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SPECIAL DEVELOPMENT FEATURES OF THE NATIONAL BANK OF UKRAINE MONETARY POLICY IN THE FRAMEWORKS OF FINANCIAL SYSTEMS MANAGEMENT

Vasyl V. Rossikhin
DrSc. in Law, Professor, Vice-Rector,
Kharkiv National University of Radio Electronics, Kharkiv, Ukraine
Vasyl.rossikhin@nure.ua
ORCID: 0000-0003-3423-8896

Halyna V. Rossikhina
DrSc. in Law, Professor, Department of State Law Disciplines,
V.N. Karazin Kharkiv National University, Kharkiv, Ukraine
rossikhin@ukr.net
ORCID: 0000-0001-8436-049X

Anatoliy V. Babichev
Ph.D. in Public Administration, Ass. Prof., Vice-Rector,
V.N. Karazin Kharkiv National University, Kharkiv, Ukraine
babichev@karazin.ua
ORCID: 0000-0002-7587-4824

Valentyna V. Kyriy
PhD. in Economics, Ass. Prof.,
Kharkiv National University of Radio Electronics, Kharkiv, Ukraine
valentyna.kyriy@nure.ua
ORCID: 0000-0002-2537-264X

Iryna M. Bondarenko
PhD. in Law, As.Prof., Yaroslav Mudryi National Law University, Ukraine, irina.bon.kh@gmail.com
ORCID: 0000-0001-6561-9857

Tamara A. Latkovska
DrSc. in Law, Professor, Chernivtsi Institute of Law of the NU "OLA", Chernivtsi, Ukraine
tamaralatkovska@gmail.com
ORCID: 0000-0003-3159-5994

Abstract

The development of emerging economies banking system is rather uneven and it largely exposes the political, military and social cataclysms that occur in these countries. However, the global experience of such a financial system managing contains a list of instruments. These mechanisms make it possible to transform the financial system of such states into a more flexible one to price

shocks and changes in the external environment. The global financial crisis of 2008 and 2009 years, deep involvement and dependence of emerging economies countries' financial systems have substantially and rigorously covered the status and problems of their central banks' activity.

Empirical observations and researches on the effective mechanisms of post-crisis management of financial systems indicate a positive experience. However, most developed economies countries and emerging economies countries are facing problems of the financial system.

Keywords: financial system, post-crisis management, banking, inflation.

Introduction

The financial turbulences in the period of the crisis and the post-crisis period have provoked a further deepening of studies on assessing the possible limit of central bank's independence. The works of Blanchard et al. (2010,2013), Eichengreen et al. (2011), Bayoumi et al. (2014) are devoted to the analysis of systemic financial risks, the level of central bank's independence required to ensure the financial stability. The issues of developing central bank's interaction design models with major economic and social elites, government and economic agents becomes more acute as more options for implementing and maintaining financial stability are considered. Identification of macroprudential regulation as a specialized method of pursuing financial stability that is aimed at achieving financial stability has become one of the stages of exploring new behaviors of the prime regulator and determining the limits of its democratic control, accountability or concentration of power. Working documents of the International Monetary Fund, such as the Ueda K., Valencia F. (2012) research summarize this experience.

Third Basel Accord, which was developed after the crisis, entered into force in 2010-2011, with a prolongation until 2021. It provides the regulatory functions for developing a banking system and the introduction of effective supervisory procedures against financial institutions to block the occurrence of systemic risks. This document helps to mitigate banking risks at the level of particular elements of a banking system to prevent the financial collapse of its particular elements. The determination of the effectiveness of the implemented risk prevention mechanism can be investigated starting from next year when all the basic concepts of the Basel III Accord will be implemented.

Financial policies researchers of sustainable development countries point to a decrease in long-term assets and real interest rates. Rachel L., Smith T. (2015) and Thwaites G. (2015) study the causes and consequences of this trend in the UK, recognizing this issue as a problem. Similar questions arise in the United States of America, Canada, and Australia.

