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Balance sheet policy of central banks in the conditions of the *exit strategy* of central banks

Abstract

The study identifies the balance sheet policy of central banks differentiating it from *quantitative easing* policy. Additionally, the study analyses various types of *quantitative easing* depicting their balance sheet effects. Changes in volumes and structures of the biggest central banks are analysed on the example of *quantitative easing* programs applied by the Fed and ECB. A basic and direct purpose of this study refers to the specification of reasons for central banks' maintaining the balance sheet policy and the assessment of its outcomes from the perspective of the *exit strategy* adopted by central banks.

- **Keywords**: The balance sheet of the central bank, the balance sheet policy, *quantitative easing*, *qualitative easing*, the amount of money in circulation, liquid reserves of central banks, the financial market channel, the credit channel, the money transmission mechanism.
- JEL Classification: G00.

Introduction

The global financial crisis caused that central banks of countries suffering from the financial crisis effects implemented various intervention tools supporting an economic growth and restoring financial stability. Those tools may be divided into two basic groups. The first group includes tools which refer to joint activities of central banks together with legislation and executive authorities. They were created mainly within the scope of so called rescue packages constituting a direct respond of the most important state institutions to the global financial crisis. In that process, central banks did not constitute the main initiating group. It was the governments that through the purchase of equity securities nationalised debts of financial institutions restoring their operational capacity. Central banks exclusively triggered financial support for failing commercial banks. Their rescue activities focused mainly on providing financial liquidity to credit institutions through the open market operations and reference interest rates lowering.

The second group of central banks' tools focused on financial stability and triggering economic growth. Thus, the contemporary world economy has become related to the *quantitative easing* policy implemented by the biggest central banks. The *quantitative easing* policy was implemented by them not in the situation when rescue activities and non-standard instruments of the monetary policy did not bring the expected results. It was the *quantitative easing* policy that caused considerable changes in balance sheets of central banks. It contributed to a never before experienced growth of their volume as well as changes in the so far existing structure of balance assets and liabilities. For that reason, *quantitative easing* policy is often referred to as the balance sheet policy of central banks.

The study identifies the balance sheet policy of central banks differentiating it from *quantitative easing* policy. Additionally, the study analyses various types of *quantitative easing*. The basic and direct goal of the study refers to determining reasons for maintaining the balance sheet policy by central banks together with the assessment of its results.

1. Principles and assumptions of the balance sheet policy of central banks

The balance sheet of the central bank similarly as in case of any other economic activity presents assets and liabilities, whose totals according to the principle of the balance sheet equilibrium shall correspond to each other. The observation of the above mentioned principle requires that all the changes in balance sheet assets of the central bank are reflected in changes of its liabilities and vice versa. Central banks change volumes and structures of their balance sheets through the monetary policy. Thus, their balance sheet policy and monetary policy shall strictly correlate.

Contemporary central banks in their monetary policy concentrate basically on providing liquidity to the banking sector. Thus, their balance sheet assets include various forms of refinancing credits granted to commercial banks. Additionally, contemporary central banks run also the exchange rate policies gathering in their portfolios various foreign assets. Moreover, contemporary central banks offer financing services for the state. They handle its accounts and execute payment orders. Appropriately to the level of possessed autonomy they may also grant credits and loans to such authority. Transactions are associated with equivalent entries shown on the liability side of the central banks' balance sheets. For that reason, the balance sheet of the central bank in its analytical version is presented in the form of the following formula [Polański 2004, pp. 164-166]:

$$AZN + KBN + KN = G + RB$$

where:

AZN - net foreign assets,

KBN - net credit for the budget,

KN - net credit for banks,

G – cash,

RB – liquid bank reserves.

Cash presented in the balance sheet liabilities is emitted by central banks. That is why, its volume given for the disposal of economic entities depends directly on the monetary policy run by central banks. When it is expansive, that volume is increasing and when it is restrictive, the volume is decreasing. The component of the balance sheet liabilities refers also to the reserve money in the form of liabilities towards commercial banks (deposits on account of commercial banks) governmental deposits (liabilities towards the government) and liquid assets raised in the open market transactions from commercial banks having the surplus of them (liquidity absorption in the interbank market). Central banks running the balance sheet policy constantly monitor the volume and structure of their liabilities determining what volume of cash they intend to hand over and/or collect from the interbank market.

