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Development of innovative instruments in the financial market of Ukraine

Desarrollo de instrumentos innovadores en el mercado financiero de Ucrania

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Contents

ABSTRACT:
This paper develops practical recommendations for the implementation of innovative financial market instruments in Ukraine. The main areas of implementation of innovative financial market instruments are revealed. The basic assets, which require introduction of innovative tools in the domestic financial market, are determined. Recommendations on effective implementation of innovative financial market instruments are proposed. The development and implementation of innovative financial instruments will provide additional opportunities for managing financial flows and risks, reducing time and transaction costs.
Keywords: financial market, innovative instruments, risk, securitization.

RESUMEN:
Este artículo desarrolla recomendaciones prácticas para la implementación de instrumentos innovadores del mercado financiero en Ucrania. Se revelan las principales áreas de implementación de instrumentos innovadores del mercado financiero. Los activos básicos, que requieren la introducción de herramientas innovadoras en el mercado financiero nacional, están determinados. Se proponen recomendaciones sobre la implementación efectiva de instrumentos innovadores del mercado financiero. El desarrollo e implementación de instrumentos financieros innovadores brindará oportunidades adicionales para administrar los flujos y riesgos financieros, reduciendo el tiempo y los costos de transacción.
Palabras clave: mercado financiero, instrumentos innovadores, riesgo, titulización.

1. Introduction

The current stage of the global financial market requires the development and implementation of innovative instruments that provide additional opportunities for managing financial flows and risks, reducing time and transaction costs. The transformational and integration processes taking place in the financial market of Ukraine comprise the improvement of financial instruments. The low level of their development in Ukraine creates significant potential for implementation and expansion of the use of a range of innovative instruments in the financial market.

2. Literature review

Modern literature on economics is full of theoretical and empirical evidence which prove that the introduction of innovation in the financial sector has a positive effect on the country's economic growth (Levine, 2004; Mishra, 2008; Beck, 2009; Arestis et al. 2015; Čihák et al. 2017; Rousseau and Wachtel, 2017). In addition, a number of studies indicate that financial innovations reduce inequality in income distribution (decreasing the Gini coefficient); b) have a positive impact on the poorest quintile of the population, c) reduce poverty (a decrease in the number of people living on less than $ 1 a day) (Beck et al., 2004; Naceur and Zhang, 2016). The introduction of innovative financial instruments allows to expand access to financial services (credit, deposit, payment, etc.) and balance the opportunities of rich and poor citizens by reducing price and non-price barriers in their use (World Bank, 2014; IFC, 2011). However, in addition to financial barriers, there are a number of other barriers on the way to financial services access. The main ones among them are geographic (weak level of development of financial infrastructure), price (inability to pay for services of financial institutions), administrative and regulatory (a large number of documents are required to access financial services), and discriminatory (racial, ethnic, and religious), etc. The main measures taken to overcome these problems are the promotion of financial infrastructure development, the introduction of innovative financial products, services and processes, technological and marketing innovations in the financial system.

The introduction of financial innovations (products, technologies, institutions) should comprise all segments of the financial sector. It has been proved that banks and stock markets play a complementary role in ensuring economic growth, thus, the development of the whole financial sector is of utmost importance (Demirgüç-Kunt et al., 2012; Song and Thakor, 2013). The innovative development of these alternative capital-raising mechanisms intensifies competition in the financial sector. Its consequence is the inevitable decline in interest rates, and hence the cost of attracting resources for the real sector.

However, the permanent financial crises in the twentieth century and especially the global financial crisis of 2007-2008 have raised doubts among economists that financial innovation is an unconditional cause of increasing public welfare and accelerating economic growth. The active use of innovative financial instruments was associated with financial speculation, excessive risk-taking, and over-lending, etc. Hence, financial innovation has been seen as a key factor in financial instability (Lutsyshyn, 2008, Reinhart and Rogoff, 2009; Gennaioli et al., 2010).

Regardless of the negative aspects of using financial innovations, many researchers firmly believe that effective regulation of their use will not create new risks for global financial stability, but will only contribute to further economic growth (Rajan, 2006; Lerner and Tufano, 2011; Shiller, 2012, Arner et al., 2015; Lee and Martin, 2016; Beck, 2017)

Thus, innovation in the financial system affects the growth of both the welfare of citizens and businesses in two ways through mechanisms of indirect influence (ensuring economic growth) and through the direct influence associated with the expansion of access to financial services. Further prospects for the introduction of innovative instruments in the Ukrainian financial market are still important. Instruments of the financial market of Ukraine are developing quite slowly, so its participants prefer traditional instruments. The necessity to introduce and develop innovative financial market instruments in Ukraine is determined by the current conditions.

