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Mutations at the Level of the Measures Adopted by Monetary Authorities

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ABSTRACT

Following the intensification of the international financial crisis in autumn 2008, the functioning of the financial system was seriously hindered. Central banks around the world responded firmly by lowering their key interest rates to historically low levels. As financial conditions did not improve as hoped and the real economy was still unstable, revealing therefore the limits of mainstream monetary policy, many monetary authorities employed several unconventional measures. The scope of this paper is to investigate two important approaches of classifying "unorthodox" monetary policies and review several measures undertook by central banks, highlighting the impact and some of the possible risks to the contemporary economy.

1. Introduction

The cyclical deceleration of most world economies, which started in the summer of 2007, subsequently turned into a recession (at global level) and then into an abrupt narrowing of economic activity, following the deepening of the financial crisis through the bankruptcy of the Lehman Brothers in the autumn of 2008 (September).

The monetary policy has become, over these last years, the object of an important process of transformation, which caused a remarkable change in the traditionally accepted perspective with regard to its content. The fast-paced deterioration of the world's economic climate created a new context in which most central banks had to come up with unprecedented solutions. They drastically reduced the monetary policy interest rates, up to historically minimum levels, and adopted a series of measures that were broadly called *unconventional (or "nonstandard" or "unorthodox" monetary policy measures*). Given the fact that this is the first time that the central banks have resorted to such innovative instruments, we can see this behavior as "a mutation" of the monetary policy following the 2007-2009 global financial crisis. The new approach of the central banks has been met both with enthusiasm and with resistance and has triggered numerous debate topics amongst the members of the academic community and professionals in the field alike.

Nonstandard measures have been created in order to maintain the functionality of the monetary policy transmission mechanism, supplementing the interventions concerning the key interest rates of central banks (without substituting them).

In this context, the main objective of this study is to investigate the most important "unorthodox" monetary policy measures adopted by different central banks. The study proceeds as follows: section two introduces the view of Borio and Disyatat when analyzing the non-standard monetary policies while section three presents different types of nonstandard monetary policies and measures adopted by some central banks. Section four looks at the importance of phasing-out strategies of the unconventional measures and the main findings and final remarks are presented in section five.

2. Short description of non-standard monetary policies

Due to the fact that they lack a conceptual frame, the various versions of unconventional monetary policies have sometimes generated confusion among theorists and practitioners.

Borio and Disyatat (2010) propose a categorization of the non-standard monetary policies adopted by the authorities in various forms specific to *balance sheet policies* according to two criteria: a) the impact of the measures on the balance structure of the private sector participants; b) the target market segment. Thus, according to these, the policies based on balance are categorized into: exchange rate policies, quasi-debt management policies, credit policies and bank reserve policies.

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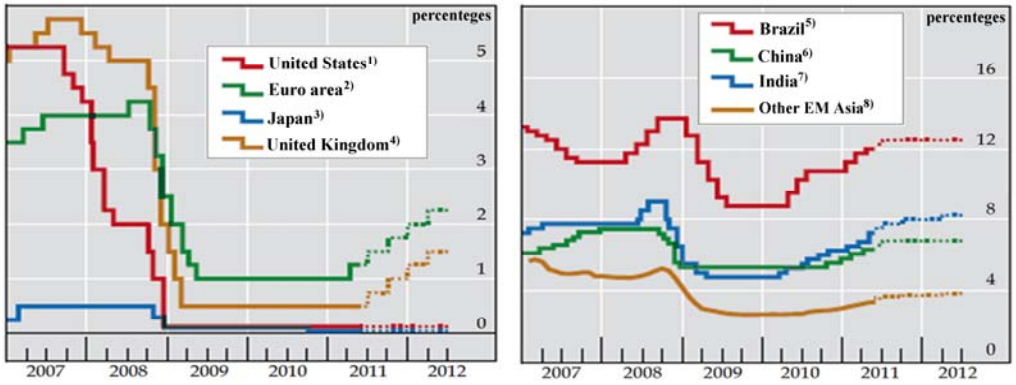
The implementation of the decisions of the monetary authorities with regard to the *mainstream* monetary policy basically involves two key elements (Disyatat, 2008). A first element compresses all the mechanisms used for the *signaling* of the monetary policy orientation (the central bank thus aims at transmitting clear and credible signals concerning its short-term intentions and the objectives it pursues). The second element involves *the execution of some operations* through which the central bank uses its balance sheet in order to attain the proposed objectives; as these operations normally involve the management of the funds of the central banks in the financial system, they are known as "liquidity management operations" (Borio, Disyatat, 2010: 55). These operations usually take the form of some reversible transactions in exchange for eligible collateral.