Thus, the basic aspect of the balance sheet policy of central banks refers to the assessment of the volume of absorbed by them funds defined usually as soc called free (liquid) reserves. They are created by balances of bank accounts covering funds of the minimum reserve as well as surpluses, foreign net assets and the budget and cash balance, which may be reflected by the formula [Polański 2004, pp. 164-166]:

RB = (AZN + KBN - G) + KN

where: symbols are as above presented.

Central banks regulate the level of liquid foreign reserve assets controlling the monetary base (Mo). The efficiency of such control depends on the influence of so called autonomic factors on it. Such autonomic factors include foreign net assets as well as the government budget balance. Such factors effect changes in the money supply (Mo) irrespectively of the monetary policy run by central banks. They exert influence on liquidity creation or absorption (referring to cash) whereas the central bank does not effect any major influence on them within a short time perspective.

The level of foreign exchange reserves (AZN) in balance sheets of central banks depends on the exchange regime binding in a given country. In case of the fixed or regulated exchange rate, the central bank needs to intervene in order to maintain it on a given level. This obligation refers to the central bank's purchase or sales of foreign currency changing the level of foreign net assets and causing a corresponding to them increase or decrease in the money supply registered in the liabilities of the central bank. In case of floating exchange rates, the central bank does not purchase or sell foreign currencies, or at least it undertakes such transactions occasionally. Thus, the item of foreign net assets does not change, at least within a short time perspective. Whereas, within a longer perspective, it depends on the official foreign exchange assets management strategy adopted by central banks.

Budget resources flows constitute the factor that considerably determines the balance sheet policy of central banks. In the situation when central banks have been equipped with independence and they may not finance the deficit or public debts, the only crucial and unpredictable factor of changes in their balance sheets refers to current budget resources flows between accounts of the central bank. However, the lack of such limitations may cause a not controlled by the central bank increase in the money supply effecting serious inflation problems in the economy, hyperinflation including.

The balance sheet of the central bank, its value and structure by type depend on the monetary policy run by the central bank, external economic or even social considerations of such policy. On the other hand, the balance sheet policy of central banks constitutes their resultant to a considerable degree determined by the execution of the structural functions and task of central banks.

Balance sheet assets of central banks additionally present fixed assets and balance sheet liabilities present the equity (the capital of the central bank) increased or decreased by the financial result and differences in exchange assets reserves (so called revaluation reserve). Central banks report them in compliance with binding accounting principles. Volumes of those factors do not constitute, however, the subject of the monetary policy and they do not exert any influence on the balance sheet policy of central banks.

2. The balance sheet policy versus *quantitative easing* of the biggest central banks

Quantitative easing constitutes a form of the expansive monetary policy oriented on increasing the money supply and consequently also the balance sheet total of central banks. In that context, it refers to a specific type of the monetary policy of central banks and their balance sheet policy.

Quantitative easing was for the first time adopted in the contemporary economy in Japan in years 2001-2006. The Bank of Japan – the central bank of Japan – utilised the *quantitative easing* policy to combat deflation [Arai and Hoshi 2004, p. 9]. Deflation, referring to the phenomenon of the increase in the money value, associated the world economy of the specie era. It stemmed from the bullion limitations, natural barrier to the increase of its amount in circulation. It disappeared from the monetary policy of central banks at the moment of the appearance of the account assigned money. That money commonly called paper money, "produced" by central banks turned out to be very sensitive to quick decrease of its value defined as inflation. Central banks learned to counteract effectively against the increase of economic inflation, implementing the money supply control together with a restrictive monetary policy. They impinged its principles only in extreme situations posing a threat to the economic situation. In such circumstances they abandoned such control, running an expansive monetary policy.

Quantitative easing in extraordinary monetary policy of central banks was intended in the global crisis period mainly to restore financial stability in the world economy. It was characterised by the central banks' purchase of securities already launched into the economic circulation. Initially the process referred exclusively to securities in case of which liabilities turned out to be irrecoverable as a consequence of bankruptcy or financial difficulties of their issuers. A drastic drop of their market value exposed many international financial institutions, possessing such securities in portfolios of their assets, to considerable financial losses. Central banks purchasing such securities provided for their disposal considerable sums of cash stabilising the interbank market balance.

