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## **The Relation of Brexit with the UK's QE Decisions and its Impact on the Eurozone**

**Abstract:** This paper aims to provide some insights into the way that the recent referendum held on June 23<sup>rd</sup> about the Brexit could affect the UK's perspective to proceed to a new round of QE. Moreover, the effects of the latter on the Eurozone are under scrutiny. Transmission channels of the shock that the Brexit has brought about on the EU and the Eurozone, as well as possible scenarios about the future relationship between the UK and the EU are presented. To the best of our knowledge, this is the first academic piece of work that makes a direct link between the consequences of the Brexit on decisions about proceeding in further QE actions or not in the UK and at the same time studies how this could result in affecting the Eurozone's economy and its decision-making about adopting further unconventional policies.

**JEL Classification:** E58, E52, F41

**Keywords:** Brexit, Quantitative Easing, Eurozone

### **1. Introduction**

Numerous are the consequences of the recent Brexit decision that has come up via the 23<sup>rd</sup> June referendum in the UK. Labour mobility that will occur once Article 50 of the Treaty on European Union (TEU) is applied will likely crowd the financial centre out of the City of London and generate more powerful European financial centres with Frankfurt, Paris, Luxembourg, Madrid and Dublin being among the most prominent candidates. Moreover, academic fees in British uni-

versities face the probability of being augmented, probably to rise in tandem with inflation since 2018, thus leading away a significant portion of foreign-induced income of the UK's annual budget. The above have to be added to the list of already existing economic distress factors in Britain, such as a great fall in real wages having occurred since the outburst of the financial crisis in 2007. Moreover, it should be kept in mind that real earnings have declined in the UK by levels higher than 10% since the crisis-bringing credit crunch. Unconventional monetary policy measures, such as the three rounds of quantitative easing that mainly worked through the government and corporate bond markets and reached a total of £375 billion of asset purchases, has been an efficient measure but in a modest degree especially during the last two rounds, according to evidence of relevant academic research.

According to Banerjee et al. (2014) UK QE1, initiated in March 2009, had its base on purchases of gilts split into an 5- to 10-years and a 10- to 25-years maturity sectors, which later was expanded to gilts with three or more years of residual maturities (Joyce and Tong, 2012). According to Fawley and Neely (2013), the UK QE2 began in February 2012. During QE3, which started in July 2012, there was a new split of maturities into horizons of 3-7 years, 7-15 years or more than 15 years.

It has not been a novelty in recent times for the possibility of the UK exiting the QE policy as well as the strengthening of money-injections in the Eurozone to be discussed. This happens partly because liquidity should not become too high to be swept up in the former case, nor credit provision should be too weak for relaxation of credit conditions in the latter. The Brexit decision has brought about though some non-negligible reconsideration of the rule of thumb regarding unconventional handling by monetary authorities in both occasions. Chief economists in the Bank of England support that UK households due to low real wages and lower employment levels have indulged into a "loss of income" trap initiated around 2005 and struggling only with small increases since then, which were lower than corresponding increases in other northern countries such as Germany, Poland, or Hungary. Consequently, the need for further easing measures with difficult to estimate costs, render the household sector's and the overall economy's future highly unpredictable. Additionally, the enlargement of the funding gap for corporate pension funds in the UK after the 23<sup>rd</sup> of June referendum, has been sharply increasing due to their large degree of dependence on the UK government, while at the same time a sharp drop in gilt yields led to a record low level after the referendum. This inevitably provoked an increase in the price

of bonds and consequently in the value of liabilities held by pension funds<sup>1</sup>. The recent 14<sup>th</sup> of July meeting at the BOE did not dismiss the possibility of further QE measures to be considered as necessary in order to confront the growing uncertainty in the UK, urging expectations about high costs of pension providing facilities higher and deficit growth dynamics to strengthen, meaning that firms' balance sheets will be weakened. On the other hand, money-injecting stimulus of about 50% of £375 billion already provided by bond auctions during the three periods of the UK QE may seem as a non-far fetching solution. This abides by the famous saying that: "Exceptional times require exceptional policies" by the former Fed chairman Ben Bernanke, referring to the effort of spurring economic activity in the US and fighting the credit crunch. A Bloomberg survey of economists, which was conducted from 15 to 20 July, gives evidence that the UK's domestic gross product growth will be just 1.5% in 2016 and 0.6% in 2017, about 2% lower expected than before the Brexit decision.

