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CHALLENGES FOR POLICY MIX IN THE CONTEXT OF THE FINANCIAL CRISIS – THE CASE OF POLAND

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Summary:

The aim of this article is to present the essence of policy mix and the extraordinary actions undertaken by the monetary and fiscal authorities in Poland in response to the recent financial crisis. In the article, the hypothesis has been put forward that the challenges faced by monetary and fiscal authorities have contributed to carrying out coordinated actions, especially in support of economic growth during the recent financial crisis.

As a result, in Poland during the last financial crisis, it seemed to observe greater cooperation between monetary and fiscal authorities.

Key words: policy mix, monetary policy, fiscal policy, coordination, financial crisis.

JEL Class: E58, E52, E64.

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INTRODUCTION

The recent financial crisis has affected many decisions made by economic authorities. The co-operation of the central bank and the government in Poland was noticeable to some extent during the crisis. In the literature, there have been

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Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

many reviews indicating that the coordination of monetary and fiscal policy contributes to greater stability of the financial system [Knakiewicz 2006: 111 –112]. Finally, it was proven that policy mix had an important influence on stable growth of each country. Appropriate policy mix is always important, not only during the crisis time. We cannot forget that even we made the best choice of acceptable policy mix, it is possible that it will not bring the desirable effects [Wernik 2002]. The subject of policy mix interactions was brought up inter alia by: D. K. Foley, K. Shell, M. Sidrauski [1969], J. B. Taylor [1997: 21–22], R. Beetsma and X. Debrun [2004], R. Clarida, J. Galí , M. Gertler [2000], H. Bennett, N. Loayza [2001] and K. Flanagan, E. Uyarra, M. Laranja [2011] and others.

The purpose of this paper is to present the essence of policy mix and the extraordinary actions of the monetary and fiscal authorities in response to the recent financial crisis. The research problem is to verify the assumption that the challenges for monetary and fiscal authorities were carried out to coordinate actions to significantly support economic growth during the financial crisis. To analyze the problem the following research methods have been used: the review of the scientific literature, research and statistical methods for graphic presentation of economic phenomena.

1. MONETARY POLICY AND THE PRICES STABILITY

In Poland, National Bank of Poland, which work is regulated by the Act on the NBP (*Ustawa z dnia 29 sierpnia 1997 r. o Narodowym Banku Polskim*) is in charge of monetary policy. The monetary policy in Poland is guided by independent central bank (more about Central Bank's independence in A. Cukierman papers [2005: 1–36; 1992: 415–456]. The independence means that central bank making its decisions does not head politics preferences or suggestions of government. Central bank has financial, personal and organizational independence. What is very important, this independence gives a guarantee of stability of monetary policy.

T. Padoa-Schioppa emphasized that monetary policy should be performed by independent and responsible institutions whose tasks are clearly defined. This also has a fundamental importance for monetary integration, because the central bank's independence is a necessary condition for admission to the European Union. This is according to the aforementioned author not only a formal requirement, but also an important component needed for the proper functioning of economic policy [Padoa-Schioppa 2002: 5]. On the other hand, J. B. Taylor says that in fact the independence of the central bank has never existed, because the central bank in its decisions never omits the preferences of the government. In contrast, the attractiveness of the concept of central bank independence came

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

from those, who were interested in the possibility of limiting actions of the fiscal authorities [Taylor 2013: 17].

Monetary authority is responsible for the supply of money and purchasing power of money. The 3rd Article of the NBP's Act constitutes that the main aim of NBP is maintaining stability levels of prices [*Ustawa z dnia 29 sierpnia 1997 r. o Narodowym Banku Polskim*]. It is important to know that there is a connection between money supply and inflation rate especially in the long term. If the money supply grows too fast, the rate of inflation will increase, and if the growth of the money supply is slowed too much, then economic growth may also decrease [Mishkin 2007: 29–36]. In Poland, NBP uses the following instruments for regulating the level of short-term interest rates: open market operations, minimum reserve requirements and the standing – facilities[1].

