

## Inflation targeting in developing countries: perspectives for Russia

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**Abstract.** This study analyzes theoretical and methodological approaches to inflation targeting (IT) as a monetary policy regime. Important prerequisites, advantages and disadvantages of IT are discussed. The paper provides a comparative analysis of recent experience of IT in developing countries, describes the main challenges faced by them during the transition process to full-pledged inflation targeting. Author applies the results to Russian monetary system and discusses country's perspectives to adopt inflation targeting.

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### Introduction

A growing number of countries now use inflation targeting mechanism in their monetary policy. During the last two decades a significant amount of both industrialized and emerging market economies have adopted inflation targeting in one form or another. New Zealand, Canada, UK, Australia, Sweden, Norway were among industrialized economies who turned to targeting inflation, and demonstrated success in maintaining price stability. Lately, more and more developing countries and countries with transition economy have also have chosen inflation targeting as a monetary policy regime, among them are Chile, Brazil, Thailand, Mexico, Korea, Turkey, Poland, Romania and others.

This paper is organized in the following way: first, we give a definition of 'inflation targeting' as a comparatively new monetary policy regime and describe instruments of implementation of IT. Second of, in our literature survey we overview the main theoretical works and empirical studies, focusing on the advantages and disadvantages of inflation targeting, and its efficiency in both developed and developing countries. And in our last section, we provide the analysis of implementation of implicit inflation targeting and transition to full-pledged IT in emerging markets economies, and draw lessons for Russia. In conclusion, we evaluate pre-conditions in Russia for adoption of inflation targeting and focus on challenges the country currently faces.

### Literature review

Although there is a big variety of approaches towards the definition of inflation targeting, it can be generally defined as a monetary policy regime wherein central bank declares price stability as a primary objective, and uses interest rate management

to keep inflation forecast towards the declared inflation targets.

Formally inflation targeting works according to Taylor's rule of monetary policy: short-term interest rates adjust to inflation and output deviations from target inflation and potential output, and follows the observed changes in the interest rate. So, if the inflation rate exceeds (or falls below) its target, the rule recommends an increase (or decrease) in the interest rate. According to this rule, target inflation rate is achieved by short-term interest rate management [1, 2, 3, 4].

The core elements of inflation targeting framework include the following:

2. price stability as a primary objective of the monetary policy,
3. monetary policy implementation is based on a range of information, including inflation forecasts,
4. transparency of the policy conducted by central bank, communication mechanisms with public and economic agents play crucial role,
5. independence of central bank and its accountability, ability to ensure targeted inflation in the mid-term period.

Series of theoretical studies provide detailed discussion of the instruments of monetary policy under inflation targeting regime. Bernanke et al. (1999), Mishkin and Schmidt-Hebbel (2007), Walsh (2009) conduct the theoretical framework for inflation targeting and its role in improving macroeconomic performance [5, 6, 7].

The main focus of empirical research of IT, based on international comparative studies, is given to two main aspects: the question of efficiency of this policy in curtailing inflation, and the problem of its effectiveness on economic performance: employment

and economic growth [8, 9]. Evidence give the mixed results for industrialized economies as well as for developing countries.

The number of studies empirically indicate the positive effects of inflation targeting on main macroeconomic variables: IT regime allowed countries to reduce inflation to lower levels and decreased volatility of inflation and interest rates, as well as contributed to anchor inflation expectations [10, 11]. Ball and Sheridan (2005) with the use of cross-section difference-in-differences ordinary least squares estimation method compared economic performance of OECD inflation targeting countries with non-targeters, and found that IT lowers the rate and variability of inflation and improves growth [8].

Massan, Savastano and Sharma (1997) extended the analysis of inflation targeting implementation to the developing countries, and identified necessary prerequisites for successful IT framework such as ability to carry out independent monetary policy free of fiscal dominance, floating exchange rate, quantitative framework linking policy instruments to inflation, and stressed on the absence of most of prerequisites in emerging market economies [12, 13].

In their review of existing methods used to test the effectiveness of inflation targeting both in developed and developing countries Miller et al. (2012) conclude that this monetary framework 'does not affect economic performance in developed countries but does exert a positive effect on economic performance in developing countries' [14]. Application of Ball and Sheridan's (2005) method to developing countries also showed that inflation targeting reduced average inflation, and had positive effect on output growth volatility.

Other studies on developing countries give the opposite results. Fraga et al. (2003) argues that both output and inflation are more volatile, and the inflation is higher than in developed countries. Authors explain the reasons of higher volatility of EME pointing at vulnerability to external shocks, higher macroeconomic instability, fragile institutions, imperfect credibility [15, 16, 17]. Among the other challenges is also the fact that emerging market economies have had to face much higher inflation rates than have developed countries, and while the central target average was stable for developed countries (that introduced inflation targeting in the conditions of relatively low inflation) the emerging markets had a decreasing central target for inflation.