However, there are several strategic issues besides those which are mentioned above. They deal with the introduction of additional mechanisms to ensure a consistent market position of the national banks of emerging economies countries. It is related to several specific features of the financial systems of such countries. Namely, with an economy's degree of openness, the impact of price shocks on the activities of financial institutions, currency volatility, excessive carryover effects, macroeconomic, social, political, and sometimes military instability. Ukraine has all the features of financial instability. However, the consistent policy of the National Bank of Ukraine has allowed it to decide on a set of instruments that indicate a direct infallible course of fulfillment of obligations to all creditors.

Main results

Global changes in the Ukrainian banking sector, which have been occurring since 2014, can be approximately divided into two parts:

- those which are directly related to banks – this is a Cleaning Policy;
- those which are related to monetary regulating mode – transition to a floating exchange rate and active usage of the discount rate to regulate the macroeconomic situation in the country.

The importance and necessity of each of these parts in Ukrainian scientific literature have often been disputed, but evaluative judgments are not the key point in this article. It is necessary to lead a deeper analysis of the changes in the relevant context in order to show the transformation of the system.

The National Bank of Ukraine supervises and controls the implementation of regulatory acts related to banking by banks in accordance with the legislation. In response to the toughest challenges for the banking system, compared to the magnitude of the challenges of the 2008-2009 financial crisis, and to comply with a signed Memorandum with the International Monetary Fund, the NBU is announcing a three-tier reform, which contains the following steps:

- Cleaning;
- Reloading;
- Sustainable Development.

1. **Cleaning Policy**

The IMF Memorandum focused central attention on banking issues in the spring of 2014. This document identified obligations to introduce the additional bank diagnostics, asset quality assessments and a number of stress tests. The necessity of the steps above can be confirmed for several reasons:

- the outflow of deposits of individuals due to the aggravation of the political situation. According to
  NBU statistics for 2014, a number of deposits in UAH decreased by 18%. The outflow of foreign currency deposits is much more complicated than national currency deposits which are exacerbated by external factors. The banking sector of Ukraine lost $ 16.2 billion in 2014-2015 US deposits or 55.1% of all foreign currency deposits at the beginning of 2014.
- increase in defaults on loans as a consequence, an increase in the proportion of insolvent and
  undercapitalized banks. Therefore, during 2014 – the first half of 2015 (the most critical period), the interim administration was introduced into 51 banks, which resulted in the loss of US $ 6 billion of depositors' money.
- a serious problem with banks whose activities could be connected with the unlawful initiatives of their
  owners. Special featured and methods of combating against illegal actions during 2014-2020 were shown in the «Development Strategy of the Prevention and counteraction to legalization (laundering) of proceeds from crime, terrorist financing and the financing of proliferation for the period until 2020».

Spoilage of the financial sector of Ukraine was confirmed by world ratings. Ukraine ranked last 138-th position according to the «Trust in Banks» indicator according to the Global Competitiveness Index 2016-2017 [13].

The signing of the IMF Agreement resulted in the development of a new Stress Testing and its conduction in the spring of 2015 (Diuba, Y., Murina, H. (2015)). The first stage of Stress Testing was intended to estimate the assets of the banking system, and conducting a Stress Test was provided by the second stage. Testing itself is one of the elements of cooperation between the Ukrainian financial system and the International Monetary Fund and the tests themselves have been developed jointly. Testing was conducted for the first time on a three-tier structure. It included an assessment of the banking system, an assessment of the creditworthiness of the largest lenders and an assessment of bank loan portfolios. The National Bank of Ukraine conducts stress testing regularly for large banks starting from this period. It also publishes the results of the financial position checking of major banks on the website. This spet increases confidence in the main regulator and the public's awareness of the system.

