INFLATION TARGETING - THE FINAL GOAL OF THE NEW FRAMEWORK OF MONETARY POLICY IN SERBIA

Abstract

In September 2006 National Bank of Serbia adopted new framework of monetary policy, i.e. Inflation targeting strategy. Accepting the experiences of the countries which have been implementing this strategy and the most successful practice, but also references of IMF, NBS in coordination with the Government of Serbia, due to preserving price stability, defined basic framework of inflation corridor, using the referent interest rates, as the key instrument for sustainable and transparent model of inflation targeting. Beside this key instrument, NBS defined using the other measures and instruments of monetary policy, as additional instruments with the main goal of suppressing inflation trends and unpredictable circumstances which could influence inflation. The goal of implementing this strategy refers to establishing the base inflation i.e. growth of retail prices which are under control of NBS instruments. Within a framework of this paperwork, and on the bases of implemented strategy, Inflation targeting of NBS and defined framework of monetary policy which are included in annual NBS Memorandums, the efficiency of realization of goals of monetary policy has been analyzed. NBS has accomplished successfully these goals, despite high inflatory pressure which has been passed on in the first quarter of 2008.

Key words: inflation targeting, monetary policy, base inflation, price growth, transparency

TARGETIRAWE INFLACIJE - KONACAN CIJU NOVOG OKVIRA MONETARNE POLITIKE U SRBIJI

Апстракт

Септембра 2006 год. Народна банка Србије је усвојила нови оквир monetарне инфлације, односно, садржавећи је јаргенирана инфлације. НБС је у кординацији са Владом Србије а ради очувања ценовне стабилности, дефинисала оквире инфлацијског коридора, уз коришћење референцне каматне стопе, као кључног инструмената за одржавање инфлације. Поред овог, НБС је утушавао инструменте стабилности, као помоћне инструменте, са њима у поузданој инфлационој моделу јаргенирана инфлације. У оквиру овог рада, а на основу усвојење садржавеће јаргениране
Inflation targeting implies, according to F. Mishkin, (2006) five phases:

1. Public announcement of medium-term and numerical goals regarding inflation.
2. Institutional commitment to price stability as the basic, long-term goal of monetary policy, as well as commitment towards achieving target inflation.

Table 1. Countries with formal inflation targeting

<table>
<thead>
<tr>
<th>The name of the state</th>
<th>Year of application</th>
<th>0-2% (from 1996) 0-3%</th>
<th>8-11 (from 1998) 7-10%</th>
<th>1-3%</th>
<th>1-4% (from 1997) 0-2.5%</th>
<th>2-3%</th>
<th>1-3%</th>
<th>5.5-6.5% in 1998, 4-5% in 1999, 3.5-4.5% in 2000</th>
<th>0-2%</th>
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<td>New Zealand</td>
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Source: Central banks web-site

1 From being the most dependent bank in developed countries, Central Bank of New Zealand became the most independent one, having one goal – price stability, thanks to the passing of law on CB. The Governor and minister of finance are obliged to determine the agreement on financial goals of monetary policy through negotiations and to present it to the public, and to make numerically specific targeted ranges, i.e. frameworks for inflation movements and time period in which the goals of monetary policy are going to be achieved.

2 Although European Central Bank didn’t officially recognize this concept, monetary policy monitored by European Bank is very similar to inflation targeting. Even after debates in the USA on application of targeting, FED haven’t approved it yet.
3. Strategy which involves numerous information and in which many variables are used, and not only monetary aggregates, when making decisions about monetary policy.

4. Increased transparency of monetary policy strategy through communication with the public and markets in terms of plans and goals of monetary policy creators.

5. Bigger responsibility of Central Bank in achieving goals regarding inflation.

Thus, we can emphasize that inflation targeting includes numerical framework of monetary policy activity, which is specific because of the public announcement of official numerical targets, i.e. the range of targets, such as inflation rate, time periods of forecasting and explicit perception that low, stabilized inflation is a fundamental, long-term goal of every monetary policy.

