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## **KEY ASPECTS OF FOREIGN EXCHANGE REGULATION IN TERMS OF EUROPEAN INTEGRATION OF UKRAINE**

The article concerns macroeconomic analysis of the key aspects of foreign exchange regulation in terms of European integration of Ukraine. It was considered the whole complex of instruments of the National Bank of Ukraine for influence on the foreign exchange relations in the state. It was estimated and analyzed the negative impact of an unbalanced policy toward NBU's rate of required reserves. It was showed that the authorized banks in Ukraine actively used mistakes, that the central bank made in the implementation of monetary and foreign exchange regulation, to increase profitability of their activities. It was analyzed credit operations of Ukrainian banks, and was showed their negative impact on the economy of the state. It was proved and justified, that in Ukraine there is a credit boom in foreign currency, which arose and developed due to the short-sighted decisions of NBU in the foreign exchange regulation.

**Key words:** credit boom, credit expansion, foreign currency, foreign exchange regulation, monetary policy, National Bank of Ukraine.

Under conditions of deepening crisis in the economy of Ukraine, main manifestations of which is the rapid devaluation of the national currency, chaotic fluctuations in the currency market, accelerating inflation and the panic at all levels of domestic economy, extraordinary relevance have the studies in foreign exchange regulation, which must not only effective, but – most importantly – adequate under its objectives. Equally significant nowadays is the reforms of the system of this regulation, upgrading its instruments and methods, due to outdated and even obvious inadequacy of current management mechanisms of currency relations in Ukraine. Some progress in this area can occur of European Integration's processes in the state, where the National Bank of Ukraine (hereinafter – NBU) has an access to the information and practical support from the central banks of the EU-member states.

The aim of this article is to identify and characterize the main areas of the modern foreign exchange regulation's modernization process in terms of European integration of Ukraine.

The studying of theoretical basis and practical aspects of mechanism, instruments and methods of foreign exchange regulation is devoted works of Ukrainian and foreign economists, including O. Bereslavskaya, N. Bodrova, O. Dzyublyuk, F. Zhuravka, H. Canales-Krilenko, N. Tamirisa, V. Mishchenko, C. J. Neely, M. Savluk, A. Moroz. The reform of regulation in currency markets has been many told by Nobel Memorial Prize laureates P. Krugman and R. Mundell, as well as by prominent US researchers J. Taylor and J. Frankel. Methodological basis of using the foreign exchange regulation's instruments a lot of attention has been paid by such economists as K. Basu, P. Kenen, R. Fatum, S. Moiseev, A. Varoudakis.

The main objective of the NBU, as the central bank, in conduction the foreign exchange regulation is to ensure an economic development through the use of a whole arsenal of its instruments. Its exclusive jurisdiction include the following: operations with government securities in the open markets, foreign exchange reserves, discount rate, economic specifications for banks, currency restrictions, rate of required reserves<sup>1</sup>. Referring to the last, we notice, that this instrument is able to directly and quickly affect the volume of money supply (including foreign ones) in the domestic market through the regulation of credit.

Based on the fact that the increase of money supply is due to the authorized banks, by their

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1 Шелудько, С.А. (2015). Інструменти валютного регулювання: склад, класифікація, методи застосування. *Вісник Одеського національного університету. Серія: Економіка*, Т. 20, 2/2, 166-167.

nature, carry out continuous emissions of new non-cash credit money in the course of its operation, the role of the central bank (such as NBU) at this stage is correcting this issue in accordance with established monetary and foreign exchange policy goals and targets. It is therefore advisable to consider and analyze the results using an instrument such as NBU's rate of required reserves (Table 1).

Table 1

**NBU's rate of required reserves (average in terms) for 2003 – 2016  
(at the end of the year), %<sup>1</sup>**

Date	Rate of required reserves	
	UAH	Foreign currencies
2003	5,33	10,00
2004	5,33	10,00
2005	6,50	6,50
2006	2,50	4,00
2007	0,75	4,50
2008	0,00	4,00
2009	0,00	5,50
2010	0,00	5,50
2011	0,00	4,30
2012	0,00	5,00
2013	0,00	7,50
2014	4,75	
2015	4,75	
2016	4,75	

Application by NBU the rate of required reserves for deposits in UAH and foreign currencies, presented in Tab. 1, can be divided into two stages: 2003 – 2013 and from 2014. At the end of 2013, along with the reduction of the norm for deposits in domestic currency (from 5.33% in 2003 to 0.75% in 2007) and, finally, its actual abolition on 12.5.2008, the central bank gradually reduced the value of this indicator for foreign exchange deposits – from 10% in 2003 to 4% in 2008 (and for term deposits this year the rate was even lower – 3%).

