

P. S. Kiseleva

Ural Federal University (Yekaterinburg, Russia; [p.s.kiseleva@urfu.ru](mailto:p.s.kiseleva@urfu.ru))

## REGIONAL INFLATION IN RUSSIA AND WAYS OF CONTROLLING IT

*The article focuses on regional inflation in Russia, showing that there are independent regional factors shaping inflation and that there are considerable discrepancies between the levels of regional and national inflation. There is a need for more effective anti-inflationary policy to ensure stable social and economic development of the country and its regions. The problem, however, is that the instruments of anti-inflationary policy targeted at one type of inflation may act as triggers for another type of inflation. Therefore, for a successful anti-inflationary policy we must first identify the factors that contribute to the development of inflation. Otherwise, the anti-inflation measures may cause a rise in prices rather than help the government maintain them at a lower level. We carried out correlation analysis of the interrelation between the consumer price index and inflation rates over the past few years and found that the cost-related factors play a key role in the inflationary processes in Russia and its regions. Therefore, a conclusion was made that monetary methods alone are ineffective to control inflation and recommendations were given for improving regional anti-inflationary policies.*

**Keywords:** inflation, regional inflation, cost factors, natural monopoly, anti-inflationary policy.

### Introduction

Inflation is one of the most acute problems in Russia as it affects the national economy as a whole and individual economic entities. The level of inflation, therefore, is one of the key macroeconomic indicators since it has a direct impact on the cost and quality of life in the country.

Inflation makes calculations more complex and, therefore, leads to mistakes and inaccuracies in financial planning of households and business entities [1]. Even a moderate 5% annual inflation is likely to result in doubling of prices in about 14 years. With the creeping inflation of 11.35%, typical of Russia in 2014, the overall price level will increase more than 4.5 times in the same period while the inflation which reached the level of 13% in 2015 will lead to a six-time increase in the general price level<sup>1</sup>. The above-described situation makes saving and implementing long-term investment projects particularly difficult.

The study of regional inflation reveals discrepancies in the rates of inflation across Russian regions. We need to identify those regional factors that affect inflation in order to avoid inflationary outbursts in regions and develop an efficient anti-inflationary policy.

### Types and characteristics of regional inflation in Russia

Social and economic development of Russian regions is increasingly uneven and there are considerable discrepancies between inflation rates in different regions [2]. In particular, in 2017, the highest level of inflation was recorded in the Republic of Sakha (Yakutia) – 4.44%, and the lowest – in Dagestan, 1.12%. In 2016, the highest inflation was in the Khanty-Mansiysk Autonomous District (Yugra) – 8.52%, and the lowest, in Ingushetia – 2.6%<sup>2</sup>.

Even more significant differentiation of inflation rates was observed in 2015.

At the end of 2015, the highest inflation was found in the Republic of Crimea – 27.64% (26.4% in the Crimean Federal District), which is more than twice as high as the federal inflation rate (12.91%)<sup>2</sup>. It should

<sup>1</sup> Our calculations are based on the data provided by the official website of the Federal State Statistics Service (<http://www.gks.ru>).

<sup>2</sup> Our calculations are based on the data provided by the official website of the Federal State Statistics Service (<http://www.gks.ru>).

be noted that in the case of the Crimea, high inflation stems from the fundamental changes in the region's economy, in particular, its integration into the larger economic space. As a result, the Crimea turned into another subsidized region of Russia. In 2016, the Crimea project was allocated over 40 billion rubles worth of gratuitous revenue from the federal budget, including the subsidies exceeding 20 billion rubles intended 'to equalize the budgetary security'<sup>3,4</sup>. Regarding the amount of gratuitous payments, the Crimea ranks fourth among other Russian regions, following Dagestan, Sakha (Yakutia) and Kamchatka<sup>3</sup>.

The lowest level of inflation in 2015 was recorded in Khakassia (10.33%), the highest (excluding the Crimean Federal District), in Ingushetia (17.54%). Such statistics show significant discrepancies in the rates of price growth across different regions. Similarly, a significant differentiation of inflation rates was observed in the previous period. In particular, in 2014, the inflation rates ranged from 7.46% in the Yamalo-Nenets Autonomous District to 15.6% in Kaliningrad region<sup>2</sup>.