Irrefutable primacy of price stability contributed to the domination of monetary policy, and, furthermore, it implied the concepts of Central Bank’s authonomy, as well as credibility and reputation of economic policy creators. The ascent of monetary policy was followed by fiscal policy withdrawal: it was not used for fine regulation any more, it was limited to budget balance at all costs, and the impact on the real side of economy lost its importance in relation to the irrefutable primacy of monetary sphere. It was New consensus in macroeconomics (NKM) in whose hub is inflation targeting. That targeting is expressed in Taylor’s rule according to which nominal intrests are the sum of real interests increased in inflation and reduced in real growth. The problem is, however, that with low growth and exclusive primacy of inflation targeting, the intrests are remaining at high level that jeopardizes the investment and growth. (Jakšić, M. 2005).

Inflation targeting is charaterized by the following processes (Arestis, P. Sawyer, 2002):

1. monetary policy which publically announces the target of inflation, along with explicit emphasizing of price stability as a long-term goal of monetary policy, furthermore, it implies discipline, responsibility, transparency and flexibility,

2. the restriction of discretionary rights, because inflation targeting is a nominal anchor of monetary policy, which obliges autonomous Central Bank and imposes monatery liabilities for the Government,

3. monetary policy becomes the most important element of macroeconomic policy,

4. fiscal policy loses its importance and becomes passive, in terms of obligation of balanced budget,

5. in order to preserve price stability there cannot be any bargain between inflaton and unemployment, the economy has to be at the level of natural employment rate for which the prices are stable or, at least, the inflation is not accelerated.

The antagonists that contest New consensus in macroeconomics, point out the limited scopes of monetary economics, which reflect in the following:

1. The appearance of wider monetary mass which is hard to control.

2. Slight impact of change of intrests on the inflation impact (1% of the change of intrests cause the impact from 0.2 to 0.3 per cent on the output, and the prices are even smaller);

3. The unemployment rate does not directly depent either on functioning of the market or on the wage rate, it depends on insufficient demend.

4. Restrictive monetary policy has unfavourable impact on the effect of investments and the scope of capital.
F. Arestis and M. Savier (2002) draw a conclusion that there are many canals of monetary policy impact, that effects are delayed, uncertain and negligible in terms of impact of interests on inflation depreciation.

1. Reasons for application of new strategy in Serbia

Serbia has led monetary policy without monetary strategy for a long time. The absence of competition and domination of the state in carrying out monetary policy during the past two decades, led to the decline of public trust in financial system and domestic currency. It had negative effects on functioning of the banking system, which was a bad, corrupted and unreliable partner due to inefficiency of state machinery. Therefore, there were frequent alternating intervals of money expansion, high inflation and hyperinflation, and reduced using of the dinar as means of payment and maintaining worth.

Lost trust and deteriorated credibility of the financial system and domestic currency was the basic indicator that was slowing down economic and social development of Serbia. Therefore, effective resource allocation was absent, which affected, above all, the domestic savings, which was out of monetary currents and wasn’t effectively utilized in economy.

Despite positive trends in the banking system, relocation and the use of surplus liquid dinar means are limited to the existing public mistrust in domestic currency and monetary policy. The scepticism which still exists is the result of

1. not so far economic past,
2. the euro expansion,
3. expectations from the rate of exchange,
4. external shocks due to high influx of capital and shocks of prices of food products, as well as other products on the market.

The choice and guidance of the rate of exchange regime affected the creation of inflation. Serbia, having a liberal economics regime in the transition phase and large share of export, is not immune to the impact of the rate of exchange on the growth of domestic prices. The analyses of NBS for the period after 2001 indicate that the effect of transmission of the rate of exchange is not less than in other transitional countries, and that it is a lot more prominent and stronger than in developed countries. Plus the impact of the rate of exchange on inflation was greater and faster, which directly prompted the public to realize that the change of exchange rate is a permanent appearance. The rate pf exchange during 2001 and 2002 was used as a nominal anchor in deflation process. The goal of application of the rate of exchange was in stopping and reducing the acceleration of price growth after sudden growth at the end of the nineties. The goal was successfully achieved by tough policy of rate of exchange and inflation was reduced to 10% by the middle of 2003. However, from 2003 the rate of exchange gradually depreciated, which caused the reduced disinflation and contributed to the increase of inflation in 2004.