NBP affects inflation primarily by determining the amount of official interest rates, which determine the viability of monetary policy instruments. The NBP determines the level of the following interest rates: reference rate, lombard rate, rediscount rate and deposit rates. They equal respectively: 2,5%, 4%, 2,75% and 1% in Poland (on 10.08.2014)[2]. The Monetary Policy Council as the organ of National Bank of Poland is in charge of fixing interest rates. In Poland central bank since 1998 uses the strategy of direct inflation targeting. From the beginning of 2004, inflation target is 2,5% with the possibility of deviations up to 1 percentage point up and down (for comparison inflation target for Eurozone equals below 2%)[3].

Central bank can conduct tight, loose or neutral monetary policy. A tight monetary policy is connected with restriction of money supply. Restrictive monetary policy is characterized by increase in interest rates on the interbank market, and thereby decreases the liquidity of commercial banks. E. Loyo says that as a result of tight policy, commercial banks raise interest rates on loans and deposits, which is the cause of limiting expenditures (investments) of economic entities which are financed mainly by loans, then the drop in production and a reduction in inflationary pressures [Loyo 1999: 1–20]. In the case of expansionary policy of the central bank, interest rates are reduced, which means cheaper access to the central bank sources and the increase in liquidity of commercial banks and decrease in interbank market interest rates. The result of this is to increase the supply of credit to businesses and households, lower their interest rates and then, increase investment, production, employment and inflationary pressures [Christiano et al. 1994: 1–53].

[1] http://www.nbp.pl/home.aspx?f=/polityka_pieniezna/polityka_pieniezna.html, access on 10.08.2014.

[2] www.nbp.pl, access on 23.07.2014.

[3] http://www.nbp.pl/home.aspx?f=/polityka_pieniezna/polityka_pieniezna.html, access on 10.08.2014.

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

The aim of neutral monetary policy is adjustment or maintenance of the rate of growth of the money supply to economic growth in the long term. In conclusion, as E. W. Nier wrote, the main objective of the monetary policy is to control the interest and inflation rates. Monetary policy is focused on money supply and inflation rates. It is essential to monetary authorities to lead correct policy [Nier 2009: 6–10].

2. FISCAL POLICY AND ITS GOALS

Fiscal policy is managed by the government and as the part of economic policy uses public revenues (for example taxes) and public expenditures. When the fiscal policy is inappropriately guided, this can contribute to a higher budget deficit and higher public debt. According to Maastricht Treaty the ratio of gross government debt to GDP must not exceed 60% at the end of the preceding fiscal year. The similar criterion is connected with the ratio of the annual government deficit to gross domestic product (GDP), which must not exceed 3% at the end of the preceding fiscal year [*The Treaty on European Union*, 1992].

The main objective of fiscal policy is to increase the aggregate output of the economy. Fiscal policy is focused on the stability of economy in order to provide stable economic growth, allocation of funds, development and distribution of funds (how much it will be set aside and for what purpose, and how those funds will be distributed throughout each segment of the economy) [Leeper 1991: 129–147]. There are two main government tools to do it: spending and taxes. Unemployment rate is also important for fiscal policy. When we have high unemployment rate fewer people are paying taxes and fewer people can afford to spend their money on goods and services. That is why it is very important to use taxes properly. High taxes mean lower disposable income – this leads to less consumption [Działo 2012: 27–31].

The fiscal policy is tight when the government cuts its spending or increases the rate of taxation. The government can reduce inflationary pressure and improve government finances. The government uses the restrictive fiscal policy when the budget of state is unbalanced and there is a threat that budget deficit will be too high [Kopits and Symansky 1998: 1–5]. Loose (or expansionary) fiscal policy is when the authority cuts down the tax rates and the government's spending is higher (for example on consumption and investment). This can lead to a situation when the spending is financed by budget deficit (expenditures exceed revenues) or budget debt. This kind of fiscal policy is focused on encouraging aggregated demand and economic activity. That leads to higher national income (production and employment rates are increased) [Działo 2012: 27–31]. To sum up, appropriately led fiscal policy by government is very important, because it involves primarily national income, employment, taxes and determines the central banks decisions.

