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## MARKET MECHANISMS OF HRYVNYIA EXCHANGE RATE STABILIZATION: ACCOUNTING AND INSTITUTIONAL ASPECTS

**Abstract. Introduction.** The problem of sharp exchange rate fluctuation of the national currency is considered in the article. The international practice shows that consolidation of the national financial markets may be provided on the basis of such regulated markets. *The purpose* of the article is to develop approaches to justification of theoretic-methodological bases for solution of the problem of sharp rate fluctuation of the national currency. *Results.* The factors of negative impact on process of establishment of currency rate are proved. Theoretical justifications for usage of system of counterbalances in the conditions of economy of Ukraine are defined. The need to use derivative financial instruments on the basis of the developed countries experience is analyzed. Institutional and legal registration in the form of transparent and public exchange rules of derivatives turnover is offered, which will not only allow to improve the currency relations in the country, but also will bring financial market to a new level of development. Problems of the accounting of currency derivatives, in particular regarding their balance assessment, are designated. The considerable attention demands coordination of the registration practice with the current regulatory and legal framework, namely with the regulations of the National Bank of Ukraine (NBU). *Conclusion.* It is defined that financial infrastructure should be the key element of the establishment and functioning of the financial market, which is impossible without a centralized clearing. Conditions for the concentration of such markets and the liquidity of the banking system in general are defined. Thus, the results of the research may be used in perspective development planning of enterprises and organizations, which activity is significantly affected by the change of national currency rate. Furthermore, the proposed steps to the settlement of the problem of sharp fluctuations of the national currency exchange rate may be used for planning of the financial institutions development and accounting of currency derivatives.

**Keywords:** exchange rate; financial markets; exchange trading; market methods of regulation; hedging; accounting aspects.

**JEL Classification:** E50, F31, O16

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### **РИНКОВІ МЕХАНІЗМИ СТАБІЛІЗАЦІЇ ВАЛЮТНОГО КУРСУ ГРИВНІ: ОБЛІКОВІ ТА ІНСТИТУЦІОНАЛЬНІ АСПЕКТИ**

**Анотація.** У статті розглянуто проблему різкого коливання курсу національної валюти. Обґрунтовано фактори негативного впливу на процес встановлення курсу. Доведено необхідність використання похідних фінансових інструментів на основі аналізу досвіду розвинених країн. Запропоновано інституційне та правове оформлення ринку деривативів у вигляді прозорих і публічних біржових правил їх обігу, що не тільки дозволить удосконалити валютні відносини у країні, а й виведе фінансовий ринок на новий ступінь розвитку. Окреслено проблеми обліку валютних деривативів, особливо у частині їх балансової оцінки. Наголошено, що значної уваги потребує узгодження облікової практики із чинним в Україні нормативно-правовим полем, зокрема із нормативними документами Національного банку України.

**Ключові слова:** валютний курс, фінансові ринки, біржові торги, ринкові методи регулювання, хеджування, облікові аспекти.

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### **РЫНОЧНЫЕ МЕХАНИЗМЫ СТАБИЛИЗАЦИИ ВАЛЮТНОГО КУРСА ГРИВНІ: УЧЕТНЫЕ И ИНСТИТУЦИОНАЛЬНЫЕ АСПЕКТЫ**

**Аннотация.** В статье рассмотрена проблема резкого колебания курса национальной валюты. Обоснованы факторы негативного воздействия на процесс установления курса. Показана необходимость использования производных финансовых инструментов на основе анализа опыта развитых стран. Предложено институциональное и правовое оформление рынка деривативов в виде прозрачных и публичных биржевых правил их обращения, что не только позволит усовершенствовать валютные отношения в стране, но и выведет финансовый рынок на новую ступень развития. Обозначены проблемы учета валютных деривативов, особенно в части их балансовой оценки. Подчеркнуто, что значительного внимания требует согласование учетной практики с действующими в Украине нормативно-правовыми нормами, в т.ч. нормативными документами Национального банка Украины.

**Ключевые слова:** валютный курс, финансовые рынки, биржевые торги, рыночные методы регулирования, хеджирование, учетные аспекты.