3. Methodology

In order to implement innovative financial market instruments in Ukraine, it is necessary to:

- clearly define the scope of the implementation of innovative instruments;

- select the objects (basic assets) for their implementation.

The key areas for implementing innovative instruments are separate segments of the Ukrainian financial market.

Equity Capital Market. The formation and attraction of additional capital as a joint stock is one of the most widespread in the world. In Ukraine, joint stock ownership is the achievement of privatization processes, that is, joint-stock companies were formed on quasi-market conditions, so the quality of the shares in free circulation is quite low. The organized market for the bidding structure in the context of financial instruments is, in fact, the market for the circulation of government bonds1 (NSSMC, 2017). But the joint stock financing is the basic way of providing the resource, therefore, further development of the Ukrainian economy can not take place outside the process of distribution and redistribution of financial resources through the share-based form. The development of non-state pension provision, investment and retirement accounts, and the transformation of the banking system will continuously ensure demand for shares of the Ukrainian enterprises in the future. Therefore, innovative instruments should be introduced in the area of the equity market.

Credit market. Transformation of financial resources as a debt is the most widespread in Ukraine. However, its efficiency is low, since only a small amount of the credit commitments is transferred into investments, which is the basis for the growth of capital stock. However, significant volumes of the banking system have identified its central place in the Ukrainian financial market, with a significant impact on the economic processes taking place in Ukraine. The banking system is a key segment of the introduction of innovative financial market instruments (Pantelieieva, 2013).

The *foreign exchange market* in Ukraine comprises two components. The first one is the investment and it involves banking operations related to currency positions of financial institutions and currency transactions that involve further investment activity. The second component involves trade and economic relations, which include trade operations, insurance transactions and transactions of individuals. Both components characterize the currency market as an auxiliary segment of the financial market because before making an investment, purchasing goods, or paying insurance, etc., the counterparty needs to exchange its available currency for another, or vice versa, to get another currency and exchange it for the necessary one. The relevant transactions involve an additional subtransaction because instead of selling or purchasing a base item, the counterparty must double the transaction, selling the base and receiving the currency, he carries out an additional transaction, selling the currency. The situation with a buyer is the same, i.e. before purchasing the base, he must purchase the currency. Thus, the stratification or doubling of the economic transaction involves not only the exchange mechanism but also affects all elements of the economic transaction, including ambiguity. There is an abundance of economic relations with subtransactions on the foreign exchange market in Ukraine. They are used by importers, exporters, investors, insurance companies, and banking institutions, etc performing their activities. The great number of foreign exchange transactions and a large share of stakeholders involved in the process create the basis for the introduction of innovative instruments in the currency market.

Insurance market. In terms of volumes and capitalization, the insurance services market in Ukraine is second only to the banking segment, demonstrating significant potential for development (Kneisler, 2017). Insurance companies accumulate significant financial resources, especially life insurance companies, which can invest both in classical and newest financial instruments (Klapkiv, 2016; Klapkiv Y. & Klapkiv L., Zarudna N. ,2018).

The introduction of financial innovations will allow insurers to diversify their risks when assuming insurance premiums in assets.

Commodity market. Most of the Ukrainian economy consists of industries specializing in the production of raw materials and semi-finished products, which are sold on the Ukrainian and international commodity markets. Pricing is influenced by demand and supply causing a constant fluctuation of prices in commodity markets, which leads to an increase in the volatility of cash flows of enterprises. Being the object of investment by private investors, investment companies, investment and hedge funds, etc in global markets, commodity markets comprise both operational and investment components. Innovative instruments are emerging in most international commodity markets (Geman, 2005; Basu and Gavin, 2010). However, in Ukraine, most commodity markets are highly competitive, including electricity, rolled metal, iron ore, ammonia, etc. Only agricultural products market, namely wheat, corn, sunflower oil and sugar has a high level of competition along with a fairly significant number of participants. Thus, another field of application of innovative financial market instruments is separate groups of agricultural products (Putsenteilo, et al., 2018).