During the period before the global financial crisis, a central bank would define the orientation of its monetary policy *exclusively* in terms of the short-term interest rate. Thus, in order to announce their intentions, the monetary authorities in most states would send signals to the financial markets participants, by using the key interest rates (the interest rate for the main refinancing operations, the interest rates corresponding to the permanent facilities granted to commercial banks etc.); the transmitted message consisted in the specification of a certain level of the key interest rates, that had to be reached. In order to attain this objective, the central banks would initiate various management operations of financial liquidity, which were projected *only* for the fulfillment of the established objective; the operations undertaken by the monetary authorities did not involve, under any circumstances, the granting of direct loans to the private sector or to the public one, direct purchases of government bonds, corporate debt bonds or any other types of debt instruments. Most of the times the objective was to make sure, through various interventions, that a "reference rate" of the interest on the interbank monetary market (usually, the *overnight* interest) would follow the trajectory of the established interest rate (for Romania, the reference interest rates of the interbank monetary market, ROBID and ROBOR, are calculated and published every day by BNR). Hence, by influencing the most important interest rates, the monetary authorities succeed in managing in a more efficient manner the liquidity on the markets and in fulfilling the main objective, namely to preserve the medium and long-term stability of prices. We outlined these aspects in order to emphasize the purely technical and supportive role of liquidity management operations. If we analyze the activity of the central banks, we will find solid evidence which supports the veracity of these statements; these (fine-tuning) operations did not influence at all the balance sheet of the central bank or the monetary policy orientation and, in addition, they turned to be efficient in the monetary stimulation of slow economies, in inhibiting the inflationist pressures specific to the engines of fast-paced economies and in guaranteeing a better functioning of monetary markets.

The intensification of financial tensions on all the segments of the financial market, after the bankruptcy of the Lehman Brothers institution, led to firm responses from governments and central banks. Thus, on October 8, 2008, six important central banks acted in an (unprecedented) jointly agreed manner by reducing the key interest rates (see figure no. 1). This decision was subsequently adopted by other central banks in the world, while the monetary policy interest rates thus reached historically minimum levels. Nevertheless, the fast and significant relaxation, from a quantitative perspective, of the monetary policy promoted by most central banks did not produce the desired effects. The incapacity of the monetary authorities of reestablishing the functionality of the financial system at the optimum parameters in a period when the levels of the key interest rate were close to zero percentage points showed the limited nature of the *mainstream* monetary policy.

Figure 1. Monetary policy interest rates practiced by several central banks



Note: [1)] rate of the federal reserve; [2)] minimum acceptable interest rate up to October 2008 and fixed interest rate for main refinancing operations after this month; [3)] *overnight* interbank interest rate not guaranteed; [4)] rate of the central bank; [5)] SELIC *overnight* interest rate; [6)] reference interest rate for one year' crediting instruments; [7)] rate of the *repo* operations; [8)] weighted average of the reference interest rates in China, Hong Kong, Indonesia, Korea, Malaysia, the Philippines and Thailand. The dotted line represents the estimates made by J. P. Morgan Chase in May 2011 for the reference interest rate corresponding to the following periods: June, September and December 2011, March and June 2012.
Source: BIS, 2011: 69; personal processing

The central pillar of monetary policies based on key interest rates is "the market for bank reserves" (Borio, Disyatat, 2010: 56). The interventions performed by a central bank on this market enable it to influence the short-term interest rates of the monetary market which, in their turn, influence the interest rates practiced by credit institutions in relation to nonbanking customers (eventually affecting the level of economic output and inflation). However, there are cases when the monetary authority is compelled to actively use its balance sheet in order to directly influence financial conditions. Thus, the new monetary policy is different from the above mentioned one, for it has to do with the initiation of operations which involve, through their very nature, substantial modifications of the balance sheet of the central bank; these "mutations" occur at the level of *the dimension, risk category structure and composition* of the bank's balance sheet (*balance sheet policies*).