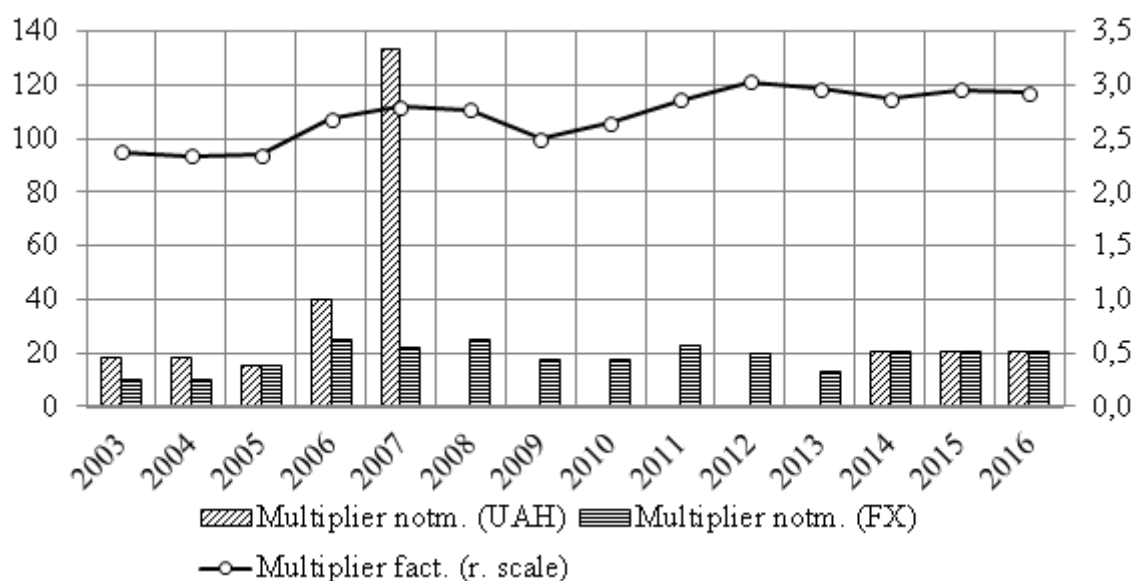
As it is known, the smaller is the rate, the more proportion of down payment remains available to authorized bank for further accommodation, and through which mechanism is realized non-cash issue of banks. Therefore NBU for its own actions not only prepared the ground for the full deployment of the economic crisis in Ukraine in 2008, but also "warmed" its depression, refusing at the end of that year from the obligation of banks to reserve any funds in local currency at all.

As for the situation with foreign currency, in 2009 – 2010 NBU began to raise the rate of required reserves (1.5 percentage points), but next year again reduced it to 4.3% for the apparent recovery of currency lending. However, new steps to strengthen requirements for authorized banks on the establishment of reserves in 2012 – 2013 nullified the adoption of Resolution No. 820,

<sup>1</sup> Грошово-кредитна та фінансова статистика. Офіційне інтернет-представництво Національного банку України. <[https://bank.gov.ua/control/uk/publish/article?art\\_id=27843415&cat\\_id=44578#1](https://bank.gov.ua/control/uk/publish/article?art_id=27843415&cat_id=44578#1)> (2017, January, 20).

which equalizes deposits in different currencies at a single rate<sup>1</sup>, distinguishing now only term and current deposits.

To evaluate the results of such decisions of NBU, we analyzed the dynamics of banking multipliers (Fig. 1).



**Fig. 1. Dynamics of banking multipliers in Ukraine for 2003 – 2016<sup>2</sup>**

As it shows in Fig. 1, commercial banks in Ukraine since 2003 received more and more opportunities to multiply the money supply, and in 2007 (i.e. before the crisis) each cash UAH could create more than 133 new non-cash UAH. Moreover, in 2008 – 2013 banks were given the opportunity of unlimited credit, which demonstrates the expansionary nature of monetary policy NBU.