The Cleaning Policy finished in March 2016. It provoked a range of negative consequences for the country exactly in a short-lasting period:

- a lot of social tension increase due to the closure of banks with a large number of depositors, especially noticeable in the media were the situations with Khreschatyk and Mikhailovsky Bank;
- deepening of the described problem due to insufficient compensation to individuals despite the existence of the Deposit Guarantee Fund;
- a lack of full payment on deposits to legal entities;
- the increase in a share of the bad loans, caused by the closure of banks and the inability to pay the loans to both individuals and legal entities.

Regarding the aforementioned in 2016, the Action Program was developed to improve the situation – «Banking System Development Strategy 2016-2020». Analyzing this strategy, we can distinguish the following steps taken by the NBU to achieve the stage of «Sustainable Development»:

- raising the capital of bank requirements: The National Bank planned to increase the regulatory minimum capital r equirement from 120 to 300 UAH million until 2018. However, the inertia of financial institutions does not allow for a balanced transition. As of the beginning of 2020, almost half of the banks have registered capital of less than UAH 300 million;
- reduction of opportunities for early withdrawal of deposits;
- facilitate de-dollarization of deposits. The NBU planned to increase the amount and share of deposits of local currency up to 80% of all deposits of a physical person. However, the share of deposits in the national currency has been no more than 60% by 2020. There is a steady tendency to de-dollarize loans to individuals.;
- a significant reduction of interest rates on loans and deposits. It was expected that real interest rates will be maintained at 3 to 4% on deposits and 7 – 9% credits;
- becoming investment and mortgage lending, small and medium business lending as priority activities;
- formation of a regulator for the whole financial market. Credit unions, loan offices and pawnshops was planned to attract under the supervision of the NBU before the end of 2014, insurance companies – to mid-2015, and securities market – until mid-2016;

- introduction of a special mode of regulation, monitoring and support to systemically-important banks;
- conducting new series of Stress Tests of the banking sector;
- disclosure of information about owners of financial institutions;
- increasing the share of foreign capital. The Bank aims to increase the share of foreign capital in the banking system to 50% and reduce a role of a state in its banking sector to below 10% by 2020.

Most of these steps were implemented by 2020. However, it is worthwhile to return to another global change, namely the transition to a floating exchange rate. Overall, the main indicators prove that some positive changes in the banking sector occurred during 2017-2019. However, the speed of banking system stability has not reached its planned state. Work is currently underway to develop new regulatory capital calculation rules and capital needs to cover the operational risk and NSFR long-term liquidity ratios within the framework of harmonization of banking regulation and supervision of the NBU with EU legislation requirements.

2. Floating Exchange Rate

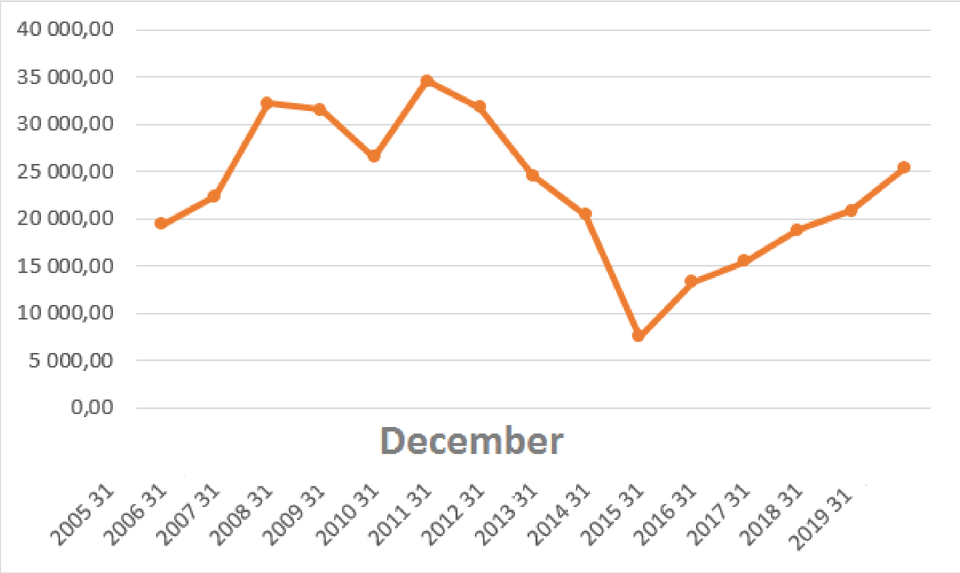
Until 2014, the fixed exchange rate mode with possible deviation of not more than 2.25% was the main one in Ukraine.

