The establishment of the inflation target and the corridor of fluctuations of the target: analysis of world trends and practice in Ukraine

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Abstract

The article presents an analysis of global trends in setting the inflation target and the acceptable corridor of inflation target fluctuations. Inflation targeting is an important attribute of the monetary regime of inflation targeting, its main quantitative parameter. The tendency of the inflation targeting regime in 70 countries all over the world are considered, of which 41 countries have official recognition by the International Monetary Fund (IMF) regarding the inflation targeting regime. It was found that most countries set the inflation target at 5% or below, and the level of the corridor of fluctuations in relative terms hovers around 20-50% of the target value. The latest trends related to changes in the monetary policy of the European Central Bank have been studied, recommendations for determining the acceptable corridor of fluctuations of the inflation target in small and open economies on the example of Ukraine are provided.

Keywords: inflation, inflation target, monetary policy, development markets, monetary transmission, prime rates, credit markets, monetary regime.

Introduction

Nowadays, the monetary regime of the inflation targeting is one of the most popular in the world. National legislation entrusts the central bank with the function of maintaining price stability in many countries. The economic growth and support of full employment are sometimes added to the central bank's functions. But it's that model that's gaining popularity, in which maintaining price stability in cooperation with the government, which is responsible for economic growth, especially among central banks that are not issuers of world reserve currencies. By setting an inflation target, the central bank communicates with the market by signaling what inflation rate it wants to see in the future. The actual inflation rate may deviate from the target and the corridor of fluctuation, but, as a rule, in the medium term, the inflation rate should approach the target by entering the corridor. One of the main ideas of the inflation targeting is to influence inflationary expectations of the population and business through the communication with the market by the central bank. But the question arises: what should be the inflation target and the corridor of fluctuations of this target, so that communication tools can best

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influence the expectations of the population and business. The second important issue is the availability and quality of communication

tools of the central bank, able to ensure the delivery of the necessary information to the target audience.

Material and methods

During the study, we used methods: comparison, historical comparison, analogy, historical analogy. Data of 70 countries which are setting inflation targets were processed, of which the IMF recognized 41 countries with the "inflation targeting" monetary regime. The comparison was partly based on the type of the country's market: developed or developing. The comparison took into account that, for example, Ukraine belongs to the small open economies, which has a strong dependence on commodity export prices. The source of the analyzed statistics were central banks, according to news agencies.

A practical example of Ukraine

From 5 calendar years, while in Ukraine operated inflation targeting, inflation did not fall into the corridor of fluctuations for 2 years: in 2017 and in 2018. Most likely, inflation will not fall into the corridor of fluctuations already in the end of 2021 year:

2015 year – actual inflation - 43,3% - target – no data

2016 year – actual inflation - 12,4% - target – 12,0% +/-3,0%

2017 year – actual inflation – 13,7% – target – 8,0% +/- 2,0%

2018 year – actual inflation – 9,8% – target – 6,0% +/- 2,0%

2019 year – actual inflation - 4,1% - target – 5,0% +/- 1,0%

2020 year – actual inflation - 5,0% - target – 5,0% +/- 1,0%

2021 year – actual inflation – 6,5% for 7 months – target – 5,0% +/-1,0%

Quite frequent failure to hit the target and the allowable range for inflation targeting does not add confidence to the inflation target of the NBU. At the same time, it would be fair to assume that the non-targeting of consumer inflation in Ukraine is usually due to force majeure circumstances that do not depend on the monetary component. Although the

effectiveness of the monetary regime of inflation targeting since 2015 has been proven by the practice of low inflation in 2019-2020, it must be acknowledged that Ukraine continues to be a country:

- With a small, open and raw materials economy, where the risk of external shocks in the domestic market is greater than in most countries with developed domestic markets. The current level of development of the structure of sectoral markets and tools for monetary policy, available to the NBU, reduces the likelihood of successful resistance to external shocks;
- With a fairly underdeveloped financial market, where the forward market is just beginning to take shape, and some of its segments (including securitized assets) are absent, which reduces the efficiency of monetary transmission and limits the use of the central bank discount rate as the main instrument of monetary policy.