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

3. INTERACTIONS BETWEEN FISCAL AND MONETARY POLICY

The concept of policy mix means the combination of the monetary policy and the fiscal policy of a country. It can be said that there are two keystones of macroeconomic policy. Policy mix is a result of the decision of fiscal and monetary authorities, which are autonomic [Owsiak 2012: 48]. Coordination of the two aforementioned policies is very important. Thanks to it, it is possible that the effectiveness of macroeconomic policy is higher [Marszałek 2006: 57 –58]. Policy mix has a particular sense in the extraordinary conditions such as the financial crisis. Fiscal and monetary policies have influence on macroeconomic stability. The lack of appropriate policy mix was one of the reasons of the recent financial crisis and lead to many adverse effects on the economy. These both policies are used by economic authorities in order to achieve its macroeconomic objectives. That is why this issue is so essential and should not be marginalized by authorities.

Monetary policy and fiscal policy play an important role in the economy. They have an enormous impact on a number of economic variables and influence each other as well. In the face of the recent financial crisis, which turned into a debt crisis, it was observed that fiscal and monetary authorities have been working together to revive economic activity [Stawska 2012: 228]. It should be stressed that there are differences between them: fiscal policy is responsible for economic growth and monetary policy must be concerned about interest rates and inflation target**.** Targets and preferences of both: fiscal and monetary authorities reflect their aspirations. Reconciliation of actions is the right choice for both authorities. There are a lot of mutual interactions between them. Fiscal policy influences conditions, where the monetary policy operates, and conversely, monetary policy initiates conditions, in which fiscal policy operates. When we have a conflict between fiscal and monetary policy, this can lead to an increase in the interest rates and the budget deficit, what it is not a desirable situation for a state [Kuttner 2002: 3].

Kuttner emphasizes the significant issue concerning the importance of fiscal policy as a tool of stabilization in the economy. Thus, he cites the traditional view in the United States that the fiscal policy is not flexible enough to be an effective tool for stabilization, which supports the opinions of Dornbusch and Fischer [Dornbusch and Fischer 1990: 462]. In addition, Kuttner argues his view that fiscal policy is influenced by political and military factors. Therefore, macroeconomic stabilization is due in large part to the monetary authorities. In contrast, fiscal policy is to some extent a demand shock that monetary authorities must take into account [Kuttner 2002: 3]. P. Claeys indicates that the issue of sustainability of public finances has repeatedly led economic government programs in the U. S., Japan and the European Union. EU countries have even inscribed targets for public debt and budget deficit in the Maastricht

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

Treaty and then strengthened these provisions in the Stability and Growth Pact. In fact, it is some kind of political game where the monetary and fiscal authorities are trying to determine the rules of its benefits. However, the monetary authorities take this issue into account, that the instability of public finance requires some limitations of monetary policy in the longer term [Claeys 2006: 89–90]. J. B. Taylor gives the results of research, which shows that the monetary policy rules use the instrument of interest rates for adjusting the inflation, and the production operates much better than the rule, in which there is no instrument to react to real GDP. He also stresses that it is possible to create a rule of policy mix in which monetary policy would react only on the level of inflation and fiscal policy only on the level of GDP. In other words, fiscal policy could adjust to compensate for the limitations of monetary policy, however, the adjustment of fiscal policy would probably be very difficult to apply in practice because of the size and scale of these adjustments. Hence, J. B. Taylor concludes that the monetary policy rule that responds not only to inflation, but also on the real level of production has a more practical use [Taylor 1997: 21–22]. The literature describes a special case of mismatch between the central bank policy and government policy occurring at the time of fiscal dominance, when the monetary authorities are no longer able to keep inflation under control regardless of the choice of its strategy. This theory was formulated by T. J. Sargent and N. Wallace as a „theory of unpleasant monetarist arithmetic". T. Sargent and N. Wallace pointed out that fiscal indiscipline often causes tightening of monetary policy, which could worsen the situation in the market. In turn too restrictive monetary policy of the central bank can cause higher cost of disinflation and increase the burden on the conduct of fiscal policy [Sargent and Wallace 1981: 1–7].

