

THE MONETARY REGIMES AND THE INFLATION DEVELOPMENTS IN THE CENTRAL AND EASTERN EUROPEAN COUNTRIES

Magdalena RADULESCU¹, Doina Elena DASCALU²

¹Faculty of Economics, University of Pitesti, Pitesti, Romania, magdalena.radulescu@upit.ro

²Faculty of Economics, Spiru Haret University, Bucharest, Romania

***Abstract:** This paper aims to presents some considerations regarding some specific monetary regimes adopted in the Central and eastern European countries and the developments of the inflation rate in the frame of these monetary regimes (namely the inflation targeting regime and the Monetary Council regime). The analysis covers both the EU accession moments in 2004 and 2007 and the crisis period started in 2008.*

***Key words:** inflation targeting, Monetary Council, Central and Eastern European countries.*

JEL Classifications: E31, E42, E52, E58.

1. INTRODUCTION

Over the last two decades, some central banks have found that the traditional strategy of the monetary policy based on influencing the inflation and the economic activity by controlling the intermediary variables (the monetary aggregates or the exchange rate) has lost effectiveness, facing the risk of losing their credibility. In order to settle this issue, few industrialized countries such as New Zealand (1990), Canada (1991), Great Britain (1992), Australia (1993) and Sweden (1993) adopted the monetary policy strategy that directly targets inflation (Beju, 2008). Their example was followed by numerous newly industrialized and developing countries, which also moved toward inflation targeting (Hu Y., 2003, p. 3): Brazil (1999), Chile (first in 1990, the last time in 1999), Colombia (1999), Korea (1998), Mexico (first in 1995, the last time in 2001), Norway (2001), Peru (2002), Spain (1995), Thailand (2000) and Turkey (2002). Recently, this monetary policy strategy was also implemented by different central and eastern European countries such as the Czech Republic (1997), Hungary (2001), Poland (1998) and Romania (2005). Inflation in CEE countries was different at the time of adopting the direct inflation targeting regime, namely approximately 10%.

The use of the exchange rate as an anti-inflationary anchor was constrained by the risk of the current account deficit deepening and by the reduced size of the foreign currency reserves in the first part of the transition process in Romania. Also, the use of the interest rate was impossible due to the fragility of the banking system and the low level of the financial intermediation. The change in the monetary policy strategy and the adoption of the direct inflation targeting in 2005 in Romania was mainly motivated by the fact that targeting the monetary aggregates did no longer represent an effective strategy as in the past given the fact that the link between the monetary aggregates and inflation weakened and became less predictable, the demand for money becoming unstable in recent years. In the other CEE countries, abandoning the exchange rate as an anti-inflationary anchor was also necessary as a consequence of concluding the capital flow liberalization process. With the transition to the direct inflation targeting, Romania's challenges are aimed at the capital flow liberalization which favours the emergence of speculative flows and the difficulty of the completely free floatation of

the exchange rate without any central bank interventions (NBR- National Bank of Romania) (Dumitru, 2006).

2. LITERATURE REVIEW

Inflation targeting allows the central bank to pursue its own monetary policy and to focus on the shocks affecting the national economy (Mishkin, 2001). This does not exclude the concern for the production and unemployment stabilization. The strictness, respectively the flexibility of the strategy refers to the manner in which the other macroeconomic variables are addressed: production, employment, real exchange rate. Therefore, a strict strategy is only aimed at achieving the inflationary goals, whereas a flexible strategy involves the preoccupation for controlling the other variables as well.

Another advantage of inflation targeting is that once implemented it does not have to be adjusted on a frequent basis, as its fundamental concern is exactly the final objective, inflation. For example, in the case of monetary aggregates targeting, it is necessary for the growth target of the monetary aggregate to be adjusted periodically (Masson et al., 1998). Moreover, unlike the monetary aggregate targeting or other strategies, the inflation targeting success is not dependent on a relationship between the currency and inflation, but it uses all the information available to determine the most appropriate monetary policy tools (Mishkin, 2001).

Inflation targeting has often been criticized on the grounds that it only targets the inflation, ignoring the development of the productive activity. However, we believe that a strict strategy takes into account the development of production because it plays a decisive role in the future evolution of the inflation. Moreover, Debelle (1999) showed that inflation targeting has sufficient flexibility to allow short-term compromise between the inflation and production, thus, favouring production stabilization. Some authors believe that there is the risk that inflation targeting cannot promote fiscal discipline or prevent its domination (Mishkin, 2001).

Last but not least, the studies have emphasized that the central banks which implemented inflation targeting succeeded in meeting their inflation targets, if they made institutional improvements that strengthened the credibility of the monetary policy. The independence of the central bank, the credibility of the fiscal policy and the development of the financial system contribute to the reduction in deviations from the inflation targets (Roger and Stone, 2005).

3. INFLATION DEVELOPMENTS AND INFLATION TARGETING PERFORMANCE IN CEE ANALYZED COUNTRIES

In Central and Eastern Europe, the revolutionary changes of 1989 and 1990 were followed by unprecedented economic crises in this part of Europe. The performance of the EU candidate countries regarding the control over the inflationary trends differed over the last decade, but the common feature is the downward trend in inflation compared to the intense economic crisis years 1990-1995.