Two factors point to the need to widen the corridor of fluctuations in the inflation target in the light of current global trends, especially in countries where the International Monetary Fund (IMF) has recognized inflation targeting as the official monetary regime.

Global trends in the establishment of a fluctuations corridor in the inflation target

Monitoring of data on the dynamics of the target by central banks showed that in 2021, compared with 2020, of the 41 countries in which the inflation targeting regime is recognized by the IMF, 3 countries have reduced the inflation target: Brazil (from 4.0% to 3.75%), Indonesia (from 3.5% to 3.0%) and Thailand (from 2.5% to 2.0%). The increasing in the inflation target was not recorded, as a year ago. It is important to note that Brazil in 2019 had an inflation target of 4.25%, ie we observe for 2 consecutive years a decrease in

this indicator in Brazil, which, incidentally, has suffered quite a lot from the COVID-19 recession (table 1).

It should be noted (table 1) that as of early August, a number of countries in which the inflation targeting (IT) regime was recognized by the IMF, had the opportunity to support inflation more than in Ukraine: Ghana (10%), Moldova (6, 5%), Turkey (7%), Uganda (7%) Uruguay (7%). Of the 30 countries that declared their commitment to the inflation targeting regime, the target was higher in such countries as Egypt (9%), Kyrgyzstan (7%), Nigeria (9%), Mongolia (8%) and Tajikistan (9%), Rwanda (8%), Zambia (8%) than in Ukraine. That is, the upper limit of the inflation target range in Ukraine was at a level that was far from "world records" compared to other countries, and could be increased to 7-8%.

Table 1. Inflation target in 2020-2021, data for July 12, 2021

COUNTRY	2021	Relative deviation	2020	Relative deviation
ALBANIA	**3.00% +/-1%**	**33,3%**	**3.00% +/-1%**	**33,3%**
ARMENIA	**4.00% +/-1.5%**	**37,5%**	**4.00% +/-1.5%**	**37,5%**
AUSTRALIA	2.00% - 3.00%	20,0%	2.00% - 3.00%	20,0%
AZERBAIJAN	4.00% +/-2.0%	50,0%	4.00% +/-2.0%	50,0%
BOTSWANA	3.00% - 6.00%	33,3%	3.00% - 6.00%	33,3%
BRAZIL*	**3.75% +/-1.5%**	**40,0%**	**4.00% +/-1.5%**	**37,5%**
CANADA	**2.00% +/-1.0%**	**50,0%**	**2.00% +/-1.0%**	**50,0%**
CHILE	**3.00% +/-1.0%**	**33,3%**	**3.00% +/-1.0%**	**33,3%**
CHINA	around 3.00%	-	around 3.00%	-
COLOMBIA	**3.00% +/-1.0%**	**33,3%**	**3.00% +/-1.0%**	**33,3%**
DEM. REP. CONGO	7.00%	-	7.00%	-
COSTA RICA	**3.00% +/-1.0%**	**33,3%**	**3.00% +/-1.0%**	**33,3%**
CZECH REPUBLIC	**2.00% +/-1.0%**	**50,0%**	**2.00% +/-1.0%**	**50,0%**
DOMINICAN REP.	**4.00% +/-1%**	**25,0%**	**4.00% +/-1%**	**25,0%**
EGYPT*	7.00% +/-2%	28,6%	9.0% +/-3%	33,3%
ESWATINI	3.00% - 7.00%	40,0%	3.00% - 7.00%	40,0%
EURO AREA*	2.00%	-	<2.00%	-
GAMBIA	5.00%	-	5.00%	-
GEORGIA	3.00%	-	3.00%	-
GHANA	**8.00% +/-2.0%**	**25,0%**	**8.00% +/-2.0%**	**25,0%**
GUATEMALA	**4.00% +/-1.0%**	**25,0%**	**4.00% +/-1.0%**	**25,0%**
HUNGARY	**3.00% +/-1.0%**	**33,3%**	**3.00% +/-1.0%**	**33,3%**
HONDURAS	4.00%+/-1.0%	25,0%	4.00%+/-1.0%	25,0%
ICELAND	2.50%	-	2.50%	-
INDIA	**4.00% +/-2.0%**	**50,0%**	**4.00% +/-2.0%**	**50,0%**
INDONESIA *	**3.00% +/-1.0%**	**33,3%**	**3.50% +/-1.0%**	**28,6%**
ISRAEL	**1.00% - 3.00%**	**50,0%**	**1.00% - 3.00%**	**50,0%**
JAMAICA	4.0%-6.0%	20,0%	4.0%-6.0%	20,0%
JAPAN	2.00%	-	2.00%	-
KAZAKHSTAN	4.00%-6.00%	20,0%	4.00%-6.00%	20,0%
KENYA	5.00% +/-2.50%	50,0%	5.00% +/-2.50%	50,0%
KYRGYZSTAN	5.00%-7.00%	16,7%	5.00%-7.00%	16,7%
MALAWI	5.00%	-	5.00%	-
MEXICO	**3.00% +/-1.0%**	**33,3%**	**3.00% +/-1.0%**	**33,3%**
MOLDOVA	**5.00% +/-1.5%**	**30,0%**	**5.00% +/-1.5%**	**30,0%**