This mode was based on the following features:

- the general price stability, which enables the participants of foreign economic activity for planning and price formation;
- the greater stability of the state budget execution due to almost no fluctuations. The consolidated budget state will not change if all conditions are equal;
- the stable balance of payments ensuring, which is still an advantage in case of Ukraine;
- possible usage as an anti-inflation tool. After all, this mode increases the public's confidence in the national currency, which lowers inflation possibility.

In 2014, during the active political crisis, the shortcomings of this mode began to emerge more actively, including:

- a difficulty of determining an optimal exchange rate and inability due to a number of legal problems, to respond to market situations in a timely manner, which led to an unjustified Ukrainian hryvna exchange rate;
- a necessity for significant accumulation of foreign exchange reserves in order to carry out permanent foreign exchange interventions to support the established exchange rate, which leads to the depletion of gold and foreign exchange reserves. The reserves fell significantly and reached their historic lows between 2010 and 2014 (Picture 1).



Picture 1 – The volume of foreign exchange reserves of the NBU, million USD

From the beginning of 2015, it became necessary to change the course to floating. It changes freely under the influence of supply and demand. The introduction of stringent monetary policy was preceded by an awareness of the loss of meaning in daily currency auctions. The difference between «floating» and «freely floating» exchange rates is that the former leaves the central bank the opportunity to intervene frequently in the foreign exchange market (though without explicit goals for setting certain exchange rates), (IMF, 2014).

The solution was justified by the fact that the floating mode has a number of positive consequences, which, in fact, solves the problems associated with the fixed mode:

- in the conditions of flexible exchange rates, gold and foreign exchange reserves are not spent, but on the contrary, there is an opportunity to accumulate them;
- due to constant fluctuations in the exchange rate, the population gradually withdraws from deposits in foreign currencies, in particular in dollars, which contributes to the de-dollarization of the economy;
- a possible devaluation of a national currency, which makes assets cheaper for foreign investors. An extremely favorable price can cause an inflow abroad investments.

Although such a transition has led to a number of other negative effects that could to some extent be observed in the period from 2014 to 2020:

- rising prices for imported goods and, accordingly a steady rise in the level of inflation;
- a margin widening between exchange rates for buying and selling currency at banks and exchange offices. The more significant the fluctuations in the course, the wider the margin;
- increase in currency speculation, which may cause a national currency to be unreliable for the current situation in the country;

- funding losses by people who have deposits in foreign currency. The fact is that government deposit guarantees extend to the equivalent of a national currency deposit. However, it always changes;
- constant fluctuations in the exchange rate, which at the same time affect inflation expectations.