It is worth mentioning that the inflation record in the first decade was held by Lithuania (1161%) and Estonia (1076%) in 1992 and Bulgaria (1082%) in 1997. The remaining candidate countries recorded either double-digit inflation (11-18%) or even single-digit inflation: the Czech Republic, Slovenia, Slovakia (under 10%).

Since 1997 the average level of inflation in most of the non-EU countries recorded a single digit (therefore below 10%), then marking successive decreases until the moment preceding the accession, in 2003, of 2.8%.

With the European integration, the inflation rate increased significantly in most countries. The most accelerated increases in inflation rates in 2004 were recorded in the Czech Republic (from -0.1% in 2003 to 2.6% in 2004), Poland (from 0.7% to 3.6%), Estonia (from 1.4% to 3%),

Latvia (from 2.9% to 6.2%) and Hungary (from 4.7% to 6.9%). The price explosion in 2004 in Poland (the inflation rate increased from 0.7% in 2003 to 3.6% in 2004) was due to the alignment with the prices of certain goods and services in the EU-15 and with different increased taxes and duties, but also due to other factors such as price increase at international level. In Hungary inflation was blocked in the first half of 2005, after the high level of the previous year, and the trend was downward until 2006. In Romania and Bulgaria, which joined the EU in 2007, the inflation increase was insignificant in 2007.

In 2005, the inflationary trend was stopped in most of the countries in the region (except maybe for the Baltic States), due to the substantial gains in productivity and the stability of the exchange rates. The monetary policy was aimed at the dis-inflationary results and the conditions were gradually relaxed.

The tendency to reduce the inflationary pressures within the economies of these countries in 2005-2006 was favoured by the estimated decrease in the prices of oil and of other raw materials internationally. After the accession, most of the countries exceeded the upper hypothetical limit imposed as a condition within ERM II mechanism (only Lithuania recorded an inflation rate comparable to the average of those recorded by the EU Member States in the EURO zone). Some states, such as Latvia, Hungary and Slovakia went through a period of deep instability, with inflation rates very close to Romania's performances, recognized as a counter-performer within the group of candidate countries in terms of inflation (Ciupagea et al., 2005).

At the beginning of the transition process, Poland, Hungary and the Czech Republic opted for a fixed regime, considering it as optimum for the rapid stabilization of prices. In contrast, Romania and Bulgaria chose a flexible exchange rate, believing that this regime will help restore the major macroeconomic equilibrium (Bulgaria did not have enough foreign currency reserves to support a fixed exchange rate) (Zaman et al., 2000).

Poland decided to use a fixed exchange rate, adjustable every six months. The Czech Republic did not set any timeframe during which the Czech crown (koruna) to remain at a constant rate and it was not forced to use foreign reserves to support it.

Apart from Slovenia, the countries that opted for a flexible rate encountered serious difficulties in ensuring the domestic macroeconomic stability. Among them, Bulgaria and Romania recorded the highest inflation rates in the first five transition years, and the balance of foreign payments was under continuous pressure.

According to many opinions, the optimal exchange rate policy during the transition would be to adopt a fixed exchange rate in the first years, until establishing full credibility of the economic policies and strengthening the private sector and the institutions specific to the market economy. Otherwise, the continuous appreciation in real terms of the national currency will encourage imports to the detriment of exports, draining the foreign reserves.

With regard to the devaluation of the national currency, in the case of adopting a fixed rate, this measure should have been taken at the beginning of the transition period. The difficulty of the depreciation decision consisted in the lack of information necessary to determine the extent to which the national currency was over-valued at the end of the socialist period. Poland, for example, devalued its currency just below the level existing on the black market, the immediate consequences being given by a strong inflationary shock (the prices and wages have to be very flexible for a lower depreciation) (Zaman et al., 2000).

There were cases where, although the exchange rate was declared flexible, the central bank monitored its level on a regular basis. It is the case of Romania and Bulgaria which, for several years, operated an artificial appreciation of the national currency to provide cheap inputs to the state enterprises which used imported raw material. The reason for such a policy consisted in inducing a higher level of profitability to the state firms in the hope of obtaining a better sale price in the privatization process.

The fastest total convertibility was achieved by the Baltic States in 1994, and in 1995 the Czech Republic, Poland and Slovakia also managed to complete the process.

3.1. MONETARY REGIME AND INFLATION TARGETING IN ROMANIA

Starting with 1990 and up to 2005, the NBR adopted the monetary aggregates targeting regime combined with a flotation of the exchange rate. Although the inflation was maintained within normal limits, this strategy did not return yield similar to the direct inflation targeting regime, which the countries within the Central and Eastern Europe had adopted (the Czech Republic in 1997, Poland in 1998 and Hungary in 2001).

As we have seen, Romania opted for a flexible exchange rate from the beginning of the transition period. The choice was at least paradoxical, given the situation of the foreign currency reserves existing at the end of the communist period, when Romania was the only country in the Soviet Bloc which held a surplus of the trade balance derived from the enormous pressure on the consumers' side to consume imported goods, considering the population's virtually inexistent access to these goods before December 1989.

The error in the economic policy was noticed in the fall of 1990, when they proceeded to the liberalization of certain prices and the devaluation of the Romanian leu by more than 70%. The out of control trade balance, the continuing decline of the economy, the lack of foreign credibility, the low level of investments (the lowest level since 1945) should have stimulated the set of macroeconomic policies adopted. In reality, the policy makers reacted hesitantly and ineffectively.