COUNTRY	2021	Relative deviation	2020	Relative deviation
MONGOLIA*	6.00% +/-2%	33,3%	<8.00% +/-2%	25,0%
MOZAMBIQUE	5.60%	-	5.60%	-
NEPAL	6.00%	-	6.00%	-
NEW ZEALAND	**2.00% +/-1.0%**	**50,0%**	**2.00% +/-1.0%**	**50,0%**
NIGERIA	6.00% - 9.00%	20,0%	6.00% - 9.00%	20,0%
NORWAY	2.00%	-	2.00%	-
PAKISTAN	6.00%	-	6.00%	-
PARAGUAY	**4.00% +/-2.0%**	**50,0%**	**4.00% +/-2.0%**	**50,0%**
PERU	**2.00% +/-1%**	**50,0%**	**2.00% +/-1%**	**50,0%**
PHILIPPINES	**3.00% +/- 1.0**	**33,3%**	**3.00% +/- 1.0**	**33,3%**
POLAND	**2.50% +/-1.0%**	**40,0%**	**2.50% +/-1.0%**	**40,0%**
ROMANIA	**2.50% +/-1.0%**	**40,0%**	**2.50% +/-1.0%**	**40,0%**
RUSSIA	4.00%	-	4.00%	-
RWANDA	5.00% +/-3%	60,0%	5.00% +/-3%	60,0%
SAMOA	3.00%	-	3.00%	-
SERBIA	**3.00% +/-1.5%**	**50,0%**	**3.00% +/-1.5%**	**50,0%**
SOUTH AFRICA	**3.00% - 6.0%**	**33,3%**	**3.00% - 6.0%**	**33,3%**
SOUTH KOREA	2.00%	-	2.00%	-
SRI LANKA	4.00% - 6.00%	20,0%	4.00% - 6.00%	20,0%
SWEDEN	2.00%	-	2.00%	-
SWITZERLAND	<2.00%	-	<2.00%	-
TAJIKISTAN	7.0% +/-2.0%	28,57%	7.0% +/-2.0%	28,57%
TANZANIA	5.00%	-	5.00%	-
THAILAND*	**1.00% - 3.00%**	**50,0%**	**2.50% +/-1.5%**	**50,0%**
TONGA	5.00%	-	5.00%	-
TURKEY	**5.00% +/-2%**	**40,0%**	**5.00% +/-2%**	**40,0%**
UGANDA	**5.00% +/-2.0%**	**40,0%**	**5.00% +/-2.0%**	**40,0%**
UKRAINE	**5.00 +/- 1%**	**20,0%**	**5.00 +/- 1%**	**20,0%**
UNITED KINGDOM	2.00%	-	2.00%	-
URUGUAY	**3.00% - 7.00%**	**40,0%**	**3.00% - 7.00%**	**40,0%**
USA	2.00%	-	2.00%	-
UZBEKISTAN	5.00%	-	5.00%	-
VIETNAM	<4%	-	<4%	-
WEST AFRICAN STATES	2.00% +/-1%	50,0%	2.00% +/-1%	50,0%
ZAMBIA	6.0% - 8.0%	14,3%	6.0% - 8.0%	14,3%