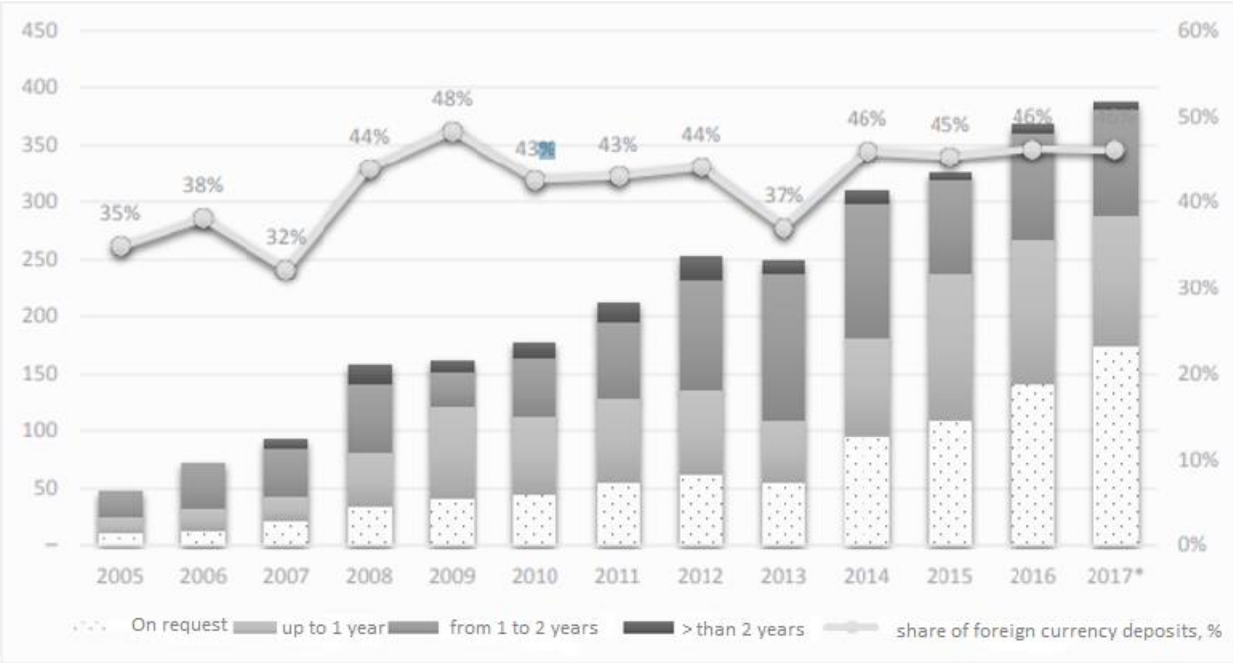
Combining all the above aspects of each part of the transformation of the Ukrainian financial system, we can distinguish the two most influential consequences, especially in the context of the population:

- falling of the confidence into the banking system;
- a national currency inflation and destabilization.

1. **Confidence lose in banks**

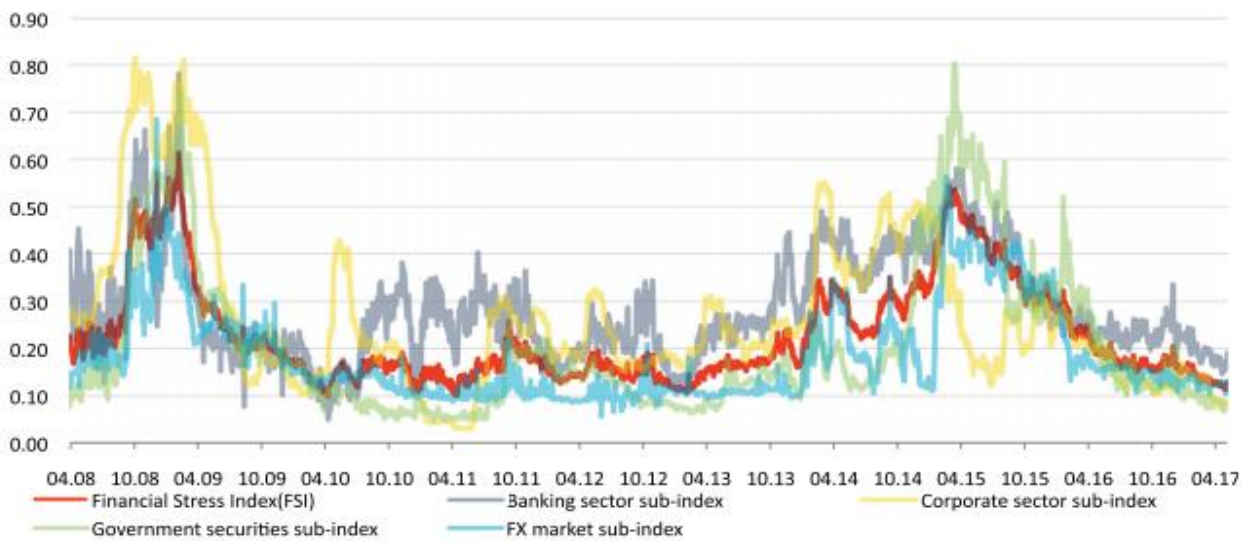
The NBU Financial Stability Report (December 2016) sets out individuals' trust in banks: individuals' confidence in banks is the percentage change in the deposits of individuals over the 30 days preceding the settlement date. It is calculated separately on deposits in national and foreign currencies (translated into dollar equivalent). Also, it is weighted by their share in all deposits. The higher the change, the higher the trust. To confirm the view that confidence is falling, we can examine the dynamics of deposits, their structure, and their share of people's savings and money.

