WAYS TO STRENGTHEN FINANCIAL MARKET INFRASTRUCTURE SYSTEM IN MOLDOVA FOR THE IMPLEMENTATION OF FINANCIAL CREDIT DERIVATIVES

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Abstract

This article deals with the problems facing the financial market of the country in the use of financial instruments, particularly financial credit derivatives. Thus, one of the main objectives of development using financial derivatives for credit is to transform them into an effective mechanism to reduce the uncertainty of economic activity by creating a system of risk management accessible not only for banks, but also for economic entities, by providing informational function of the IFD market consisting in the harmonization of market participants' expectations with the future price of the goods.

Article reveals financial evaluation of the Moldovan banking sector in order to identify the possibility of subsequent application of financial derivatives and correlation of existing laws and infrastructure in Moldova with the EU countries.

Key words: *derivatives, credit derivatives, financial market risk.*

JEL Classification: *G3, F3*

1. Introduction

For the Republic of Moldova, the formation of the FDI market and the implementation of credit derivatives must be achieved not only with the involvement of the NBM, but also of the NCFM, of state bodies that would regulate the activity of banks in this field. The IFD market is needed for economy only in measure it allows to reduce the uncertainty of economic activity. According to this criterion, it is acceptable the development of the market in question on the basis of a proper policy on the part of the state.

One of the basic purposes of developing the use of credit derivatives in the near future is to turn them into an effective mechanism to reduce the uncertainty of economic activity by creating a risk management system accessible not only to banks but also to economic entities by achieving the informational function of the IFD market, which is limited to harmonizing the expectations of market participants towards the future price of goods.

In the context of the accession of the Republic of Moldova to the EU, it is necessary to investigate deficiencies in the trading of credit derivatives in emerging economies in order to avoid deficiencies in these countries. The causes for the limited practice of using credit derivatives to cover credit risk in emerging markets are:

lack of skills in dealing with credit derivatives;

contradictory legislation on banking risk assessment;

lack of supervisory bodies for transactions with credit financial derivatives;

lack of investors in the financial market;

difficulties in monitoring and evaluating the effectiveness of credit derivatives.

As a result of the research of literature addressing the problems of FDI trading in general and credit derivatives, especially in emerging markets, there is a rising need to address some critical issues that need to be considered before the successful development of these FDI transactions.

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2. Problem description

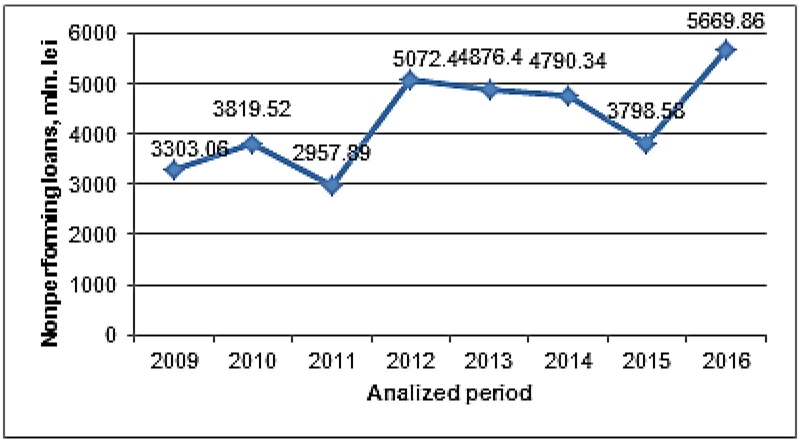
The development of transactions with credit derivatives, in particular credit risk swaps in the banking sector of the Republic of Moldova, is based on the existence of two important pillars, namely the regulatory pillar and the infrastructure pillar.

At the regulatory level there are prudential supervision rules, are attested the reporting standards, legal clarity and transparent accounting rules given by FINREP and the IFRS application in the banking field.

The "infrastructure" pillar involves the existence of the CCP, ISDA and a developed capital market, the monitoring of banks' activity on the credit derivatives market, certified investors and compliance with a code of conduct.

