

Quantitative Easing Between Financial Stability and Inflation in Advanced Economies

Alouane Ramzi ^{1st} , Boulouiz Abdelouafi ^{2nd} & Khenafar Ali ^{3rd}

- 1- University of oum el bouaghi, (Algeria), ramzialouane@yahoo.fr
- 2- University Center Naama, (Algeria) , boulouiz@cuniv-naama.dz
- 3- University of khenchela (algeria), khenafar.ali@univ-khenchela.dz

* Corresponding author: ramzialouane@yahoo.fr

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Abstract: This study aims to clarify the key repercussions of quantitative easing related to ensuring financial stability in one hand, and inflation in other side. In order to get best results we have used both descriptive approach and analytic approach by analyzing statistics and politics has adopted by some central banks in developed economies.

The current study found that the financial stability requires maintaining an adequate supply of credit, countering both a sharp tightening in liquidity, and therefore funding guarantee. The study also concluded that quantitative easing policy has contributed to providing liquidity and restoring confidence to the market during crises, But QE can lead in the long rang to inflation, so it is best to resort to it only in emergency situations. The study concludes also that it would be a mistake to think of monetary and fiscal politics separately, they are complements because both may concur to the task of restoring the financial stability and reducing risk-taking.

Keyword : Financial stability, Quantitative easing, Inflation, Interest Rates, COVID19.

1. Introduction

Quantitative easing refer to a monetary policy whereby a central bank purchases government bonds or other financial assets in order to arise money supply and to expand economic activity. As the financial stability requires maintaining an adequate supply of credit, countering both a sharp tightening in liquidity, and supporting the functioning of the payments system. and, therefore price stability and funding guarantee.

There is disagreement about whether quantitative easing causes inflation or help to expand economic activity and reach financial stability, and to what extent it might do so. critics often point to examples in history where money printing has led to hyperinflation, such as in the case of Zimbabwe in the early 2000s, or Germany in the 1920s. However, proponents of quantitative easing will point out that, because it uses banks as intermediaries rather than placing cash directly in the hands of individuals and businesses, quantitative easing carries less risk of producing runaway inflation, Because of the high levels of unemployment and economy's underutilized productive capacity.

2. Research Problem

A debate is currently raging about whether the quantitative easing is heading towards financial stability or inflation, especially in the advanced economies. In the aftermath of the global financial crisis and the recession that followed, central banks (particularly in the advanced economies) started to pump liquidity into the system via quantitative easing, a form of monetary policy whereby the central bank buys government bonds with freshly-created money.

Not all policy-makers are in favor of QE. The Bank for International Settlements (BIS) and the United Nations Conference on Trade and Development (UNCTAD) have both voiced concerns (albeit for different reasons), as have representatives of national central banks in the Netherlands and Germany. In a seminar, BIS researchers noted that "the theory of QE remains unclear (Rodrigo, 2018, pp. 9-10). They quoted the former chair of the US Federal Reserve, Ben Bernanke: "The problem with QE is that it works in practice, but it doesn't work in theory, another proponent of the ice view is Mankiw (2010) who is more worried about deflation and stagnation than about excessive inflation (Burns & Moosa, 2013, p. 126).

The other arguments say that quantitative easing is not going to lead to inflation because of the currently underutilized productive capacity and high levels of unemployment. Stiglitz (2012) argues that QE3 will not cause "serious" inflation because of economy's underutilized productive capacity. Levine-Weinberg (2012) similarly argues that quantitative easing will not cause hyper – or even severe – inflation because of the current unemployment and underemployment in the U.S. Harvey (2011) points out that there is no reason why quantitative easing will not lead to a rise in production and employment as opposed to prices, as long as excess money balances are invested in productive activities to meet the new demand. (Moosa, 2014, p. 317) Krugman (2012) argues that higher inflation in the U.S. would be beneficial in alleviating private debt and encouraging consumption and thus recovery. According to Krugman, Higher inflation would "erode the real value of this debt, deter the private sector from hoarding its current cash reserves and therefore promote consumption, investment and economic recovery". So quantitative easing may be a deliberate policy action taken to create inflation and debase the dollar (Burns & Moosa, 2013, p. 124).

Researchers and policy makers are interested in answering the question, what are the impacts of the quantitative easing on the economy of the developed countries, especially for inflation? From what precede, the main aim of this study is to explore and answering the following research questions:

Does quantitative easing policy help in achieving financial stability, or does it lead to inflation?

1.2. Previous Studies

➤ Kjell Hausken, Mthuli Ncube, Quantitative Easing and Its Impact in the US, Japan, the UK and Europe, Springer Briefs in Economics, 2013, London.

The aim of this study is to analyze, empirically, the effects of Quantitative easing on interest rates and the economy in the USA, Japan, the UK, and Europe.

The study concluded that quantitative easing encourages industrial production in the USA, the UK, and Japan. In addition, the study found that QE contributes to the reduction in unemployment in some of these advanced economies.

In contrast, the study concludes that QE has led to a rise in inflation expectations in the USA, the UK, and Euro area. And the effect on economic growth is rather limited. No significant effect of QE on GDP growth is found.

➤ Imad A Moosa, *Quantitative easing as a highway to hyperinflation*, World Scientific Publishing, Singapore, 2014.

The purpose of this study is to explore the role of quantitative easing in advanced economies, and it also aims at clarifying how to use this policy in order to achieve financial stability and economic growth especially in advanced economies.