At the end of 1993 the government, faced with the economic disaster, decided to adopt tougher measures at fiscal and monetary level. The interest rate increases again, re-becoming positive in real terms for a longer period. The Romanian leu is devalued in several stages. This aspect stimulates the stabilization of the currency market which becomes more transparent. At the same time, the control over the money supply becomes much more rigorous, reducing the inflationary pace. The period 1995-1996 was again characterized by inflation (Popa, 2009).

After a period of relative relaxation in 1996 and the most part of 1997, the new government attempts a large scale recovery of the economic situation, focusing on the macroeconomic stabilization. Without far-reaching structural reforms, the programme proved to be as inconsistent as all the other previously adopted.

In a study of Botel C. (2002) it is pointed out that, in the period before 2001, in Romania the evolution of the administered prices did not represent a major inflationary factor. Nor the shocks of the aggregate supply (approximated in the model through the shocks from the industrial production) exerted a relevant influence on prices.

The main causes of price increase were the monetary factors, the depreciation of the leu against the US dollar (in the long term) and the inertia of the anticipations (in the short term). Prices of imports and the inertia of the anticipations were the determinant factors of the inflation in Romania. The monetary factors had a stronger influence than the one of the exchange rate on consumption prices. For the production prices, the exchange rate was more important than the monetary factors. The credit multiplier was the most significant monetary factor for the inflation, which demonstrates the importance of the banking system in creating currency. The monetary base had a low explanatory power for the price variation. This aspect suggests a decreased ability of the monetary policy to control inflation within the transition period. The same conclusion is confirmed for the Czech Republic, Poland and Hungary.

In period before 2001, the monetary policy was passive, accommodating the increase in prices. The monetary factors did not have relevance in explaining the variations in the industrial production. For this reason, a moderate inflation could not have been a valid solution to boost

production. In the case of production prices, the appropriate signal-indicator was the exchange rate in the early 2000s (Botel, 2002).

One of the most important implications of the study findings is that the monetary policy could not speed the disinflation without adequate cooperation from the other economic policies and the structural adjustments in the real sector. In the Czech Republic, Poland and Hungary, the money supply had little influence on inflation in the short term, unlike Romania where the influence was important, especially through the credit multiplier. These considerations support the conclusion that the higher level of inflation in Romania was the result of the delayed reform of the banking and real sectors compared with other transition countries.

In Romania, the capital account liberalization (2007) and the adoption of the inflation targeting strategy (2005) were carried out with a relative delay compared to other countries in Central and Eastern Europe. The deferment of the capital account liberalization was justified for several reasons. Firstly, the gradual approach in terms of structural reforms and macro-stabilization programmes in the '90s was reflected in the increase in inflation and interest rates compared to other countries in the region and the EU Member States. Secondly, one imposed the deferment of the capital account liberalization until the moment in which, following the restructuring of the banking system, the financial sector would become robust enough to cope with the capital flows with high reversibility potential. Thirdly, it was necessary for the central bank to achieve a satisfactory coverage level of imports by international reserves, this objective being met in the first half of the decade 2000-2010, to reach single-digit inflation and to have a sufficiently flexible exchange rate to accommodate capital inflows. NBR widely used the rate of minimum reserves in order to slow down the credit growth, given that the interest rate was gradually reduced in order to decrease the interest rate differential against the EU area (Isarescu, 2008).

The inflation rate and the current account behaved according to certain historical regularities once the international crisis hit Romania, in the second half of year 2008, when the crisis broke out. Inflation declined or fluctuated due to the production gap and the inflation imported for a long period of time, and the current account deficit narrowed sharply turning (for the first time in 23 years) into surplus in the first half of year 2013. The shocks on the supply side and the relatively high inflation anticipations prevented the decrease in production from being reflected in inflation decrease to levels that would have brought up the possibility of deflation. There were only few situations when the anticipated inflation fell below the upper limit of the band targeted by the NBR. Consequently, in the period under review, the central bank could reduce the monetary policy interest rate only on a gradual basis (NBR, 2008-2015).

NBR missed the inflation target because of the crisis triggered in 2008, the target being reached in 2012. The monetary policy interest rate was in close correlation with the inflation rate, it decreased starting with the year 2012. In November 2011 and in January and February 2012, the National Bank of Romania reduced the monetary policy interest rate in view of more favourable inflation developments.

During the economic boom, the monetary policy in Romania was criticized for not increasing the interest rate more in order to temper inflation. During the recession, the criticism was aimed at the too slow decrease of the interest rate. However, NBR specialists repeatedly pointed out that it could not have been the otherwise. On the one hand, an increase in the interest rate was necessary to temper the inflationary anticipations. On the other hand, a decrease in the interest rate was necessary in order to moderate the capital inflows. A lower interest would have put a strain on the balance sheets of households, firms and banks, deepening the recession (Croitoru, 2014). The disinflation process was backed during the recession period and the early recovery of the economy by the increase and subsequent maintenance of the unemployment above the structural

level, however, the unemployment gap influence has diminished in recent years, inclusively due to the increase of the structural unemployment.