No visible world economy recovery after 2010 set basis for central banks to continue the *quantitative easing* policy. Currently, the policy is steered by the fear of deflation. That is why, the biggest central banks still resort to *quantitative easing* irrespective of declared by them *exit strategy* implementation.

Quantitative easing, as the form of an expansive monetary policy based on the purchase of securities in the period of the global financial crisis, was first used as the first tool in the USA. The Fed purchasing securities on the scale never before applied suppressed first symptoms of the global financial crisis. Utilising its extraordinary powers, granted under chapter 13 item 3 of the Federal Reserve Act, it purchased the GSE (*Government Sponsored Securities*) debt of enterprises sponsored by the government, mortgage bond securities so called MBS related to financing the American real estate market and government bonds [BRE Bank]. In December 2007, it elaborated the program of Term Auction Facility (TAF). In March 2008, it launched the execution of the Term Securities Lending Facility (TSLF) program based on the purchase of the treasury securities, corporate debt securities, municipal securities, MBSes and ABSes. Additionally, in 2008 it elaborated the Primary Dealer Credit Facility (PDCF) program and the Commercial Paper Funding Facility program (CPFF), assuming in their case the purchase of the short-term securities of private entities contained in portfolios of financial institutions (ABCP – *Asset Backed Commercial Papers* and the unsecured UCP – *Unsecured Commercial Paper*).

There were, however, more views of the *quantitative easing* program in the USA. In November 2010, the Fed announced the program of securities purchase defined as QE II and in September 2010 it announced QE III. The Fed implemented those programs infringing the so far applied principle of no intervention into the securities market [Polański, 2004]. Purchasing securities, it monetised sovereign and private debts increasing its monetary base debt without limitations. In 2010 launching QE III it assumed only, that the *quantitative easing* policy prolonging with regard to too weak economic growth dynamics in the USA may jeopardise maintaining the inflation target on the assumed level [Labonte 2011, p. 12]. Thus, financial markets were informed on the possibility of the *quantitative easing* policy limiting in the American economy to which they reacted negatively dropping market prices of financial instruments with the fear of difficulties with the regulation of liabilities maturing with regard to them.

The ECB on the other hand, in the first phase of the global financial crisis purchased securities only through intervention activities on the money market (*enhanced credit support*) directed mainly to increase the liquidity in the euro's zone banking sector [ECB 2009, p. 18-20]. It conducted the direct purchase of covered bonds in the open market transactions. Additionally, it extended the list of assets acceptable as the provision of the liquidity assistance of the euro zone's commercial banks. Initially, the ECB did not report any special securities programs. They were elaborated only in the light of the increasing crisis phenomena. The first program referred to the Covered Bond Purchase (CBPP) in the banking market. Its edition terminated in July 2010. The improvement of financial markets conditions as well as the conviction of the ECB, that the extraordinary monetary policy should be short-term, caused, however, that in the beginning of December 2009 the Governing Council decided to withdraw gradually from that instrument of the monetary policy [ECB 2009, p. 18-20].

It was only in spring 2010, when the euro zone again faced tensions in certain segments of its financial markets and an unexpected public finance crisis reached many euro zone member countries (mainly Greece, Spain, Portugal and Italy), the ECB fearing that as a consequence of such turmoil its short-term interest rates would cease to translate into long-term interest rates and it would lose control over euro zone economic entities' investments servicing, launched in May 2010 its first official *Securities Markets Programme*. Within the scope of that program, the ECB could run interventions on public and non-public debt securities markets of the euro-zone [ECB 2010, p. 19-21]. With regard to the treaty-based ban of direct financing debts of the euro zone countries' governments by the ECB (Art. 123 of the Treaty on the Functioning of the European Union, TFEU), the announcement of the SMP program raised a lot of controversies.