The study concluded that the tough choice between austerity and the quantitative easing is a choice between pain today and pain tomorrow. Resorting to the printing press, as experiences have shown, has been the easy choice that always brought about economic catastrophe.

The study reached a number of results, the most important of them is that The biggest risk with regard to quantitative easing, arises from fears of causing upper inflation due to the quantities of money supplied, which makes the money mass larger than the volume of goods and services.

According to the study, Fears are also related to the ability of governments in the future to fulfill their debts to central banks, which are considered as the first creditor to governments, and their assets have been doubled by quantitative easing policies.

➤ Alessandro Rebucci, Jonathan S, Hartley, Daniel Jimenez, *An Event Study of COVID-19 Central Bank Quantitative Easing in Advanced and Emerging Economies*, SSRN Electronic Journal , January 28, 2021.

This study conducts an event study of 30 quantitative easing (QE) announcements made by 21 central banks on daily government bond yields and bilateral US dollar exchange rates, in the midst of the global financial turmoil triggered by the COVID19 outbreak. The paper also investigates the transmission of QE to long-term interest rates.

The study find evidence that QE policy has not lost effectiveness over time in advanced economies and that its international transmission is consistent with the working of long-run uncovered interest rate parity and a large dollar shortage shock during the COVID-19 period. In emerging markets, the QE impact on bond yields is much stronger and its transmission to exchange rates is different than in advanced economies.

➤ Burns, Kelly; Moosa, Imad. *Fire or ice? A critical assessment of the underlying views*. Journal of Reviews on Global Economics, vol. 2, 2013. Canada.

The purpose of this study is discussion the debate that is raging in the world, particularly in the U.S between supporters and opponents of Quantitative easing. And on whether the U.S. is likely to experience hyperinflation or deflation as a result of quantitative easing.

Views have been put forward to suggest that the U.S. is heading towards hyperinflation, while others suggest that deflation is the destination. The study concluded that, likelihood; it seems that the U.S. is more heading towards hyperinflation.

3 . The Theoretical Framework of the Study

3-1 . The concept of Quantitative easing :

Quantitative easing is a type of monetary policy in which a nation's central bank tries to increase the liquidity in its financial system, it was first developed by the Bank of Japan, but has since been adopted by the United States and several other countries (ERIKA , 2021). Quantitative easing has become common in the aftermath of the global financial crisis and the great recession. The practice involves the creation of money and injecting the newly created money into the domestic economy, typically by buying securities from banks and other financial institutions. The underlying idea is that the new money will flow (in the form of loans) from banks to other areas of the economy where they are needed, boosting spending, production and investment. Specifically, long-term bonds are bought with newly printed money, pushing up prices and reducing yields, thus providing a boost to growth when short-term interest rates are close to zero (Moosa, 2014, p. 286). Bank of England describes quantitative easing as following: "Quantitative easing is tool that

central banks, like us, can use to inject money directly into the economy. Money is either physical, like banknotes, or digital, like the money in your bank account. Quantitative easing involves us creating digital money. We then use it to buy things like government debt in the form of bonds. You may also hear it called ‘QE’ or ‘asset purchase’ – these are the same thing » (Bank Of England , 2021).The intended purpose of QE is to stimulate a country’s economy by substituting assets held by financial institutions (for example, public debt, corporate bonds and mortgage-backed securities) with cash (created as part of the process). The result of this purchasing program is that bonds that were previously held by financial institutions, mostly investors, move to the balance sheet of the central banks in exchange for money (Rodrigo F. , 2018, p. 9).

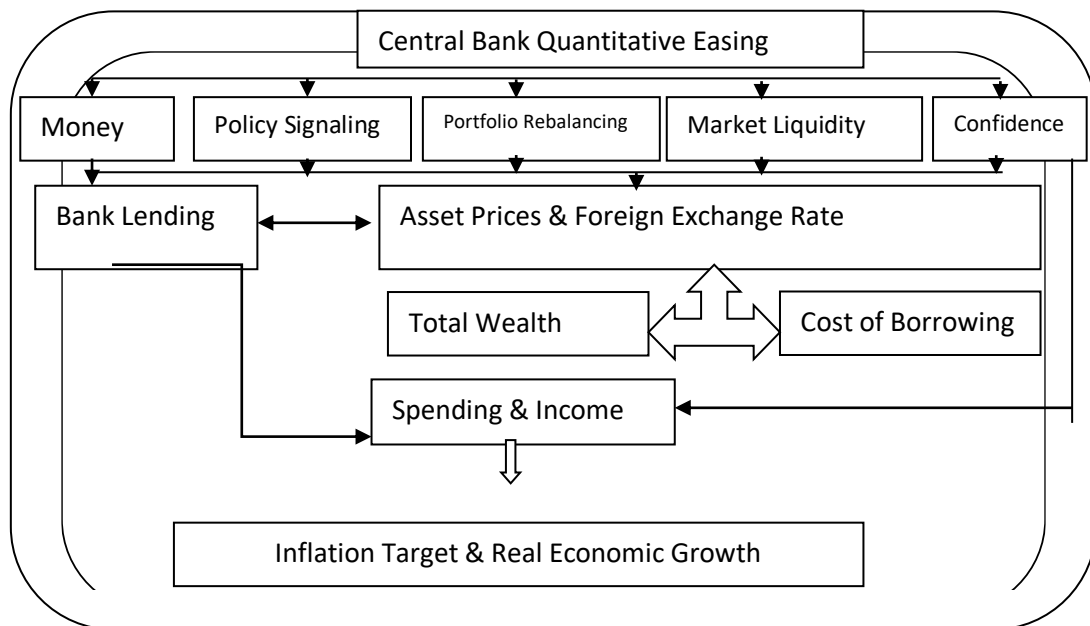
Through previous definitions it can be said that quantitative easing is considered to be an "unconventional" form of monetary policy, whereby a central bank purchases government bonds or other financial assets in order to inject money into the economy to expand economic activity.