H. Bennett and N. Loayza emphasize that coordination or lack of it is an important issue for the whole economy. In addition, it should be mentioned that the monetary and fiscal authorities have other instruments of impact on the economy, other objectives, preferences, and sometimes even other perceptions about the functioning of the economy. Therefore, they analyze the impact of the lack of coordination of policy mix on the level of the budget deficit and real interest rates using the game theory [Bennett and Loayza 2001: 300–301].

4. POLICY MIX DURING THE FINANCIAL CRISIS

Globalization has caused the wide openness of most countries. Global economy is characterized by strict system of linkages between countries. Therefore the positive and negative economic changes move fast and are more tangible by particular economies [Jasiniak 2014: 793–802].

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

The crisis in global financial markets was visible as early as in 2007, and then deepened in 2008. As a result of the credit crunch and liquidity crisis in the major financial markets of the world in 2008, the liquidity situation in the interbank market has been destabilized. In Poland, the first signs of the crisis appeared in the second half of 2008. After the announcement of on 15 September 2008 bankruptcy of Lehman Brothers and gradually disclosed the liquidity problems of other entities operating in the international financial markets. Situation on financial markets deteriorated significantly. This had an indirect impact on the functioning of the domestic interbank market. As a result of the disruption in the financial markets in August, the inclination of banks to provide unsecured loans was decreased and credit limits established for bank customers were reduced. At the same time banks limited their participation in the 7-day open market operations conducted by the NBP preferring to keeping spare cash in current accounts at the central bank or a deposit at the end of the day. In response to this situation NBP decided to introduce in October 2008 the so called „Confidence Package" whereby the central bank started its repo operations, which supplied to the banking sector liquidity and allowed banks to raise currency funds through foreign currency swaps. In 2008 the NBP undertook numerous anti-crisis activities which made medium-term financing for banks possible [*Raport roczny 2008*, 2009: 5–10]:

- launched operations providing the banking sector with longer-term liquidity – up to 6 months,
- expanded the list of eligible repo operation collaterals,
- reduced the rate of required minimum reserves,
- redeemed the NBP bonds before maturity.

It should be stressed that in 2008 short-term liquidity of the banking sector amounted to 10 964 million PLN compared to 19 814 million PLN in 2007 (annualized decline of 8 850 million PLN). In turn, the value of operations repo supplying the banking market in the liquidity amounted to 34 329.2 million PLN in 2008 [*Raport roczny 2008*, 2009: 6]. The main factor that contributed to the reduction of liquidity in the banking sector during this period was the increase in currency in circulation. In October 2008, in the reserve maintenance period the value of the amount of money significantly increased (an average of 5 935 million PLN, compared to the same period of the previous year increased by 151 million PLN, which is the highest increase in this category for several years). This was the result of concerns about the stability of the financial system in Poland in the event of a deepening crisis in international financial markets. The uncertainty in the markets meant that some customers of financial institutions decided to withdraw previously invested cash and store it. In turn, banks in response to the substantial withdrawal of deposited funds decided to enlarge their funds in cash as collateral [*Raport roczny 2008*, 2009: 12].

In Poland, the NBP uses the open market operations and minimum requirement reserve to manage the level of liquidity of the banking sector [Cendal 2006: 269].

The chart 1 shows the level of the balance of short-term liquidity of the banking sector in the years 2007–2013.

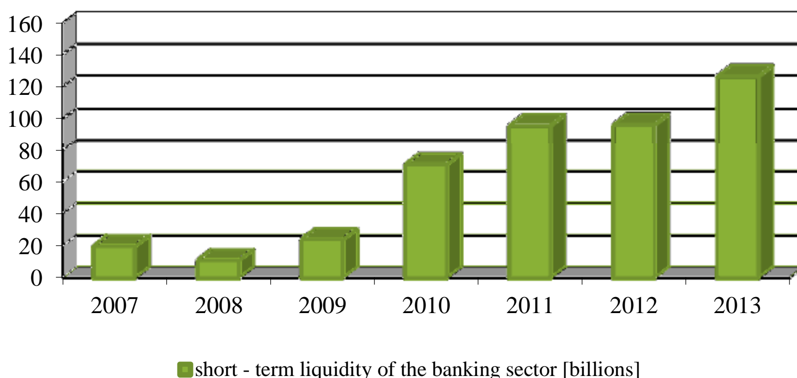


Chart 1. The short-term liquidity of the banking sector in average annual terms in the period 2007–2013

Source: own elaboration based on statistical data from NBP for years 2007–2013.