In August 2012, the ECB announced a subsequent securities program – Outright Monetary Transactions (OMT). It concentrated on the purchase of treasury bonds by central banks of the Eurosystem exclusively on the secondary market with maximum three-year maturity, issued by governments of the euro zone member countries. Persisting problems of the euro zone member countries, referring mainly to their increasing public debt, caused that at the end of 2011, the ECB decided to supplement the existing liquidity programs with the resumed CBPP as well as one-year and three-year LTRO (21st December 2011 and 29th February 2012) [ECB 2011, p. 12-14]. Additionally, it expanded, for the subsequent time, the range of assets acceptable as the collateral of credits for financial institutions (in reverse transactions) [ECB 2011, p. 12-14]. However, the situation in the euro zone is still unstable. That is why, the ECB does not exclude further application of the monetary policy easing. The President of the ECB, M. Dragi, in October 2011, announced triggering the purchase of covered bonds even in mid October. On the other hand, in IV quarter, in compliance with the announcement the purchase of ABS instruments shall start (asset-backed securities). Both programs shall last minimum two years. The ECB assumes that the purchase of financial assets may reach even one billion euro. Simultaneously, the ECB upholds its previous position that is has not exacerbated yet tools necessary to prevent against the prolonging period of low inflation in the euro zone. Financial markets reacted to recent decisions of the ECB with the sale of shares. Mainly, due to the fact that it has been expected that the ECB will announce the program based of the government bonds purchase namely, the execution of the "classical" QE program similar to the one of the American Fed.

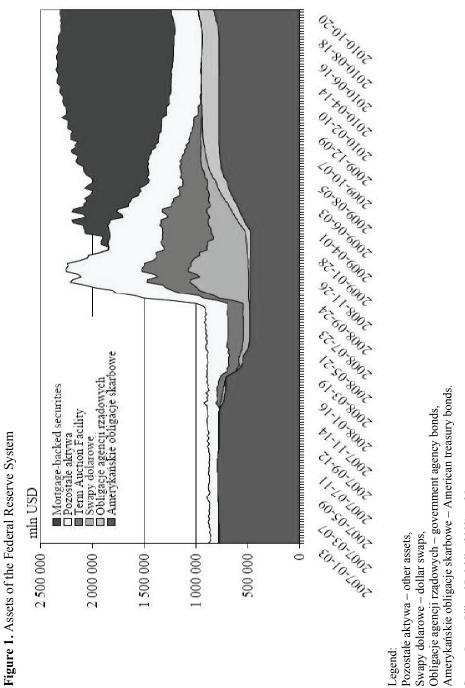
Disregarding causes for financial markets' reactions we may notice that *qualitative easing* policies of the biggest central banks revealed differences. The increase of the money supply may be effected "classically" which means that,

qualitative easing is conducted with the public debt financing through treasury bonds purchase. It may also be based on the purchase of private debt instruments. The Fed running QE prefers its classical form, whereas the ECB prefers unconventional *qualitative easing* policy.

Moreover, the *qualitative easing* policy may lead to changes in assets of the market entities, which is defined by traditional *quantitative easing*. The policy is often associated with securities purchase leading to the increase of the market entities' expectations for the change in the future interest rates. Central banks support the money supply increase (of the Mo – monetary base) with the policy of low interest rates, very often approximating to zero [Pyka 2014]. Then the final effect of QE in the form of the economic growth triggering is stronger.

The *qualitative easing* policy may also assume the form of credit easing. Credit easing refers exclusively to the change in the central bank's balance sheet structure without any changes to its volume. The central bank within the scope of credit easing usually uses a wide portfolio of its financial assets for transactions in their secondary market. The force and direction of its impact, as the "quarterback player" depends on the character of those securities, the period of their maturity and the nominal value of the conducted transaction. The impact on the securities market, within the scope of such easing policy, is executed through changes in the structure of the central bank's financial assets, as well as a change in liquidity and investment risk of a given securities market. Thus, the credit easing policy often leads to the market demand shifting to given financial assets. Taking into consideration the manner of that policy execution it is often considered as quasi-management over debts [Bernanke and Reinhart 2004].

Changes in the portfolios of the balance sheet assets of the Fed and ECB are presented in Figures 1 and 2. Their structures are considerably different. The assets of the Fed since the beginning of the *quantitative easing* policy have revealed a dominant position of the treasury bonds and MBSes (mortgage backed-securities). In the balance sheet of the ECB securities programs constitute an incomparably lower percent of assets than long-term refinancing operations based on securities.



Source: Lenza, Pill and Reichlin (2009), p. 25.

