UNCONVENTIONAL MONETARY POLICY

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Abstract

Central banks in advanced economies have deployed a variety of unconventional policies during the crisis. It can be seen that the central banks have been mostly successful at achieving their objectives and that spillover to other countries have—thus far at least—been benign overall. Also it can be considered that using unconventional measures may be appropriate in some circumstances, but also they can have disadvantages and all the benefits for using such measures need to be balanced against potential costs.

Prior to the crisis the monetary policy was implemented by central banks in a predictable and systematic way, and its transmission mechanism was understood by the economic agents. A transparent central bank reaction function (or broad rule) guided market expectations of future interest rates. After the crisis appeared, the central banks from developed countries applied unconventional tools\(^1\) to address two important objectives: first one is to restore the proper functioning of financial markets and intermediation, and second one is to provide further monetary policy accommodation. Both these objectives need to support financial stability, including the diminishing big risks in acute phases of the crisis (collapse of the financial system, depression, and deflation).

This paper reviews recent experience with these policies and considers issues related to their continued use in the future in the Romanian economy. It will be a tentative to explain how to avoid liquidity trap\(^2\) or get out of it – these also can be seen in the Romanian economy in the last few years.

Keywords: Monetary policy, financial Stability, inflation rate, systemic risk

JEL Classification: E52, E58

1. Introduction

Since the financial crises took over the last decade, there has been great interest in the design of monetary policies for emerging market economies. Should these economies attempt to peg their exchange rates to the US dollar via currency boards or dollarization\(^3\), or should they allow the exchange rates to "float and follow instead a domestically oriented monetary policy geared towards inflation targeting\(^4\), following the recent example of many western economies? The countries that use unconventional monetary policy to restore the functioning of financial markets and intermediation recorded a success in reducing instability. The unconventional monetary policies have high financial risks. Financial stability can often be affected by risks encountered by using unconventional policies. In the economic literature it is known that micro and macro prudential policies ability to measure these risks is still uncertain. So far there are no guarantees that it can be shown that the marginal costs\(^5\) of using unconventional monetary policy are greater than the marginal benefits brought by the use of these policies. Usually the emerging countries cannot afford to use unconventional monetary policy due to high costs and also their policies are not yet developed to support the functioning of financial markets and intermediation. In these countries we can conclude that financial stability can be determined in this respect and unconventional monetary policy appears similar to a conventional monetary policy with certain differences.

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1 "Other forms of monetary policy, particularly used when interest rates are at or near 0% and there are concerns about deflation or deflation is occurring, are referred to as unconventional monetary policy" – http://en.wikipedia.org.
2 "A liquidity trap is a situation described in Keynesian economics in which injections of cash into the private banking system by a central bank fail to lower interest rates and hence make monetary policy ineffective" - http://en.wikipedia.org.
3 "Currency substitution occurs when the inhabitants of a country use a foreign currency in parallel to or instead of the domestic currency" - http://en.wikipedia.org.
4 "Inflation targeting is an economic policy in which a central bank estimates and makes public a projected, or "target", inflation rate and then attempts to steer actual inflation towards the target through the use of interest rate changes and other monetary tools" - http://en.wikipedia.org.
5 "Marginal cost is the change in the total cost that arises when the quantity produced has an increment by unit" - http://en.wikipedia.org.
2. The unconventional monetary policy – general terms

The unconventional monetary policy implemented by the European Central Bank may have great significance on Central and Eastern European countries. Many of these countries have advantages: for instance, in the final quarter of 2008, the European Central Bank arranged some conventions for repurchase transactions with Hungary and Poland to facilitate the central bank operations in order to euro liquidity provision.

The countries from Central and Eastern Europe have also taken advantage from a deep and developed trade with the euro zone. Also can be added that the banking systems from the CEE region are mostly dominated by euro parent banks – these banks have benefited from the ECB’s unconventional monetary policy measures. In these countries where was applied the unconventional monetary policy expected short-term rates might rise due to business cycle correlations (stronger growth from the countries that exit the unconventional monetary policies and weaker currencies). Can be noticed that the systemic risks might also rise, reflecting greater monetary policy and market uncertainty (the countries that register yet weak growth will encounter some issues, although forward guidance can help decrease policy uncertainty). The currencies will register depreciation in the countries that not use the unconventional monetary policy.