3.2. Transmission Channels for QE and Effects on Interest Rates:

Recent literature on unconventional monetary policy has identified a number of potential channels through which QE can potentially have an impact on interest rates, which in turn may change the willingness of companies to invest ad employ, individuals to spend, and banks to lend. These changes are then expected to influence the level of inflation and economic growth (Kjell & Mthuli , 2013, p. 5). To execute quantitative easing, central banks increase the supply of money by buying government bonds and other securities. Increasing the supply of money lowers the cost of money—the same effect as increasing the supply of any other asset in the market. A lower cost of money leads to lower interest rates. When interest rates are lower, banks can lend with easier terms. (ERIKA , 2021)

Basically, the QE affects interest rates through various transmission channels. By announcing large-scale asset purchases, central banks provide information about the likely path of future monetary policies to market participants through a signaling channel. Purchasing a large quantity of long-term assets under QE serves as a credible commitment by central banks to keep interest low in the future. This is because, if the central banks raise interest rate later, they will see huge losses on the assets they purchased under QE. (Kjell & Mthuli , 2013, p. 5)

Fig 1: Transmission channels of quantitative easing



Source: (Kjell & Mthuli , 2013, p. 6)

From the previous figure we can notice that the QE aims at achieve inflation target and real economic growth, throughout many steps and politics. For example through Money that affect bank lending, and through Policy Signaling, Portfolio Rebalancing.

Market Liquidity, Confidence; that affects Asset Prices and Foreign Exchange Rate, Because increasing the money supply also keeps the value of the country's currency low, Than the local stocks become more attractive to foreign investors, because they can get more for their money. It also makes exports less expensive. The latter, in its turn, affects Cost of Borrowing and Total Wealth, and finally affect the way that economic agents Spending their Incomes. As final results central banks can target through QE inflation and real economic growth.

From what we have just said, we can conclude that reducing short-term interest rates to encourage spending has long been the favored policy option of Central Banks when dealing with the threat of deflation and recession.

3.3. Quantitative easing between boosting the GDP and inflation:

Opponents of quantitative easing like "Adam Ferguson", the author of an influential book on the German hyperinflation, thinks that there is no difference between quantitative easing and what the German central bank did in the 1920.

The more the fiscal situation deteriorates and the more central banks debase their currencies by printing more, the higher is the risk of a loss of confidence in the future purchasing power of money. It follows that the leading indicators of hyperinflation pertain to the fiscal situation and monetary policy stance. It seems that central bankers find it difficult to sell the idea that quantitative easing is benign. While the Bank of England and Federal Reserve try hard to give the impression that QE is a legitimate means of reviving the economy, it is not an easy job to convince the public that QE has no inflationary consequences. Whether money is produced by a printing press or a computer makes no difference. (Moosa, 2014, pp. 256-271) BIS researchers noted that "the theory of QE remains unclear" (Rodrigo F. , 2018, pp. 9-10); they quoted the former chair of the US Federal Reserve, Ben Bernanke: "The problem with QE is that it works in practice, but it doesn't work in theory". (Bank for international Settlements, 2017, p. 2) Another proponent of the ice view is Mankiw (2010) who is more worried about deflation and stagnation than about excessive inflation. (Burns & Moosa, 2013, p. 126)

In the other side, many economists claim that QE reduced the risk of deepening the recession or a full-scale depression, by staving off deflation and boosting the GDP. The International Monetary Fund (IMF), for instance, claims that QE policy "contributed to the reduction in systemic risks following the bankruptcy of Lehman Brothers" during the financial crisis. The IMF concluded that QE1 (the first round of QE) led to "market confidence" which eventually allowed the economy to rebound in a major way. (Lucca , 2021) Krugman argues that higher inflation in the U.S. would be beneficial in alleviating private debt and encouraging consumption and thus recovery. According to Krugman, Higher inflation would "erode the real value of this debt, deter the private sector from hoarding its current cash reserves and therefore promote consumption, investment and economic recovery". (Burns & Moosa, 2013, p. 124)

4. The Quantitative Easing and its effect in advanced economics:

The program of quantitative easing has significantly increased the central's bank's balances sheet, As the Fed's balance sheet, Bank of England's balance sheet, Bank of Japan's balance sheet... because they purchased such a huge volume of assets. This action was taken in response to the detrimental impact of the global COVID-19 pandemic on the world economy. Other central banks around the world, took a similar approach to stimulate their economies.