Source: centralbanknews.info, IMF, data from central banks

It should also be noted that when establishing the fluctuation corridor, the upper and lower ranges have not only such a characteristic as the absolute deviation, which is usually expressed in percentage points, but also the relative deviation, which is expressed as a percentage. So, the analysis of global statistics showed that among the countries in which the IMF officially recognized the IT regime, Ukraine had one of the lowest relative deviations of the fluctuation corridor at 20%. Of the 41 countries where the IMF has recognized IT as the monetary regime, 30 countries had a relative deviation of the fluctuation corridor more than in Ukraine. It is necessary to pay attention to the current inflation target: in Turkey, Uganda and Uruguay – 5% +/- 2.0 p.p. (40%). Here is the notable data for India and Paraguay 4% +/- 2.0 p.p. (50%), Brazil 3.75% +/- 1.5 p.p. (40%). It is

obvious that the financial markets of Brazil, India and Turkey are more developed than the Ukrainian one, and the economies of these countries are less open to the effects of external shocks.

Notes:

• *In the countries highlighted in yellow, the IMF has officially recognized the inflation targeting regime as a monetary regime, according to the Annual Report on Exchange Arrangements and Exchange Restrictions 2019 10/08/2020.*

• *Countries in semi-bold had a relative deviation of the fluctuation corridor more than in Ukraine*

• *In countries marked with "*", the inflation target changed upwards or downwards.*

Summing up the analysis of world practice on the establishment of the inflation target and the corridor of fluctuations of such a target, it is necessary to highlight several identified trends:

- in 2020/2021, when observing 70 countries (including the euro area), 3 cases were recorded when the inflation target was reduced;

- of the 41 countries in which the IMF officially recognized the IT regime, only 10 countries had a higher target or the same as in Ukraine, in the other 31 countries it was lower than the Ukrainian;

- out of 70 countries that set an inflation target, 23 countries had a higher or the same target as Ukraine;

- the corridor of target fluctuations in relative terms among 41 countries with officially recognized IT regime in 30 countries was much larger than in Ukraine;

- with a decrease in the inflation target in absolute terms, the corridor of permissible fluctuations in relative terms also increased, but there was a group of countries in which were the similar to the Ukrainian target but the corridor of fluctuations in relative deviation was much larger than the Ukrainian 40-50% (in Ukraine 20 %).

Additional factors to consider

Taking into account the results of the analysis of global trends in the setting of the inflation target and the fluctuation corridor, it should be taken into account that the size of the target itself should have:

- economic basis and be a compromise between the factor of price stability and economic growth;

- take into account inflationary processes in the economies of trading partners countries.

The corridor of fluctuations in the inflation target should not play the role of artificially increasing or decreasing inflation, but should be realistic to achieve, taking into account the available tools of the central bank. Too narrow corridor would lead to more frequent non-target inflation, too wide corridor is likely to lead to a loss of targets for producers and consumers in the domestic market (of course, if economic agents focus on the official level of consumer inflation).
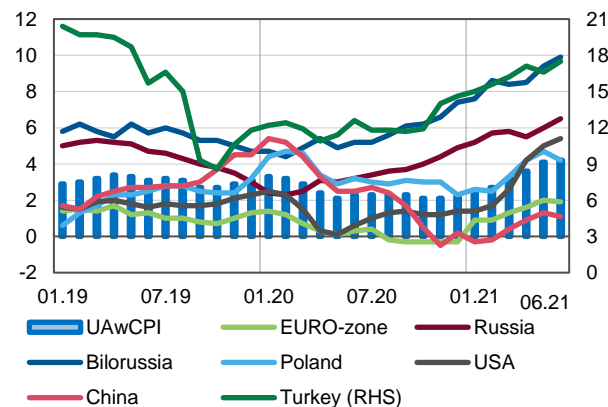
Fig. 1. Data on inflation in the MTP countries (main trading partners of Ukraine) and the average consumer price index in the MTP countries – UAwCPI,
Source: the NBU inflation report for July 2021