According to NBU data, the number of deposits in monetary terms has been steadily increasing over the period 2005 to 2016, except for 2010. However, these statistics are based on the national currency. And given the changes in the rate since 2014, we can say that the volume of deposits is decreasing. This thesis can be confirmed by referring to other statistical information "Household deposits by maturity". Picture 2 shows an increase in the number of demand-settled deposits. That is, by investing money, the population favours those deposits that can be withdrawn at any time. This situation indicates the distrust of the population in the banking system in general and deposits in particular.



Picture 2 – Structure of deposits in Ukrainian banks (according to NBU data)

Similar subjective judgments can be justified by indicators of the Financial Stress Index. Quantitatively measured confidence of individuals in the banking system is one of three indicators that are included in the sub-index of the banking sector, which in turn is one of the four components of the index itself. The higher the score, the worse the situation. And as we can see (Picture 3) the confidence in the system has decreased since 2014 (it is conventionally assumed that the shape of confidence dynamics indicator is close to that of the corresponding sub-index).



Picture 3 – Dynamics of Financial Stress Index

A detailed overview of the change in such an index is provided by L. Tishchenko, A. Chaybok (2017). However, it should be emphasized that at the end of 2019, the regulator has published new index data, indicating that its value has reached its historical low and indicates confidence in the financial system at the pre-crisis level. The consequences of this situation were noted above.

2. **Inflation and destabilization of the national currency**

Inflation rates can be determined by several indicators. However, this article focuses on the Consumer Price Index. Ukrainian scientce literature considers this indicator most often because it more accurately portrays the situation in the country.

According to Table 1, it can be observed that this index increased rapidly in 2014 and reached its maximum value of 143.3 at the end of 2015. This problem was solved. The change was about 8% as of September 2016.

Table 1 - Summary table of consumer price indices for recent years (%)

Period	2013	2014	2015	2016	2017	2018	2019
January	100,2	100,2	103,1	100,9	101,1	101,5	101,0
February	99,9	100,6	105,3	99,6	101,0	100,9	100,5
March	100,0	102,2	110,8	101,0	101,8	101,1	100,9
April	100,0	103,3	114,0	103,5	100,9	100,8	101,0
May	100,1	103,8	102,2	100,1	101,3	100,0	100,7
June	100,0	101,0	100,4	99,8	101,6	100,0	99,5
July	99,9	100,4	99,0	99,9	100,2	99,3	99,4
August	99,3	100,8	99,2	99,7	99,9	100,0	99,7
September	100,0	102,9	102,3	101,8	102,0	101,9	100,7
October	100,4	102,4	98,7	102,8	101,2	101,7	100,7
November	100,2	101,9	102,0	101,8	100,9	101,4	100,1
December	100,5	103,0	100,7	100,9	101,0	100,8	99,8
Per year	100,5	124,9	143,3	112,4	113,7	109,8	104,1

And besides its solution to the problem of rising prices, it has allowed overcoming of several other negative consequences:

- an existence of Tanzi-Oliver effect: high inflation creates an incentive to postpone paying taxes because this time is the depreciation of money is benefited the taxpayer. What may increase the deficit of the state budget;
- a decline of public confidence in the banking system;
- a growing level of unemployment in the country, based on the Phillips curve;
- an existence of additional barriers for long-term investment because of the unstable high inflation is often seen as an indicator of General instability in the economy.