Legend:

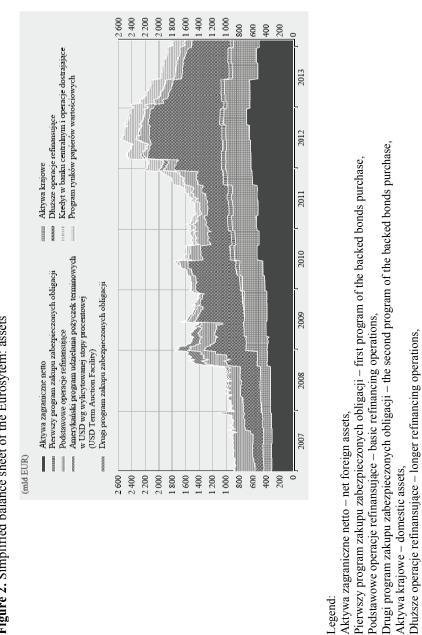


Figure 2. Simplified balance sheet of the Eurosytem: assets

Legend:

Aktywa zagraniczne netto – net foreign assets,

Pierwszy program zakupu zabezpieczonych obligacji – first program of the backed bonds purchase,

Aktywa krajowe - domestic assets,

Dłuższe operacje refinansujące - longer refinancing operations,

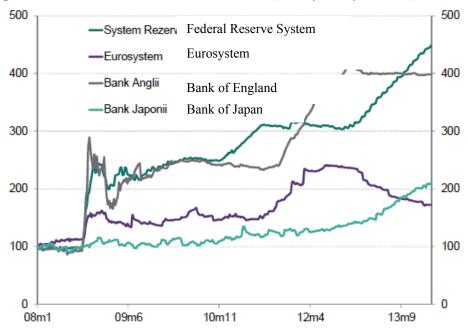
Kredyt w banku centralnym i oparacje dostrajające - credit in the central bank and fine-tuning operations, Program rynków papierów wartościowych - securities markets program.

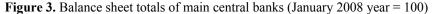
Source: The ECB. Data refer to the period until 14.02.2014.

Differences in the *quantitative easing* policy mat refer also to the structure of the balance sheet liabilities of central banks. Applying such criterion for the classification of *quantitative easing* we may highlight sterilised and non-sterilised *quantitative easing* policy. Sterilised *quantitative easing* causes the increase of the central bank's reserve money, whereas, non-sterilised *quantitative easing* is oriented on the increase of its quantity in the circulation. The ECB applies sterilised *quantitative easing* policy. The securities purchase in executed program is compensated with the decrease of the interbank market liquidity in the open market operations. On the other hand, the Fed does not sterilise the market expecting the money in circulation grow.

3. Balance sheet effects of the *quantitative easing* policy of the biggest central banks

The quantitative easing policy may cause various economic and political consequences. In the first place its runs to changes in volumes and structures of the central banks' balance sheets. Figure 4 presents the increase of the balance sheet total of the biggest central banks in years 2008-2013. In the USA, since the moment of the launching of the first *qualitative easing* program in March 2009, the Fed "has produced" 2.55 trillion dollars (1 trillion = 1.000 billion) increasing the value of the possessed assets (the balance sheet total) by 134%. An approximated dynamics of its growth could be observed in Great Britain. In Japan the increase of the balance sheet total was not so strong in years 2008-2013. We shall however emphasise that the central bank in Japan increased its balance sheet volumes long before the global financial crisis. In the euro zone, as a consequence of the extraordinary monetary policy, the balance sheet of the Eurosystem increased in an unprecedented manner to volumes over two times as big as between year 2008 and mid 2012. It started to gradually drop down in the second half of 2012, and in 2013 the balance sheet total of the ECB dropped down. Calculating since the record level achieved in June 2012 until December 2013, the balance sheet of the Eurosystem decreased by approximately 26% reaching the level of EUR 2300 billion.





The observed changes were undoubtedly caused by the run by the ECB sterilisation of the inter-bank market. Additionally, they were affected by specific conducts of the euro zone banks. And thus for instance, a considerable interest of the financial intermediaries in resumed, LTRO long – term operations led to the liquidity surplus in the euro zone banking system. In 2012, it reached an average level of EUR 773.9 billion causing a visible drop of the operating activity of banks. The situation was obviously not intended, however, it forced the ale ECB to absorb the excessive liquidity.