The above chart shows that the lowest level of the short-term liquidity of the banking sector was in 2008 – when the financial crisis started. This was caused by the increasing distrust in the interbank market. The detailed analysis of this data can indicate that the NBP provided the liquidity for the market during the financial crisis. The repo operations were applied in the intervening years.

In 2008 NBP basic interest rate was changed six times. In the first half of the year due to an increase in the level of inflation determined by changes in food prices, energy prices and administered prices (average annual inflation measured by the CPI was 4.2% compared to 2,5% in 2007, graph 1), the reference rate was four times increased by a total of 1 percent point, but in the second half of the year due to the start of the financial crisis and the fall in inflation Monetary Policy Council (MPC) cut interest rates twice by a total of 1 percentage point. At the end of 2008 NBP reference rate was 5% (for which changed the interbank market rate WIBOR 3M being the basis housing loans or investment, graph 2). It is worth noting that the Polish economy in the first half of 2008 was in a period of significant economic growth (annual GDP growth in 2008 amounted to 5% compared to 6,6% in 2007, graph 1), where the dominant role was played by the dynamic growth of consumption and investment. This situation began to change as early as the second half of 2008, because of the recession in the euro zone – the most important trading partner of Poland.

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

This translated into a decline in exports and industrial production, and thus GDP [*Raport roczny 2008*, 2009: 10–31]. Since 2008 was also changing the situation in public finance because the budget deficit rose from 1,9% in 2007 to 3,7% in 2008 and public debt increased from 45% in 2007 to 47% GDP in 2008 (tab. 1 and 2).

Table 1. The budget deficit in Poland and EU in the years 2007–2013

Public balance (budget deficit) (% GDP)							
Years	2007	2008	2009	2010	2011	2012	2013
Poland	–1,9	–3,7	–7,5	–7,9	–5,0	–3,9	–4,3
EU–27	–0,9	–2,4	–6,9	–6,5	–4,5		
EU–28						–3,9	–3,3

Source: own elaboration based on statistical data from GUS for years 2007–2013.

During the financial crisis, a number of anti-crisis measures taken in the area of monetary policy and fiscal policy was significant. In November 2008, adopted „Stability and Development Plan" contains instruments that were designed to improve confidence in the interbank market and halt the decline in lending.

Table 2. The public debt in Poland and EU in the years 2007–2013

General government debt (% GDP)							
Years	2007	2008	2009	2010	2011	2012	2013
Poland	45,0	47,1	50,9	54,9	56,2	55,6	57,1
EU–27	59,0	62,5	74,8	80,0	82,5		
EU–28						85,2	87,2

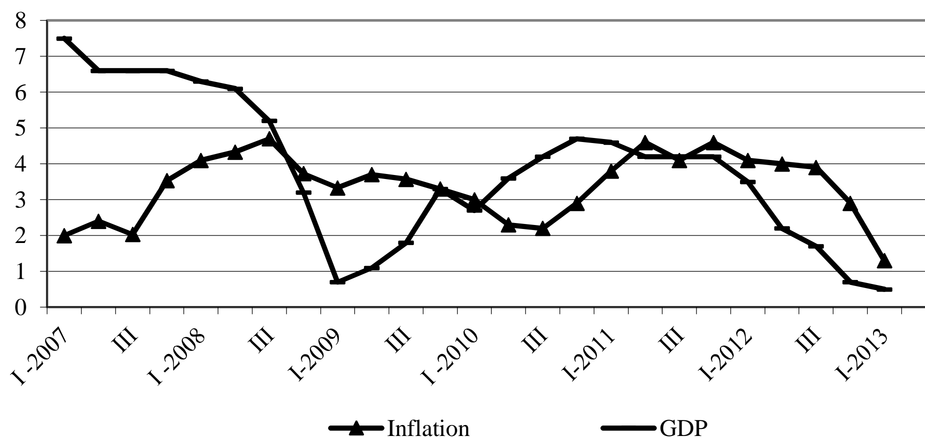
Source: own elaboration based on statistical data from GUS for years 2007–2013.