The specified bridging was achieved through the introduction of a policy of inflation targeting. According to the roadmap of the National Bank of Ukraine with the transition to inflation targeting, at the end of 2016, the inflation rate had to be about 12%, and at the end of 2017 – 8%. Although the first target was achieved by the end of 2017, the consumer price index was at the level of 13.7%.

The following actions have been taken to achieve this goal:

- smoothing excessive exchange rate fluctuations through foreign exchange interventions (a mechanism similar to the one that was described in a fixed exchange rate);

- the direction of monetary policy solely on price stability target and prevent the usage of equity funds for financing fiscal and quasi-fiscal needs;
- bringing administratively-controlled prices to market-based levels.

Besides, one of the key actions was the usage of the discount rate as a tool of interest rate policy.

Let’s consider two systems that partially served as examples during the introduction (European and American) for a better understanding of this process in Ukraine.

The European Central Bank uses a corridor system of interest rates. The boundaries of the corridor set interest rates on permanently available operations: upper limit of the corridor is the interest rate on «overnight» loans, the lower boundary of the corridor is the interest rate on the «overnight» deposit. The discount rate itself is a flat rate in auctions.

In addition to achieving the ECB’s objective on price stability and the implementation of the impact on market interest rates in the Euro area was introduced the asset purchase program (public and private securities), which continues to operate.

In the United States a similar mechanism. The Federal Reserve determines the range of interest rates on federal funds, as unstable conditions to reach the target values of interest rates on interbank loans is almost impossible. This range is adjusted based on the approved discount rate, the target value of which is reviewed 8 times a year.

The introduction of such a system was implemented in 2015 by Kazakhstan. For instance, in Kazakhstan the base rate level is the target value of the targeted interbank short-term money market rate which exists in order to achieve the objective of ensuring price stability over the medium term. And the targeted interbank short-term money market rate is the average weighted interest rate on one-day open-ended repo transactions concluded in the Stock Exchange of Kazakhstan automatic repo sector – the TONIA indicator. By changing the base rate and conducting open market transactions, the National Bank of Kazakhstan influences the interim target - one-day repo rate and then money market rates.

It should be noted that since 1990 when the inflation targeting regime was introduced in Chile more than 20 countries have implemented this mode with different levels of success (75 % – emerging economies). However, most of them managed to get closer to the target, and acquired experience enables countries are beginning to implement this mode to better decisions and empirically confirmed trends. Inflation targeting in emerging markets transforms under the influence of economic development, institutional maturation and shift global environment. However, the basic requirements for the successful implementation of the regime places targeting are the presence of two major criteria: the independence of Central banks and the inability to use a fixed exchange rate in the economy. (Batini N., Laxton, D. (2007), Hu Y. (2003)). Besides, in 2015, at the beginning of the regime’s introduction, Ukraine had all the signs of inflation targeting in emerging markets:

- a dual structure of export;
- lack of differentiation of the economy, which resulted in the latter becoming extremely vulnerable
  to shocks in the terms of trade;
- dollarization;
- superficial and incomplete financial markets;

- high carryover effect;
- procyclicality of capital flows.

The impact of inflation targeting on the financial sector and the overall economy is investigated based on empirical observations of the effectiveness of the monetary transmission mechanism.

For 2015-2019 years, Ukraine has achieved its inflation target - 5% in annual terms by the end of 2019, what reports of the NBU. And there is a debate in economic research [19, 20, 21].