If you look at the level of average consumer inflation in Ukraine's trading partners, it rose in June 2021 to a record 4.2%, although in the second half of 2020 it did not exceed 2.5%. In June, the main inflation peak was observed in Russia 6.5% (target 4%), Turkey 17.5% (target 5%), Belarus 9.9%, Poland 4.2% (target 2.5%) and the United States 5 .4% (target 2%).

Fundamental changes in the euro area

Among the MTP countries, only the euro area has followed the 2% target, but in 2021 the ECB changed the formulation of the inflation target from "up to 2%" to "about 2%" in the medium term, assuming that inflation may exceed 2%. The changes took place on July 8, 2021 and indicate that the ECB has taken a step towards liberalizing the inflation targeting regime. The 2% figure, according to the ECB, is "symmetrical", i.e. both positive and negative deviations from it will be assessed as "undesirable".

However, as 2% becomes a "symmetrical target" in the medium term, the markets perceived this change in the ECB's strategy (the first since 2003) as a signal to a possible excess of inflation in the euro area of 2%.

Countries with small and open economies on the EU border, such as Ukraine, cannot ignore either the dynamics of inflation in trading partner countries or the changes that the ECB has made for the first time since 2003. The euro area is a promising trading partner of neighboring countries, the share of which will increase over time. Given the growth of UAwCPI and the liberalization of the IT regime in the Eurozone, a number of proposals will be relevant for Ukraine.

Results and discussion

Our study allowed us to develop a number of recommendations for countries with small, open and commodity economies, which may be worth listening to when implementing the inflation targeting regime.

Firstly, countries with small economies do not need to try to set the lowest target with the narrowest possible corridor. If we are talking about a country with an underdeveloped financial market and problems in the operation of monetary transmission, the corridor should be set at 50% of the target.

Secondly, when setting the inflation target, it is necessary to clearly link it with the dynamics of inflation in the trading partner countries, taking into account the forecast of such inflation. If inflation in your country is higher than inflation in trading partner countries, it is likely that in the medium term this situation will affect the exchange rate. It is also not necessary to set a target much lower than inflation in trading partner countries. The target must be balanced.

Thirdly, central bank communications must be ready for inflation targeting. It is necessary to understand that not only the network of communication channels should work, but also it is necessary to achieve trust and purity of perception of communications at the moment of change of the discount rate. The target audience for such communication is all important economic agents: government, business, population. The effectiveness of such communications must be constantly measured.

Fourthly, despite the fact that we found 3 out of 70 cases of lowering the inflation target in 2020/2021, it should be understood that the COVID-19 recession has seriously affected the actual inflation in the world and most likely inflation in the "Central and Eastern Europe" region by the end of 2021 will be much larger than expected. This was not a reason to increase targets, but technically it could be a good time to review the monetary strategy to target inflation.

Given what target is currently set in most developed countries, the central bank of each country with an emerging market should try to achieve the ability to set the target at 2%, +/- 1.0 p.p. However, this achievement must be gradual. The country must go through serious stages of preparation for a low target with a narrow corridor, in particular, such stages should include the development of the national financial market and the preparation of the communications system.

Conclusions

Summing up the results of the study, it should be noted that the monetary regime of inflation targeting remains a universal monetary regime to perform one of the main functions of central banks – to maintain price stability. However, it should be recognized that the success of the use of inflation targeting depends on the extent to which the strategy and tactics chosen by the country's central bank correspond to the characteristics of the national (local) economy and the degree of financial market development. The experience of 70 inflation-targeting countries shows that there is no general optimal target level, nor is there a corridor for its fluctuations. The set target should be achievable, and the corridor should be such that market participants, economic agents can trust it. Confidence in the actions of the central bank is the basis of inflation targeting and at the same time a subjective component, which is difficult to measure regularly, but on which depends the behavior of major economic agents.

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