As shown above no strong consensus on the effectiveness of inflation targeting for developing countries has been reached. Furthermore, there is a lack of research concerning the periods of transition

from implicit towards formal inflation targeting - which is the main focus of this paper.

### Method and results

In the study we provide the analysis of methodological approaches to inflation targeting in developing economies, evaluate the existence of prerequisites for switching to formal IT framework in those countries, and make a comparison of recent experience of implementation of the regime in EME.

An increasing number of papers attempt to measure the effectiveness of inflation targeting on economic performance of emerging market countries. Although the results vary for different countries, basic statistics such as mean and standard deviation indicate that inflation rates were lower than in the period prior to its adoption.

**Table 1. Inflation Rates before and after the Adoption of Inflation Targeting in Developing Countries (yearly basis).**

| Country        | Inflation before the adoption of IT | Inflation in a year after of the adoption of IT |
|----------------|-------------------------------------|---|
| Brazil         | 3.15                                | 6.51  |
| Chile          | 27.31                               | 19.47   |
| Colombia       | 9.22                                | 9.35  |
| Czech Republic | 9.98                                | 3.5   |
| Hungary        | 10.78                               | 4.87  |
| Indonesia      | 17.11                               | 6.60  |
| Mexico         | 18.61                               | 11.03   |
| Peru           | 39.49                               | 13.71   |
| Poland         | 10.44                               | 8.82  |
| Philippines    | 2.10                                | 2.34  |
| Turkey         | 9.59                                | 8.78  |
| South Africa   | 2.65                                | 7.77  |
| South Korea    | 6.57                                | 1.46  |
| Thailand       | 1.80                                | 0.01  |

In our view, the recent examples of transition to inflation targeting of several developing countries gives a valuable material for analysis, which can be used during preparation to inflation targeting in Russia.

A number of Asian countries adopted inflation targeting, and their transition period was very interesting from different viewpoints: preparation towards formal inflation targeting, choice of a nominal anchor, forecast horizon, and the outcomes of the policy.

South Korea since its adoption of inflation targeting had to modify its framework in various respects: changed nominal anchor (from CPI to core CPI, and then back to CPI), moved from yearly target (introduced since IT adoption in 1998) to a medium-term inflation targeting system from 2004 onwards. Comparative study of Hiroiyuki and Kato showed that

IT in four Asian countries had different outcomes: while in South Korea and Thailand inflation rates followed the targets, Indonesia and Philippines could not attain the inflation within a target range. However, in general inflation targeting framework in Asia have succeeded in attaining low and stable inflation [18, 19].

The experience of Turkey in implicit inflation targeting, and its gradual transition to the phase of formal IT policy, can provide important lessons to Russia in this regard. Since implementing implicit inflation targeting regime Turkey could substantially reduce the inflation rate, but also showed high economic growth within this period. Most studies on Turkish recent adoption of inflation targeting conclude that chosen monetary has been efficient. Case study of Turkey is also valuable in terms of evaluation of the importance of prerequisites for inflation targeting in developing countries.

In the beginning of 2002 Central Bank of the Republic of Turkey (CBRT) after receiving its independence announced the adoption of implicit inflation targeting for the period of 2002-2005 with a planned further transition to formal inflation targeting. During this transition period the main objective was attaining price stability, and the CBTR has taken measures necessary to reform instruments of monetary policy to the new regime: started the new communication policy with public, developed instruments to forecast inflation, however, central bank reserved a right to intervene in the foreign exchange market to avoid dramatic fluctuations of lira. After making a decision to implement formal inflation targeting central bank announced the following: short-term interest rate was chosen as an instrument of monetary policy, consumer price index was used to measure inflation, target rates and a band were set for the three year horizon (medium-term goal), CBTR's responsibility to give explanations to public should the inflation rate leave the announced interval was declared. As during the following years Turkish economy was effected by external shocks (oil prices rise and global financial crisis) CBTR had to modify its targets for 2009-2011 period.

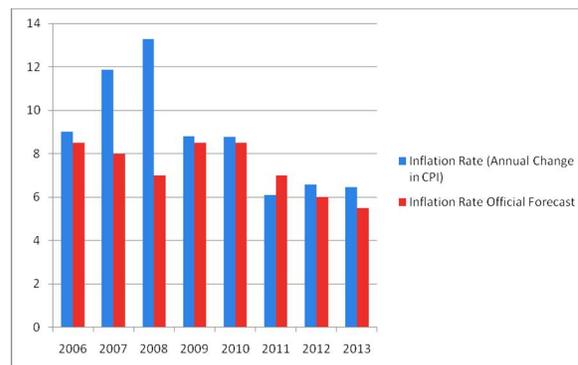
In spite of importance of prerequisites for inflation targeting, defined by most of scholars, authors of recent empirical studies in developing countries argue that, the strategy of moving from 'implicit targeting' version to the formal inflation targeting when certain set of conditions is not satisfied can also be a viable option. However, this does not mean that a monetary system can be exempt from all the prerequisites. As of case of Turkey, independence of CBTR, and political commitment to transparency of the monetary policy played a crucial

role in the success of gradual converging to full-fledged targeting.