In 2009 to mitigate the impact of the global crisis on the Polish economy, the activities of the NBP focused on continuing monetary easing and on the supplying of banks with liquidity. As a result, the NBP interest rates have been reduced by a total of 150 base points (graph 2), while the NBP reference rate has been significantly reduced and amounted to 3.5 percentage points under conditions of inflation at 3.5% and economic growth at 1.7% (graph 1). Strong economic slowdown resulted in deterioration of public finances (in 2009 deficit in relation to GDP was 7.1% and public debt was 50,9%, tab. 1 and 2). This resulted mainly from the operation of the so-called automatic stabilizers and an increase in the structural deficit in the public finances, which was one of the

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

factors mitigating the impact of the crisis on the Polish economy. The government in 2009 decided on a significant increase in the level of expenditure of the state budget, which amounted to 749.9 billion PLN, compared to 668.4 billion PLN in 2008 with the simultaneous increase in gross investment expenditures of the public sector, which accounted for respectively 5.2% of GDP in 2009, and 4.6% of GDP in 2008 [*Raport roczny 2009*, 2010: 3–34].

Within the framework of anti-crisis measures, fiscal authorities have sought to stimulate investment demand and consumption by limiting: the tax burden and social security contributions, as well as administrative barriers and providing facilitation in obtaining EU funds or facilitate within the public-private partnership. In August 2009 also the Act was introduced by which the fiscal authorities sought to keep jobs in enterprises by introducing more flexible solutions in terms of working time accounts and additional benefits [*Koniunktura gospodarcza w wybranych krajach…*, 2011: 42].



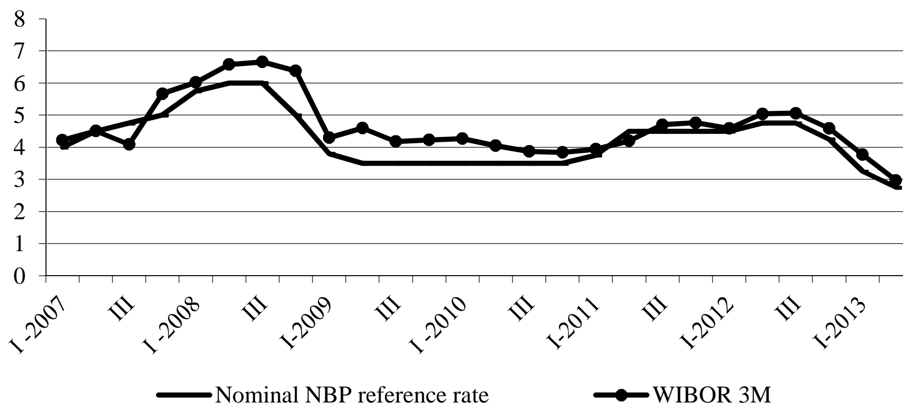
Graph 1. Inflation CPI (%) and GDP (%) in Poland in years 2007–2013

Source: own elaboration based on statistical data from GUS for years 2007–2013.

In 2010 inflation measured by the CPI was 2.6%, hence, the Monetary Policy Council kept the key interest rates unchanged and historically low levels (graph 1 and graph 2). Due to the improvement in the financial markets and increase in liquidity in the interbank market NBP decided to gradually limit the instruments of extraordinary liquidity support of banks, which launched in 2008 (Confidence Package). However, despite the improvement in the financial market (GDP growth of 3.8%, graph 1), public finance deficit rose to 7.9% (public debt rose to 54,9%, tab. 1 and 2), to which contributed an increase in public expenditure in relation to GDP. It is worth noting that as a result of the experience of the recent crisis in the European Union the European Council was

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

created for Systemic Risk Board, whose goal is to counteract the build-up of systemic risk and ensuring the safety of the financial system [*Raport roczny 2010*, 2011: 3–32].