Due to inflation growth and strong influx of capital, in 2005 the concept of continual depreciation is discarded. The increasing influx of capital prompted the increase of liquidity on the market, which affected the rapid credit growth followed by the potential possibility of exposing the financial system to risk. In that period the gross influx of capital was above 20% of the gross national product, which is a very high figure according to international standards,
while credit growth was alarming with 57%. High credit growth affected the deterioration of the deficit of the current balance, which was alarming with 12% of the gross national product, in 2004, while inflation was 17% by the end of 2005. Finally, by the end of 2005, the policy of guided depreciation was discarded. Further, great influx of capital, along with greater fluctuation of the rate of exchange led to the depreciation of the rate of exchange, which directly contributed to the fall of inflation below 10% by the end of 2006.

Because of that, monetary authorities in Serbia are trying to reestablish trust in monetary institutions by increasing the monetary policy capacity aimed at achieving sustainable and low rate of inflation.

In that period the public sector policy also directly or indirectly, in its own way, gave its significant contribution to the fight against inflation, as well as the policy of rate of exchange. Fiscal stability and fiscal policy were important factors in maintaining the fiscal rate of exchange and revival of economy. Fiscal suffict made the acceleration of inflation and deterioration of the current payment deficit impossible during 2004 and 2005.

The state had a significant control over inflation by regulating 45% of retail prices. During 2001-2002 regulated prices grew faster, which is justified by the policy of eliminating maladjustment of prices, as well as the intervention role of the state in achieving price stability.

In addition, the role and importance of IMF in giving support to the reform process in the public sector, cannot be neglected. Although support and aid of IMF was positively reflected in the improvement of investment climate in Serbia, in the deficit of current transactions and in the interior convertibility of the currency, as well as in capacity building in fiscal and monetary policy, yet, the IMF programmes contributed to the increase of macroeconomic imbalance over the following years. It was specially reflected in discrepancy between simultaneous targeting of the real rate of exchange, low inflation and low level of foreign reserves, as well as in establishing the balance between targeted exterior balance and targeted inflation. Therefore, using the policy of gradual depreciation, NBS was trying to stop the appreciation of the real rate of exchange, but of no avail. In the final instance, such a policy did not produce results, the current balance did not improve significantly, and inflation had two digits again.

### 2. Implementation of new monetary framework

Aiming at achieving sustainable, low and predictable inflation in September, 2006, NBS adopted the strategy of inflation targeting in leading the monetary policy. New monetary framework is very similar to the regime of targeted inflation, which should be understood as the first step towards the complete implementation of inflation targeting strategy. New monetary framework leans on the following principles:

1. **The published targeted rates of inflation are only numerical guidances for monetary policy conducted by NBS.**

2. **NBS achieves the targeted rate of inflation by corrections of interest rate which are applied in two weeks long repo operations (2W), which is the referential interest rate and main instrument of monetary policy. The other instruments, including interventions on the exchange market, have assisting roles.**

3. **NBS carries out the regime of slightly administered fluctuating rate of exchange and maintains the right to intervene in the exchange market in case of huge exchange oscillations of rate of exchange, jeopardized financial and price stability and risk of maintaining the appropriate level of foreign reserves.**
4. The Monetary Board makes decisions on changes of referential interest rate on the basis of analyses and forecasts of economic and monetary movements at the meetings whose schedules are set in advance.