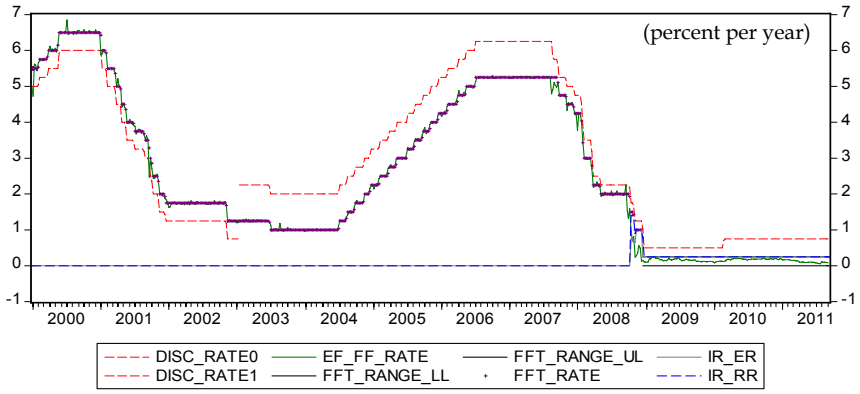
According to Borio and Disyatat (2010), these fundamental policies which involve modifications of the balance sheet are not as unusual as one would tend to think. To support this statement, the two make a comparison with *foreign exchange interventions*, one of the forms of this type of monetary policy. In order to fulfill the objectives of the exchange rate policy, the monetary authority intervenes on the foreign exchange market and sales or purchases foreign currencies (thus affecting the structure of the balance sheet, depending on the denomination currency). The context created by the current financial crisis determined the central bank to use its balance sheet in order to redirect the term money market rates, the long-term government bond yields and various risk spreads. The reason of all these, the fundamental technical principles, the influence channels and the balance sheet implications of this specific form of intervention are analogous to the exchange rate interventions. The unconventional, "unorthodox" or "mutation" character is given by the market targeted by these measures, and not by the approach per se, of seeking to influence specific elements of the transmission mechanism, others than the monetary policy interest rate.

3. Types of nonstandard monetary policies and measures adopted by some central banks

The different forms of the unconventional monetary policy measures adopted by most central banks, which lack a conceptual frame, sometimes generated confusions among theoreticians and practitioners in the field.

Ricardo (2009) divides the unconventional measures adopted by FED over the 2007-2009 period into three categories; thus, he delineates measures specific to: *the interest rate policy*, *the quantitative policy* and *the credit policy*. As concerns the first set of measures, the central bank establishes specific targets for the interest rates it influences. Thus, the Federal Open Market Committee lowered the target concerning the federal funds rate from 5.25% in the first half of 2007, to almost 1% towards the end of 2008 (see figure 2). Starting with December 16, 2008, FED announced that the federal interest rate must fall into a target interval between 0 and 0.25 and must be kept to a very low level. In October of the same year, the federal bank remunerates both the minimum mandatory reserves and their excess, held by commercial banks; as of December 2008, the interested rate for reserves coincides with the upper limit of the federal interest rate. FED also controls the interest rate for the *discount window* facility, through which commercial banks borrow money from the central bank when they need liquidities. To conclude, as far as FED is concerned, in the context created by the financial crisis, the monetary authority used the following as instruments specific to the interest rate policy: the federal funds rate, the spread between the federal rate and the rate remunerated at the reserves of the banking institutions, as well as the *discount window* facility.

Figure 2. Instruments of the interest rate policy used by the Federal Reserve (January 2000 – September 2011)



Note: disc_rate = the Federal Reserve Discount Window (after January 9, 2003 the primary and secondary credit programs replaced the adjustment credit and extended credit programs); EF_FF_Rate = Effective Federal Funds Rate; FFT_Range_LL = Federal Funds Target Range - Lower Limit; FFT_Range_UL = Federal Funds Target Range - Upper Limit; FFT_Rate = Federal Funds Target Rate; IR_ER = Interest Rate Paid on Excess Reserve Balances; IR_RR = Interest Rate Paid on Required Reserve Balances.