Having determined the sphere of implementation of innovative financial market instruments, we will define the objects (basic assets) which require introduction and development of innovative financial market instruments in Ukraine (Table 1).

Table 1
Potential objects (basic assets) of the introduction of
innovative financial instruments in the Ukrainian market

Introduction area	**Object (basic asset)**
Equity Market	- shares - stock indices - dividends
Credit Market	- credits - deposits - G-Bonds (Government bonds) - corporate bonds - bond indices - credit indices - deposit indices - interest rates - coupons
Currency Market	- hryvnia cross rate to US dollar - hryvnia cross rate to euro - precious metals
Insurance Market	- deposits - G-Bonds - shares, corporate bonds - weather conditions - future crops
Commodity Market	- wheat - corn - sugar - sunflower oil

Source: authors

Innovative financial market instruments should be created through derivative, equity or securitization nature considering the objects indicated in Tab l. The objects are characterized by market conditions of pricing, volatility, a large number of participants, and lack of monopoly influence. This list of basic assets (objects) covers the financial market and part of the commodity market. Expanding financial instruments will improve the efficiency of their work because the innovative instruments will help to satisfy market participants' requirements regarding the elements of distribution and redistribution of financial resources such as cash flow, risk, time and space.

4. Results

Having determined the main objects of creating innovative instruments, we will consider the direct economic instrument for the implementation on the Ukrainian financial and commodity markets (Table 2).

Table 2
Potential innovative financial instruments on the stock market

Underlying asset	Instrument
Shares	- futures - options - swaps - exchange traded funds - convertible bonds - structured instruments
Shares index	- futures - options - swaps - exchange traded funds - structured instruments
Dividends	- futures on dividends of individual shares - futures on dividends indices - futures on stock dividends
Volatility	- futures - swaps

Source: authors

Under the introduction of certain innovative financial market instruments on the equity market of Ukraine, participants receive a significant expansion of investment objects. When the number of innovative instruments is not sufficient, it is quite problematic to invest in stock indices, volatility or just dividend flows. In addition to the increasing variety of investment objects, the participants of the share market of Ukraine augment the opportunities for investment operations, as the investors obtain the groundwork for devising various investment strategies using futures and options. Strategies with innovative financial market instruments are potential targets for investing in specialized investment funds, which influences the development of the Ukrainian collective investment industry. Together with investment operations that involve investor's acceptance of additional risks, the listed instruments help protect against market risks through hedging mechanisms. With futures and options, Ukrainian investment companies and private investors can implement arbitrage transactions that provide high low-risk returns through the use of counter-transactions under false pricing in the market. Using swaps, participants in the Ukrainian market are able to convert profit margins from investing in equity into debt instruments with fixed-income.

A positive impact on the fundamental elements of the financial market of Ukraine is created by a number of approaches to its usage, which are essentially responsible for the efficient process of distribution and redistribution of financial resources in this segment of the market. A variety of investment approaches to the use of innovative instruments will ensure the profitability of operations and increase the number of investors, which will improve the profitability of Ukrainian financial intermediaries.

Hedging strategies help reduce the risk of investing. Speculative, hedging and arbitration operations will increase the liquidity of the Ukrainian stock market. The possibility to buy/sell portfolio instruments helps reduce transaction costs.The marginal features of the use of options and futures constitute the free marginal supply of speculative Ukrainian investors. Stock swaps facilitate transfer to fixed income market instruments reducing transaction costs without conducting direct transactions.

Thus, the development of financial instruments on the Ukrainian equity market builds up the profitability of operations, reduces risk, improves time and space elements, which significantly boosts the efficiency of the stock market in Ukraine and positively affects the value of capital attraction.

The Ukrainian debt market requires the introduction of such instruments (Table 3).