5. The Monetary Board is regularly informing the public about the achieving the established goals and measures which it undertakes in order to achieve them in the future. (The basic elements of the new framework, NBS, 2006)

Base inflation is defined as inflation of retail prices which is subject to the influence of NBS instruments and it is concerned with changes of index of retail prices which are not caused by correlations of regulated prices and tariffs or changes of prices of agricultural products, as referred in the Appendix to the Memorandum of NBS on principles of the basic elements of the new framework, adopted on August, 30, 2006. (The basic elements of the new framework, NBS, 2006)

Taking into consideration the experiences of the countries which are already conducting this strategy and the best existing practice, in order to achieve price stability and in coordination with Serbian Government, NBS defined the frameworks of inflationary corridor, i.e. the base, targeted inflation on the basis of the growth of retail prices which are influenced by the instruments of NBS, with the use of referential interest rate as a basic instrument for sustainable and transparent model of inflation targeting. NBS affects the targeted rate of inflation through corrections of referential interest rate in two weeks’ repo operations. The change of referential interest rate is determined on the basis of analyses and forecasts of macroeconomic inflationary movements.

Apart from this basic instrument, NBS also defined the use of other measures and instruments of monetary policy, as well as subsidiary instruments, aimed at suppressing inflationary trends and unacceptable circumstances which affect or can affect inflation, without neglecting other goals, unless they jeopardize the attainment of the targeted rate of inflation.

In addition, NBS opted for leading a proactive monetary policy, gradual withdrawal from the exchange business, the reduction of the presence on the exchange market and other measures of monetary policy, as well as the solid regime of the flexible rate of exchange.

The application of inflation targeting in Serbia, similar to other countries, demands the fulfilment of certain conditions. Inflationary measures, targeted variables and time horizons are indisputable as technical aspects of implementation of inflation targeting, despite being theoretically disputable. Therefore, there has to be the focus on providing and permanent promotion of assumptions and conditions for concrete realization of defined goals and targeting policy.

Transparency of inflation targeting is provided by informing the public by means of notifications given to the media, conferences and three months’ report on inflation and other means of communication.

Achieving the goals of new monetary policy, strategies of inflation targeting and creating a transparent economic environment, which are going to have low and stable inflation, is going to take place through coordinated monetary policy of NBS and economic policy of the Government. With the conditions of high participation of regulated prices, NBS can control inflation on competition markets, while the Government is responsible for the part of the influence of inflation, due to corrections of regulated prices.
3. The achieved results of new monetary framework for the period 2006-2008

In the beginning of implementation of the strategy of inflation targeting, NBS has adopted the short-term goals regarding inflation for the end of 2006 and 2007, defined in the form of base inflation, on the basis of the changing of index of retail prices, which are not resulting form the correction of regulated prices and tariffs. The framework of corridor of base inflation is determined in ranges:

1. With the growth on inter-year level in the interval of 7-9% for December
2. With the growth on inter-year level in the interval of 4-8% for 2007
3. With the growth on inter-year level in the interval of 3-6% for 2008

From the moment of application of New framework of monetary policy, base inflation in the last quarter of 2006 reached 5.9% on the inter-year level. Thus, base inflation was lower than the projected corridor. The main reasons of lower level of base inflation than the projected one were high appreciation pressures, and the minor reason was the indirect effects of substantial fall of prices of oil on the world market.

In 2007 NBS achieved its goal by having base inflation of 5.4%, which was within the limit of targeted corridor, which was 4-8%.

After the very low rate in the first half of the year (1.6% at the yearly level), base inflation in the second half of the year was strongly accelerated.

The acceleration of base inflation is the consequence of two factors of demand, above all, the growth of prices of food and oil.

The prominent effects of the growth of prices of food and agricultural products, with parallel growth of prices of oil, were stronger than the disinflatory effects of nominal and real appreciation of the dinar and increased appreciation gap of the real exchange rate during the second half of 2007, which, in the fourth quarter, indirectly administered to maintain the base inflation at the level of the previous quarter.