Regional inflation requires the government to adjust its social and economic policies on the federal and regional levels, including the anti-inflationary policies. Our analysis shows that the cost factors play a key role in inflation processes [3]. If we take a closer look at the dynamics of consumer inflation and price indices (tariffs) of natural monopolies, we will find that these indicators are closely connected and, consequently, that non-monetary factors shape inflation in the entire country as well as in specific regions.

The dynamics of quarterly indicators is especially remarkable in this respect because it allows us to take into consideration the time lag of the impact that various factors have on consumer inflation. Moreover, the analysis of quarterly indicators over the past decade has revealed the following pattern: the highest level of inflation is observed in the quarter characterized by an increase in tariffs of natural monopolies. For example, until 2012, the increase in electricity and heating tariffs as well as utility tariffs occurred in the first quarter (in January), and the highest rate of inflation was also observed in this quarter (Table 1). Since 2012, however, there has been an increase in tariffs in the third quarter, which was also characterized by the highest inflation.

Table 1

**Consumer price index in the Russian Federation in 2005-2015, % of the previous period<sup>5</sup>**

Quarter	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
I	105,27	104,98	103,42	104,78	105,42	103,16	103,81	101,46	101,89	102,32	107,44
II	102,72	101,18	102,24	103,96	101,98	101,23	101,19	101,75	101,63	102,5	101,08
III	100,62	101,01	101,86	101,82	100,65	101,84	99,7	101,95	101,22	101,45	101,88
IV	102,31	101,83	104,35	102,72	100,75	102,55	101,4	101,41	101,73	105,08	102,51

The above-described pattern characterizes only national economy but also specific regions, for example, Sverdlovsk region [4].

In order to ensure long-term price stability, in addition to looking at the regional inflation factors, we should address the problem of the disproportional development of the country's economic space. At present, there are considerable differences in the development of Russian regions in the main macroeconomic indicators. Therefore, it is advisable to adjust regional policies in order to make the socio-economic development more balanced.

The growing tariffs on the products of natural monopolies serve as the main catalyst for regional inflation and affect the consumer price index [4]. At the same time, in combination with high freight rates and monopolistically inflated fuel prices, tariffs influence the cost of regional production, increase production cost inflation and are detrimental for local businesses. Therefore, monopolistically inflated prices cause a rise in the general price level, thus exacerbating imbalance in industry as certain sectors by virtue of their monopolistic positions get super-profits while others have to make zero profits or even suffer losses.

<sup>3</sup> Official website of the Ministry of Finance of the Russian Federation (<http://minfin.ru>).

<sup>4</sup> Official website of the Ministry of Finance of the Republic of Crimea (<http://minfin.rk.gov.ru>).

<sup>5</sup> Calculations were based on the data from the official website of the Federal State Statistics Service (<http://www.gks.ru>).

### **Anti-inflationary policy in Russia: methods and approaches**

Discrepancies in regional economies are caused by the deviation of regional inflation rates from the national rate. The problem of regional imbalances regarding tariffs for housing and communal services needs to be addressed through state policies that would enable federal bodies to create their own territorial bodies to regulate tariffs. These territorial bodies should be authorized to conduct operational analysis of regional companies' activities.

It is also necessary to create a single executive body responsible for the development and implementation of the pricing policy as well as vertical agencies regulating tariffs and monitoring companies' compliance with the established pricing procedure. Moreover, we recommend to introduce a unified network system of price monitoring.

Since Russian economy is characterized by substantial unloaded production capacities and the declining production, the aggregate demand should be stimulated by increasing investment through tax cuts and the key interest rate. The current tax policy is unstable and does not contribute to the country's innovative development.

It is possible to make the country's economy more efficient by reducing the tax burden on producers' incomes, including taxes on wages, profits and added value. Furthermore, it is necessary to exempt from taxation the profit that enterprises direct for real investment. Taking into account the peculiarities of national economy, such policy may reduce the average production costs and increase the aggregate demand without a significant increase in the general price level. Decreasing average production costs can be effective in the conditions of cost inflation, which prevails in national and regional economy and should be distinguished from demand inflation.