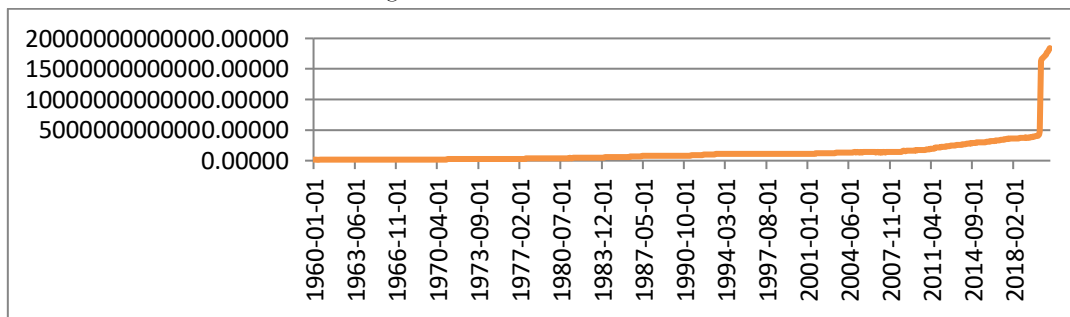
4.1. The Quantitative Easing and the money supply in advanced countries:

The Corona crisis led to more quantitative easing policy in developed countries, especially the United States, which printed more money in order to face the liquidity shortage.

The current QE policies emerged in the US in the direct aftermath of the financial crisis of 2008 and have since expanded to other countries and regions including Japan, the Eurozone, Sweden, Switzerland and the UK. This follows an earlier QE experiment in Japan from 2001 to 2006. The overall expansion of central banks’ balance sheets as a result of these monetary policies is in the range of US\$11 trillion between pre-crisis 2008 and 2018. The total size of the combined balance sheets is currently US\$15 trillion, or roughly 20 percent of global gross domestic product (GDP). Through this process, central banks have become key bond holders. (Rodrigo F. , 2018, p. 6)

The economic crisis resulting from the containment measures linked to the Covid-19 epidemic has led to a very sharp increase in the money supply in US, which has grown over the last two years at the strongest pace since World War II. And that what we can see from the next figure:

Fig 2: M1 for the United States



Source : (St. Louis, 2021)

Figure (2) portrays the long-term development of the monetary base M1 over ten years in US economy, the leading indicator of money printing from Federal Reserve in the US. From the previous figure we can say that the QE policies did higher monetary base M1 – in some cases to unprecedented high levels –; M1 have been grown for more than 30 years. Especially after the financial crisis that has hit the US and the world, We can see that prior 2008 the M1 had reached less than 2000 billion dollars; But after the crisis, had grown to become 4000 billion dollar in 2019, But after the outbreak of the epidemic COVID 19, it grow up dramatically to hit 18000 billion dollars.

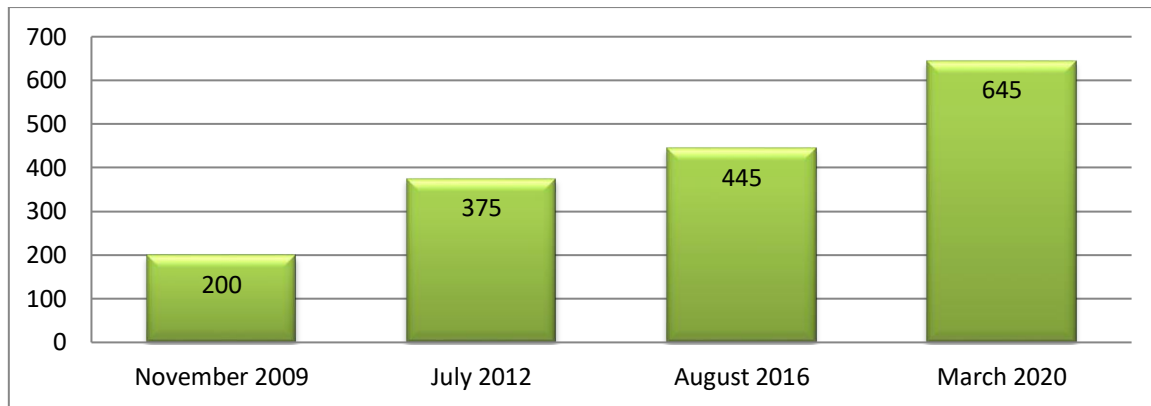
Table 1: Total Central Bank Assets for: Japan, Euro Area, United Kingdom:

Year/Country	JAPAN (100 Million Yen)	Euro Area (Millions of Euros)
2008-01-01	1126154	1571759
2009-01-01	1173740	1838178
2010-01-01	1214450	1967342
2011-01-01	1360555	2121638
2012-01-01	1468397	2974003
2013-01-01	1924405	2491224
2014-01-01	2648755	2115164
2015-01-01	3497003	2480095
2016-01-01	4368855	3212095
2017-01-01	5043782	4194371
2018-01-01	5419449	4587464
2019-01-01	5673349	4683969
2020-01-01	6516032	-

Source : (St. Louis, 2021)

In Europe, We can see that the balance sheet of the European Central Bank started rising well before its QE programs started in 2015. These pre-2015 asset purchases were similar to the later QE program but lacked the broader institutional framework of the QE period; When the balance sheet of ECB have increased from 2480095 millions of euros in 2015, to reach 4683969 million of euros in 2020.

