair of economic recovery.
- 3- Continuing to study the short-term and long-term effects of quantitative easing and negative interest rates, in order to reach an accurate diagnosis and to rely on those results to decide whether or not to continue to adopt the quantitative easing policy and to resort to the optimal amounts of quantitative easing and negative interest rates that are used. Every time and within limits that do not negatively affect economic variables.

Sources:

1. Abd al-Azim al-Omawi, (Central Banks and the Corona Crisis). Arabic Sky News, 2020.
2. Abdel Majid Kadi, Introduction to Macroeconomic Policies, Office of University Publications, Algeria. 2006
3. Abdel Muttalib Abdel Hamid, Economic Policies at the National Level, Macro Analysis, Arab Nile Group, Cairo 2003.
4. Al-Ashi Walid, and my friend Ahmed). The experience of quantitative easing in Algeria. Journal of Business and Finance Economics, Issue 2, (2018).
5. Ali Sari. (Central banks in developing countries and their ability to unconventional practices. (Journal of Economics and Finance, (2013).
6. Bakhda Al-Hashemi and Meziane Muhammad Tawfiq, The Role of Central Banks in Facing the Crisis Resulting from the Corona Crisis, International and Arab Experiences, Journal of Quantitative and Qualitative Research in Economic and Administrative Sciences. Volume 02 / Issue 01: 2020 .
7. Belazzouz Ben Ali, Lectures on Monetary Theories and Policies, Diwan of University Publications, Algeria, 2004.
8. D.williams. Stephen (2014) . Louis. Federal reserve Bank Of ST .Scarce Collateral.
9. Diaa Majeed Al-Moussawi, Critical Reform, First Edition, Dar Al-Fikr Algeria (1993).
10. Dibba Firas. US quantitative easing measures in emerging markets. Thesis submitted to obtain a master's degree in international economic relations, 18 University of Aleppo, Faculty of Economics, Syria (2018).
11. Editorial Team, (Instructions to banks to avoid a liquidity crisis due to the Corona epidemic). Algeria Ultra electronic newspaper, 2020.
12. European central bank. **Our response to the corona virus emergency**. brouksel Belguem: European central bank. Consulté le 2020.
13. Hamdi Mohammed, and Ahmed A. 14) A measure by the Central Bank to protect banks and customers from the repercussions of the Corona crisis). Online Newspaper 2020. <https://amwalalghad.com/>

14. Hamdi Muhammad, and Ahmad A. (14 measures by the Central Bank to protect banks and customers from the repercussions of the Corona crisis). Online Newspaper 2020. <https://amwalalghad.com/>
15. Mattai Abdel Qader and Fatiha Rachdi, (Quantitative Easing as a Method - The Experience of the United States of America). Economic visions magazine, issue 11, Algeria, 2016.
16. Mattai Abdel Qader, Rashedi Fatiha, (Quantitative easing policy as a modern method for managing monetary policy in light of crises - the experience of both Japan and the United States of America), Economic Visions magazine, No. 11, El-Wadi, Algeria, December 2016.
17. Mustafa Suleiman and Hussam Daoud). principles of macroeconomics). Dar Al Masira for Publishing, Distribution and Printing (2003).
18. Najma Elias, (A Study in the Current Critical Situation), Damascus University Journal. (1985)
19. Refaat Al-Mahjoub Amin, Lectures on Money and Economics, Dar Al-Nahda Al-Arabiya, Egypt, (1993).
20. Sari Ali, Unconventional Monetary Policy, Tools and Objectives, The Algerian Journal of Globalization and Economic Policies, Issue 4, 2013.
21. Taher Latrash, Monetary and Banking Economics, Diwan of University Publications, Algeria. (2012).
22. Taher Latrash. Monetary and Banking Economics, National Office of University Publications, Algeria (2013).
23. Talha, Al-Waleed Ahmed, (The economic repercussions of the emerging corona virus on Arab countries.) Arab Monetary Fund 2020.
24. Talib Muhammad Al-Amin Walid. The role of monetary policy in addressing financial crises PhD thesis. Biskra, Algeria: University of Biskra, (2016).
25. Younesi, Maddoukh, (The Impact of Quantitative Easing Policy on the General Level of Prices in Algeria), Afaq Scientific Journal, Volume 11, Issue 2, 2019.
26. Zakaria Al-Douri and Yusra Al-Samarrai, Central Banks and Monetary Policy, (2004).