Table 3
Potential innovative financial
instruments on the credit market

Underlying asset	Instrument
credit	- credit swaps - credit default swap, credit default index - collateralized debt obligations - synthetic collateralized debt obligations - tranches of collateralized debt obligations - structured instruments - asset based securities
T-bills, corporate bonds	- futures - credit default swap, credit default index - collateralized debt obligations - synthetic collateralized debt obligations - tranches of collateralized debt obligations - structured instruments - asset based securities - exchange traded funds
credit and deposit interest rates	- futures - swaps - option on futures
bond interest rates	- futures

Source: authors

The above mentioned innovative instruments for the Ukrainian debt market facilitate the creation of the whole industry of transformation of credit obligations through swaps. The mechanism of transformation of credit obligations increases the flexibility of banking assets and liabilities and liabilities of non-financial institutions to banking institutions. Credit transformation paves the way for more efficient management of credit obligations, which in turn reduces the risk of default by both banking institutions and non-commercial entities of the Ukrainian credit market. Together with the transformation, participants in the debt market are given the opportunity to conduct hedging operations, which protects market participants from excessive interest rate fluctuations.

The next positive effect of the introduction of innovative financial instruments on the debt market is credit transfer, which, without fixing transactions, fosters the transfer of credit default risks, while clearing its balances from high-risk assets. The proposed innovative financial market instruments boost for the formation of the securitized securities market, increasing the volume of mortgage standardized lending, with the involvement of non-banking institutions in Ukraine.

Overall, debt innovative instruments, in contrast to the equity market, are aimed at increasing the efficiency of processes of transforming savings into investments through optimization, cheapening, increasing the flexibility of cash flows and debt obligations on the debt market. Together with the improvement of the process, innovative instruments stimulate the emergence of new non-banking investors who, through innovative credit market instruments, carry out investment operations in new investment objects that arise after the expansion of the financial instrument system, namely credit, deposit bond interest rates, credit risks, credit indices, securitized assets, etc.

Firstly, innovative instruments on the Ukrainian currency, insurance and commodity markets will provide hedging functionality. The variability of commodity assets and exchange cross rates lead to a change in the cash flows of both financial and non-financial companies, which increases the cost of debt and capital financing. The hedging instruments will minimize the impact of the variability of basic assets for the Ukrainian entities. The specifics of activities in the insurance sector influenced by the negative effects of the risks implementation has developed the latest instruments of insurance risk securitization. In this particular case, it is recommended to use weather derivatives. In fact, these derivatives are aimed at reducing the risks associated with unexpected changes in weather conditions. It is advisable to create additional investment objects along with hedging innovative financial instruments and make speculative operations that increase market liquidity. Expansion of investment objects will stimulate the implementation of arbitration agreements (Table 4).

Table 4
Potential innovative financial instruments on the currency, insurance and commodity markets

Underlying asset	Instruments
- UAH against the US dollar - UAH against the euro - precious metals	- futures - swaps - options - structured products
- weather conditions	- weather derivatives
- agricultural products	- futures - swaps - option on futures - exchange traded funds (ETF) - exchange traded products (ETP)

	- structured products - insurance policies (certificates) for future crops

Source: authors

However, the expansion of financial instruments in Ukraine through the introduction of innovative ones is attainable with a well-considered approach to ensuring this process. To maximize the effective implementation of innovative instruments, an approach should be applied to cover all peculiarities of instruments, markets, and participants. It is worth mentioning that the expansion of financial instruments will strengthen the integration of market entities, the transformation of resources, risks, obligations. The integration of different market segments will be followed by attracting more and more participants. In such a situation, the most comprehensive approach should be applied to support the implementation and development of innovative financial market instruments in Ukraine.

To systematize recommendations for the development of financial instruments, it is appropriate to divide them into two areas, namely, stock and over-the-counter markets. The proposed financial instruments include stock exchanges futures, options, stock products and structured products (Table 5).

Table 5
Exchange-oriented innovation instruments and government bodies responsible for regulating relevant market segments.

Instrument	Regulator
Futures per share	NCSSM1, NBU2
Option per share	NCSSM, NBU
Futures per index	NCSSM, NBU
Option per index	NCSSM, NBU
Option per futures	NCSSM, NBU
Share Stock exchange fund	NCSSM, NBU
Futures on volatility	NCSSM, NBU
Structured product	NCSSM, NBU
Futures on dividends of a separate share	NCSSM, NBU
Futures on dividends of an index or stock portfolio	NCSSM, NBU
Futures on a bond	NCSSM, NBU
Futures on a bond interest rate	NCSSM, NBU
Futures on credit and deposit interest rates	NCSSM, NBU
Exchange bond fund	NCSSM, NBU
Futures on UAH/USD and UAH/EUR	NCSSM, NBU