However, analyzing the actual value of the multiplier, which, although it has increased from 2.5 in general on the eve of zeroing regulation reserving to 3 on the eve of its return, but it was below the normative in 6-20 times. This indicates a degree of cautious banks to resort to large-scale lending in unstable conditions prevailing in the economy of Ukraine in 2009, which is consistent with the capital-creating theory of credit<sup>3</sup>.

At the same time, the normative multiplier in foreign currency was within 10-25, which, on the one hand, was a low value comparing with the domestic ones, and on the other – means that the banks have every right to issue non-cash items 10-25 currency per unit of cash involved. Thus, the use of this instrument of NBU's foreign exchange regulation hardly can be called an effective.

Consider the impact of such decisions of NBU on the loan and deposit transactions of authorized banks, which are the most common foreign currency transactions, and thus their analysis is a particular interest to determine and quantify the role of the authorized banks in the foreign exchange regulation (Table 2).

1 Постанова № 820 про зміну порядку формування та зберігання обов'язкових резервів, п. 4 (2014) (Правління Національного банку України). Офіційний сайт Верховної Ради України. <<http://zakon3.rada.gov.ua/laws/show/v0820500-14>> (2016, грудень, 28).

2 Грошово-кредитна та фінансова статистика. Офіційне інтернет-представництво Національного банку України. <[https://bank.gov.ua/control/uk/publish/article?art\\_id=27843415&cat\\_id=44578#1](https://bank.gov.ua/control/uk/publish/article?art_id=27843415&cat_id=44578#1)> (2017, January, 20).

3 Рябініна, Л.М. (2013). Грошово-кредитне регулювання економіки, його методи, інструменти та механізми. *Потенціал економічного розвитку в контексті європейської інтеграції. Збірник наукових праць з актуальних проблем економічних наук*. Дніпропетровськ: Гельветика, 132.

Table 2

**Volume, composition and structure of credit operations of authorized banks in Ukraine  
in terms of currencies for 2006 – 2016<sup>1</sup>**

Date	Deposit					Loans				
	Total, bn. UAH	including				Total, bn. UAH	including			
		domestic currencies		foreign currencies			domestic currencies		foreign currencies	
		bn. UAH	%	bn. UAH	%		bn. UAH	%	bn. UAH	%
2006	134,75	87,77	65,13	46,99	34,87	143,42	81,28	56,67	62,14	43,33
2007	185,92	115,10	61,91	70,81	38,09	245,23	123,79	50,48	121,44	49,52
2008	283,87	192,30	67,74	91,58	32,26	426,87	213,80	50,09	213,07	49,91
2009	359,74	201,83	56,11	157,91	43,89	734,02	300,22	40,90	433,80	59,10
2010	334,95	173,09	51,68	161,86	48,32	723,30	355,52	49,15	367,77	50,85
2011	416,65	239,30	57,43	177,35	42,57	732,82	395,50	53,97	337,32	46,03
2012	491,76	280,44	57,03	211,32	42,97	801,81	478,60	59,69	323,21	40,31
2013	572,34	320,27	55,96	252,07	44,04	815,14	515,58	63,25	299,56	36,75
2014	669,97	421,75	62,95	248,22	37,05	910,78	602,78	66,18	308,01	33,82
2015	675,09	365,45	54,13	309,64	45,87	1020,67	547,99	53,69	472,68	46,31
2016	716,73	391,91	54,68	324,82	45,32	981,63	433,83	44,19	547,80	55,81

As it can be seen from Tab. 2, the analyzed period volumes of either deposit and loan operations of authorized banks significantly increased, and volume of the last of them greatly exceeded the deposit ones, which in 2006 – 2016 increased only for a five times, while the volume of lending during the same period increased almost for seven times, which suggests that in general over the period the volume of loans of authorized banks in Ukraine is almost 1.5 times higher than the volume of borrowed funds.

However, if the share of deposit in foreign currencies increased over the period from 34.87% to 45.32%, the share of lending operations in foreign currencies for the same period increased from 43.33% up to 55.81%, although the volume of transactions in domestic currency (both deposit and loan) during the same period decreased its share.