This paper aims to contribute to economic academic research by trying to identify how the possibility of a UK exit from unconventional monetary policies just after the Brexit decision being characterized as a premature, on time, or a delayed one, could affect the Eurozone. Moreover, questions about unconventional practices should be answered for the Eurozone, by bearing in mind that one of the most powerful of the EU members has selected to become independent. Benefits for both the UK and the EU were realized by trade according to earlier studies (Pain and Young, 2004), although there has been a portion of British academics supporting the Brexit (Minford et al., 2016). The Eurozone's QE perspectives should probably be examined in relation to a fear of further exiting decisions and scrutinized under the spectrum of overall and of country-individual welfare improving. The positive or negative sign of the UK's and the Eurozone's unconventional policy spillovers should be taken into consideration.

The remainder of this work is structured as follows: Section 2 presents the effects that the Brexit decision could bring to the UK economy as well as its potential impact on economies of other countries. Section 3 is about the transmission channels of these effects outside the UK, and provides some of the most possible scenarios about the UK's relation to the EU. In Section 4, some thoughts are expressed about the impact that the UK QE could likely have on the Eurozone's economy and its own decision to maintain unconventional monetary practices or not. Section 5 presents the conclusions.

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<sup>1</sup> <http://www.bloomberg.com/news/articles/2016-07-26/brexit-s-biggest-fans-face-new-115-billion-pension-hole>

## 2. Effects of the Brexit on the UK economy and spillovers

In the recent UK MPC discussion about the Brexit, apart from consequences in the UK, the attention was focused on potential spillovers from the referendum result on continental Europe. The Eurozone was thought to be vulnerable to the Brexit shock by movements in the exchange rate, reduction in equity prices and the possibility of fire-sales, as well as by higher borrowings costs. The ambiguity of possible answers to these questions is significantly empowered by the uncertainty on consumer and investor confidence that new economic and political conditions have evoked. The Committee outlined in its meeting on July 14<sup>th</sup> that devaluation in sterling will probably boost exports, thereby helping the current account deficit to be reduced. At the same time, fears about imported inflation further lowering the rhythm of real income growing in households, namely aggravating domestic demand, were outlined. The staff's estimations about housing investment and household prices were revised for the near-term towards lower levels. This is why thoughts about looser monetary policy were expressed (Bank of England, 2016).

The channels through which the Brexit is expected to act on the rest of the world will probably be more intense and faster in the EU than on other developed countries outside that. Countries with closer linkages to the British economy such as Ireland are expected to be subject to a significant portion of the downside risk of contagion that the EU may suffer. One should bear in mind that consumer sentiment moved together for the UK and Ireland during the period 2008-09 of the recent financial crisis (Central Bank of Ireland, 2016). Investment flows both in the UK and in the EU countries are anticipated to be afflicted in the medium-term but not so intensely in the short-run, especially if the intended transition period of about two years manages to provide some primary hopeful signs. Uncertainty in trade relations with the EU will probably impoverish growth dynamics regarding cooperation and exchange of goods, services, capital and people between the two parties. Moreover, there will be deterioration in business economic conditions and postponement of important economic agreements such as any planned mergers or acquisitions and corporate financing in order for the economic outlook to become clearer after some months since the Brexit.

Although a direct effect of rigidities in trade between these parts is not expected to be too large, the economies of scale and scope and the non-linear character of effects that lack of confidence would provoke in the longer-run, could prove to be much more damaging. When it comes to foreign investments in the UK, a rational flight of business activity to continental European operations would considerably fit the "flight-to-safety" trend that the Brexit can engender. A countervailing

power to this scenario would highly probably be to preserve production activities in the UK due to the sterling's lower value.

On the other hand, higher consumer prices in tandem with lower employment and low real estate prices have not weakened the consumer sentiment so far. A good explanation for the latter could be that British consumers have not yet really incorporated the new economic conditions into their expectations functions, so if recessionary dynamics are to show up they will do so by some considerable degree of time lag. The uncertain net result of higher production costs and higher prices of domestic products for British consumers, due to higher import costs, could also play a significant role in their decision-making and spur portfolio-rebalancing effects in households' budgets. Additionally, credit conditions should play a role in economic agents' decision-making as the unexpected character of the Brexit decision points towards further need for easing.