If is analyzed the degree of globalization and interdependences between the today’s economies and financial markets, either good or bad scenarios, are inescapable. According to the economic theory what is advantageous for each great and advanced economy is advantageous for the rest of the world – this is regarding the theory of the perpetuation of monetary policy in terms of international commerce. However, positive and negative contagiousness can happen according to monetary policy apply. It can be taken as an example the fact that the countries that use UMP may have negative contagion towards non-UMP countries and because they didn’t want to assume this risk, these countries might take some measures to reduce the contagion – meanwhile these measures conducted to losses in the UMP countries. This can result as non optimal monetary policy applied in both type of countries and also can conduct to financial instability. In this case, international policy coordination can in principle lead to improved economic outcomes globally (that is, to Pareto improvements6).

In the last studies regarding the UMP measures can be seen that these measures support market functioning and financial intermediation, moreover chasing acute shocks, typically have positive (not negative) cross-border externalities. It also can be noticed that the countries that do not use UMP unambiguously benefited from policies that restored market functioning and financial system stability. It can be also discussed the exit from such policies and if the goals have been achieved the contagion cannot be negative.

![Figure no. 1 Inflation rate in G3 countries](image)

As was exposed earlier the UMP economies should alternate their internal economic policy mix (fiscal and monetary). On short term is difficult to take the pressure off monetary policy for providing accommodative conditions – these need to be structural – the fiscal measures allow UMP to be unwound. Countries will need to develop reforms for balancing and strength the conditions for a sustainable medium-term growth if they want not to use the UMP – also coordination between them it will be helpful. It will be a great benefit for the global growth and financial stability if the reforms of the countries will be brought together, but this coordination would also involve greater collaboration in adopting regulatory and macro-prudential policies designed not to solve a problem in a single country but help other countries deal with a problem they cause. Another benefit in preparing the conditions for exit the UMP will be brought by the collaboration between economies and the international trade.

6 "Pareto efficiency, or Pareto optimality, is a state of allocation of resources in which it is impossible to make any one individual better off without making at least one individual worse off" - Barr, Nicholas (2012).
The first step that the countries should take for exit the UMP will be to observe clear and visible medium-term net benefits from the coordination between economies. Then the next step is that, UMP might be conditioned by the implementation of other needed reforms. None of these conditions is fully approached by the countries but there are some discussions that the central banks can impose some conditions for their liquidity assistance on governments, but even this happen the central banks can impose to the commercial banks to apply their repair and reform.

3. The Optimal Monetary Policy

If we analyze the monetary policy applied in Japan, the call rate (the overnight cash rate correspondent to the federal funds rate in the United States) has been within 50 basis points of zero since October 1995, and it has been equal to zero for the last four years. In the mean time the Japan’s growth has remained weak, and prices have continued to fall – inflation rate became a deflation rate, this asks for a monetary impulse on short term, but the usual redress — lowers short-term nominal interest rates— is not applicable. Strong expansion of the monetary base has also seemed to not stimulate the demand under these circumstances: the monetary base is now more than twice as large, relative to GDP, as it was in the early 1990s.

Meanwhile in the United States, the federal funds rate has now been reduced to only 1 percent, and there are no signs of recovery and if they are these are very weak. This problem had become a wonder for many economists, that the USA is in a situation where the interest rate policy is not longer a feasible tool for financial and macroeconomic stabilization. The problem that needs an answer is what monetary policy should be implemented when the zero bound is applicable or when the economy has not a possibility to ignore the zero bound – these scenarios raise a lot of fundamental problems for the theory of optimal monetary policy. As in this paper was discussed the deflation term it can be added that the economist Paul Krugman refers to deflation as a “black hole,” - this can be a scenario that opens from which an economy can’t escape once it has entered. It can be a conclusion from this scenario that the efficacy of the monetary policy applied in a liquidity trap is that is vital to steer far clear of circumstances in which deflationary expectations could ever begin to develop. It can be added as an example, by targeting a sufficiently high positive rate of inflation even under normal circumstances.