3.2. MONETARY REGIME AND INFLATION TARGETING IN BULGARIA

In July 1997, the Bulgarian economy was facing an unprecedented situation since the beginning of the transition period: hyperinflation, an enormous amount of the internal and external debt and a budget deficit impossible to manage. Without any significant structural reforms, the systematic loans granted by the central bank for the payment of salaries shortly led to unbearable inflationary pressures and huge budget deficits. At the recommendation of the International Monetary Fund, the Bulgarian authorities accepted the introduction of a currency board to stop the worsening of the situation, the country virtually being on the edge of national economic bankruptcy. The monetary council withdraws from the central bank all the responsibilities available and sets the national currency exchange rate against the German mark.

The decision to establish the currency board was taken due to the past experience of the Latin American and the Baltic States. In the first case, the countries concerned experienced the same deterioration of the economic situation as in the case of Bulgaria, but the central authorities refused IMF proposal to introduce an organism of this kind (except for Argentina) which would have removed the central bank from the economic circuit. They preferred their own economic recovery effort. Instead, the Baltic States, in order to prevent the economic collapse, resorted to such a mechanism, which in the end succeeded in stopping the inflation and widening of the internal and external deficits. Basically, Bulgaria is the first country to introduce a currency board as a result of its inability to cope with a generalized economic crisis.

In 1997, Bulgaria was experiencing huge inflation (the inflation rate stood at over 1000 percentage points) and adopted a particularity of the exchange rate regime, respectively a Currency Board. Thus, initially the lev was linked to the mark and subsequently it was linked to the euro. The effect was immediate. The inflation rate dropped dramatically, to approximately 60 times lower levels. After the year 1997, the inflation had 2 moments of rapid growth, in 2000, respectively 2008. Otherwise the values recorded a single digit.

The currency board also put the banking system to the test, since the central bank was virtually non-existent the commercial banks could no longer resort to the refinancing loans. Consequently, the productive sector cannot make use of the necessary credits, which entails a zero level of investments and as a result a production setback.

Therefore, the monetary board introduced in Bulgaria was only a necessary condition, but it was not sufficient for the economic recovery. The real problem of this country was not economic, monetary or budgetary; the real shortcomings were related to the country mismanagement, the inefficiency of the public institutions, the government's inability to set a viable strategy and the communist mentality which still characterized the politicians and the policy makers (any resemblance to the situation in Romania is not random).

With the Monetary Council, Bulgaria started to reduce the inflation rates. From a level of 4 digits, the inflation dropped at 2 digits in 1998 and 2000, and after 2000, its inflation didn't exceed 1 digit, except 2008 when the crisis erupted. Although the inflation decreased in 2009, Bulgaria didn't face deflation until 2013. The deflation process continued in 2014-2015 too.

The highest inflation rate in Bulgaria was reached in 2011-2012 (4,2 and 3 percent respectively). In 2012, headline inflation in Bulgaria remained close to the average level of inflation in the EU. From early 2013 to early 2014, there was a sharp decline in headline inflation, coinciding with reductions in administered prices (energy prices). While inflation in EU member countries has generally been subdued during this period, and average inflation in the EU became negative recently, deflation in Bulgaria stands out in terms of its early start and its magnitude. Regardless of inflation measures (headline, core, headline excluding administered

prices, etc.), Bulgaria has experienced the deepest deflation since mid-2013 among EU member countries except for Greece and Cyprus, where a much sharper demand contraction had taken place (National Bank of Bulgaria, 2008-2015).

3.3. MONETARY REGIME AND INFLATION TARGETING IN HUNGARY

Price and trade liberalization carried out in 1991 allowed the Hungarian economy to develop properly by implementing appropriate macroeconomic and monetary policies. For this purpose, the Hungarian government and central bank monitored the development of the competitive environment within the banking sector. The existence of the capital market, of the stock exchange and the interbank market since the beginning of the transition period allowed the central bank a significant flexibility of the intervention tools. Thus, inflation reduction became the government's main objective ever since 1991. The first measure adopted in this regard was the introduction of an adjustable exchange rate which used the most important currencies existing at the time: the German mark and US dollar as reference system.

Thus the monetary policy was focused on maintaining a permanent balance between the inflation reduction objective and respectively the objective of maintaining an appropriate exchange rate. It was an extremely difficult task given the economic openness (the foreign trade had been liberalized) and the existence of the capital markets, which determined a quite low control degree of the central bank over the money supply. However, the central bank managed to achieve its both objectives, operating with a number of indirect alternative instruments.

Firstly, the control over the money supply was permanently made through M3, which includes all the commercial transaction instruments, as well as bank deposits. As indirect instruments, the central bank used, since 1988, the treasury bills, which activated the capital market a lot. When the commercial banks faced liquidity problems, the central bank proceeded to repurchase the securities, which stimulated the refinancing activity. Thanks to the significant foreign currency reserves, the central bank could also intervene in the currency market within the fixed variation limits (+/- 2.25%). The required reserves level varied continuously, they could differ from one bank to another, depending on the risk degree associated to the loans granted (Zaman, 2000).