The increase in the share either deposit and loan operations in foreign currencies, while reducing the share of the same transactions in domestic currency shows, that the 1.5-times excess of the total amount of loan volume of transactions on deposit operations was largely due to increased loan in foreign currencies' operations. From this we can conclude the realization by the authorized banks in Ukraine in 2006 – 2016 the credit expansion (mainly, foreign-exchange) and even foreign exchange credit boom.

It is worth to be noted, that the credit boom, as the process of credit expansion (in this case, foreign exchange) in substance and economic consequences significantly different from credit expansion, which has broader goals to promote its sphere of influence in the competitive environment, while the purpose of the credit boom is to maximize profits using existing situation. For particular note worth the fact that the authorized banks, except the provision of foreign exchange loans borrowed within the funds provided as loans in excess of the available foreign exchange resources, creating imaginary deposits that adversely affect the liquidity of banks.

In this context, it is advisable to consider the sources of replenishment of the authorized

<sup>1</sup> Грошово-кредитна та фінансова статистика. Офіційне інтернет-представництво Національного банку України. <[https://bank.gov.ua/control/uk/publish/article?art\\_id=27843415&cat\\_id=44578#1](https://bank.gov.ua/control/uk/publish/article?art_id=27843415&cat_id=44578#1)> (2017, January, 20).

banks their credit resources in foreign currency and to analyze the cost of their attraction for banks (Table 3).

Table 3

**Average interest rates on deposits in foreign currency, attracted by banks in Ukraine in 2006 – 2016<sup>1</sup>, %**

Date	Interest rates on deposits in foreign currency of:						
	residents				nonresidents		
	total	including			total	including	
		banks	business	population		banks	business
2006	5,49	3,17	6,21	7,09	5,74	5,35	6,12
2007	5,41	4,74	4,97	6,51	5,69	6,55	4,84
2008	5,74	5,67	5,19	6,38	5,83	4,93	6,74
2009	5,58	5,73	3,83	7,17	6,42	4,77	8,06
2010	7,25	3,89	7,88	9,97	6,23	2,39	10,07
2011	5,30	1,53	5,65	8,73	4,97	1,70	8,25
2012	3,63	1,25	3,41	6,25	4,38	1,54	7,22
2013	3,82	1,33	3,06	7,05	3,98	0,69	7,26
2014	3,98	1,46	3,70	6,77	6,01	4,93	7,09
2015	5,00	2,54	4,76	7,70	6,36	5,92	6,80
2016	4,73	1,97	4,68	7,54	7,58	8,36	6,80

Tab. 3 shows the average-weighted interest rates for the dates on which Ukrainian banks have attracted funds in foreign currency to its deposit portfolio. As it can be seen, the cheapest source of foreign exchange funds were other banks, and in 2008 – 2009 (before the crisis) it was provided by foreign banks the cheapest resources at 4.77 – 4.93%, and for the end of 2013 their value was less than 1%.

At the same time residents (both banks and enterprises and population) were not ready to open deposit accounts for less than 1.33% per annum. But already from 2014, i.e. during the deployment of a new wave of economic crisis in Ukraine, foreign sources of currency have significantly rise (up to 7.58% in 2016), don't want to risk by their own money, at a time when Ukrainian subjects of economy, by contrast, provide own funds at lower percentage.

This can be explained by high credit risk for investors of Ukrainian banks, and to compensate for the increasing cost of borrowed funds, authorized banks had respectively increased interest income from loans, both by raising interest rates and by increasing the volume of lending, which also needed the foreign exchange credit expansion, which has already been shown.

It is pertinent to point out, that the IMF in 2007 recommended for Ukraine to contain stimulating the credit boom, adequately assessing the ability of the borrowers and the expectations of creditors, and eventually begin an institutional reform for creating a favorable investment climate in the state with high impact.

However, NBU, which creates monetary (and, consequently, foreign exchange) policy in the country, not in a hurry to restrain credit boom own leverage on banks<sup>2</sup>, and therefore bank's lending in foreign currencies increased sharply, helping to create credit boom since the beginning of 2009 and 2015, and the economic crisis, which intensified in Ukraine against the background of the global crisis.