Fig 3: Bank of England Purchases of Bonds in Billion



Source: (Bank Of England , 2021)

In the UK, Rounds of QE have been announced in response to the economic conditions at the time. This graphic shows how bond purchases have built up over the years. In 2009 buying sovereign bonds and high-quality corporate bonds worth over £200 billion, followed by other asset-purchasing program that together totaled £375 billion in 2012. Thus the balance sheet of the bank of England has also increased to reach 445 billion of pounds in August 2016. Meanwhile, we can see that the balance sheet of UK central bank have doubled since the global financial crisis, to jump from 200 billion of sterling in 2009, to reach 645 billion of pounds in August 2016, Because of the COVID 19; which means that it have doubled about more than three times, Which is evidence of the impact of Quantitative easing on the monetary supply in UK.

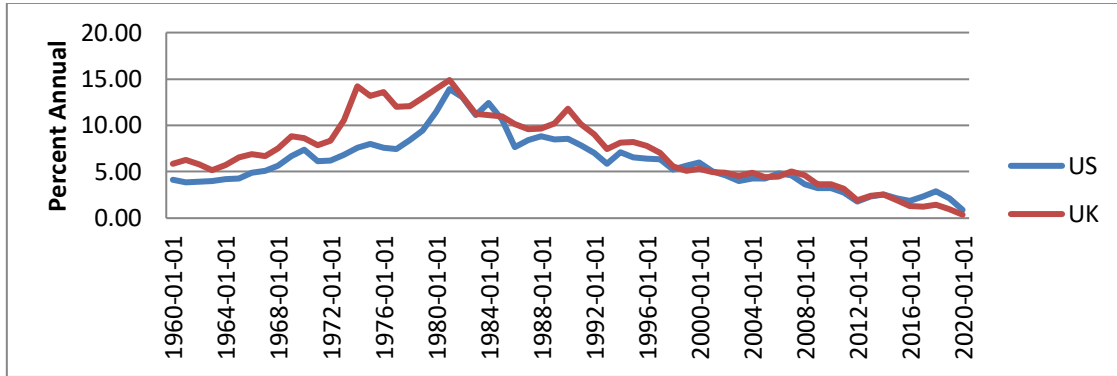
4.1. The Impact of Quantitative Easing on Interest Rates In USA, UK, Japan:

After aggressively cutting policy rates early in the crisis, most advanced economies are now facing effective lower bounds for conventional monetary policy, though there is still room for further policy cuts in many emerging markets. Some emerging market central banks have launched asset purchase programs to stabilize local markets and ease financial conditions, but in some cases, these purchases have also facilitated financing of government deficits. In such cases, transparency and clear communication of the policy objectives are crucial to minimize risks to central bank credibility and the perception that these programs are used for monetary financing—especially in countries with weaker institutional and governance frameworks. (International Monetary Fund, p. 22)

Despite the differences in design, their operational frameworks for monetary policy across the central banks should be understood in light of the different structures of financial systems. The unconventional measures undertaken by the Fed and Bank of England, which focus primarily on bond purchases, are much more effective in lowering interest rates than those undertaken by the Bank of Japan and European central bank, which rely more heavily on lending to private financial institutions. On balance, government bond yields in the USA and the UK decline cumulatively by over 100 basis points at medium and longer maturities, and more than 50 basis points at shorter maturities. In contrast, an average fall by only about 20 basis points is found for government bond yields in Japan, while mixed results are found for those in the euro area. Given the importance of banks as sources of external funds in Japan and the euro area, it is understandable that the Bank of Japan and European

Central Bank choose to conduct their unconventional monetary policies mainly through the banking system.

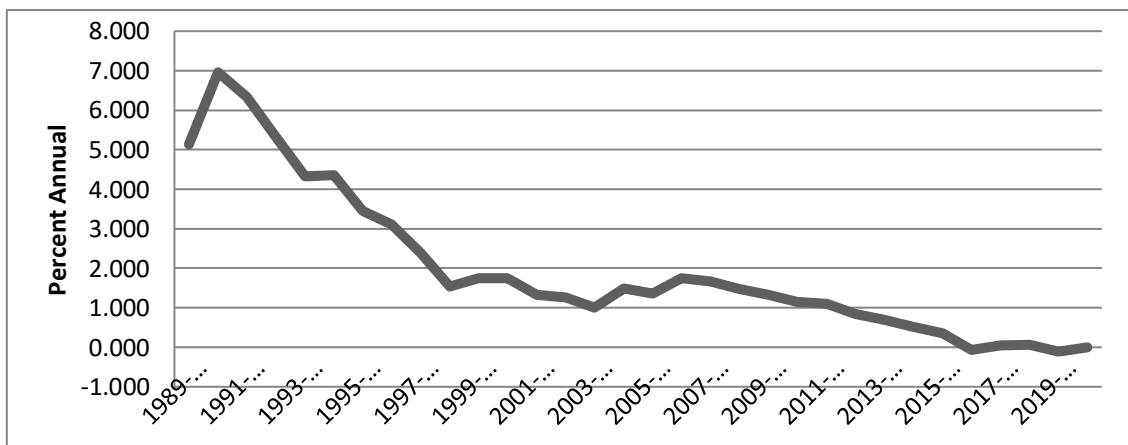
Fig 4: Long-Term Government Bond Yields:10 years Main for the United State and United Kingdom



Source : (St. Louis, 2021)

Figure (4) portrays the long-term development of the interest rate over ten years in terms of US Treasury bills, the leading indicator of long-term interest rates in the US and worldwide, and UK Treasury bills. From the previous figure we can say that the QE policies did lower interest rates – in some cases to unprecedented low levels – interest rates have been declining for more than 30 years. Especially after the financial crisis that has hit the US and UK and the world, We can see that prior 2008 the interest rate had reached 05 % on both Us and UK; But rarely after the crisis it came down dramatically to reach 2.5% in 2009 in both countries, And became stable until The outbreak of the epidemic COVID 19, when it reached unprecedented low level by almost 0.7 % in US and about 0.3 in UK.