Source: http://research.stlouisfed.org/; personal processing

As concerns *quantitative policies*, these involve the resizing of the balance sheet of the central bank and adjustments in the structure of liabilities. As we may notice in figure 3, the level of reserves (adjusted) in

relation to the GDP grew significantly during the period subsequent to the enforcement of the unconventional measures, registering unprecedented values in the history of the United States (the maximum was 8.75 of the GDP in February 2010). The second indicator (the money supply in relation to the GDP) had the same evolution; after a descending trend for a period longer than 60 years (from almost 20% of the GDP in December 1946 to 5.93% in August 2008), the money supply grew considerably, reaching its maximum value, of 14.6% of the GDP in February 2010.

Modifications also occurred as concerns the liabilities in the balance sheet of the Federal Reserve. If, up to 2008, the liabilities were mostly comprised of the currency in circulation, after the enforcement of the unconventional monetary policy measures, their structure changed substantially (see figure 4). Thus, in the context of the significant increase of total liabilities, the share of the circulating money supply in the liabilities decreases to below 35%, whereas the level of the reserves of the commercial banks, set up at FED, in relation to the passive liabilities, reached their maximum limit, equal to 60%, in June 2011. According to the data, the liabilities in the balance sheet for the month of July 2011 had a three times bigger value than the one registered in January 2007, the increase being generated primarily by the banking reserves and the deposits (the general and the additional one) set up by the Treasury at FED.

Figure 3. Evolution of the money supply and of reserves (January 1929 – August 2011)

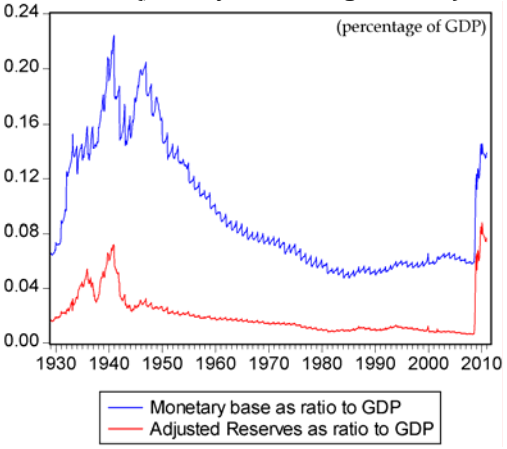
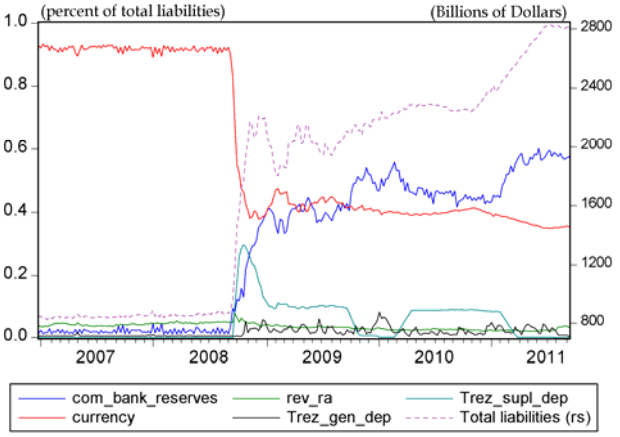


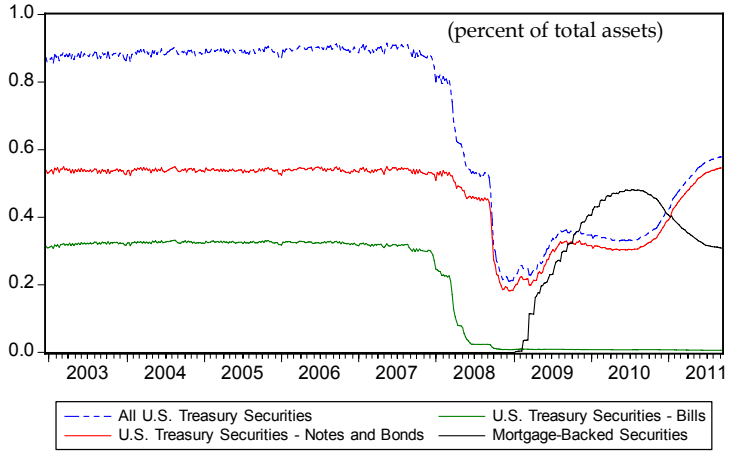
Figure 4. Dynamics of the liabilities in the Fed balance sheet (January 2007 – September 2011)



Source: http://research.stlouisfed.org/; personal processing

The third set of measures, specific to the credit policy, involves interventions in the structure of the assets of the balance sheet of the monetary authorities. If, during the period previous to the worsening of the international financial crisis, the balance sheet assets of the Federal Reserve was comprised, to a great extent, of securities of the Treasury (see figure 5), during the last 3 years its structure modified, incorporating other higher risk securities (compared with other treasury bonds). A significant share of the assets is currently held by mortgage-backed securities (MBS).