Futures on precious metals	NCSSM, NBU
Weather derivatives	NCRFSM3, NCSSM
Futures on wheat, corn, sunflower oil and sugar	NCSSM, MAPFU4
ETF5 on gold	NCSSM, NBU
ETC6 on wheat, corn, sunflower oil and sugar	NCSSM, MAPFU
Structured instruments	NCSSM, NBU

Source: authors

1. NCSSM –National Commission on Securities and Stock Market.
2. NBU – National Bank of Ukraine .
3. NCRFSM – National Commission for the Regulation of Financial Services Markets.
4. MAPFU – Ministry of Agrarian Policy and Food of Ukraine.
5. ETF – Exchange-Traded Fund.
6. ETC – Exchange Traded Commodities

The basic assets with future innovative financial market instruments belong to various sectors of the Ukrainian economy, which are regulated by different authorities and legislation. In view of this the following recommendations for ensuring this process are proposed for the most efficient introduction of innovative instruments:

1. *Definition of instruments in the legislation*. First of all, a unified approach to the definition of the concept of a financial instrument by legislation should be applied responding to economic realities. Currently, Ukrainian legislation is seeing a versatile approach to the interpretation of the same instruments. Therefore, it is necessary to provide a unified approach to the interpretation of financial instruments such as futures and options. In addition, such notions of stock exchange instruments as stock and structured products should be introduced;

2. *Agreement of bidding process organizers in the underlying asset*. Exchange trading of innovative instruments involves a bidding process organizer. According to the Ukrainian legislation if the basic asset is a part of the equity, debt or currency markets, the Stock Exchanges should bear the responsibility for trade arrangement. But there is a problem with commodity assets in trade as the Ukrainian legislation requires the existence of commodity exchanges. It is necessary to introduce a distribution on the basis of which commodity exchanges will be trading in the basic asset, and financial instruments will be involved as basic commodity assets on stock exchanges. In addition, the standardization of the basic asset is required for arbitration operations, the current supply of a basic commodity asset and the introduction of stock exchanges for commodity assets should be applied as well;

3. *Registration of instruments by regulatory segments*. The registration of exchange instruments should take place within the scope of the influence of the rights and obligations of these instruments on regulatory segments. Instruments that have either a share or derivative nature in securities as equity and debt, index nature, or volatility on securities must be registered or created within the jurisdiction of the NCSSM. Instruments with interest rates in currency or currency values as the basic asset must be consistent with the NBU, which regulates the credit and foreign exchange markets. However, the direct registration of such exchange instruments should take place in the NCSSM. The instruments whose basic assets are agricultural products must be consistent with the Ministry of Agrarian Policy and Food since the regulation of agricultural commodities markets is carried out by the ministry. Direct registration of contracts must take place in the NCSSM;

4. *Standardization of instruments*. Exchange trading is viable only with the availability of

standardized instruments. Therefore, at the legislative level, consolidation of approaches to standardization of stock market innovative instruments of the financial market is one of the utmost requirements;

5. *Clearing*. To provide clearing operations in Ukraine, a single depository institution, the National Depository of Ukraine (NDU), was established in 2014. A specialized banking institution "Settlement Center" within the framework of NDU was opened for conducting payments under stock transactions. The concentration of clearing functions within one institution, which is guaranteed by the NBU, is in line with the international trends. However, it should be noted that the National Depository of Ukraine is not functionally prepared to provide clearing of such innovative instruments as futures and option exchange contracts, which testifies that clearing functions are transferred from existing futures and option contracts of the stock exchange to the Ukrainian Exchange, which has introduced the principle of central counterparty. In order to further expand financial instruments, clearing functions need to be given considerable attention, since the development of innovative financial market instruments is impossible without the functional capability of such activities;

6. *Formation of the general market risk management system*. The risk management system is an important infrastructure element for the development of innovative financial market instruments. Risk management involves legally stipulated financial requirements for bidding process organizers, the existence of a risk control system inside the company that deals with innovative instruments, the existence of a system for monitoring the positions of stock trading participants, the existence of a system for monitoring the enforcement of obligations by market participants, a clear risk control mechanism with the increasing volatility of prices in the markets, the creation of a guarantee fund for the exchange trading of highly risky instruments. The comprehensive risk management system should be legally established. The identified measures for the provision of this comprehensive protection system should be implemented by exchange trading participants, bidding process organizers and the institution performing clearing functions. Regulators also need to develop clear risk identification mechanisms, both for specific market participants and for individual segments of the financial market;