Fig 5: Long-Term Government Bond Yields:10 years Main for Japan



Source : (St. Louis, 2021)

Figure (5) portrays the long-term development of the interest rate over ten years in terms of Japan Treasury bills. From the previous figure we can say that the QE policies did lower interest rates – in some cases to negative levels – interest rates have been declining since 1991. Especially after the financial crisis that has hit Japan and the world, We can see that prior 2008 the interest rate had reached 1.46 % ; But rarely after the crisis it came down dramatically to reach a negative level in 2016

when it record -0,066 %, and -0,110, -0,005 in 2020/2021 respectively ;Because of The outbreak of the epidemic COVID 19.

Although the unconventional monetary policies adopted by the Fed and BOE are similarly designed and both are proven to be effective, our empirical results show that they impact interest rates through distinct transmission mechanisms. Specifically, the decomposition of market responses to the QE-related events suggests that the decline in the US Treasury yields largely reflects changes in policy expectations, while the decline in UK gilt yields is mainly attributable to the reductions in term premiums. Therefore, the signaling channel is dominant in the QE program conducted by the Fed, and the portfolio rebalance channel plays a more important role in the conduct of the BOE’s QE program.

First, the Fed is much more willing to provide forward-looking policy guidance on interest rates which is typically absent from the BOE’s announcements, and thus the signaling effect is much stronger in the USA than in the UK. As that, the government bond market in the UK is relatively less liquid than that in the USA in which Treasuries are held by a broader class of international investors, and therefore the market segmentation and resulting portfolio rebalance effect are more likely in the UK than in the USA .

In their own empirical study (Kjell Hausken and Mthuli Ncube) has shown from the UK and the USA shows that over 80 % of the cumulative changes in government bond yields are attributable to the first round of their QE. The market responses to the subsequent rounds of QE are much less significant. This brief thus uncovers new insight that the effectiveness of the unconventional monetary policies tends to diminish once they have been implemented.

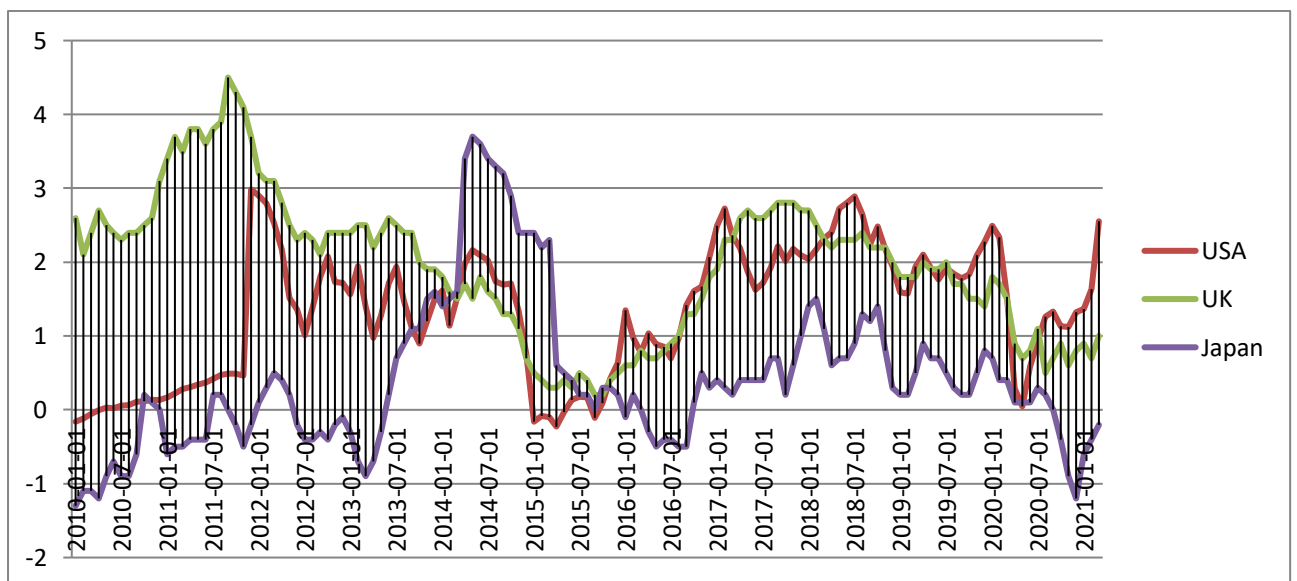
4.2. The inflation rates in light of quantitative easing policy in advanced economies:

Even while large amounts of Money were pumped into the global economy to combat the reflections of global financial crisis, and COVID 19 outbreak, inflation has trended both up and down in advanced economies, during the decade that followed the global financial crisis. Sometimes inflation rates even have fallen dramatically, becoming negative in these countries.