Figure 5. Dynamics of the assets in the Fed balance sheet (December 2002 – September 2011)



Source: http://research.stlouisfed.org/; personal processing

Borio and Disyatat (2010) suggest a classification of the nonstandard measures adopted by the monetary authorities in various forms, specific to the balance sheet policy, according to two criteria: a) impact of the measures on the structure of the balance sheets of the participants from the private sector; b) targeted market segment. This taxonomy is presented in table 1.

Table 1. Typology of balance sheet policies

	Impact on the balance sheets of the participants from the private sector		
Targeted market segment	Modifications at the level of net foreign exchange exposures of the private sector	Modification in the structure of receivables, experienced by the public sector	Modifications in the profile of the receivables in the private sector and/or in the structure of public sector vs. private sector receivables
Foreign exchange market	Exchange rate policy		
Market of the securities issued by the public sector		Quasi debt-management policy	
Market of the securities issued by the private sector			Credit policy
Bank reserves	Bank reserves policy		

Source: Borio, Disyatat, 2010 personal processing

According to the taxonomy presented in table 1, the characteristics specific to each form of balance sheet policy are:

A. As concerns the exchange rate policy, the central bank influences the foreign exchange position of the private sector through operations on the foreign exchange market; the purpose of these operations is to modify the exchange rate, its level and/or volatility for any monetary policy interest rate.
B. As concerns the quasi-debt management policy, the monetary authority intervenes on the market of the securities issued by the public sector with the intention of modifying the structure of the receivables of the private sector (private agents) on the public (government) sector. One of the main reasons why a central bank performs such activities is to modify the yield of all government bonds, thus influencing, to a more considerable extent, the cost of financing and the price of assets. The term "quasi" is used in order to distinguish between the objectives of these actions and those of debt management and in order to leave room for the substance economic differences between bank reserves and other receivables in the public sector, depending on the specific characteristics.
C. As concerns the credit policy, the central bank interferes on the market of the securities issued by the private sector and modifies the structure of the balance sheets in the private sector through the change of the profile of its exposure to the receivables of the private sector. This can be achieved either through the modification of the profile of a given number of receivables of the private sector, owned by the central bank or via the modification of the structure of receivables (thus correcting the ratio between the receivables of the private sector and those of the public sector) owned by the private sector. The main objective of the measures of this monetary policy behavior is to modify the financing conditions for the private sector.
D. As concerns the bank reserves policy, the central bank establishes a certain level of bank reserves, *irrespective of* how balanced this level is in terms of balance sheet assets (for example, by purchasing foreign currency or receivables in the national currency, in the public or private sector). This is why we cannot determine in advance the effects on the balance sheets in the private sector, for these are more tightly connected to their counterpart on the side of the assets of the reserves expansion. The objectives of such measures, invoked by professionals in the field, may vary from the need of inducing monetary or credit expansion to the necessity of eliminating intermediaries by providing ample financial resources.

The classification proposed by Borio and Disyatat may help us better understand the multitude of terms used in specialized economic literature, mass media, practice, etc. Such a term, frequently used in scientific circles, as well as in the mass-media, is "quantitative easing". This has been used for the first time in order to describe the operations performed by the Bank of Japan during the 2001-2006 period. Although the term can be easily associated (and sometimes used as a synonym – see Bernanke, 2009) with the bank reserves policy described above, there are cases when it implies a more comprehensive definition.

According to Ugai (2006), *quantitative easing* (QE) is a monetary policy approach which can be described from the perspective of three characteristics: a) explicit targets for bank reserves; b) a conditional commitment of maintaining high levels of reserves in the future; c) purchases supported by government bonds in order to facilitate the fulfillment of the objectives related to the bank reserves. According to these features, *quantitative easing* is also a mixture between the bank reserves policy, the quasi-debt management policy and a strategy for signaling future intentions.