Namely, above the two thirds of the growth of base inflation in the second half of the year is resulting form the growth of prices of food products. The effects of agricultural shock were stronger and long-lasting, than it was thought at first, spreading over inflationary expectations on other prises. The initial shock didn’t receive a reaction from monetary policy in the third quarter, due to the growth of prices of agricultural products and prices of fuel, but it there was a reaction to the growth of inflationary expectations as a consequence of that shock.

In order to achieve the targeted rate of base inflation in 2007, NBS reduced the referential interest rate from 14% to 10% at the beginning of year. During the year NBS reduced the referential interest rate six times, while the increase was carried out twice. The first increase of referential interest rate took place on 28th of August, when the rate was increased from 9.5 to 9.75% (+25bp) and again, at the end of October it was reduced to 9.5%. The goal of the first increase of referential interest rate was the alleviating the effect of the growth of the prices of agricultural products. The second increase of referential interest rate was carried out in December to 10% (+50bp), aimed at alleviating inflationary effects, which became strong especially in the last quarter.

With other instrumenats of monetary policy, it is important to emphasize the operations of NBS on the open market, which rose for nearly 2.75 billion of euros in 2007 on the basis of repo-operations. In order to maintain the targeted inflation in planned frameworks NBS, led restrictive monetary and credit policy, whose restrictiveness was prominent in the fourth quarter due to expansion of appreciation gap between the real rate of exchange (nominal appreciation
of the dinar and growth of inflation), expansive growth of monetary aggregates (above the average, due to spending of state deposit), additional increase of monetary mass through the exchange and monetary transactions.

The expressed negative trends in the last quarter of 2007 transferred the inflationary pressures into 2008. There is an increased inflationary activity of all relevant factors, of which the most important are:

1. Inflationary expectations of the monetary authorities are increased.
2. Historic record rise of oil prices on the world markets.
3. Export inflation has noted the highest growth in this quarter for the last three years.
4. Appreciation gap of the real rate of exchange was reduced, as a result of nominal depreciation of the dinar.
5. Production gap passed from the negative gap into the positive one. (Petrović, P. Vasiljević, D. 2007)

The determined rate of targeted inflation, ranging from 3-6%, compared with December in 2007, is decreased, aimed at more efficient suppression of inflationary tendencies through the direct impact on inflationary expectations.

By the end of 2008 inter-year base inflation was 10.1%, which is 4.1% above the upper level of targeted corridor, which is projected in the range from 3-6%. Thus, the goal for base inflation in 2008 was not achieved. The exceeding of the projected corridor of base inflation in 2008 was influenced by a large number of factors. Record growth of prices of oil and oil derivatives in the first half of the year, the growth of prices of food and expansive fiscal policy directly affected the growth of base inflation. Then, instability on the exchange market, the increase of risk premium with substantial decrease of influx of foreign capital stirred the high inflationary expectations even more. Despite real reduction of pressure of aggregate demand, high inflationary expectations neutralized the positive effect of disinflationary activity.

By using restrictive monetary policy, NBS was trying to neutralize inflationary pressures. Although, according to some valuations, NBS should have led a more restrictive monetary policy, especially by the end of the year. The stronger restrictiveness was not introduced because of fear, due to possible unpredictable inflationary shocks, and also due to evaluation that such an increase in referential interest rate would cause reverse effects on unstable financial markets. Besides, in the second half of the year, NBS orientated its focus of interest in targeted base inflation from retail prices towards the new goal: consumer prices, which prompted the lower level of restrictiveness.

Despite high inflationary pressures, due to high depreciation of the rate of exchange in the fourth quarter, base inflation show signs of slowing down. The slowing down of inflation was caused by the fall of prices of food at the end of the year, the prices of oil and the reduction of effective aggregate demand, which prompted many firms to raise the prices, despite the high depreciation of the dinar. In addition, the total inflation shows more slowing down, influenced by the fall of prices of oil on the world market.

In October NBS increased referential interest rate for 200 basal points. Despite the increase in referential interest rate, monetary policy in the last quarter was less restrictive, primarily due to high depreciation of the dinar.