During the early part of the decade (2010 - 2011) there was a huge incline in inflation in advanced economies, especially in UK. Pushed up by a steady run-up in commodity prices and a spike in energy prices after the global crisis.

In the next period, inflation pushed down to negative territory during the period between 2015 and 2017. After that inflation rates hovered around 02 percent during the next period.

Fig 6: Consumer Price Index For THE UK,US and Japan (2010-2021period Monthly)



Source : (St. Louis, 2021)

Figure (6) portrays the development of the Consumer Price Index over more than ten years, in UK, US and Japan, the leading indicator of inflation in these economics.

From the previous figure we can say that the inflation rate for the Consumer Price Index in the United Kingdom jumped to 1 percent in March 2021, compared with a rate of 0.5 percent in August 2020. From 2010 until 2021 the Consumer Price Index rate fluctuated between a high of 4.5 percent in September 2011 and low of 0.2 percent in September 2015. The CPI rate has decreased since 2018, indicating that prices in the UK have falling until 2021, when CPI began to rise again.

In Us the inflation rate for the Consumer Price Index jumped to 2.55 percent in March 2021, compared with a rate of 0.05 percent in Mai 2020. From 2010 until 2021 the Consumer Price Index rate fluctuated between a high of 2.98 percent in December 2011 and low of negative 0.15 percent in January 2015. The CPI rate has increased since December 2020, indicating that prices in the US have rising until March 2021 to reach 2.55 percent.

In Japan the inflation rate for the Consumer Price Index dropped to negative rate 0.2 percent in March 2021, compared with a rate of 3.7 percent in Mai 2014. The CPI rate has decreased since March 2015 from 2.3 percent to negative rate 0.4 percent in February 2021, indicating that prices in Japan have falling until 2015.

In the aftermath of COVID 19 crisis, we can notice new incline in inflation, and one of the main key factor behind this were increasing money supply through quantitative easing.

The advanced economies adopted QE at the onset of the global financial crisis and during COVID 19. Though, we can't notice a direct and automatic relationship between QE and inflation rates in these countries. The reason for that is that central bank's did not pair QE with fiscal stimulus. Banks chose to hold the proceeds of QE as excess reserves rather than increasing their pace of lending and thereby creating money, in addition to current economic situation (underutilized productive capacity and high levels of unemployment), and the high productive capacity that has these economics. In these circumstances, QE is not inflationary. It may become inflationary if it achieves its intended purpose of stimulating more economic activity by fueling bank lending and money creation.

5- Economic recovery between quantitative easing and austerity policies:

In the aftermath of the global financial crisis and the recession that followed, the Federal Reserve started to pump liquidity in the system via quantitative easing. While it is only natural to think that a monetary expansion caused by quantitative easing will eventually lead to inflation, some economists believe that quantitative easing will actually lead to financial stability.

By purchasing securities from banks, the central bank hopes to stimulate economic growth by empowering the banks to lend or invest more freely. (ERIKA , 2021) Bank of England has a positive regard towards QE, and that what we can read from its official website: " The aim of QE is simple: by creating this 'new' money, we aim to boost spending and investment in the economy ". (Bank Of England , 2021)The proponents of that view say that quantitative easing is not going to lead to inflation because of the currently underutilized productive capacity and high levels of unemployment. Stiglitz argues that QE3 will not cause "serious" inflation because of economy's underutilized productive capacity.

This view points out that quantitative easing will not cause hyper – or even severe – inflation because of the current unemployment and underemployment in the U.S. There is no reason why quantitative easing will not lead to a rise in production and employment as opposed to prices, as long as excess money balances are invested in productive activities to meet the new demand. More specifically, The U.S. is in a different position from other countries because it does not have any problems selling sovereign debt, and because it has a highly productive and functioning economy.

On the other side, there are a large number of economists who opponent these arguments, the U.S. is engaging in excessive amounts of quantitative easing and is threatening hyperinflation. There are good reasons to expect that the U.S. will experience hyperinflation sooner or later because it has gone so far down the path towards inflation.

An annual budget deficit in excess of one trillion dollars requires the federal government in US to sell bonds for the amount of the deficit plus any bonds coming due. Investors are mostly buying short term bonds, so the Fed will buy any bonds not bought by anybody else. Thus the economists predict that the Fed will be forced to monetize the whole of the federal debt, which requires a rapid expansion of the monetary base. For them, hyperinflation in the U.S. is inevitable, particularly that the Fed has definitely persisted along its declared path and will continue to do so. Especially in the age of computer-generated fiat money, there is no limit on the ability of the Fed to inflate the money supply. (Moosa, 2014, p. 271)

Policy-makers in developing countries such as Brazil have also voiced criticism. Concerns revolve around the question of the effectiveness and duration of QE; its long- and short-term side effects; and how this increase in liquidity may change the 'metabolism' of the global economy – increasing the risk of financial system volatility and crisis (asset bubbles) and amplifying the fragility of less developed economies.

Where there is consensus, however, is that QE reduces the funding costs for banks, making it easier for them to provide loans or to trade in securities and derivative markets. But whether this increased liquidity remains in the financial sphere (being re-invested in financial assets) or reaches the 'real economy' (i.e. is used for productive means) remains to be seen. (Rodrigo F. , 2018, pp. 9-10)
In the Eurozone, Austerity policies emerged at a time of the euro crisis that was followed by a period of prolonged recession.