**Introduction.** Today, one of the most important elements of currency policy as a component of monetary policy of the state is regulation of the exchange rate that is development of the mechanism of its establishment and maintenance at a certain level. In the conditions of market economy, observed not only market, but also state regulation of the currency relations. Market regulation is based on the competition and is subordinated to the supply and demand law at currency market that defines the exchange rate. State regulation is based on the active intervention of the central bank through the mechanism of monetary and exchange rate policy and some administrative tools. The ratio between market and state regulation of the currency relations is defined by specific situation in the market and level of economic development of the country [1].

Considering expediency of technological and institutional formalization of market mechanisms of objective pricing regulation, the currency trading and currency derivatives traditionally arose and developed as regulated ones and were organizationally made out as currency sections of stock exchanges or the specialized currency exchanges. In recent decades, the currency trades take place not only at exchanges, but also in organized, regulated markets. Thus, it is consciously and purposefully necessary to organize and develop specialized controlled markets which carry out the functions necessary for implementation by the central banks currency and monetary policy – that is, not only trade in currency, but also trading in the connected segments of currency and other financial markets. The international practice shows that the consolidation of national stock markets may be provided on the basis of such regulated markets (does not matter – exchange or otherwise organized markets), as leading operators of the financial markets in developing economies traditionally are banks. It is rather convenient to them to perform operations in the currency, stock, money and derivative markets within one (or several, but connected organizationally and technologically) trading system.

**Brief Literature Review.** Scientific works of known foreign scientists are devoted to studying of theoretical and practical aspects of the currency (foreign exchange) markets functioning: J. M. Keynes (1930), M. Friedman (1953), P. Samuelson (2007), etc. Among domestic scientists over this problem worked: A. Bereslavska [1; 2], I. Burakovskiy [3], N. Bodrova [4], F. A. Zhuravka [5; 6], etc. The researches of many both domestic and foreign scientists are devoted to problems of currency rates regulation efficiency, dynamics of the exchange rate, especially during financial crises. In particular, O. Bereslavska considers that «currency restrictions are rather operational instrument of currency and course regulation. They have the ability of quick establishment and cancellation depending on the situation in the currency market».

Issues of functioning and accounting of currency and other kinds of derivatives were taken up in scientific works by V. M. Kostiuchenko [7], O. M. Kosmyna [8], I. Nidzelska [9], T. G. Savchenko [10], L. A. Prymostka [11], etc.

**Purpose.** Research objective is justification of theoretic-methodological bases for solution of the problem of sharp rate fluctuation of the national currency. As far as in the financial and economic sphere of Ukraine there are objective prerequisites to expansion of instruments of currency and monetary policy, use of diversified market instruments is offered for more objective pricing in the currency market. The offered measures of market and transparent regulation of the exchange rate will allow establishing the fair price of hryvnia.

**Results.** Since 2014 year (because of political instability, growing complexity of financing the budget deficit, devaluation of currencies of trade partners of Ukraine), the highest volatility in the currency market was observed. A complex of effective decisions made by the NBU (the Resolution of the Board of the NBU of 06.02.2014 No. 49 and further changes in it, transition to more market procedure of forming official rate since 07.02.2014) stabilized the situation, but the numerous factors stimulating existing devaluation expectations of market operators still remain significant.

If in January 2014, average rate of UAH/USD in the Inter-bank Foreign Exchange Market of Ukraine (IFEM) fluctuated

within 8.14-8.15 (that is differed from a long time of an invariable official rate only for 2%), for February the official rate devaluated at once for 25%. In certain days, the change of an average rate in IFEM reached 4-7%, and day volatility could reach higher values. Very high activity in IFEM observed in 2013, when daily average trading volume was about \$0.93 billion, but for January-February 2014 this indicator grew by 1.5 times (to \$1.56 billion), and during 24.01-03.02 trading volumes were within \$2.6-4.5 billion.

Some banks in the conditions of excessive volatility tried «to loosen» a course even more essentially. As a result, in February for 8 banks temporary restrictions on participation in trading in IFEM were introduced. However, without denying efficiency of administrative measures, it is necessary to pay attention to possibility of more market measures of regulation of the exchange rate forming mechanism in Ukraine. In particular, as market and effective measures it is necessary to classify a ban of operations without delivery of currencies in the System of Confirming the Agreements in IFEM (SCA), introduction of other restrictions by the volume of transactions in IFEM, restriction of possibility of removal of the currency deposits, mandatory sale of foreign currency by exporters, etc. Nevertheless, attempts to reduce speculative demand and to hold an official rate in the limits corresponding to budgetary indicators, led to essential reduction of gold and currency reserves.