Appreciation gap of the real exchange is almost closed, and referential interest rate is below the neutral level, due to the growth of trend of real interests. (NBS report for 2008, February 2009).
4. Negative connotations of targeted inflation in Serbia

In addition, it is necessary to point out the specific negative points of inflation targeting which are reflected in Serbia, in our opinion:

- The important fluctuation at the level of income and total revenue caused by implementation of this strategy.
- Necessary flexibility of rate of exchange in some circumstances may cause occasional instability of the economic environment and results of economic activity in Serbia. The economy of Serbia constantly has to find possibilities of increasing the growth rate, which would indirectly affect the reduction of unemployment and increase in life standard of the population.
- The high level of parcial use of the euro in Serbia may, even in the conditions of successful implementation of flexible strategy of the rate of exchange, cause potentially big problems in inflation targeting. Like many other markets in transition, the financial market of Serbia is not immune to the fact that balance sheets of firms, banks and households contain the euro. Thus, many long-term liabilities are denominated in euros, because inflation targeting demands the flexible nominal rate of exchange, where fluctuations are inevitable.
- In addition, high depreciation of the dinar, expressed by the end of 2008, along with global financial crisis, may cause higher risk of financial crisis. Serbia, like most transition countries, cannot ignore the strategy of the rate of exchange and interventions on the exchange market in the conditions of extreme instability, such as the one that took place by the end of 2008 due to high appreciation of the rate of exchange, when it creates monetary policy by means of inflation targeting.

Conclusion

Inflation targeting was chosen as the only reasonable alternative, despite numerous challenges, such as low credibility and weak monetary transmission. The acquiring of credibility was especially hard for the new regime, despite the endeavour of CBS to create the image of a respective institution.

Short-term referential interest rate became the key instrument in monetary policy for achieving inflationary goals. Interventions of NBS concerning the exchange market and rate of exchange are reduced, except in extreme situations with fluctuation of the rate of exchange. The importance of macroeconomic forecasts and analyses grew in decision making process and in creating monetary policy. The report on inflation and other notifications through the media and press-conferences became the main means of communication which promote transparency and responsibility of NBS policy.

Flexible rate of exchange is the key factor of the new regime, although it pointed out certain deficiencies regarding the movement of rate of exchange, especially in the conditions of the existing big deficit of current payments. As means of achieving price stability, the flexibility of rate of exchange is a shock absorber for inflationary shocks, providing the economy with the new level of balance. With high impact of the rate of exchange on the level of prices,
appreciation of rate of exchange was the main measure for reducing inflation and achieving targeted inflation.

Since inflation rate in Serbia is increasing and since base inflation in 2008 was above the upper level of the defined corridors, the specific points of inflation targeting are reflected in a very interesting and contradictory fact that due to the introduction of inflation targeting, unlike most countries where the reduction of inflation is expected, in Serbia the inflation pressure is expected, i.e. the increase in inflation is expected.

Similar to inflation targeting, the new monetary regime leans on the interest rate as the basic instrument, as well as the flexibility of the rate of exchange and intensive communication with the public and target groups, in order to earn credibility through transparency and responsibility. Unlike the regime of inflation targeting, the goals here are set relatively widely, NBS is still present at the rate of exchange, financial market is underdeveloped, and transmission of monetary policy is hard, due to absence of long-term instruments and effective curve of returns. Finally, the decision-making process demands more time to develop a mid-term focus and to firmly encompass the valuations of economic conditions and short-term projections.

In order to achieve price stability that would contribute to the sustainable economic growth, National Bank of Serbia and the Government of the Republic of Serbia made Agreement on inflation targeting (referred to as: Agreement) as a framework of achieving price stability in the medium-term period, which announces the formal transit of National Bank of Serbia to the regime of inflation targeting in 2009. National Bank of Serbia gradually introduced the principles of this regime on the basis of Memorandum on the new framework of monetary policy, adopted in August 2006. (NBS Agreement on inflation targeting).

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