Some economists are more optimistic regarding the feasibility of the monetary policy when the zero bound is reached and there is a concern over the possibility of entering a liquidity trap that sometimes presented as a serious objection to another currently popular monetary policy objective, namely, inflation targeting – the price stability is the most important objective of various central banks.

It can be noticed due various scenarios that one of the most important lessons from the late crisis is that the economy needs to finish the macro financial policy framework. Also it can underlined that the prevent of the systemic risk in the financial system is by the addition of the so-called macro prudential policies. If it is analyzed by the point of view of optimal monetary policy this can be taken as an improvement but it has a lot of challenges. While it is primarily through prudential policies that the system should assure the financial stability, the crisis period has demonstrated that monetary policy also needs to take fuller account of financial developments. The most important is that the macroeconomics models that are implemented due this period in the monetary policy register a poor understanding of macro financial links and do not incorporate financial frictions like systemic liquidity risk or the financial intermediation due to shadow banks. A link between the position of monetary policy – if is necessary to use UMP or standard monetary rules - and financial stability risks can potentially create a compromise for policymakers as a response to an aggregate demand shock — this can increase the policy adjustment to address a deficiency in output may create greater risks to output in the future. “In this case, the increased costs of monetary policy adjustment in the form of larger financial stability risks can lead central banks to provide less policy adjustment than would otherwise be the case”. This is very similar to the “policy attenuation” already discussed, Brainard (1967).

On short term, even in a global economy in which central banks understand all the links between monetary policy and financial stability, the implications of developing financial imbalances for the conduct of monetary policy are not very easy. Also is very important that the monetary policy strategy implemented by central banks should take consideration regarding the issues related to financial stability. Till this moment there is no unanimous approval in the economic literature and among central banks, the best way to implement the monetary policy through financial stability. One important point in this context is how to deal with asset price bubbles or misalignments. In particular, should the monetary authority address this issue ex post or ex ante and which elements of the monetary policy strategy framework should be modified and to integrate financial and asset price stability issues (for example should they be taken into account in the monetary policy goals or in policy rules).

7 Deflation is a decrease in the general price level of goods and services. Deflation occurs when the inflation rate falls below 0% (a negative inflation rate). This should not be confused with disinflation, a slow-down in the inflation rate (i.e., when inflation declines to lower levels)” - Robert J. Barro and Vittorio Grilli (1994), European Macroeconomics.

8 "The only logical alternative to a political change in the supply of money, namely the laissez-faire solution represents the optimal monetary policy” - Jörg Guido Hülsmann.
The recent financial crisis has shown that the developments of the financial markets had very significant effects to the global economy. If it is analyzed the role of the financial system, a problem into financial stability as a breakdown can interrupt the transmission mechanism of monetary policy and this means that the central banks should take into consideration the financial stability into achieving their objectives – also on the other hand, monetary policy is not fully neutral from a financial stability perspective.

First of all, each policy action and step taken on the basis of the respective monetary policy strategy influences directly the anticipations formed by the economic agents and also the manner that this anticipations are formed. These anticipations created by the economic agents directly influence the financial system (this including the financial stability as well) and the financial markets and the way of their interaction. The actions imposed by the monetary policy strategy triggers the necessary adjustments to the financial stability and these adjustments are reflected in a set of variables that can be considered as monetary and financial conditions like asset prices, interest rates, money and credit, the exchange rate and the volatility measures. These variables, together with agents’ anticipations, determine the behavior of the consumers and firms, also the variables can conduct to an influence to the aggregate outcomes in terms of inflation, output and employment. Also is very important to notice that there are feedback mechanisms between the financial system and the non-financial sector which may increase the economic shocks. It can be concluded that the changes in economic activity, employment, inflation and inflation expectations feedback into policy decisions framed by the monetary policy strategy.

The sustainability of stability in the financial system requires an understanding of how macroeconomic developments interact with institutional behavior and prudential norms to support or undermine equilibrating tendencies. In the same manner the implementation of monetary policy requires an understanding in an economic manner of the fact that the consequences of monetary policy for economic behavior go much intense than their impact on the consumer price index. It can be said that the systemic stability remains a key challenge for financial authorities worldwide. The task now is to ensure that adequate defenses are in place to understand and limit the system’s exposure to financial instability.