From these we deduce that the parameters of the use of credit derivatives in the Republic of Moldova should be comparable to the parameters of other developing markets, such as those of Turkey, Brazil or Kazakhstan, and to take into account the difficulties in terms of credit derivatives Encountered in the process of use in the banking sectors of those countries.

Figure 1. Evolution of non-performing loans in the banking sector of the Republic of Moldova



Source: elaborated by author according to www.bnm.md/md/financial_indices_of_bank_system.

In our opinion, credit derivatives will have a connotation in the domestic banking system because the credit risk, i.e. bad loans that currently have a significant share in the total bank assets not only on the system, but also Separated in some banks, which indicates shortcomings in the performance of bank performance at the end of the period.

From the results presented in Figure 1, we infer that the volume of non-performing loans is increasing during the analyzed period, demonstrating the assertion that there is sufficient support asset that could be used in transactions as SRCs.

In addition to assessing the existence of the support asset, it is necessary to identify the level of financial market preparedness that would allow the implementation of the SRA.

From those mentioned in Table 1 (next page), we find that regulatory loopholes in the Republic of Moldova refer both to the capital market and the banking market. In the banking sector there are more incentives to use credit derivatives such as: the existence of the support asset, of the supervisory body and potential investors.

Currently, we are seeing a less prepared market for FDI issuers and poor infrastructure. Institutions in the financial market are insufficient to organize FDI transactions. Thus, we note that certain elements of a developed capital market are missing, but the initiation of FDI transactions are possible in the banking market, which is more regulated and more prepared for issuers. Thus, as a regulatory body for the Republic of Moldova would appear to the NBM, the role of the secondary market could take over a specially developed segment on the Moldova Stock Exchange, as liquidity providers could be insurance companies or even banks through Bancassurance, as agents could intervene broker agencies, and the role of investors could belong to Romanian economic agents, EU countries, etc.

Table 1. Critical analysis of the existence of conditions for implementation of credit derivatives

Domain researched	Banking market	Capital market	Explanations
Assets	+	-	On the banking market there is the support asset (credit risk). There is no support asset within the capital market. There is no clear definition of the elements of credit derivatives, although support assets are sufficient in the form of credit risk.
Issuers	+	-	Within the banking market, there is sufficient capital and support assets to cover the risk of issuing credit derivatives. There is the shareholders' register, but there are no persons who would take over the role of registrar for credit derivatives.
Infrastructure in transferability	+	Partial	There are channels of credit risk transfer within the banking market. There is no correlation between the banking market and the capital market, which would allow banks to appear as an active participant in the circulation of credit derivatives.
Existing legislation	+	-	The definition of financial derivatives, but not that of credit derivatives, is present in the banking market. Within the capital market there is no regulation of either financial derivatives or credit derivatives.
Surveillance	+	-	There are prudential rules regarding the activity of financial institutions in the banking market. In the case of the capital market there are no prudential limits to be respected, especially in the IFD field.
Investors	+	-	There are investors: legal and institutional persons in the banking market who will be able to obtain FDI, including credit derivatives. The capital market has a lack of investors (banks) that would be involved in credit derivative transactions because there is no clearing house and clearing platform.

Source: elaborated by the author.

Currently, under the influence of innovative processes on the financial market, it is noticed the change in the structure and the nature of the risks faced by the bank. On the credit derivatives market, three forms of regulating the activity of banks can be highlighted:

external control by central banks;

external control by independent organizations;

internal control at all levels of management within the bank.

In the Republic of Moldova, the external control of the NBM and its results are more relevant than that of the independent organizations and thus the two forms of external control can be reduced to one: the NBM control.

External control measures in the case of performing credit derivative transactions by banking institutions should include the following:

control over the effectiveness of internal measures realized by banks;

creating premises to disclose information about operations with financial credit derivatives;