The SCA can be considered as the off-exchange trade information system which participants are financial institutions, first of all banks. Trade functions have signs of some standardization and regulation: 1) impossibility of refusal of the signed contract; 2) classification and restrictions of transactions – «tod» (T+0), «tom» (T+1), «spot» (T+2) and «swap» (T+n, n>2); 3) obligation of payments for the transaction (hryvnia payments pass through NBU corresponding accounts); 4) the right of NBU for an exception of participants from the SCA. Other mechanisms of regulation, including situations of price instability, were not used until recently.

Let us consider market methods of regulation of objective pricing. Certainly, these mechanisms can not change price trends, but they effectively enough counteract excessive volatility, (sudden and excessive fluctuation of prices/course, including owing to a panic in the market, a Force majeure situations), possibility of the market monopolization and manipulation. Among the most popular mechanisms of pricing regulation, it is possible to give the following: 1) bilateral simultaneous bid/ask orders; 2) anonymous orders for the contract conclusion; 3) step of change in price; 4) price fluctuation limits; 5) the guarantee of payments and the opportunity not to consider the price of orders which conditions were changed or cancelled; 6) shadow liquidity (order's full volume isn't disclosed); 7) monitoring and counteraction to market manipulation; 8) trading suspension; 9) restriction of the maximum volume of orders submitted by one trade participant etc.

Some mechanisms have already been applied by the NBU in the current year. By the Resolution of the Board of the NBU of 27.02.2014 No. 104, the instruments of ensuring stability of monetary unit of Ukraine are expanded: 1) for the period of this Resolution banks may conduct transactions on sale of foreign currency for hryvnia in IFEM only on conditions «tod», «tom» or «spot», but not «swap»; transactions without delivery of currencies are forbidden; 2) it is standardized a procedure of restriction by NBU access to SCA for authorized banks: there is provided the not exceptional list of the operations leading to destabilization of IFEM (though quantitative criteria aren't given), there is defined the subject that makes the decision on restriction; 3) it is limited the amount of purchase of foreign currency in IFEM for individuals.

At this stage, it can be considered not as administrative restrictions, but as the elements of market regulation, which are natural in the conditions of price instability.

The domestic stock market is much less liquid and significant for Ukraine's economy in comparison with currency one, however, recognized international standards, including on regulation of situations of price instability, are already implemented in regulatory base. Implementation of objective pricing occurs

through inspection of stock exchanges' rules to requirements of the National Securities and Stock Market Commission (NSSMC) and state registration of such rules by NSSMC. Moreover, concerning listed securities introduced the standardized indicators, which characterize a situation of price instability, considerable price fluctuation and price manipulation. In case of exceeding these indicators the stock exchange is obliged to suspend trading, to report the regulator and to provide other actions directed on identification and revision of the reasons which led to a situation of price instability.

This enabled stock exchanges in detail to learn and apply the above-mentioned mechanisms of objective pricing on the methodological and technological level.

These mechanisms can be entered both within existing form (not necessarily exchange ones, but similar exchange technologies as the current legislation doesn't forbid that), or by start trading at stock exchange, it is possible to consider also a question about possibility of return to experience of functioning of the specialized currency exchange. In any case, the NBU should be the only center, regulator and operator of such a modernized trading system.

Introduction of certain mechanisms of market pricing in the period of a sharp phase of crisis may become very problematic, as market participants have to be acquainted with them and be ready to use them. Moreover, the question of ensuring more effective rate fixing mechanism should be considered together with the question of the derivatives market development (not only the currency ones) in Ukraine.

Usually currency derivatives carry out many functions necessary for economy. Hedging and predictive function are almost the most important among them. But at this stage, the most important incentive of currency derivatives implementation is ability to use it as an effective instrument of monetary and currency policy of the NBU. Currency derivatives are not basic instruments of the central bank, but the auxiliary ones. The conditions for dense regulation of objective pricing in the market of currency derivatives should be created for the NBU. Unlike commonly accepted instruments of the monetary policy, the

central banks seldom use the currency derivatives. However, such recent examples are known during conducting of currency policy by the central banks of Australia, Thailand, Mexico, etc. [12]. They are the most reasonable in conditions of shortage of gold and currency reserves. Along with direct or indirect participation of the NBU in trading in the derivatives market and their usage as tools of currency interventions, for NBU has to be ensured the possibility of introducing restrictions for currency derivatives trading.