4. Case study – The unconventional monetary policy in Eastern Europe (Romania)

The current financial crisis that developed in non emerging countries affecting the global economy gradually revealed many flaws in the principles underlying the implementation of economic policies in the real economy and public institutions. After the crisis broke out, central banks developed greatly reduced policy interest rates reaching their level close to zero, thus leading to a liquidity trap. Since these changes were made at the monetary policy intervention was required on fiscal policy to support aggregate demand. Many countries recording already large public debt registered a push sovereign debt to a level that was not tolerated - because of fiscal and monetary measures.

Monetary policy interest rates went to zero in many developed countries resulting from these savings is long liquidity trap. To try to solve the problem of liquidity trap central banks tried to increase the monetary base in several installments from the beginning of the crisis but cannot conclude that they were able to overcome the situation. In general it can highlight two main problems, namely the connection between money and inflation and the connection between money and asset prices. Many economists believe that monetary policy can produce a predictable timeframe inflation economies needed to escape the liquidity trap. Also in academic discussions monetary easing that had also reached high levels and this could result in inflation would be difficult to control. In this case it could affect other countries, not only countries where monetary base has skyrocketed. If there is the case where are over indebted countries debt to blossom again an economy largely rests mainly monetary policy – “adding inflation” process would be to remove that economy of the liquidity trap.

If there is a situation where there is a short-term interest rate equal or nearly equal to zero, the central bank cannot absorb shocks that are large deflationary only by interest rate cuts. In this case, the effects of increasing the amount of money on output and inflation depend heavily on aggregate demand factors. The neoclassical view (Pigou, Patinkin, Metzler) if there if prices fall, real frame of money increases - this can be seen in the theory of Pigou effect - this could lead to increased consumption and aggregate demand as the economy will be removed from the liquidity trap. The economists believe that aggregate demand depends not only on the current interest rate is set by the central bank. It depends on the slopes anticipated interest rates and inflation. Because of this dependency, increasing the money supply can be effective in removing the economy from the liquidity trap.

9 "An economic shock is an unexpected or unpredictable event that affects an economy, either positively or negatively. Technically, it refers to an unpredictable change in exogenous factors—that is, factors unexplained by economics—which may have an impact on endogenous economic variables" - http://en.wikipedia.org.
10 "Fiscal policy is the use of government revenue collection (taxation) and expenditure (spending) to influence the economy" - O’ Sullivan, Arthur; Steven M. Sheffrin (2003).
11 "Quantitative easing (QE) is an unconventional monetary policy used by central banks to stimulate the economy when standard monetary policy has become ineffective" - Publications | Learning the Lessons from QE and Other Unconventional Monetary Policies: 17–18 November. Bank of England (18 November 2011).

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In a 2003 study, the economists Eggertsson and Woodford have chosen to emphasize the direct role of interest rates. They obtained that success depends on the commitment credible central bank (transparent) to keep nominal interest rates low levels for some time after the disappearance of deflationary shock no matter what price levels would be in the future. This commitment to reduce nominal interest rates once deflationary pressures have dissipated is reflected in the real interest rate you will stimulate aggregate demand. The same effect can occur when inflation is expected to increase further, reducing real rates even if nominal interest rates cannot be reduced.

Advanced economies that currently bear the brunt of deflation in the past resorted to quantitative easing. Besides these quantitative easing, they rose and liabilities. Normal to resume economic growth, government’s strategy on two solutions: loss mitigation private cash flows and also by increasing public deficits and deleveraging substitution’s public private credit until the credit system would stabilize. On in another form, the paradox of deleveraging is that caution exercised by households and firms increase overall economic stress. In this case, both governments and central banks may intervene to reduce overall stress. These being related can only conclude that monetary policy is economic policy that has real chances to remove the trap economies expectations.

The quantitative easing can be defined as the purchase of government bonds, central banks or other financial assets from the private sector. Through this exchange of assets the central bank aims to increase available funds from current accounts of banks over the need to bring overnight interest rate at zero (Isarescu, 2012).