Other authors define QE as a policy of reduction of long-term bank rates with the help of the expansion of reserves (Spiegel, 2001). This vision corresponds to a combination between the bank reserves policy and the quasi-debt management policy.

Through its quantitative easing measures, the Bank of England encourages the purchase of assets from the public sector, as well as from the private one, by using the financial resources of the central bank (Benford *et al.*, 2009). This approach can be included in the bank reserves policy, quasi-debt management policy and credit policy.

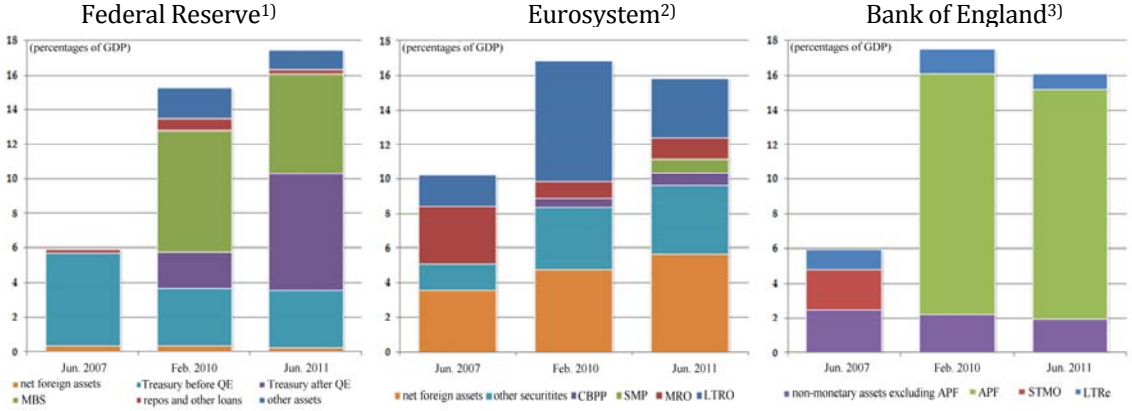
Other specialists (Krugman, 2009; Taylor, 2009) used this term in excess, associating it with any operation of the central bank which led to a growth of the reserves, regardless of whether the level reached by these reserves was proposed explicitly or not. This approach is not found in any of the balance sheet policies identified by Borio and Disyatat.

Another widely used term in the context created by the global financial crisis which started in 2007 is *"credit easing"*. Bernanke (2009) used it in order to describe the range of loan programs and of programs for the purchase of securities issued by the Federal Reserve starting with the second half of 2007. The term refers to the loans granted to entities belonging to the private sector, be they banks or nonbanking financial companies, as well as to the multitude of purchases of securities issued by the Treasury, as well as by government-sponsored enterprises. Hence, if we refer to the classification in table 1, *credit easing* (CE) is a combination between the credit policy and the quasi-debt management policy. Although we would be tempted to also refer to the bank reserves policy, as these purchases and loans are financed through the expansion of the bank reserves, we will not do this, for the growths of reserves are not explicitly assumed targets, but mere consequences. Bernanke also draws attention on the distinction between *quantitative easing* and *credit easing*, the two terms being similar only from the perspective of the implications on the balance sheet of the central bank, in the sense that it grows bigger.

The European Central Bank also implemented unconventional monetary policy measures meant to "support financing conditions and credit flows, much over what could have been achieved solely through the reduction of the representative interest rates of the ECB" (ECB, 2009). The set of measures which mainly targeted the banks (given the fact that banking institutions are the main financing source of real economy in the euro area) were generically called "enhanced credit support". According to the annual report (ECB, 2009), the purpose of the enhanced credit support (ECS) was to minimize the unfavorable effects exercised by the malfunctions of the monetary markets on the situation of the liquidity of the banks in the euro area. Due to the fact that bank loans are also used in a predominant manner because the adopted measures have a significant impact on the profile of the ECB exposure to the receivables of the private sector, we may state that these measures are part of the credit policies.

The enhanced credit support promoted by ECB targets the financing conditions in the banking sector in particular and distinguishes itself from the quantitative easing practiced by other central banks. The quantitative easing measures generally involve the purchase of bonds from the market in order to diminish their yields by reducing the term premium.