Not by chance Ludwig von Mises, one of the brightest representatives of the Austrian

<sup>1</sup> Фінансові ринки. Офіційне інтернет-представництво Національного банку України.

<[https://bank.gov.ua/control/uk/publish/article?art\\_id=27843415&cat\\_id=44578#2](https://bank.gov.ua/control/uk/publish/article?art_id=27843415&cat_id=44578#2)> (2017, January, 20).

<sup>2</sup> МВФ уехал, но обещал вернуться. Интернет-газета «Економика».

<<http://www.economica.com.ua/finance/article/523161.html>> (2016, December, 17).

School, believed that "...credit expansion always leads to economic crisis"<sup>1</sup>. It is no accident, that since the crisis in 2008 nearly 70 banks lost their licenses, which created mistrust of the citizens to domestic banks (table 4).

Table 4

**Number of authorized banks in Ukraine, including the foreign-capital, in 2007 – 2016<sup>2</sup>**

Date	Number of banks			
	Total	including, in %		
		domestic capital	foreign capital	
			total	including 100%-foreign
2007	175	73,14	26,86	36,17
2008	184	71,20	28,80	32,08
2009	182	71,98	28,02	35,29
2010	176	68,75	31,25	36,36
2011	176	69,89	30,11	41,51
2012	176	69,89	30,11	41,51
2013	180	72,78	27,22	38,78
2014	163	68,71	31,29	37,25
2015	117	64,96	35,04	41,46
2016	98	60,20	39,80	43,59

The content of the tab. 4 shows, that the number of banks in Ukraine has decreased dramatically, and since 2014 this process has only accelerated. Thus, in 2008 the bank had 184 licensed institutions, by the end of 2016 their number decreased to 98 (i.e. 86 banks went bankrupt, and investors lost their interest and even the deposit).

If we analyze the capital structure of the banking system, we immediately noticed a gradual increase in banks with foreign capital – from 27% in 2007 to 40% in 2016 – which was not due to the opening of new establishments, both through a general bankruptcy of banks with Ukrainian capital because of lack (as opposed to foreign) access to replenish foreign exchange reserves. This is supported by relatively high share of banks with 100% foreign capital, which by the end of 2016 reached the level of 43.59%.

**Conclusions.** Distribution foreign currency credit expansion by banks is contributed to the loss of its liquidity on deposits in foreign currency and, consequently, caused the need for refinancing loans. Distribution foreign exchange credit expansion by banks at the same time has increased the volume of outstanding debt (primarily, it is in foreign currencies), increased cost of establishing reserves to protect against credit risk and increased the level of capitalization of banks, which eventually affected the financial results of banking contributing to the emergence and increasing losses.

On the background of the reduction of regulatory capital in 2014, NBU was forced to increase the volume of refinancing loans for liquidity support authorized banks, such loans rose almost 116 times (!) – with almost 1 bn. UAH in 2005 to 105.8 bn. UAH at the end of 2016<sup>3</sup>. All this does not help Ukrainian economy out of crisis, but rather only worsen her condition.

1 Людвиг фон Мизес. Экономические последствия дешевых денег. *Научно-исследовательский центр Мизеса*. <<http://liberty-belarus.info/o-kapitalizme/ekonomicheskaya-teoriya/9316-jekonomicheskij-cikl-i-kreditnaja-jekspansija-9316>> (2016, November, 23).

2 Грошово-кредитна та фінансова статистика. *Офіційне інтернет-представництво Національного банку України*. <[https://bank.gov.ua/control/uk/publish/article?art\\_id=27843415&cat\\_id=44578#1](https://bank.gov.ua/control/uk/publish/article?art_id=27843415&cat_id=44578#1)> (2017, January, 20).

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<[http://aub.org.ua/index.php?option=com\\_arhive\\_docs&show=2005&Itemid=112](http://aub.org.ua/index.php?option=com_arhive_docs&show=2005&Itemid=112)> (2017, January, 21).

All this leads to the conclusion that the role of banks in the occurrence and distribution in Ukraine in the analyzed period foreign currency credit expansion and, even, foreign currency credit boom is decisive and, in addition, a negative role belongs exactly to the authorized banks.

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