If the central bank should commit to increasing the money supply, it can transmit inflation at three channels:

- Reducing expected taxes that will result from lowering the expected costs of public debt as permanent increase in the money supply;
- Point investors toward certain financial assets whose value would increase, thus stimulating aggregate demand;
- The use of additional liquidity to banks temporarily placed with central banks to lend to households and firms.

Lowering interest rates stimulate demand, but production levels, although increased very little remained below target, unable produce enough inflation. Thus, in most developed economies, there were large increases in the monetary base, accompanied by small increases in broad money without inflation to rise. In liquidity trap conditions, monetary base growth in M212 cause small increases because with the short-term interest rates near zero public is encouraged to keep more cash.

Is expected that the get out of the trap of expectations to occur in the near future, once the central banks will become credible by increasing the money supply. U.S. and the rest of the developed countries that are facing liquidity trap seem to sink more and more into this issue. Short-term interest rates are very low and their economies are growing below. Prices have not changed significantly, although the monetary base has changed very often positively in recent years. After exiting the liquidity trap, monetary base will have a much higher level compared to before the crisis had. In the long term increase the amount of money is reflected in rising prices, which raises concerns about longer-term inflation and ways to keep it under control. Most central banks are confident that adding liquidity made in recent years can be reversed before they cause problems, but choosing that moment when injecting liquidity should be reversed depends on the policy of each central bank. If these are reversed quantitative easing too soon, there may be a “w” shaped recession, 13but when bursting a bubble

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12 “M1 + deposits with an agreed maturity up to 2 years + deposits redeemable at a period of notice up to 3 months, where M1 = Currency in circulation + overnight deposits” - Article in the New Palgrave on Money Supply, Milton Friedman.
13 “In a W-shaped recession, (also known as a double-dip recession), the economy falls into recession, recovers with a short period of growth, then falls back into recession before finally recovering, giving a “down up down up” pattern resembling the letter W” - http://en.wikipedia.org.
fueled by credit, it is better to be relatively high inflation. Cash flows depend both investment and inflation. During the crisis, investments decrease, leaving the balance of the debt and the cash flow generated by them to be dependent only on falling asset prices and inflation.

When large bubbles burst, the economy achieve liquidity trap or sink into a prolonged period of decline, and only the size of the inflation rate may indicate future period economy: either growth or prolonged recession. The economy will avoid liquidity trap as inflation or depression, although it will decrease will remain relatively high and will support the ins and outs of capital, avoiding the severe deflation in asset prices. In case of breakage of bubbles comes after a long and characterized by low and stable inflation, deep recession cannot be avoided. You can also highlight the fact that the bursting of the bubble, inflation expectations were rapidly converted in anticipation deflationary. Thus it can be said that low inflation and had a role in this conversion, with the delays in promoting credible policies raise genuine inflation in the economy.

At this point we can say that economies are at crossroad inflation. Monetary policy strategy can be improved by switching from targeting inflation low and stable inflation targeting moderate and stable. This moderate level of inflation should be checked in terms of benefits and costs arising from a change. Economies that are currently in liquidity trap could head towards stability, but not to normal stability that has been common economic world and the last few years, but for stability similar to that of Japan - longevity. In this time when states are already highly indebted and adjustments in their regulations have already been made, way out of the liquidity trap countries are central banks. Most economists believe that central banks should invest more efforts in creating inflation. This is possible only if the central banks have a high degree of credibility in the face of economic agents. If it comes out of the liquidity trap when purchased government bonds prices central banks will increase and liquidity preference of banks will decrease - this requires a relatively quick sale of the bonds held by central banks. In such cases some of the excess liquidity held by developed countries could work by emerging economies.

This can lead to widening current account deficits in these countries, including Romania. Before the financial crisis in Romania, its economy was injected by equity and foreign investment. The appearance of external financing has led to the emergence of a clear trend of gradual reduction of interest rates on deposits and loans, and the average interest rate on the interbank money market. In Romania, the international financial crisis has not led to obfuscation interbank market, like many developed countries, but has influenced the volume of the autonomous liquidity and net liquidity supply structure. The most important consequence of the emergence of international financial crisis in Romania was reduced private capital inflows.