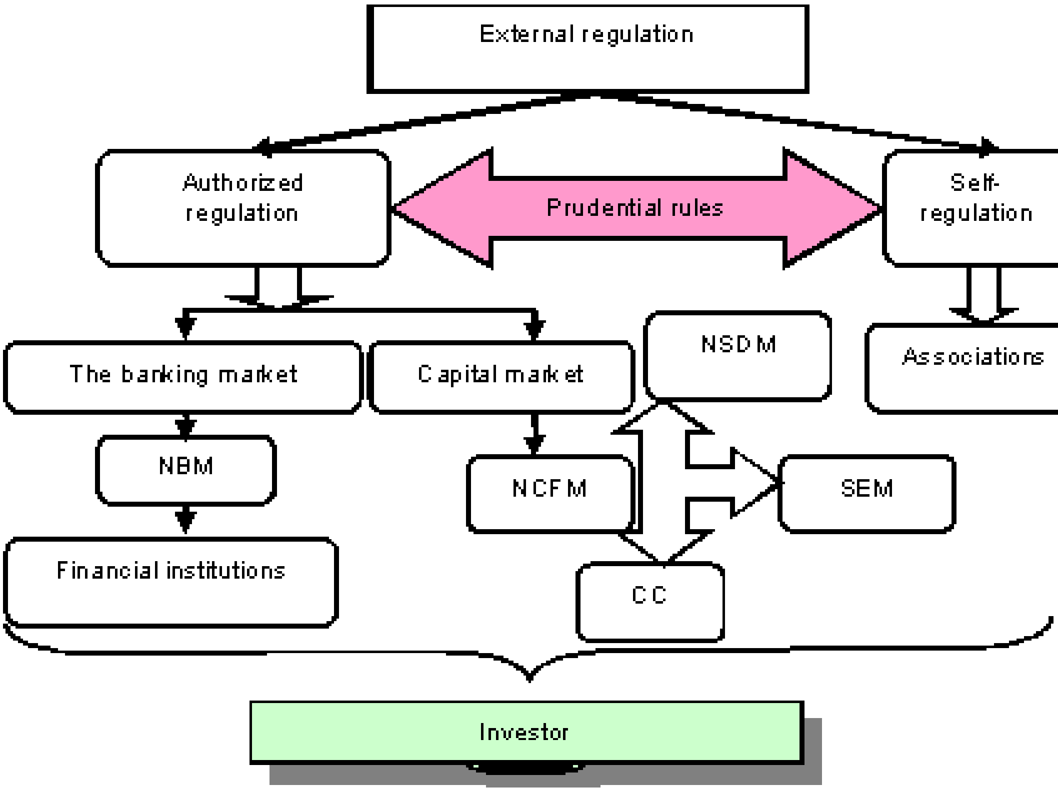
introducing rules for creating reserves to cover bank risks generated by operations with credit derivatives;

establishing prudential rules that take into account the risks associated with transactions in financial credit derivatives.

The actuality of the recommended external control measures will increase with the implementation in the banking sector of the credit derivatives and the creation of favorable conditions for the development of these instruments in the banking sector of the Republic of Moldova.

Under the EU provisions, the legal authority, represented by the National Bank, may enter into transactions in credit derivatives. OCC has admitted that banks may enter into transactions in credit derivatives when the bank can legally buy and sell the underlying instrument or the proprietary product as a dealer or where the bank uses the transaction to cover the risks generated by legally permitted activities. Based on the already existing elements in the banking and capital market sectors, we will recommend the infrastructure in the FD management presented in Figure 2.

Figure 2. Model of FDI management in the Republic of Moldova



Source: elaborate by the author.