Fears of a rise in the general price level due to the increase of the aggregate demand are unjustified in the current economic conditions. First, as we have noted above, the development of inflationary processes in national and regional economy is mostly caused by cost factors, and therefore, we can conclude that cost inflation prevails in the country. Secondly, national economy at the current stage of its development is characterized by incomplete employment, unloaded production capacities and declining production.

Consequently, an increase in the aggregate demand in the current economic conditions will not have negative consequences, but, on the contrary, will be beneficial for economy. In addition, there is evidence that an increase in wages entails an increase in the average annual GDP while inflation remains at the same level [5, pp. 144-156]. GDP growth is associated with an increase in labor productivity, which has a greater impact on the volume of production of goods and services, which, in turn, leads to lower prices. Therefore, in Russian economy, inflation does not increase with the growth of the population's income [5, p. 155].

To address the problem of cost inflation and stimulate business activity, another effective method is to reduce tax rates, which will reduce the overall prices level. This measure is favoured by the proponents of the theory of supply economics. V.V.Roshchupkin points out that excessive tax burden can stem from the inefficiency of the tax system [6. P.140]. Thus, mitigation of the tax burden, for example, a partial tax relief will allow enterprises to use their profits for real investment, which will contribute to the growth of economic activity. By increase the aggregate supply, this measure will help the government deal with cost inflation, which is a dominant type of inflation in Russian economy.

From the diversity of anti-inflationary policy models, we should choose only those that are aimed at combating the underlying causes of inflation in the economy of a given country. Different economic schools propose different approaches to the interpretation of the phenomenon of inflation and the assessment of economic conditions, which creates a great diversity of views on what course an anti-inflationary policy should take.

Recently, the need to introduce inflation targeting in Russia has been actively discussed. However, in the conditions of the current economic recession and high unemployment, this method will not be effective, since keeping inflation at bay should not be an end in itself of the economic policy. In addition, there is no evidence that inflation targeting has a positive impact on the dynamics of production output, neither in the short-term nor in the long-term [7. P.107-128]. The same study shows that in developing countries inflation targeting might negatively affect the production output. It should be noted that there is still no clear understanding of how to safely and effectively apply the instruments of inflation targeting [8].

Empirical studies on different countries show that in recent years the effect of exchange rate transfer on inflation has subsided [9, p. 924-947]. Nevertheless, in Russian economy there is a reverse trend: fluctuations in the ruble exchange rate have a strong negative effect on the dynamics of consumer prices, especially in the food sector. In Russia, in the recent years, consumer prices have become more responsive to changes in exchange rates [10].

D. Mihaljec and M.Klau also demonstrate that in developing countries, the impact of the national currency on the development of inflationary processes is stronger than in developed countries [11]. Therefore, it is required, on the one hand, to take measures aimed at strengthening the ruble, and on the other hand, to mitigate the influence of the exchange rate dynamics on inflation. It should be noted that the latter effect is strengthened by inflationary expectations.

According to B.P.Bosworth, cost factors play the main role in regional inflation, which means that it is necessary to take into account its non-monetary nature and to reduce the inflation of costs [12].

Thus, to maximize the effect of an anti-inflationary policy it is necessary to apply an integrated approach: stimulate national production and business activities, which will contribute to the growth of the aggregate supply, and at the same time control the increase in the aggregate demand as a factor of economic growth. It is necessary to strengthen control over natural monopolies' tariffs, which requires some serious institutional changes. In addition to controlling pricing at the federal level, tariffs should also be regulated on the regional level.

More balanced economic development across the regions will enhance the development of the national market and strengthen the unity of the Russian state. Increasing interregional differentiation, on the contrary, makes it difficult to implement a comprehensive social and economic policy successfully, including an anti-inflationary policy.

A number of theoretical models prove that inflation can have a negative impact on the market structure, long-term relationships and their efficiency. R.Benabou and M.Tommasi describe the mechanisms of inflation that may lead to considerable expenses [13; 14]. The extreme cases of lower inflation are the disastrous consequences of hyperinflation. Furthermore, there is a negative interrelation between inflation and investment [15; 16].