Figure 6. Share of the main assets of the central banks in the GDP



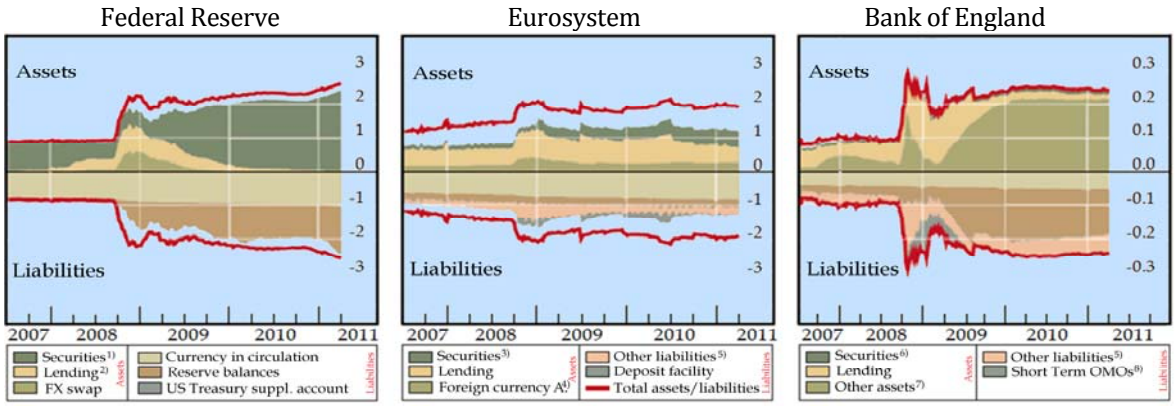
Note: 1) MBS = mortgage-backed securities; Treasury before QE = Treasury held before purchases through the *Quantitative Easing* program; Treasury after QE = Treasury held after purchases through the *Quantitative Easing* program; 2) LTRO =long term refinancing operations; MRO = main refinancing operations; SMP = the Securities Markets Programme; CBPP = the Covered Bond Purchase Programme; 3) LTRe = long term *repos*; STMO= short term monetary operations; APF = Asset Purchase Facility.

Source: Federal Reserve, European Central Bank, Bank of England.

For the purpose of showing the different focus of central banks in implementing unconventional measures, we have analyzed the cases of the Federal Reserve, the Eurosystem and the Bank of England. According to figure 6, as far as the ECB is concerned, the biggest share of unconventional measures in the GDP is held by programs such as ORTL, CBPP pr SMP (all these target the banking sector). As concerns FED and the BoE, the most significant share of nonstandard monetary policy measures involved direct purchases from the bond market (given the fact that the private sector of these economies is financed to a great extent from the securities market).

Following the enforcement of unconventional measures, especially after the bankruptcy of the Lehman Brothers in September 2008, not only did the balance sheets of the central banks augment, reaching unprecedented levels, but they also underwent modifications in terms of structure and composition (see figure 7). For example, following the implementation of unconventional monetary policy measures, the Federal Reserve and the Bank of England increased the volume of their assets from 8% to almost 20% of the GDP, whereas the Eurosystem augmented its assets from 13% to more than 20% of the GDP of the euro area. The swap agreements concluded in order to provide cash on a temporary basis were the main reasons behind the expansion of most central banks in the world towards the end of 2008 (phenomenon reflected in the evolution of the assets).

Figure 7. Balance sheet structures of central banks (in trillions of respective currency units)



Note: 1) directly owned securities; 2) refund commitments, the fixed term tenders facility, other loans and the *Commercial Paper Funding Facility* program; 3) securities issued by euro area residents and loans granted to public administrations, in euro; 4) includes tenders for US dollars liquidities; 5) includes commitments in euro for nonresidents of the euro area and foreign currency commitments for residents of the euro area (for Eurosystem, it also includes commitments to other central banks); 6) bonds and other securities purchased by means of market transactions; 7) includes tenders for US dollars liquidities and loans for the *Asset Purchase Facility Fund*; 8) *open-market* operations, including the issuing of *Bank of England sterling bills*.

Source: BIS, 2011: 65; personal processing

At the same time, the same central banks were forced to also enhance their capacity of sterilizing the additional volume of cash in order to neutralize its impact on the *overnight* interest rates (without endangering the monetary policy measures). In this respect, the monetary authorities made changes in the structure of the assets of the balance sheet (the liquidity injection was offset by sales of short-term government bonds, and the long-term liquidities were offset by the short-term ones), but they did not manage to completely absorb the excess liquidity and this is why they introduced new instruments for the management of the liabilities.