It also should be noted that the currency derivatives markets on USD/UAH exchange rate already exist outside of Ukraine (the Non-deliverable Forward, NDF, in London and the Futures at the Moscow Exchange) and Ukrainian financial regulators have no influence on these markets and parameters of the corresponding pricing exchange rate. These markets carry out a certain predictive function. And it is not always objectively, because market participants are oriented almost exclusively on devaluation expectations concerning the dynamics the hryvnia exchange rate (on Figure it is shown that from the start in June 2013, futures exchange rate is almost always considerably exceeds the average rate in IFEM, and immediately after the expiration starts with overestimated values). As the result, participants of financial market are oriented to the rate of hryvnia which is calculated exclusively outside of Ukraine and not related to the national exchange rate formation mechanism. Therefore, it is necessary to start currency derivatives market in Ukraine.

Currently in Ukraine, separately from the interbank currency market, there is already rather liquid interbank stock market. This concentrated at stock exchanges trading, at least concerning currency or indexed government bonds, may be considered as a part of the currency market. REPO transactions concerning these bonds may be classified as derivatives. The separation of the stock and REPO market from IFEM occurs due to a separate financial stock market infrastructure: for today, in the form of the Central Depository (CD) and a single establishment for clearing and settlement (specialized bank «Settlement Center», SC). The depository reform is at the begin-