Increasing balance sheets create the concern about the investment risk increase in central banks. The President of the German central bank at the moment of the ECB's announcing of the launching of two assets purchase programs in October emphasised that it would result in the purchase of securities at too high prices and it would cause the risk transfer from commercial banks to the central bank, and ultimately to taxpayers. The situation becomes considerably complicated due to the fact that the ECB will purchase securities at the rating lower than BBB. Such rating is also defined as "non-investment rating" or junk rating is currently demonstrated by for instance Greek or Cypriot securities. Thus, there is a serious concern that the next step of the ECB may refer to the full scale launching of the government bonds purchase program similar to the *quantitative*

Source: Data of Bloomberg, calculations of NBP.

easing program currently phased out by the Federal Reserve. Then volumes of the ECB's balance sheet will dynamically grow.

On the other hand, Figure 4 referring to balance sheet liabilities of the Eurosystem demonstrates that changes in volumes and the structure of the balance sheet assets are associated with changes in volumes and the structure of the balance sheet liabilities. The balance sheet of the Eurosystem, on the side of liabilities has presented the liquidity surplus reduction due to the executed repayment of funds borrowed under the LTRO 3-year operations. At the end of 2013, the liquidity surplus ranged within EUR 150-200 billion dropping from the record level of EUR 827.5 billion reached as a consequence of the above mentioned LTRO operations conducted in March 2012. Banks maintained the liquidity surplus in the form of the deposit in the central bank or on running accounts. That situation was caused by the lowering of the ECB's deposit rate to zero in July 2012. It was indifferent for banks whether they transferred funds surpluses to the *overnight* deposit in the central bank, or whether they left them without interest on running accounts, as liquid reserves surpluses [ECB 2013, p. 37]. In 2013, the ECB's balance sheet liabilities, their volume and mainly their structure remained under the influence of many factors of changes. Some of them demonstrated a seasonal nature, whereas, some of them were related to the liquidity sterilisation. Additionally, the significance of autonomic factors decreased, mainly as a consequence of lower denominated in euro receivables from the euro zone residents. All the factors in combination have caused that the euro zone demonstrates a weak growing tendency of banknotes in circulation number. Historical high level of over EUR 950 billion was reported only at the end of 2013.

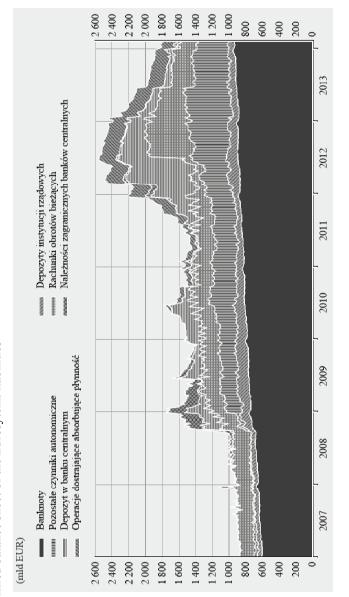


Figure 4. Simplified balance sheet of the Eurosytem: liabilities

Legend:

Banknoty - banknotes,

Operacje dostrajające absorbujące płynność – liquidity absorbing fine-tuning operations, Depozyty instytucji rządowych – deposits of governmental institutions, Należności zagranicznych banków centralnych - claims of foreign central banks. Pozostałe czynniki autonomiczne - other autonomic factors, Depozyt w banku centralnym – deposit in the central bank,

Source: The ECB. Data refer to the period until 14.02.2014.

The euro zone as we can see in Figure 4 demonstrates the liquidity surpluses. They prove that the ECB's credit policy is still inefficient. *Quantitative easing* programs elaborated by the ECB leading to the monetary base increase do not translate into the increase of the money volume in circulation; however, they effect the reserve money increase. The above mentioned stems mainly from the fact that changes in M1 aggregate are incompliant, with regard to their directional basis, with the credit money increase. A similar tendency is demonstrated by other biggest central banks of the world economy and it does not depend on the *quantitative easing* policy character. Thus, central banks do not fulfill efficiently the function of the bank of banks assigned to them.

4. Causes and effects of the exit strategy prolonging

The *exit strategy* was created by the monetary policy of central banks at the end of 2010 constituting the effect of their intention to withdraw from the so far executed extraordinary monetary policy. G-20 group of developing countries were the direct initiator of the *exit strategy*. In the documents of the Financial Stability Board the group justified the need for reverting the monetary policy of central banks to normality [Pyka 2010, p. 52; Solarz 2012, p. 47]. The biggest central banks did not manage however, to execute their liabilities. In spite of numerous declarations they still maintain *exit strategy*.