One of the channels of the mechanism of change is the so-called credit channel. More tight monetary policy leads to a reduction of resources to the banking sector for lending. Separate the facts and evidence demonstrate that the contribution of the credit channel transmission mechanism has limited power. After the 2014-2015 financial and economic crisis, commercial banks favour lending to reliable borrowers regardless of monetary conditions. This is especially true of banks affected by the war in eastern Ukraine. Besides, the corporate sector's reliance on bank credit is relatively low - in 2017, loans accounted for only 5.3% of investments. The targeted inflation regime primarily affects the short-term regime.

Nowadays, the impact of market interest rates on aggregate demand and inflation is rather weak. For example, the period 2016-2018 is characterized by relatively high real interest rates and at the same time high growth rates of private investment and consumption, which is related to several factors, but first and foremost, a prolonged period of high and volatile inflation. It minimized the consideration of changes in interest rates by consumers in their consumption and investment decisions and, accordingly, minimized the classic transmission channel through aggregate demand.

Analysis of central banks' reactions in middle-income countries to the exchange rate has long been an important feature of empirical testing of inflation targeting behaviour. A prominent feature of inflation targeting in emerging markets is the combination of interest rate policies with foreign exchange interventions to accumulate international reserves and to smooth fluctuations in the foreign exchange market. An example is the actions of the NBU in October 2017, when the Bank started the cycle of raising the key rate as the current and expected inflation exceeded the targets for 2017 and 2018. The increase in the interest rate led to an increase in the rates of placement of domestic government bonds. In January and February 2018, when yields increased by about 1.6 gross profit, $ 7.899 billion were posted every month, which is 10 times more. The inflow of foreign currency to buy domestic government bonds led to a strengthening of the hryvna exchange rate from 28.07 UAH / USD on January 1 to 26.95 UAH / USD on February 28th. However, even though the hryvna was strengthened, the NBU increased the volume of interventions in the foreign exchange market. For the most part, the external debt of the country also acts as an additional factor, which prompts the central banks of countries to actively combine currency interventions with the instrument of the interest rate.

Low but steady inflation creates benefits for economic growth through curbing inflation expectations. Meeting the stated goals is not only a significant factor in meeting expectations but also a criterion for the political responsibility of central banks. The nature of the declared objectives makes central banks vulnerable to a shifting political interpretation of the failure to meet inflation targets, even if justified in terms of the optimal choice between price and economic dynamics. The NBU determined to raise interest rates in October 2017 and March 2018 that created the basis for increasing confidence in monetary policy and enhancing the capacity of the expectation channel.

The implementation of best practices of communication of the National Bank for monetary policy has contributed to confidence increasing. In particular, in 2015 the NBU adheres to the following communication actions: 1) schedule of public Board meetings on monetary policy (eight meetings per year in 2018); 2) regular press releases and press briefings after each monetary solutions; 3) publish the Inflation report macroeconomic forecast of the National Bank of Ukraine; 4) publication of the results of discussions by members of the Commission's decision on the discount rate and the like [23-27].

However, as the practice of deviations from the inflation target is a consequence of significant changes in political preferences during the period of implementation of inflation targeting. In this case, it is not a question of shocks and the optimal response to them. Examples are political developments in Turkey that may accompany the shift to inflationary policy. An example is also Ghana, where the lack of macroeconomic discipline and vulnerability to shocks in food prices which caused a systematic failure to comply with the purposes [28,29].

Conclusions

The structural differences between developed countries and developing countries continue to be significant. It has implications for differences in the monetary regime and regulation of the financial sector. The most influential for Ukraine today are: National Bank confidence effects; the ability of monetary policy to optimally respond to supply shocks; inflation expectations are less anchored; the achievement of inflation targets may be accompanied by pro-cyclical effects on interest rate behaviour; the exchange rate continues to be a key element of the capital markets, creating obstacles to the establishment of exchange rate and financial stability. However, the flexibility of inflation targeting combined with a proactive macro-prudential approach to the financial cycle will improve the situation in the country.

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