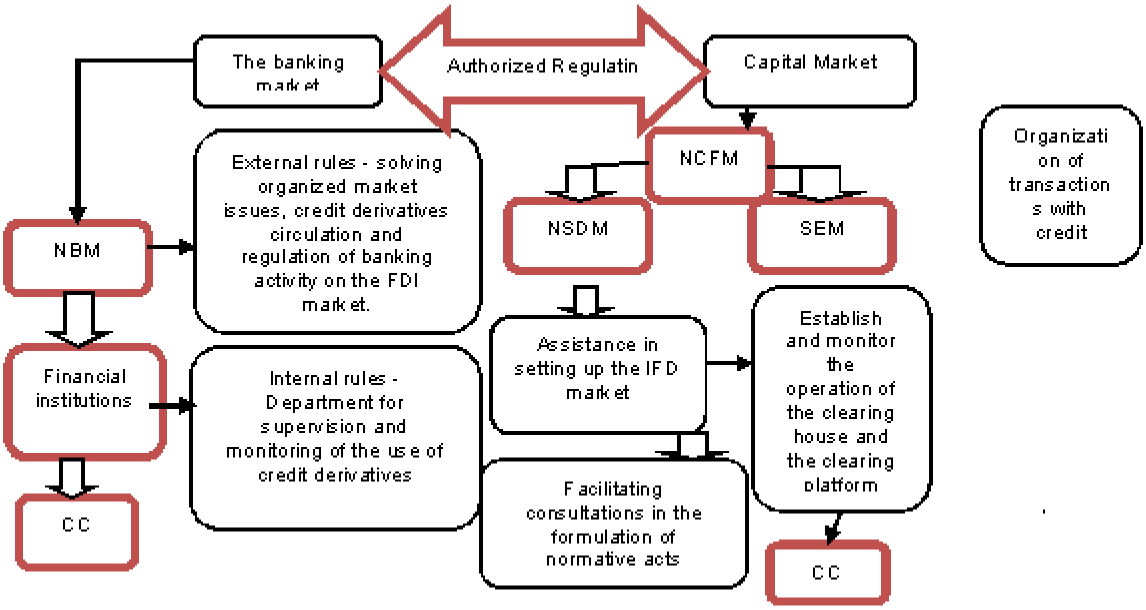
The NBM, as noted in Figure 3, may also enter into SRC transactions as the principal or agent when the bank acts as a financial intermediary for its clients.

Performing control in the case of operations with credit derivatives has the same objectives as in the case of ordinary banking operations, but taking into account the specificities of these instruments, which require more rigorous measures.

Under the current circumstances, when external control only reveals deficiencies in compliance with prudential rules, top managers are confronted with the problem of inefficient management of the bank's activity, which prevents them from becoming aware of the need to initiate the control procedure for various reasons. Under these circumstances, emphasis is placed on the internal control of the bank.

The purpose of creating the internal control system on operations with credit derivatives is to adapt the management process to current requirements that impact on the bank's efficient activity. Thus, the internal control system must correspond to the volume and character of the operations performed and contains adaptation mechanisms which would allow for an adequate level of safety in an unstable environment.

Figure 3. Iterations of authorized regulation of SRC operations in the Republic of Moldova



Source: elaborated by the author.

At the same time, for a more rigorous monitoring of operations with credit derivatives it is necessary to have the following components within the internal control system:

the position of the management and the control environment at the financial institution level;

identifying and assessing the risks generated by credit derivatives;

information flows on the nominal value of credit derivatives;

monitoring credit derivatives and removing shortcomings from their use.

Internal measures must be directed towards the following standards:

performing a permanent control of the board of directors on performing operations with credit derivatives;

clear determination of the purposes and tasks of the FDI market of credit derivatives and their reflection in action strategies;

performing all operations with credit derivatives based on appropriate regulations;

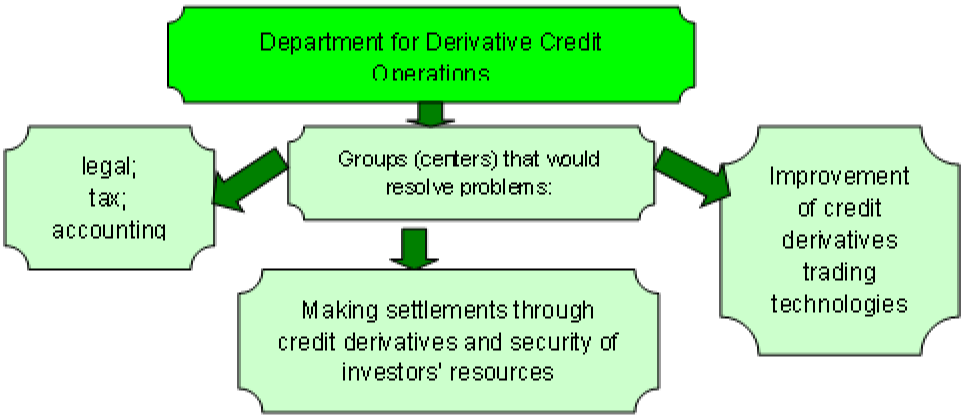
creation of the management system, whose functions includes the elaboration of methods for calculating the risk generated by the credit derivatives;

setting prudential rules for the risk of credit derivatives and monitoring compliance with the limits of this risk;

organize an effective internal control system on credit derivatives.