In 2001, through the coming into force of the new status of the NBH (the National Bank of Hungary), achieving and maintaining price stability became the primary objective of the monetary policy, the central bank being able to assist the Government economic policy only to the extent to which it did not jeopardize the achievement of the inflation target. At the same time, amid an evident trend regarding the appreciation of the exchange rate, NBH, in agreement with the Government, gave up the *crawling peg* exchange regime and adopted one compatible with ERM II, based on a central fixed parity and a fluctuation band of ± 15 percent, considered broad enough to ensure the flexibility of the exchange rate imposed by the new monetary strategy. The conflict between the monetary strategy and the exchange regime became evident as a result of the currency tensions in the first half of year 2003, the prevalence of the commitment to the latter leading to the failure to achieve the inflation target. The considerable nominal appreciation recorded by the national currency, allowed to float freely within the apparently comfortable band of ± 15 percent, played an important role in accelerating disinflation. The almost complete liberalization of the capital account and the high interest rates as well as the already certain prospects of a rapid accession to the European Union were the main causes of the massive capital inflows, which led to a huge demand for forints, determining the positioning of the exchange rate only in the appreciated half of the fluctuation band, with a tendency to near the band edge. The policy of the central bank was further oriented towards ensuring the stability of the monetary conditions. The central bank had an active presence on the foreign exchange market, managing to discourage the speculative capitals. These foreign exchange interventions

contributed, along with the abandonment of the inflation target, to the reduction of the forint volatility. In the early 2000s, even after widening the fluctuation band, the exchange rate remained the fastest and the most powerful transmission channel of the monetary policy, the changes operated by the NBH at the level of the interest rate being largely designed to influence it. The role of the minimum reserves reduced after 2003 (Zaman, 2000).

In Hungary, the inflation rate reached 4,9% in 2010, 3,9% in 2011 and 5,7% in 2012. The consumer price index has remained persistently above the inflation target in 2012, despite the recessionary environment. The high rate of inflation mainly reflects the effects of the commodity price shocks and the Government's indirect tax increases, while the pace of underlying inflation remains moderate. In 2013, the consumer price index and the measures of underlying inflation have been at historically low levels (1,7% in 2013). Low underlying inflation reflects the combined effect of weak domestic demand, declining inflationary pressures in external markets and the gradual adjustment of inflation expectations. In addition to the decline in underlying inflation, the reductions in regulated prices, implemented in a series of steps this year, have also contributed significantly to the development of a low inflation environment. In 2014, Hungary faced a slow deflation rate of -0,2%. In 2015, core inflation has been rising gradually as a result of an expansion in household consumption and an acceleration in wage growth, but the persistently low global inflationary environment, especially the moderation of oil and commodity prices, contains the increase of the inflation rate. The total IPC rate was 0,0% in 2015 (NBH, 2008-2015).

3.4. MONETARY REGIME AND INFLATION TARGETING IN POLAND

In the first years of adopting this type of inflation targeting monetary regime in Poland, the net inflation rate generally stood below the lower limit of the variation range established. Only in 2001 it managed to fall within the target range, but in the following years 2002-2003 it returned once again below the target range limit. In 1998 and 1999, the net inflation rate positioning below the lower limit of the announced variation range was mainly due to supply-side shocks, with a significant contribution from the cost items. A significant impact was exerted by the external factors, their evolution standing partially (the exchange rate appreciation) or totally (the international price of the raw materials) outside the influence sphere of the monetary policy. The cheap imports of agricultural products from the European Union and the increasing competition in the retail trade segment also exerted a consistent deflationary impact.

Switching to the free floatation of the exchange rate occurred more than a year after the adoption of the *inflation targeting*, but NBP (National Bank of Poland) had initiated measures to adapt the exchange rate regime since 1998, after announcing the intent to amend the monetary strategy.

The developments subsequent to the transition to the free floatation of the exchange rate – the expansionary fiscal policy, the deterioration of the external position, the turbulences which marked the emerging markets in 2002 (Latin America) - proved the importance of the exchange rate flexibility, protecting the Polish economy against different shocks which, within a fixed exchange rate regime, could have led to a currency crisis (Borowski et al., 2002). Along with the transition to the *inflation targeting*, the reference interest rate became the main monetary policy instrument (Pruski, 2002), by means of which the central bank directly influences the interest rate levels corresponding to the interbank deposits with comparable maturities. At the beginning of this process, the exchange rate channel was an important monetary policy transmission channel, but gradually, the interest rate channel became dominant as in the other European countries. The variation range of the reference rate is defined by the interest rates for the permanent facilities provided by the central bank, which determines the upper respectively the lower limits of the interest fluctuations on the interbank market, particularly for the shortest

maturities. Apart from the aforementioned rates, the NBP instrument range also includes the interest rate for rediscount operations, whose level is adjusted according to the Lombard rate. However, the rediscount rate no longer appears as an element of the Polish monetary strategy starting from 2004. Amid reducing the excess liquidity, the Bank of Poland reduced the minimum reserves rate on deposits in zlotys and foreign currencies. Throughout the period subsequent to the transition to the free floatation of the zloty (April 2000), the exchange rate was not an active instrument of the monetary policy, NBP ceasing the foreign exchange market interventions since July 1998.