Spain ended 2012 with public debt at 84 per cent of GDP. This was fueled by the European Commission's rescue of its financial sector and the contributions to the European bailout funds. By June 2013, Spain's public debt was equivalent to 88.2 percent of GDP. One in three Euros of planned spending in the 2013 government budget has gone to servicing the interest on that debt, (oxfam, 2013, p. 2) In October 2012, Spain's credit rating was put down to the vicinity of junk bonds as the rating was brought down from BBB+ to BBB-, which means that the next station would be a full-fledged junk status. The change in credit rating has undermined the ability of Spain to borrow, at least at reasonable interest rates, as investors demand higher risk premium on Spanish government bonds. Spain is not in a position to boost revenue by raising taxes, given the state of the economy and popular revolt against austerity. And because Spain is in a currency union (the European Monetary Union), it cannot resort to the printing press, which is under the control of the European Central Bank (ECB). (ERIKA , 2021)

The tough choice between austerity and the quantitative easing is a choice between pain today and pain tomorrow. And we can see that government have chosen the easy choice represented in QE.

6- Results and Discussion:

The study and analysis of the data and central banks experiments with QE policy revealed the following Results:

✓ There is a slight different between Money printing, and lending money to government and banks by relying on quantitative easing policy. If the central bank prints more and more of currency and puts it into circulation, then more and more money is chasing the same amount of goods and services. That exactly what happened in Zimbabwe. Hyperinflation in this country was caused by the decision to print more money, and the scale of printing money was much greater than the productive capacity of Zimbabwe's economy.

✓ When the economy is in underutilized productive capacity and high levels of unemployment, quantitative easing will not cause inflation because of economy's underutilized productive capacity, especially when the economy have high productive capacity and rely on advanced technology.

✓ In case of recession and liquidity trap, increasing money supply through quantitative easing doesn't necessarily cause inflation. This is because people want to save, so don't pump the increase in the monetary base at economic circuit. Therefore, although the Central Bank increases the monetary base, this is basically saved rather than spent.

✓ If there is no field for boosting revenue by raising taxes or borrowing from banks or financial institutions, the choice is between printing money and austerity (reducing spending). Because of deflationary, recessionary and painful caused by austerity, we can say that it will be vote-loser. That leaves the printing money as the only way out.

✓ Governments in advanced countries have opted to resort to the printing press as they watch the unpleasant results caused by austerity in some European countries. The big four central banks (the U.S. Federal Reserve, European Central Bank, Bank of England and Bank of Japan) have produced since 2008, and after COVID 19 outbreak trillions of dollars' worth of fresh money, Either through directly through bond buying, as in the U.S. and U.K., or in a form of cheap long term lending by the ECB to commercial banks.

7. Conclusion:

From what precede we can say that, If the central bank adopt a lax monetary policy, inflation will tend to increase. On the other hand, a very tight monetary policy leading to very low inflation levels and, thereby, very low interest rates, makes cash holdings more attractive than interest-bearing bank deposits. This may induce disintermediation and, thereby, financial instability.

It would also be a mistake to think of policy domains separately: monetary policy concerns money and finance, and fiscal policy concerns the "real economy" only. They are complements because both may concur to the task of restoring the financial stability and reducing risk-taking, by supporting banks' task of liquidity provision, which in turn lightens the burden of central bank's lending of last resort to financial intermediaries.

The study conclude that if quantitative easing itself loses effectiveness, a government's fiscal policy may also be used to further expand the money supply. Thereby, quantitative easing can be a combination of both monetary and fiscal policy. Thus we can conclude that can be a cooperation between central bank politics and government politics in order to resolve the problem of liquidity lack. And this is evident through government's politics in all over the word. Especially in the advanced economies has understood that the monetary policy itself cannot resolve the problem of liquidity that caused by COVID 19 pandemic outbreak, For that reason governments in almost all over the world has used economic politics with their different dimensions.

REFERENCES

- ✓ Moosa, I. (2014), Quantitative easing as a highway to hyperinflation, World Scientific Publishing, Singapore,
- ✓ Bank Of England . (2021), <https://www.bankofengland.co.uk/monetary-policy/quantitative>.
- ✓ Bank for international Settlements (2017), QE experiences and some lessons for monetary policy: defending the important role central banks have played, the Eurofi high level seminar, Malta.
- ✓ Burns, K., & Moosa, I. (2013). Fire or ice? A critical assessment of the underlying views. Journal of Reviews on Global Economics, Vol 2.

- ✓ ERIKA , R. (2021), Quantitative Easing, <https://www.investopedia.com/terms/q/quantitative-easing.asp#citation-13>
- ✓ Kjell , H., & Mthuli , N. (2013). Quantitative Easing and Its Impact in the US, 5 Japan, the UK and Europe. , London: Springer Briefs in Economics.
- ✓ Lucca , S. (2021), Quantitative, <https://www.thetakegallery.com/home/quantitative-easing>.
- ✓ oxfam. (2013), THE TRUE COST OF AUSTERITY AND INEQUALITY : Spain Case Study, <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/301384/cs-true-cost-austerity-inequality-spain-120913-en.pdf>.
- ✓ Rodrigo , F. (2018) The politics of quantitative easing : A critical assessment of the harmful impact of European monetary policy on developing countriesn Somo, Amsterdam.
- St. Louis, f, (2021), Economic Research, <https://fred.stlouisfed.org/series/manmi895>