Successful FDI transactions require the creation of a department within the banks responsible for the operations of credit derivatives only. Within the department, groups or centers of responsibility could be created, as seen in Figure 4.

Figure 4. Department structure for IFD operations



Source: elaborated by the author.

The Department's objectives for operations with credit derivatives are as follows:

-elaboration of projects and recommendations aimed at improving the way of conducting transactions with credit financial derivatives;

-elaboration and evaluation of draft normative acts, documents and recommendations for improvement of settlements for transactions with financial credit derivatives;

-elaborating and analyzing recommendations on the optimization of taxation of transactions with financial credit derivatives;

-studying other issues related to transactions in financial credit derivatives.

Improving the internal control system within the financial institutions on the BASEL Committee's position is based on a set of criteria that will allow for the assessment of the effectiveness of the control procedure. Internal control is effective if:

-account is taken of the ongoing assessment of risks arising from credit derivatives and related to the activity of the financial institution;

-the risk assessment methods determined by the financial derivatives are periodically reviewed and supplemented by new ones and allow for a more accurate assessment of not only the known risks but also those that are controllable;

-control activity is a component of the daily activity of the bank (assuming the elaboration of the regulations and procedures for conducting the operations, the control over their execution at all levels);

-managing decision-making is based on sufficient internal and external information on all credit events and can influence decision-making, taking into account the fact that the information needs to be truthful, current, accessible and presented in the established manner.

At national level, more rigorous control over market participants can be achieved by creating new relationship systems where protection vendors will be subject to the same requirements as banks, as they will also take credit risks.

Action on other participants in the credit derivatives market and more rigorous control over their activity can be achieved by:

-creating a regulator for the activity of market participants;

-assigning additional supervisory functions to non-banking supervisors;

-extending some normative provisions in the field of regulation of banking activity to other participants of the credit derivatives market.

In our opinion, the best form of control would be internal control over banks' performance of credit derivative transactions.

In addition to the recommended internal control measures, there is a rising need to introduce changes in the assessment and management of credit risk generated by credit derivatives.

Improving credit risk assessment conditions involves making changes within the infrastructure. The key element of the infrastructure changes is the elaboration and implementation of normative acts. Broadly speaking, legal acts regulating credit derivative transactions can be divided into two groups:

-international normative acts;

-national normative acts.

The modernization of the normative base at international level requires changes in the official documents of ISDA and BIS, and more detailed regulation of credit risk assessment, applied methods, stakeholder responsibility and minimum requirements for the capital of participants in transactions.

Qualitative changes to credit derivatives risk assessment conditions can be made by creating a centralized transmission system for these risks. Creating this structure can be done by:

-ensuring a coherent legislative framework that would provide the possibility to carry out transactions with credit derivatives;

-the creation of a centralized clearing system for the settlement of credit derivative transactions.

The directions for improving the credit risk assessment methods and methods of credit derivatives consist of:

-improving the numerical methods of credit risk assessment;

-improving the conditions for credit risk assessment.

In numerical methods we can propose:

-the refusal to idealize the normalized normal distribution within the limits of the evaluation model;

-switching to statistical data-based methods;

-adaptation within the complex assessment methods based on the rating of the BASEL Committee on Prudential Supervision;

-review existing credit rating assignment methods.

With regard to improving the conditions for credit risk assessment, the following can be recommended:

-adoption and implementation of the normative regulation of the transactions with credit derivatives;

-increasing the control of the activity of market participants, including insurance companies, pension funds and hedging;

-the allocation of additional functions to the Financial Stability Committee;

-introducing limits on the carrying out of insurance and investment operations by banks;

-setting up the financial risk transmission control system.

The recommended measures can normalize the situation on the global derivatives market. These recommendations are needed for implementation in developed countries. For developing countries to which the Republic of Moldova also refers, the problem of the lack of regulation of credit derivatives operations and the creation of optimum conditions for market formation is acute.