In Poland in 2009, inflation rate was 3,72% and 3,16% in 2008. The annual growth of prices of consumer goods and services in Poland in June - August 2010 fell from 2.3% to 2.0% and in September 2010 rose to 2.5%, reached the NBP inflation target set at 2.5%, but ended 2010 at 3,14%. In 2011, inflation reached 4,3% and in 2012 3,7%. From June 2012, the annual growth in consumer goods and services prices slowed down steadily, hitting 0.2% in June 2013, to rebound in the subsequent months (to 1.0% in September 2013). However, it remained below the lower limit for deviations from the NBP inflation target. The hike in inflation observed in recent months (*vis-à-vis* the June level) was mainly driven by rising prices of unprocessed food, mostly vegetables. That was in turn due to unfavorable weather conditions (protracted winter and the resultant shorter vegetation period), which reduced the domestic supply of vegetables. At the same time, inflation was curbed – if to an increasingly smaller degree – by a slump in energy prices, a combined effect of a decline in fuel prices, in administered prices of natural gas and of electricity in 2013. Low inflation was also supported by only a sluggish growth in the prices of unprocessed food and non-food goods. That was related to persistently weak demand and cost pressures in the economy. In 2013, the annual inflation rate reached 0,9%. In 2014, it was zero. In Poland, the annual consumer price growth remains negative. The decline in commodity prices – along with moderate economic conditions and still negative output gap in Poland's main trading partners – has also weighed on sustained slow price growth in Poland's external environment. These factors were pulling down import prices, yet the effect was mitigated by the weaker than the year before exchange rate of the zloty against the US dollar. Price decline is primarily driven by external factors, mainly a fall in global commodity prices and a low price growth in Poland's external environment. The decline in consumer prices is also supported by the absence of demand pressure at home, amid continued producer price deflation and limited wage pressure. In turn, the cutbacks in production of certain fruit and vegetables, along with this year's drought, reduced the scale of price decline in 2015 (NBP, 2008-2015).

3.5. MONETARY REGIME AND INFLATION TARGETING IN CZECH REPUBLIC

In late May 1997, the NBC (National Bank of the Czech Republic) was forced to abandon the *crawling peg* system due to the pressures regarding the domestic currency depreciation (triggered by the massive capital outflows, given the deterioration of the current account of the balance of payments and the deepening of the political uncertainties related to the Government crisis). After consultation with the Government, NBC opted for a controlled floatation regime of the exchange rate. During the period 1998-2002, NBC episodically intervened on the foreign exchange market, each time in order to avoid an excessive appreciation of the exchange rate. Thus, the external competitiveness of the Czech economy was supported, preventing an excessive deepening of the current account deficit without jeopardizing the inflation targets. The foreign currency purchases made by NBC exerted a temporary and limited impact on the evolution of the exchange rate, without affecting its long-term appreciation tendency (Holub, 2003).

With the implementation of the inflation targeting regime, the main monetary policy instrument is represented by the interest rate for the two-week *reverse repo* operations. Any change in its level reflects on the short-term interest rates on the interbank money market. NBC uses two other important interest rates - Lombard rate and the *discount rate*.

With regard to the minimum reserves, they do not represent an active monetary policy instrument, although the banks are required to keep a percentage of deposits with the central bank. Remunerated according to the *reverse repo* interest rate, the minimum reserves are maintained to ensure the normal operation of the payment system. The interventions on the foreign exchange market are used as fine adjustments instruments, mainly in order to temper the exchange rate volatility.

Depending on the inflation rate evolution and the main factors responsible for it, NBC opted for the gradual lowering of the interest rate, combined with occasional and limited interventions in the foreign exchange market, which were then sterilized. Thus, the interest rate on two-week *reverse repo* operations gradually decreased resulting in sterilization costs reduction.

With regard to the monetary policy transmission mechanism, the high openness degree of the economy should confer the exchange rate a major role in the evolution of the domestic prices (Jonáš and Mishkin, 2003). However, certain econometric analyses prepared by the IMF (2004) lead to the conclusion that the interest rate and the credit are the most powerful transmission channels, similar to the euro zone member countries. The importance of the exchange rate channel is insignificant due to the high weight of the import items in exports and due to the weak reaction of production to the changes in the exchange rate.

In Czech Republic, in 2008 the inflation rate was 3,61% and then it dropped at 0,98% in 2009. The headline inflation in reality was lower than forecasted in 2009. In 2010, headline inflation was close to the forecast (2,30% in 2010), but the individual consumer price categories showed considerable deviations in both directions. Regulated prices and indirect tax changes valid since 1 January 2010, which could not have been captured by the forecast because they were not decided on until 2009, acted in the inflationary direction. By contrast, adjusted inflation excluding fuels, which was affected by falling import prices and the previous contraction in economic activity, acted in the direction of lower inflation. External economic factors contributed significantly to domestic inflation. Owing to the global financial and economic crisis, external demand, inflation and interest rates were lower throughout 2009 than assumed in the forecast and therefore acted in the direction of lower inflation. Later, however, external demand and inflation fluctuated at higher levels. These factors thus joined oil prices, which were higher than forecasted over the entire forecast horizon. Annual inflation increased further in 2010. At 2%, inflation in September was 0.8 percentage point higher than in June. This increase was due mainly to rises in annual food price inflation and, to a lesser extent, regulated prices. These changes were partially offset by a slowdown in annual fuel price inflation. Turning to the structure of annual inflation, inflation continued to be affected mainly by administrative factors, the effects of changes to indirect taxes and regulated prices. The contribution of market prices was generally less significant. Administrative effects were dominated by the changes to indirect taxes implemented on 1 January 2010. In 2011, the inflation rate was 2,42% and in 2012 it remained quite stable at 2,37%. In 2012, headline inflation was slightly above the upper boundary of the tolerance band around the NBC's target and monetary-policy relevant inflation was at the target level. The modest fall in annual inflation in 2012 was due to administered and market prices, with the exception of fuel prices, whose annual growth rose significantly. Market prices were strongly affected by anti-inflationary pressures from the domestic economy amid weak domestic demand associated with fiscal consolidation and low household confidence. By contrast, import price growth remained high, pertaining both to energy as well as to final