There has been an on going debate regarding the future transition to inflation targeting in Russia. Reduction of the inflation rate in Russia to the level of developed countries, and maintaining price stability is one of the necessary condition of sustainable economic growth. It goes without saying, that relatively high rates of inflation which Russia is experiencing, adversely affects the economy in several respects: worsen investment climate, negatively affect business activity, have negative social outcomes [20, 21].

The idea of inflation targeting and free-floating exchange rate has been discussed in Russia for a long time.

Since 2006 when inflation rate reduced to the 9% level Russian authorities started gradual transition towards the policy of targeting inflation: price stability was announced as a primary long-term goal of the monetary policy, Bank of Russia started publishing inflation targets for one year (although no mid-term forecast has been introduced). The graph below shows the inflation rate in Russia since 2006 compared to its official forecasts.



**Fig. 1. Inflation Rate in Russia (Annual Change on CPI) in 2006-2013.**

Only few years ago experts' opinion on this subject was rather skeptical, policy makers questioned if the Bank of Russia had appropriate instruments to curb inflation, and would the benefits from inflation targeting outweigh advantages of a managed exchange rate practice. On the one hand, controlled exchange rate of rouble with the means of foreign exchange interventions was easy to conduct and was predictable for market players. However, the main disadvantage of such policy – inability to control price levels and interest rates – effected real economy adversely.

Previous analysis (2006-2009) of the necessary conditions in Russia for inflation targeting highly questioned the appropriateness of this policy,

stressing on the lack of independence of the Bank of Russia, existence of non-monetary sources of inflation such as state-regulated tariffs, that cannot be influenced by the Central Bank.

Over the past year the inflation targeting policy has grown an increasing support, since Elvira Nabiullina became a head of the Central Bank in June 2013. Inability of the Bank of Russia to take control over the interest rates during the global financial crisis, and dependence on oil prices contributed to disappointment with the existing monetary policy, and changed monetary authorities' opinion towards inflation targeting regime. According to First Deputy Chairwoman Ksenia Yudayeva the major institutional reforms are planned to be finalized in 2014, the year crucial in terms of success of transition to formal inflation targeting in Russia.

During 2009-12, the Bank of Russia further increased the flexibility of its exchange rate policy, decreasing the volumes of foreign exchange interventions. The decline in management of rouble has been an important part of an overall policy of moving towards inflation targeting, and was consistent with a goal to achieve a free-floating currency by 2015, in order to improve economy's resilience to external shocks.

The latest research on the perspectives of transition towards inflation targeting in Russia showed that pre-conditions towards IT began to emerge: Bank of Russia increases its power to influence the monetary sphere by the interest rate management, and the planned gradual transition towards floating exchange rate of rouble is being persistent.

Another core element of inflation targeting framework is independence of the central bank and its accountability, market players must believe that Bank of Russia is ready to undertake commitments and fulfill them. The ability of central bank in Russia to influence market expectations, and its independence from government decisions is still limited.

To summarize, prerequisites for transition to formal inflation targeting in Russia are gradually developing, but not all requirements are met. Introduction of the flexible exchange rate of rouble, resilience of the economy to external shocks, and political support of the inflation targeting will play key role in the success of the policy.

### Conclusions

Most of empirical studies suggest that inflation targeting in general helps countries to attain lower inflation rate levels. Overall conclusion made on the basis of overview of comparative studies suggest that there is a number of benefits of IT,

namely decline of inflation rate levels, inflation and interest rate volatility and fall in inflation expectations. However, there is no strong agreement between scholars on the positive effects of inflation targeting on economic performance both for developed and developing countries. The debate on whether inflation targeting matters is still open, especially on the comparative economic performance in inflation targeting countries, both over time and relative to nontargeting countries.

The discussion on emerging markets and transition economy shows that inflation targeting can be a highly useful monetary policy strategy in some countries.

The evidence of the countries that already adopted inflation targeting shows that this policy can lead to considerable improvements even if the not all pre-conditions were met initially.

The summary made on the basis of recent transition to inflation targeting in developing countries draws lessons for Russia. The policy of moving towards formal inflation targeting seems to be the right way to improve effectiveness of the monetary policy in the era of globalization.

Another important conclusion is that resilience of Russian economy to the external shocks (oil prices fluctuations, political risks) will be a necessary condition for maintaining price stability within inflation targeting framework.

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