In our opinion, the problems that arise during the implementation of SRC in the Republic of Moldova's banking market are:

-poor knowledge of the benefits and risks of these derivative securities, which could lead to fear of buying;

-the low capacity of banks as issuers of FDI due to the need for specialized workers in this field;

-lack of normative acts that would clearly explain and regulate the issuance and trading mechanism of the SRC;

-the unwillingness of partners to ensure the issuance and trading of the SRC, namely insurance companies that would provide the risk and brokers that would provide liquidity.

These issues arise from the unconsciousness of banks as issuers, investors as buyers and intermediaries that could be due to the lack of regulation of the process and of the confidence that this regulation provides. Therefore, in order to solve the stated problems a set of measures must be adopted, which can be divided into several groups:

-development of the legal basis for regulating operations with credit derivatives;

-creating new methods and reviewing existing bank risk assessment methods;

-creating the system of requirements for participants in the credit derivatives market and the mechanism for control over their execution;

-setting up a credit risk control system and integrating this system into global infrastructure.

An important step in the development of the national credit derivatives market is the development of quality legislation in line with EU law. Also, there is a need to elaborate and adopt not only the IFD law, but also the regulation on transactions with credit derivatives. At the same time, it is necessary to review the normative acts referring to:

-the Financial Institutions Act which introduces in article 26 the notion of credit derivatives transactions, which may condition what types of banks may trade IFDs according to the volume of the CNT (as in Russia) or depending on other criteria. Thus, in this normative act one might differentiate which banks can trade credit derivatives and which cannot by issuing licenses depending on the amount of capital needed to assimilate the risk;

-the stock exchange law by creating a stock market on which FDs can be traded for a particular purpose and structure;

-the securities market law by identifying the specific notions and introducing them into legislation and reviewing the functioning of the National Commission for the Financial Market.

The strong point of the changes is to regulate transactions in credit derivatives and create an efficient credit risk transfer system. It should provide for the following:

-the list of participants (candidates) who can enter into transactions with credit derivatives and their obligations;

-the list of contracts through which credit risk can be transferred;

-the list of core bonds whose credit risk may be the subject of a transmission;

-the rules for the execution of transactions with credit derivatives;

-requirements for direct and indirect participants in credit derivative transactions.

A more difficult issue would be the correct assessment of the indicators describing operations with credit derivatives. As quantitative indicators, in our opinion, could serve:

-the amount of assets issued;

-the amount of risk that can be taken over;

-the quantity of derivatives by type of issuer or by type of investor.

As qualitative indicators we could propose:

-the ratio between the amount of non-performing loans and the SRC, and a quantitative regulation could be proposed - the SRC part cannot exceed 30% of the volume of non-performing loans;

-the ratio between the total assets and the SRC should evolve in the same way as the ratio between the amount of non-performing loans and the SRC;

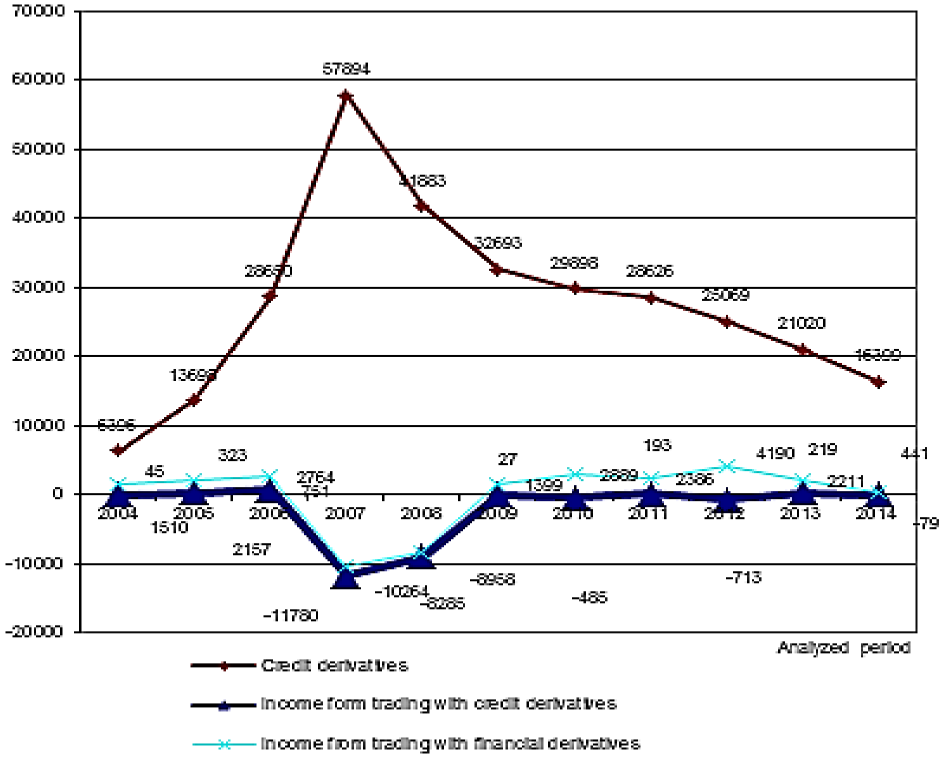
-the ratio between SRC and CNT.