Undoubtedly, there are numerous reasons for the situation. In principle, they are related to the fact that central banks conditioned exiting the *quantitative easing* policy on the macro-economic situation. However, the world economy does not demonstrate any visible economic recovery and normalization of the labor market situation. Thus, there is a serious concern that abandoning the *quantitative easing* policy too soon may cause the slowdown of the still weak economic growth and diminish its so far achieved effects. Assets and liabilities of biggest central banks constantly grow. In spite of the fact that the observed growth is slower and slower, the portfolio of their assets is changing generating a higher risk of the monetary expansion exiting.

The low interest rates policy brings slight pro-growth effects in the world economy. It faces, however, serious demand barriers hindering the credit growth and the gross domestic product dynamics. Thus, it is difficult for central banks to come back to higher interest rates corresponding to the monetary balance level. The strategy of low interest rates policy exiting does not require, however, a simultaneous rejection of the *quantitative easing* policy. Balance sheets of central banks may still stay "bloated" irrespective of their withdrawing from other extraordinary monetary policy instruments. Thus, in case of the *quantitative easing* policy we may expect various concepts of such policy exiting.

We shall, however, emphasise that the inefficient credit channel as well as the low interest rates policy combined with quantitative easing fosters the transmission of monetary impulses to the economy through the financial market. Thus, it changes in conditions of maintaining the extraordinary monetary policy mechanism of the money transmission into the economy and develops the nonbank market. Banks, deposit their over-liquidity often in the market instruments of economic entities financing - treasury and corporate bonds - expecting that in case of liquidity problems they will be purchased by central banks. Thus, the purchase of public and private securities by central banks within the scope of *quantitative easing* policy fosters such process. For that reason, balance sheets of the biggest central banks even periodically are different with regard to their volume and structure. Moreover, we shall expect that they will remain for a longer period of time under the influence of the monetary policy. Especially, as the strong monetary policy of main central banks paradoxically fosters the stabilisation of tendencies in the world financial markets. Additionally, it does not cause any escalation of inflation processes. Central banks do not demonstrate any strong inflation pressure. To the contrary, they are concerned about deflation combating, whose counteracting justifies the *quantitative* and *qualitative easing* policy.

The balance sheet policy run by central banks reveals thus a considerable compatibility with goals imposed on contemporary central banks. It remains accordant to their responsibility for financial stability. Moreover, it has not infringed so far the inflation target. Thus, central banks do not possess any strong arguments for the exiting strategy. Taking into consideration additionally the fact that in conditions of transmission mechanisms inefficiency central banks differ from traditional instruments demonstrating the possibility of exerting the influence on the financial markets, irrespective of their declarations they demonstrate a very cautious approach to undertaken commitments called the *exit strategy*. Thus, unexpectedly, the "principle of decoupling" of the monetary policy instruments has become an argument for the unconventional balance sheet policy of central banks, whereas, *quantitative easing* is often perceived as more effective than the *quantitative easing* policy.

The experience has shown that *exit strategies* will be executed by central banks in stages and for a longer period of time. Thus, their balance sheets will remain "bloated" for longer.

Conclusions

The analysis of *quantitative easing* programs elaborated by the biggest central banks of the world economy – Fed and the ECB demonstrates that they differ considerably with regard to effects effected in their balance sheet assets and liabilities. The ECB applying the sterilised quantitative easing contributes to the growth of the reserve money raised in the balance sheet. For comparison, the Fed applies the non-sterilised quantitative easing policy expecting the growth of the money in circulation. The assets of the Fed, since the beginning of the quantitative easing policy, demonstrate the dominating position of treasury bonds and MBSes (mortgage backed securities). The balance sheet of the ECB presents that securities programs constitute incomparably lower percent of its assets than long-term refinancing operations based on securities. The analysed differences exert an influence on the conduct of national and international participants of the global financial market. Additionally, they contribute to its activation as the channel of monetary impulses into the economy. Taking into consideration the fact that the credit channel in spite of quantitative easing maintaining has not been sufficiently facilitated, and the effects of the quantitative easing policy do not cause inflation, we shall expect that exiting programs of the extraordinary monetary policy of central banks will be executed is stages and within a longer perspective of time.

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