4. Timing is everything

At present we do not have an applied, successful strategy for the transition from a conventional to an unconventional monetary policy and vice versa. Given the novelty of the implemented measures, we cannot make statements about the synchronization of the two policies yet. For example, should the nonstandard monetary policy measures be enforced only after the nominal rate of the short-term interest has reached its lower limit and the risks on price stability continue to exist or while the interest rates are still positive?

The implementation of unconventional monetary policy measures raises more challenges for policy makers. On the one hand, they must fix the cracks which appeared in the financial system while ensuring its short-term functionality. On the other hand, the use of some less "orthodox" instruments, when the solutions proposed by the *mainstream* monetary policy have shown their limits, involves the elaboration of some phasing-out strategies for when these instruments are no longer needed. Meanwhile, the same policy makers must also elaborate long-term strategies aimed at creating a sounder financial system, able to support a stable and solid economic growth.

The main concerns in relation to the phasing-out strategies of the unconventional measures are not of a technical nature; rather, they refer to the timing and pace of the exit. These two coordinates make the difference between a successfully implemented monetary policy measure and one that not only does not solve the problem, but may also contribute to its worsening (it is worth mentioning that we did not differentiate between a standard monetary policy measure and a contemporary monetary policy measure because the time coordinate is an element that must be taken into account for the *interest rate policy* as well). If the measures are phased out too soon, the potential recovery of the financial system may be endangered. If the unconventional measures are preserved for a time period longer than necessary, thus postponing the application of the *phasing-out* strategy, the market may become excessively dependent on the "cheap" liquidity exceptionally provided by the monetary authority. Nevertheless, it seems that a phasing-out strategy initiated too late and too slowly would present the highest risk (Borio, 2008). Consequently, new financial imbalances or inflationist pressures may appear at the macro level; at the micro level, this type of phasing-out strategy may weaken the markets' capacity of efficiently functioning without any official stimuli from the authorities or may distort the competitive environment (to the benefit/detriment of some agents).

5. Conclusions

Following the worsening of the international financial crisis as a result of the bankruptcy of the Lehman Brothers bank in the autumn of 2008, the financial system and real economy were strongly affected and the monetary policy transmission mechanism was severely damaged, thus affecting the central banks' capacity of reaching their fundamental monetary policy objective (which consists, for most central banks, in the preservation of the stability of the prices in the medium term). In this respect, the monetary authorities came up with firm solutions, reducing the mainstream interest rates at historically minimum levels. However, the fast and quantitatively significant easing of the monetary policy of most central banks did not produce the desired effects. The incapacity of the monetary authorities of reestablishing the functionality of the financial system at the optimum parameters in a period when the levels of the mainstream interest rate were close to zero percentage points showed the limited nature of the *mainstream* monetary policy. In the new context

created by the international financial crisis, the relevant authorities in the field of monetary policy took a series of less "orthodox" measures; subsequently, these measures became a controversial topic for the representatives of scientific circles, as well as for policy makers.

This study has managed to establish the conceptual analysis frame of these unconventional monetary policy measures through two approaches: that of Ricardo R. (who divides monetary policy interventions into measures specific to the interest rate policy, the quantitative policy and the credit policy) and that of Borio C. and Disyatat P. (who distinguish between the standard monetary policy of the interest rate and the balance sheet monetary policy). From the perspective of these approaches, we have analyzed the various concepts used in the mass-media, as well as in economic literature, in order to define the nonstandard monetary policy measures (such as *credit easing*, *quantitative easing* or *enhanced credit support*) and we have assessed the impact of some of these measures on the balance sheet of the concerned central banks, as well as some of the risks involved for the contemporary economy.

The final observations in this study show that, although there are inflationist pressures and the balance sheets of central banks significantly increased, reaching unprecedented historic levels, the unconventional measures adopted by monetary authorities have restored, however, the functionality of financial markets (to parameters close to the normal ones) and have reestablished the capacity of the monetary policy of efficiently transmitting signals to the real economy (mainly through the interest rate channel). They also contributed to the recovery of the economy and to the improvement of the financing conditions, supporting at the same time the fluidity of the credit flow towards the economy.

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