products for the consumer market, in both cases owing to previous depreciation of the exchange rate. In 2013, the inflation rate was 1,4%. In 2014, both headline and monetary-policy relevant inflation rebounded from near zero levels (0,08%), but remained below the lower boundary of the tolerance band around the NBC's target. The low inflation was due to a continuing decline in administered prices and subdued inflation in the euro area. The weakened exchange rate is still feeding through to inflation via import prices. Moreover, the domestic economy is now pushing prices upwards. Its previous long-term anti-inflationary effect has thus faded quickly so far this year, thanks in part to the easy monetary conditions, and the domestic economy is beginning to foster higher inflation. This has contributed to a rise in adjusted inflation excluding fuels, which is noticeably positive for the first time in a very long time. The higher inflation in 2014 was also due to a moderation of the annual decline in administered prices. Both headline and monetary policy-relevant inflation decreased slightly in 2015, remaining well below the NBC's target (at 0,08%). The easy monetary conditions are still supporting growth in the domestic economy and a related improvement in the labor market situation. Accelerating growth in external demand, low oil prices and rising government investment are also having a favorable effect on economic growth. The growing economic activity and accelerating wage growth will continue to foster higher costs and consequently also a higher price level, whereas import prices will dampen inflation until mid-2016. The fall in inflation was due to a marked slowdown in annual food price inflation and a renewed acceleration of the decline in fuel prices. Administered prices switched to a modest year-on-year decline. This was most apparent in adjusted inflation excluding fuels, which remained stable despite the long-running strongly anti-inflationary effect of prices abroad and appreciation of the koruna against the euro (NBC, 2008-2015).

4. CONCLUSIONS

Adopting the inflation targeting regime in the Central and Eastern European countries contributed to lowering the inflation rate under 10 percent. Implementing this new regime of monetary policy lowered the inflationary expectations. After this moment, the relations between the central banks and the governments of those countries became tensed (in the Czech Republic, the central bank independence faced many restraints at the beginning of 2001; similarities could have been seen in Poland too, because of a lax monetary policy; Hungary adopted a tight monetary policy during 2001-2002, but in 2003 the National Bank gave in the Government pressure and abandoned the inflation target for devaluating the central parity of the forint against euro).

Slowing down the economic growth pace, increasing the unemployment rate and worsening the current account situation in the Czech Republic and Poland didn't affect the interest rate policy. It remained very tight to target inflation and limited the external unbalance too. A floating exchange rate (free floating in Poland and managed floating in Czech Republic) supported the inflation targeting strategy, but the fluctuations band adopted in Hungary (in the ERM II perspective) was a great challenge for achieving the target in the inflation area.

In Poland and Hungary, there were important fiscal problems that represented a burden for their national banks, while in Czech Republic the impact of the fiscal policy on the monetary policy was smaller, because the costs of financing the public deficit were smaller.

The low quality of the banking assets (non-performing loans) and the postponement of the privatization process in the banking sector in Poland and Czech Republic represented a real burden for the banks because they had to face a very restrictive monetary policy, a high volatility of the exchange rate and economic recession (Iorga et al., 2004).

Romania and Bulgaria also made a significant progress in lowering the inflation rate, Romania by adopting inflation targeting regime and Bulgaria by adopting Monetary Council.

Bulgaria recorded one-digit inflation rate after 2000, while Romania have reached similar levels in 2005. The accession of those two countries to EU in 2007, despite Poland, Hungary and Czech Republic that recorded a significant increase of inflation in 2004 when they acceded to EU. The experience of those last three countries proves that adopting the inflation targeting strategy needs to be carefully prepared. There are some necessary pre-requests such as fiscal and other macroeconomic policies should support the monetary policy. Otherwise, countries couldn't achieve the inflation target or this would affect the economic growth and unemployment. Still, the inflation rates increased in the autumn of 2008 in all these analyzed countries, but then the Central and Eastern Europe faced the beginning of the economic crisis. The inflationary pressures were overcome by tight austerity measures and by using tight fiscal and monetary policy combined. The problems of those two countries stay in the real convergence area, especially in the case of Bulgaria where the actual deflation process determined a low economic growth rate in this region and the highest unemployment rate. Bulgaria recorded negative inflation rates starting with 2013. Romania performed better in 2014, recording an inflation rate of 1% after the crisis period. In Romania the lax fiscal policy could generate new inflationary pressures starting with 2016.