Graph 2. NBP reference rate (%) and interbank market rate WIBOR 3M (%) in Poland in years 2007–2013

Source: own elaboration based on data from „Raport roczny NBP" for years 2007–2013.

In the next 2011 economic growth of the Polish economy was 4.3% with CPI at 4.3% (graph 1), resulting in the decision of MPC to raise interest rates four times by 100 basis points, resulting in the reference rate on the level of 4.5% in 2011 (graph 2). The decline in the budget deficit to 5.0% of GDP was noticeable (with public debt at the level of 56,2% of GDP, tab. 1 and 2). On this decline influenced several factors, primarily the reduction of the contribution made to open pension funds (OFE), lower growth in public spending, especially in local government units and the Labour Fund and the relatively higher economic growth [*Raport roczny 2011*, 2012: 3–35]. In 2012 was recorded decline in GDP (1.9%), which with the inflation rate of 3,7% (graph 1) allowed MPC on easing of monetary policy and the gradual reduction of the reference rate to 2.5% in July 2013 (graph 2). Moreover, in 2012 continued the process of reducing the public sector deficit, which amounted to 3.9% (in 2012 public debt was 55,6%, tab. 1 and 2) [*Raport roczny 2011*, 2012: 15]. In 2013 the inflation rate amounted to 0,9% and it was on the low level as well as the economic growth which amounted to 1,6% [*Informacja o sytuacji społeczno--gospodarczej kraju w 2013 r.*, 2014: 3–4]. Despite the restrictive fiscal policy in 2013 increased the budget deficit and public debt, respectively 4.3% and 57.1%. It should be emphasized that the pro-cyclical fiscal policy affects the decisions taken by the monetary authorities, which often is not conducive to the coordination of monetary and fiscal policy. During the recent financial crisis

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

emerged a unique situation even justifying the expansive fiscal policy of countercyclical action in order to reduce wave of bankruptcies of enterprises, a strong rise in unemployment, even at the cost of increasing the deficit and public debt.

CONCLUSION

The harmonization and appropriate coordination of monetary and fiscal policy is important because: this can eliminate both sources of conflict, this can lead to minimize maintenance costs and price stability and it has a positive impact on many economic variables.

It is enormously difficult to choose the most correct combination between fiscal and monetary policy, because of having dissimilar direct goals of the both policies [Wernik 2002: 1]. The right policy mix is supposed to achieve desirable macroeconomic outcomes, such as price stability, credit availability, economic growth or financial stability [Ciak 2002]. To sum up, in order to achieve a growth of investments and economic activity, the interactions between the monetary and fiscal policies are of extreme importance.

One of the greatest financial crisis in recent years, which started in the United States had a significant impact on the contemporary economy in the world, mainly in the form of a drop in demand and turmoil in the financial markets. At the same time it has brought new challenges: mainly in the area of liquidity in the interbank market or the use of fiscal incentives inter alia connected with: the increasing of budgetary expenditure or reduce the tax burden. Finally, the policy mix did not remain passive in the face of the collapse of 2007, however, the appropriate reconciliation of the monetary and fiscal interests has been difficult to achieve.

Analysis of statistical data made it possible to achieve the purpose of the article and positive verification of the hypothesis. In the face of the challenges that have emerged in connection with the financial crisis, both the monetary and fiscal authorities taken coordinated, extraordinary measures to stimulate economic growth. The central bank introduced additional operations to support liquidity in the interbank market and lowered interest rates to stimulate economic activity. In turn, the government in the initial phase of the crisis increased budget spending, particularly spending on investments and introduced legislative changes in order to stop unemployment and stimulate economic growth. It is worth mentioning at this point that Poland was the only EU country which recorded a positive growth during the recent financial crisis.

Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

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Grudzień/December 2014 • vol. I, no. 4 ISSN 2353-5601

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