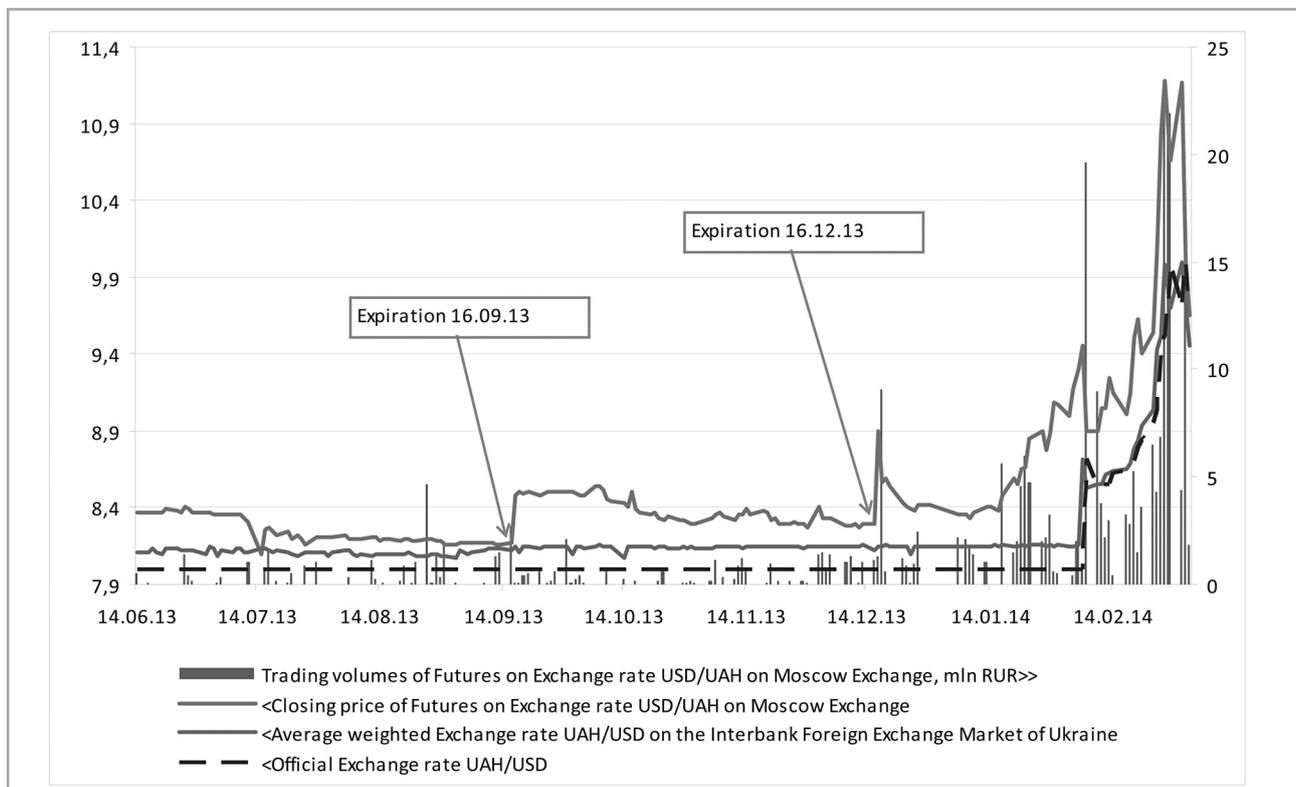


Fig. : Prices and Trading volumes of Futures on Exchange rate USD/UAH at Moscow Exchange compared to the Average weighted Exchange rate at IFEM and Official Exchange rate UAH/USD in June 2013 – March 2014

Source: National Bank of Ukraine, Moscow Exchange

ning, and concerning institutional registration (CD and SC creation) was quite positively apprehended by banks, including banks with the foreign capital. But methodological, technological and operational realization of SC's functionality and, largely, CD causes many complaints. In particular, funds, which are blocked by market operators in SC, artificially distinguish for participation in trading with payments through Depository of the NBU (concerning government and municipal bonds) and CD (concerning other securities). The uniform fund limit would be much more convenient for brokers to simultaneously sell all securities on a stock exchange rather than always re-block funds for trading with settlements in other Depository, which leads to loss of time and inefficient use of financial resources. SC doesn't serve clearing concerning derivatives and carries out functions of the central counterparty (CCP) concerning securities exclusively formally, providing centralized clearing only in case of ensuring 100% blocking of assets (although international approaches and even Ukrainian practice provide that for simplification of access to the trades and stimulating of liquidity it can be used partial providing and other mechanisms of reduction of settlements risks). So, numerous legal, methodological, technological tasks have to be effectively solved, provided that SC will serve operations on clearing of derivatives, including performance of CCP functions on the derivatives market.

A comprehensive solution of related tasks (more market mechanisms of regulation of exchange rate, start of trading currency derivatives, elimination of financial markets' fragmentation) has a positive impact not only on the distribution of monetary levers of the central bank and the increase of conveniences of risk management for banks and other financial intermediaries, but also for companies in the real sector of the economy, that also regularly face with significant currency risks.

In conditions of high devaluation expectations, importers and exporters need effective mechanisms for reduction of currency risk. Also, hedging mechanisms are important for companies that are the participants of the financial markets. A significant portion of financial resources is involved abroad because of a shortage of sufficient financial resources for the development in Ukraine, so that the respective obligations are denominated in foreign currency.

The absence of a specific law about derivatives in Ukraine should be noted, as it still remains a matter of debate. Without denying the need of a special legislative regulation of the derivatives market, it should be emphasized that the general normative basis (within the Tax Code of Ukraine, legal acts of NSSMC and NBU, standards – including UAS number 13, «Financial Instruments») is already formed. Nevertheless, accounting and, first of all, fiscal regulation of consequences of hedging on operations with derivatives, in particular, currency ones, demands much more detailed regulation.

**Conclusion.** Monitoring of the national financial infrastructure and basic international approaches concerning the final separation of corporate and organizational activities of clearing, and settlement concerning the financial instruments, will allow increasing the efficiency of estimation, forecasting and accounting of currency derivatives within the existing legislation of Ukraine. It is defined that financial infrastructure should be the key element of the financial market functioning (the currency derivatives market), which is impossible without a centralized clearing. Conditions for the concentration of such markets and the liquidity of the banking system in general are defined. However, issues of accounting of operations with derivatives in the conditions of the fixed-term segment formation of domestic currency market are studied insufficiently, many methodological issues still remain unresolved. Formation of methodical maintenance of accounting and analytical activity of the participants in the important segment of currency market is not completed because of the insufficient development of the currency derivatives operations accounting methodological principles. Thus, there is a need for further research of economic maintenance of currency derivatives instruments, justification of the basic principles and procedures of accounting process and improvement of the analysis methods of hedge and other bank transactions with currency derivatives.

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Received 11.04.2014

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Стаття надійшла до редакції 11.04.2014