According to the NBR's forecasts, the annual inflation rate remained negative at the end of 2015, but it increased (because of the food prices and the administrated prices). The forecasts indicate an inflation rate of 1,4% in 2016 and 3,4% in 2017. These levels are situated in the admitted fluctuation band. The forecasted development of the annual inflation rate is significantly affected by the lax fiscal measures of reducing the indirect tax gradually. Starting with 2017, the NBR anticipates that the impact of the fiscal policy will be dominated by the impact of the pressures coming from the aggregate demand. These pressures will be due to the wages increase in the Romanian economy. The oil price (which is very volatile) could also impact greatly on the national economy and on the inflation rate (NBR, 2016).

REFERENCES

1. Beju D.G. (2008) *Inflation targeting - a popular monetary strategy (Tintirea inflatiei- o strategie de politica monetara tot mai populara)*, Studii Financiare, nr.4, pp. 93-108.
2. Borowski, J.; Brzoza-Brzezina, M.; Szpunar, P. (2002) *Exchange rate regimes and Poland's participation in ERM II*, lucrare prezentată la Seminarul "Exchange rate issues in accession countries", Banca Centrală Europeană, 21 octombrie 2002.
3. Botel Cezar (2002), *Inflation Causes in Romania June 1997-August 2001. A VAR analysis (Cauzele inflatiei în România, iunie 1997 - august 2001. Analiza bazata pe Vectorul Autoregresiv Structural)*, Caiete de Studii BNR, nr.11/2002.
4. Ciupagea et al. (2005) *Studii de impact PAIS 3 – Pre-Accession Impact Studies III (2005)*, Studiul 9 Analiza si evaluarea evolutiilor în plan economic, social, legislativ si institutional în cazul noilor state membre ale Uniunii Europene, Institutul European Roman.
5. Croitoru Lucian (2014) *Theory and critics of the monetary policy in Romania (Teoria și critica politicii monetare în România)*, Studii si analize, BNR.
6. Debelle G., 1999, *Inflation targeting and output stabilization*, Research Discussion Paper 1999-08, Economic Analysis Department, Reserve Bank of Australia.
7. Debelle, Masson P., Savastano M., Sharma S. (1998) *Inflation targeting as a framework for monetary policy*, IMF Economic Issues no.15.
8. Dumitru Ionut (2006) *Inflation targeting in Romania - challenges and perspectives*, MPRA papers, no.10570, available online at https://mpra.ub.uni-muenchen.de/10570/1/MPRA_paper_10570.pdf [accessed at 3rd March 2016].

9. IMF, (2004) *The Monetary Policy Transmission Mechanism in the Czech Republic*, în “Czech Republic: Selected Issues and Statistical Appendix”
10. Holub T. (2003) *Foreign Exchange Interventions under Inflation Targeting: The Czech Experience*, lucrare prezentată la CEPR/Deutsche Bank Research Workshop, Kronberg.
11. Hu Y., 2003, *Empirical investigations of inflation targeting*, Institute for International Economics, Working Paper no. 6.
12. Iorga E., Salater W., Pitulea G., Cazacu C., Oancea C. (2004) *Inflation Targeting in Czech Republic, Poland and Hungary - implementation and performances (Tintirea directă a inflației în Republica Cehă, Polonia și Ungaria: implementare și performanțe)*, BNR, Studii și analize.
13. Isarescu M. (2008) *Problems for the monetary policy in an emerging country. Romanian case (Probleme ale politicii monetare într-o țară emergentă. Cazul României)*, Barcelona, Publicațiile Academiei Regale de Științe Economice și Financiare, Discurs susținut la Academia Regală de Științe Economice și Financiare, februarie 2008.
14. Jonáš J., Mishkin F.S. (2003) *Inflation Targeting in Transition Countries: Experience and Prospects*, NBER Working Papers No. 9667, Cambridge Massachusetts.
15. Masson P., Savastano M., Sharma S., 1998, *Can Inflation Targeting Be a Framework for Monetary Policy in Developing Countries?*, Finance & Development, March 1998.
16. Mishkin, F.S., (2001) *Inflation Targeting in Emerging Market Countries*, NBER Working Paper No. 7618, Cambridge, Massachusetts.
17. National Bank of Bulgaria, *Annual Reports on inflation*, 2008-2015.
18. National Bank of Czech Republic, *Annual Reports on inflation*, 2008-2015.
19. National Bank of Hungary, *Annual Reports on inflation*, 2008-2015.
20. National Bank of Poland, *Annual Reports on inflation*, 2008-2015.
21. National Bank of Romania, *Monthly Report on Inflation*, February 2016.
22. National Bank of Romania, *Annual Reports on Inflation 2008-2015*.
23. Popa Cristian coord. (2009) *Tintirea directa a inflatiei in Romania*, Caiete de Studii, no.25, BNR, August.
24. Pruski, J., (2002) *Poland as an Example of Successful Transition From Inflation Targeting Lite to Fully Fledged Inflation Targeting*, lucrare prezentată la Conferința “Challenges to Central Banking from Globalized Financial Systems”, FMI, Washington, D.C., 16–17 septembrie 2002
25. Roger S., Stone M. (2005) *On target: the international experience with achieving inflation targets*, IMF Working Paper, no.163.
26. Zaman Gh. et al. (2000) *Monetary and fiscal policies in transition (Politici fiscale și monetare în tranziție)*, CEROPE Study.