### 3. Transmission channels of spillovers and different scenarios

The main transmission channels by which countries adopting QE have spillover effects on other regions is by leading excessive capital flows on these other countries, due to the very low yields resulting in the former. A factor of great importance concerning the possibility of success of unconventional measures in a country or union of countries, and therefore of the viability of this kind of policy, is whether its public authorities are willing to implement the necessary structural reforms within it in order for non-conventional monetary easing to be effective. It should not be neglected though that successful application of this synchronized two-pillar policy is hard to be achieved even in a national level. Therefore, it is not difficult to see the impediments that the Eurozone might face in the effort to realize QE actions, given the slow pace by which the European fiscal and banking union objectives of the TEU evolve. Regulatory and macroprudential policies have made significant steps towards success, but still procrastinate regarding the desired levels.

There are three scenarios concentrating a high total level of probability to appear. The most optimistic one, though at the same time the least likely, is a Norwegian-type solution having the UK to become a member of the European Economic Area (EEA), minimizing the impact of the Brexit as alterations in trades with the continental EU will be hardly affected. An intermediate scenario would be that of the UK and the EU proceeding to a bilateral trade agreement, following the norm of the trade agreements between the EU and Switzerland. The most pessimistic of the three scenarios would be that of the UK exercising its rights under the Most

Favoured Nation (MFN) clause about the tariff on imports for member countries of the World Trade Organization (WTO), thereby not reaching a bilateral trade agreement with the EU. This worst outcome scenario would most likely be severe for both parties, pushing investment downwards (Central Bank of Ireland, 2016).

#### 4. The impact of UK QE on the Eurozone

A recent study<sup>2</sup> provides evidence that a £50 billion QE increase in the UK would raise inflation expectations by 22 bp for the British private sector. This could help to devalue the sterling, and lead the way towards an export-led UK economy. Unconventional monetary policy-practicing countries have a tendency to urge domestic investors to turn to assets of foreign, non-QE performing, countries as yields on their assets are quite higher. This could probably mean that these portfolio-rebalancing effects could lead assets of continental Europe countries to face a rather higher demand when the UK proceeds to QE actions. Furthermore, it has to be taken into consideration that after the Brexit decision is taken, liquidity injections by bond auctions will probably need to be of a higher extend than each of the former QE rounds in order to be efficient. Country risk is considered to have reached higher levels for the UK, also indicated by the downgrading of the UK's credibility by rating agencies such as S&P and Fitch to AA.<sup>3</sup> This time the lowering of bond yields is not expected to be an easy task, thereby there is no guarantee that there are going to be positive spillover effects for the demand of European assets. If a new round of the UK QE is large enough to have a significant impact on the UK economy and succeeds in lowering UK gilt and corporate bond yields, especially longer-term maturities, excess liquidity could be spilt into the Eurozone, provided that conditions in the ECB will not necessitate for easing measures in a large extend. The credit expansion from liquidity spillovers would probably be beneficial for a bank-centric monetary union such as the EMU, but the risk of bubble-creation would be considerable. Higher leveraging could give a boost to the Eurozone economy and especially in southern countries, as long as the Basel Requirements are applied so as not to allow a rise in financial instability emerging. One should bear in mind that high exchange rate volatility periods that can show up due to the Brexit could prove harmful for growth and employment. A decision of the UK about exiting QE policies could provoke an out of order adjustment. In such occasions the unfavourable effects of QE-exiting are

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<sup>2</sup> <http://www.bankofengland.co.uk/monetarypolicy/Documents/externalmpc/extmpcpaper0047.pdf>

<sup>3</sup> <http://www.bbc.com/news/business-36644934>

intensified and abrupt deviations from normal conditions, not corresponding to fundamental changes, also emerge (Belke, 2013).