### **Conclusion**

A successful anti-inflationary policy requires the government to adopt an integrated approach to the problem. Given the prevailing type of inflation and the current economic conditions, the government's priority should be the stimulation of domestic production and those business activities that contribute to the growth of aggregate supply. It is also necessary to maintain control over the increase in the aggregate demand as a factor of economic growth. We need serious institutional changes in the sphere of natural monopolies in order to establish more rigorous control over their tariffs.

Based on our analysis of the characteristics of the country's economic development and the predominant type of inflation, we would recommend to apply the Keynesian theory and the theory of economic proposals to develop a national economic policy. It would, however, be difficult to combine these two approaches as the former seeks to regulate the aggregate demand while the latter, the aggregate supply. Nevertheless, taking into consideration the current state of Russian economy, we have reasons to expect these measures to be quite efficient.

### **References**

1. Modigliani F., Cohn R.A. (1979). Inflation and the Stock Market. *Financial Analysts Journal*, 35, 24-44.
2. Kiseleva P.S., Ilyashenko, V. V. (2012). Interregional Differentiation of the Inflation Rate in Russia. *Journal of the Ural State University of Economics*, 1 (39), 5-10
3. Ilyashenko, V. V. (2007). Macroeconomic and Microeconomic Factors of Inflation in the Russian Economy Being Transformed: Thesis for the Degree of Doctor of Economics. Ekaterinburg: USUE, 47 p.
4. Kiseleva P.S., Ilyashenko, V. V. (2015). Factors and Dynamics of Inflationary Processes in the Industrial Region. *Journal of the Ural State University of Economics*, 3 (59), 24-29.
5. Sulakshin S. S. (2009). Inflation in Russia: What Kudrin was Wrong About. Moscow. *Nauchny Expert*. 168 p.
6. Roshchupkin V.V. (2016). The Index of the Tax Burden as an Indicator of the Effectiveness of State Fiscal Measures. *Ekonomika, nalogi, pravo*. Issue 2, p. 133-142.

7. Kartaev F.C., Filippov A.P, Khazanov A.A. (2016). Econometric Estimation of Influence of Inflation Targeting on GDP Dynamics. *Journal of the New Economic Association*, 1(29), 107-128.
8. Christian Ebeke, Armand Fouejieu Azangue. (2015). Inflation Targeting and Exchange Rate Regimes in Emerging Markets. IMF Working Papers. European Department, 35 p.
9. Marazzi M., Sheets N. (2006). Declining Exchange Rate Pass-through to U.S. Import Prices: The Potential Role of Global Factors. *Journal of International Money and Finance*, 26(6), 924-947.
10. Shmykova S. V., Sosunov K. A. (2005). The Influence of the Exchange Rate on Consumer Prices in Russia. *Economic Journal of the HSE*, 1, 3-16.
11. Mihaljec D., Klau M. (2001). A Note on the Pass-through from Exchange Rate and Foreign Price Changes to Inflation in Selected Emerging Market Economies. *BIS Working Papers*, 8, 69-81.
12. Bosworth B.P. (2000). Nonmonetary Aspects of Inflation. *Journal of Money, Credit and banking*, 3, 1-12.
13. Benabou R. (1992). Inflation and Efficiency in Search Markets. *Review of Economic Studies*, 59, 299-329.
14. Tommasi M. (1994). The Consequences of Price Instability on Search Markets: Toward Understanding the Effects of Inflation. *American Economic Review*, 84(5), 1385-1396
15. Easterly W., Bruno M. (1998). Inflation Crises and Long-Run Growth. *Journal of Monetary Economics*, 41(1), 187-212.
16. Fischer S. (1993). The Role of Macroeconomic Factors in Growth. *Journal of Monetary Economics*, 32, 485-512.

### **Author**

**Kiseleva Polina Sergeevna** — Senior lecturer of the Department of Economic Theory and Economic Policy, Ural Federal University (19, Mira St., Ekaterinburg, 620002, Russian Federation; email: [p.s.kiseleva@urfu.ru](mailto:p.s.kiseleva@urfu.ru))