This resulted in lower banking net liquidity autonomous component in the demand for liquidity. It also caused the crisis and reduced demand for liquidity. In this case, the appearance of liquidity deficit reached to increase the supply of liquidity by the central bank. This increase is equal to the difference between the demand for liquidity and its net component. Thus banks that failed to cover liquidity needs have borrowed from banks with excess liquidity. The latter have exploited this situation in the market to impose large increases in interest rates.

Also as a component of unconventional monetary policy in Romania can be considered and the speculative attack on the currency in 2008. High volatility of interest rates during 2008 was caused by a speculative attack on the currency. It had a huge impact on how it was used in some of the excess liquidity in banks and so the interest rate has changed positively. In the case of a speculative attack, if the central bank fails to defend the currency loss of credibility attacked when they occur could also intervene and costs in employment. If the central bank had not intervened in the market in October 2008 when there would be negative consequences.

The main result in such cases is usually installing panic among economic agents and hence developing the aggressive depreciation of the currency, in this case the Romanian leu. If there was panic, then the external debt in the currency would have risen exponentially, greatly worsening the balance of the private sector. From that moment would have accentuated the recession leading to another level of impairment - forming a spiral with no solution. The reason being developed market central bank intervention was well reasoned and it prevented the panic, ensuring financial stability - this in turn ensured mitigate declining production. NBR has chosen to combat this by selling currency speculative attack, showed in extracting liquidity has helped increase the interest rate on the interbank money market.

5. Conclusions

This paper can conclude as the economic environment in which monetary policy is applied, also becomes more challenging as a result of the globalization in both the international trade and financial domains. If the analyzed is the international trade, during the last years that preceded the crisis, many developed economies the task of transmission monetary policy for keeping inflation rate below or equal to the target was made easier by

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14 “A speculative attack is a term used by economists to denote a precipitous acquisition of some assets (currencies, gold, emission permits, remaining quotas) by previously inactive speculators. The first model of a speculative attack was contained in a 1975 discussion paper on the gold market by Stephen Salant and Dale Henderson at the Federal Reserve Board” - http://en.wikipedia.org

15 “Panic, in economics, acute financial disturbance, such as widespread bank failures, feverish stock speculation followed by a market crash, or a climate of fear caused by economic crisis or the anticipation of such crisis. The term is applied only to the violent stage of financial convulsion and does not extend to the whole period of a decline in the business cycle” - http://www.britannica.com.
the global pressures in manner of deflation - these pressures being associated with cheaper imports or cheaper manufacturing. These all being said the transmission of monetary policy becomes more difficult through the prices channel.

As regards financial flows, capital inflows to emerging markets are likely to be structurally higher following the crisis, given their relatively better growth prospects, expected rates of return, and macro fundamentals. The size and speed of such inflows, however, can pose considerable challenges to recipient countries and lead to well-known policy dilemmas. Specifically, countries faced with large inflows can choose between letting the exchange rate appreciate substantially, which may squeeze the tradable sector, or intervening in foreign exchange markets to limit the appreciation. Yet, in the latter case, under perfect capital mobility the authorities will not be able to sterilize the intervention, leading to higher inflation. In turn, raising policy rates to fight inflation will just bring in more capital inflows and be self defeating.

When the financial crisis was installed in Romanian economy resumed NBR interventions on the currency market. Reputation will spread until Romania will join the euro zone and adopt the single currency. At that time the exchange rate risk bow will disappear. Until that time the central bank should maintain only interventions exclusively devoted to combating episodes of exchange rate volatility. Financial crisis broke out in 2007 showed this time that low and stable inflation does not ensure financial stability. Thus diverting savings and interest rates close to zero as they entered the liquidity trap. This study attempted to show that higher inflation and moderate economies could avoid entering into depression and liquidity trap. Also it can be said that central banks can combat these methods called unconventional monetary problems. In 2008 the National Bank of Romania fought a major speculative attack by selling foreign currency and not by increasing the monetary policy rate. This could be because the market does not function normally at the time and had to fold BC market demands.

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