When comparing QE policies in the UK and the Eurozone, it can be seen that giving a boost to economic activity is pursued in the former case whereas restoration of the market functioning and bank intermediation is the primary goal in the latter. Economies like the UK's probably need significantly more time in order for unconventional policy measures to be effective as the impact of liquidity injections is not so direct on the economy. This means that if a new round of QE is applied in the UK it raises a significant probability of being long-lasting. This could be nourishing two risks for the Eurozone economy, as in the case of a long-maintained UK QE the EZ could have inflationary imports from the UK. Furthermore, if the UK got accustomed to receiving help by its monetary authorities, a sudden exit from QE could result in a new UK-stemmed financial crisis that would probably have bad effects for the Eurozone too, even if trades between the two parties were weaker than before. Nevertheless, one could say that UK moving to a decision for a new round QE could perhaps prove to be in the benefit of the Eurozone. Liquidity spillovers to the Eurozone countries could help revitalize the European banking system without further LTROs and other more unconventional actions being necessary. This would probably assist in better controlling the high level of fiscal dominance by which the Eurozone's cohesion is threatened and prevent the ECB's role from rendering into a quasi-fiscal one. This could help the EU in its effort to become a fiscal and a banking union as conflicts of interest between Eurozone member-countries about risk-sharing would soften. No matter whether the UK decides to proceed to a new enduring round of QE, or restrain from unconventional policies, or enter into QE and then reconsiders and abandon QE, its monetary policy should not provoke instability inside or outside the country. In the case of exit from QE, the tapering of liquidity that has been injected in the UK should be made gradually in order for the market agents' expectations not to spur a new crisis invigorated by uncertainty due to the Brexit decision. If employing unconventional monetary policies could be seen as a strategic game, it would be very interesting to ascertain whether it is a zero-sum one. Moreover, in case that leaving QE policies proves beneficial for the UK this could likely trigger other advanced unconventional-policy adopting countries or unions of countries returning to conventional practices, due to signalling effects. In that situation, the Eurozone should pay more emphasis on strengthening private interbank markets as the lender-of-last-resort function of monetary authorities would not be a preferable option anymore. Otherwise, if the UK manages using central balance sheet enlargement to escape from a difficult situation such as the lack of confidence that the Brexit would probably engender, other countries could continue to act non-conventionally bringing the dilemma

between viability versus debt accumulation to the forefront once again. No exact answer as to whether the UK should proceed to new QE actions or leave the perspective of reviving unconventional policies can be provided. Nevertheless, the impact on the repeated game of the Eurozone's non-conventional activity and to a certain degree of the distribution of powers among its members will be influenced by monetary decisions of this powerful long-dated member of the EU and by political decisions affecting its economy, like the Brexit.

## 5. Conclusions

The recent Brexit decision of the 23<sup>rd</sup> of June has been anticipated to be the reason for a new round of the QE policy in the UK. This paper tries to present the extent to which such a decision for continuing unconventional monetary policy in the UK could have an effect on the Eurozone. The possibility that the City of London will be crowded out by other financial centres, that wages and pensions will decrease, in combination with a potential fall in investor and consumer sentiment as well as devaluation of the sterling, are crucial factors that the BOE should take into consideration when deciding on a further enlargement of its balance sheet. Different scenarios about effects on the UK and spillovers on the Eurozone should be examined as well as their impact on QE decisions. An optimistic scenario indicates that trade barriers between the two parties could be milder, whereas the pessimistic scenario predicts that the UK will impose the Most Favoured Nation clause, damaging investments.

A new UK QE round could prove beneficial for the Eurozone as the liquidity spillovers would provide a stimulus to its credit-fed bank-centric mechanism. This could also help mitigate the conflict of interests between its member countries. On the other hand, the imported inflation could lead to risk of a new-born bubble leading to a new crisis and to the need for further ECB's unconventional stimulus. Moreover, the Eurozone's debt accumulation would be time-lengthened. It is supported that whether the UK's deciding about further QE will be premature, on-time, or too late, could be judged ex-post, according to the result it will provoke. Decision-making about new rounds of QE by other advanced economies will probably in a large degree depend on whether a new round of UK QE will be able to confront the new situation that the Brexit has created for the UK.

The aim of this paper is to contribute to the literature about the Brexit and provide a consideration of its effects on the Eurozone through the prism of unconventional monetary policies in the UK. To the best of our knowledge, it is the first

piece of academic work that explicitly tries to deal with this newly-introduced topic and, among our main motivations, to evoke further discussion.

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