7. *Well-grounded definition of market participants*. Innovative instruments on the stock market significantly expand the operations of transactions because underlying assets of the equity, credit, currency and commodity markets become available for stock trading, which simultaneously increases the number of participants in this market. Direct trading in exchange instruments should be secured by securities traders that meet the licensing requirements of the NCSSM. The regulators should introduce additional conditions for the admission of securities traders to use highly risky financial instruments. With the development of trade in high risk financial instruments, Ukrainian legislation should also include the concept of a qualified investor with a clear distinction between stock options, which facilitates the work of both regular and qualified investors. The stock market development program provides the introduction of this item;

8. *Stimulation of the market makers institute*. Creation of innovative stock exchange financial instruments without providing primary liquidity will lead to highly volatile trading with this instrument on the stock exchange. To create primary liquidity, an institution of market makers should be provided, which will be represented by securities traders, financial or commercial entities that are associated with the transaction of a basic asset with an innovative financial instrument. The key to ensuring the work of market makers is their motivation, which can be implemented by reducing commission fees or through tax incentives;

9. *Manipulations monitoring and fictitious transactions*. In the course of the formation of the regulatory framework for the expansion of the Ukrainian financial instruments, an approach to monitoring, identification and counteracting market manipulation should be developed. The presence of the principle of derivability in a number of innovative financial instruments involves the possible influence on the pricing of the instrument through manipulating prices of the basic asset. With the development of financial instruments, the basic assets traded through derivative instruments, will grow at a significant pace, respectively, market

regulators should ensure control of the influence of individual market participants on the price of the basic asset in open positions in derivative instruments. The regulators should also have developed systems for controlling the registration of fictitious contracts and conducting fictitious agreements of bidding process organizers, which formally comply with the conditions of the stock exchange.

The debt market prevails among the major over-the-counter potential innovative instruments. There is less currency, unit and commodity assets. Over-the-counter trading of innovative financial market instruments is a very important area of regulation in the international financial markets, since, unlike the stock exchange instruments, they are subject to less control by market regulators, self-regulating organizations, bidding process organizers, clearing houses, etc., which in turn may lead to increased risks at the level of individual entities and concentration of risks on individual segments of the financial market (Table 6).

Table 6
Over-the-counter innovation instruments and government bodies responsible for regulating relevant market segments

Instrument	Regulator
Credit default swap, credit default index	NBU, NCSSM
Secured debt, synthetic loan obligations, tranches of secured debt obligations	NBU, NCSSM
Collateralized securities	NBU, NCSSM
Swap per share, index	NBU, NCSSM
Credit swap	NBU, NCSSM
Currency swap	NBU, NCSSM
Agricultural products swap Insurance policies or certificates for future crops	NBU NCSSM, MAPFU

Source: authors

The crisis period of 2008-2010 demonstrated the lack of significant monitoring and controlling of innovative financial market instruments. Thus, in 2009 G20 meeting made a decision to introduce a regulatory review of OTC control measures, with increased market transparency and monitoring and reduced risks involved by these instruments. The achievement of the main goals involves the introduction of regulatory and legal innovations (BIS, 2014, FSB, 2015):

1) standardization of instruments. The standardization of OTC instruments allows regulators to set up processes for effective clearing and reporting;

2) reporting. A group of G20 countries has decided to create so-called repositories, whose function is to accrue accounts from clearing houses, intermediaries directly to participants in OTC trading instruments;

3) the central counterparty. On the basis of standardization of instruments, mechanisms that involve the transfer of OTC instruments to a clearing system based on a central counterparty have been developed;

4) capital and margin requirements. For those instruments that are not subject to compulsory trading through a central counterparty, it was decided by all bidding process organizers to comply with capital requirements and to work with so-called mandatory

margin requirements with the formation of the initial and variation margins on instruments;

5) electronic trading platforms. In order to maximize transparency and minimize the risks of dealing with financial instruments outside the exchange, it was recommended to transfer trade to centralized electronic OTC platforms, which will improve the reporting process and, accordingly, additional risk control by regulators;

Considering international experience, Ukraine has the opportunity to take into account the developed recommendations, forming the provision of operations with over-the-counter innovative financial market instruments. Interpreting the main provisions of international agreements, we can develop the following recommendations for the development and implementation of the over-the-counter innovative financial market instruments:

1. Standardization of instruments. OTC transactions with such instruments as swaps, credit default swaps, credit default indexes, and mortgage-backed securities provide sufficiently broad permissible parameters for the responsibilities and obligations of the market participants. To implement them on the Ukrainian market, it is necessary to approve the parameters of their work within the framework of the specific legislation. Legislative standardization will allow instruments grouping with the appropriate characteristics to further implement an effective system of clearing, reporting, transparency and risk control in the operation of entities with these instruments;

2. Creation of centers for the accumulation of market information (repositories). As the study of the negative effects of the use of innovative financial instruments (Kucher T. and Radziievska V. (2015)) shows , both financial and non-financial entities can apply complex and highly risk-based financial instruments, in addition to inefficient risk management, which can lead to the concentration of significant risks in certain areas of the country's economy. Developed markets managed to solve this problem by creating special centers for the accumulation of information about OTC transactions using complex high-risk instruments. For the development of these instruments in Ukraine, regulators of the financial market also need to provide institutions that will function as a reporting system for over-the-counter financial instruments. Reporting should be provided from standardized instruments by all, without any exceptions, direct participants in transactions such as banking institutions, insurance companies, securities traders, investment and pension funds, and non-financial corporations. In addition, clearing institutions should be involved in the reports preparation. Gathering information on transactions and liabilities on the over-the-counter market of highly risky financial instruments will allow regulators of financial markets to quickly monitor, control and respond to the concentration of risks in the financial system of Ukraine and the whole economy as well;

3. Use of the central counterparty. The central counterparty, as a party to each transaction on the over-the-counter market, will provide a reduction in risks, since each counterparty has only one counterparty, namely, a central counterparty. If an agreement is concluded between two bidding process organizersdirectly, each of them must evaluate the counterparty's creditworthiness, calculate the risk and take measures aimed at minimizing losses from its default. In the case of increased volumes of trades, the number of contractors increases. Therefore, risk management procedures require more time and resources. The advantage of using a central counterparty is that each bidding process organizerhas only one counterparty which bears risk management responsibility. The dealers do not interact directly with each other when entering into an agreement, which reduces risks through the use of a central counterparty which acts as an intermediary. The key advantage of a central counterparty is the possibility of direct netting, which minimizes the risk of transactions failures. Central contractors can be used as an effective mechanism for the establishment and implementation of international relations (Oparin et al., 2013);

4. Approval of capital and margin requirements for over-the-counter transactions. In case of transactions with over-the-counter instruments with high risks without using a central counterparty, it is legally necessary to consolidate the system of capital and margin requirements to direct participants in such transactions. Capital requirements will improve the quality of market participants that conclude high-risk contracts, thus forming a certain class of counteragents that may allow over-the-counter operations without the use of a

central counterparty. The margin requirements will allow to create a system of exchange payments for variation and initial margins, which will further reduce the risk of default on high-risk transactions;

5. Introduction of electronic OTC trading platforms. The world market is facing new tendencies in the transition of concluding over-the-counter transactions on special trading electronic centralized platforms, which allow efficient operation of the reporting and clearing systems using the central counterparty. By introducing innovative financial market instruments in Ukraine, regulators need to anticipate the existence of such OTC trading platforms that can be implemented on the basis of exchange technologies. Availability of electronic platforms will provide additional standardization of the trade process.

5. Conclusions

The introduction and development of the following innovative instruments in Ukraine are recommended:

– on the debt market: swaps; credit default swaps; default index; batch default swap; secured debt obligation; synthetic credit obligation; collateral debt obligations; structured products; secured assets; futures; forward; stock exchange securities; structured instruments;

– on the equity market: futures; forwards; options; swaps; stock exchange securities; structured products;

– in the foreign exchange market: futures; forwards; swaps; options; structured products;

– on the insurance market: weather derivatives; insurance policies (certificates) for future crops;

– in the commodity market: futures; forwards; swaps; options; stock exchange securities; stock product; structured products.

After defining the scope and objects of the implementation of innovative instruments, by listing them and developing recommendations for ensuring the process of implementation and development of innovative financial market instruments in Ukraine, a framework has been formed for the development of financial market instruments that will increase the efficiency of its functioning and contribute to the growth of the country's economy.

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[Index]

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