At the same time, the recommendations made are to be seen in the system and pursued until the realization, for example, Georgia has joined the IFD issue and regulation association, but has not developed any IFD, which demonstrates once again that it is necessary to carry out not only the recommended transformations but also the pursuit of application.

The problem of determining the complete list of quantitative indicators sufficient for the economic argumentation of the future development prognosis of the implementation of credit derivatives as well as the calculation of the optimum sizes of these parameters according to the state of the economy is quite difficult, it requires a more complex approach and goes beyond the scope of this research and may be the subject of further investigations.

A clear and important question is about the optimal size of the credit derivatives market. Depending on how much more, the better it is, "both for the volume of open positions and for other indicators, is good only to a certain limit, after which the countdown begins:" the more, it is, the worse it is”, as demonstrated by the data in Figure 5.

Figure 5. Dynamics of income from transactions with credit derivatives and their amount at international level, billion USD



Source: elaborated by the author according to http://www.occ.gov/topics/capital-markets/financial-markets/trading/derivatives/ dq403.pdf - dq114.pdf

From Figure 5, we note that the volume of credit derivatives versus the evolution of income from these financial instruments is a special one, because during the period of increase of the credit derivatives balance, years of 2004-2007, the revenues from these IFDs increase only in the period 2004-2006, and in the year of 2007 we can mention a negative value, causing losses for the banking system. The same situation is also characteristic for the years of 2008, 2010 and 2012 when are registered losses from credit derivatives transactions, in the amount of 8958 billion, 413 billion and 713 billion of USD respectively. Revenues from credit derivative transactions show an identical trend to income from financial derivatives during the period of 2004-2009, as credit derivatives are also financial derivatives. For the rest of the year, the situation is appreciated as more stable, as the values of credit derivative income are modest and explained by the reduction in the volume of world-traded credit derivatives.

With the increase in the volume of credit derivatives, the ability to assimilate the risks generated by IFD is lower and, in the absence of control and regulation, they can generate major losses and even financial collapse.

3. Conclusion

The rationale for regulating the IFD market and credit derivatives in the Republic of Moldova should start from the following:

- a clear definition of the category machine with reference to the types of IFD, the categories of contracts allowed, according to the contractual purposes and the modalities of execution;

- classification of market participants, determination of categories of professional activities and principles of market infrastructure construction, limits on speculative operations, differentiation between the conclusion of contracts on the IFD market, including credit derivatives and insurance business;

- the obligation of the market participants to create the internal control system, the system for monitoring and management of the risk caused by the credit derivatives, the assignment of the responsibilities and the management of the economic agents to launch on the IFD market, the prohibition to perform the operations from the moment of bankruptcy declaration;

- the underlying principles of the state regulatory system for the IFD market and credit derivatives, the decentralization of the limits of the competencies of the responsible bodies and the order of the procedures for cooperation between them.

In addition to the above, the program for the implementation of credit derivatives requires disclosure of the defining elements, goals and objectives of the market operation, the possibilities of performing operations with the financial derivatives, as well as the risks related to these operations.

Credit financial derivatives are instruments of competitive struggle, which offer the possibility to modify the functional dependence of the financial result profile of the activity on the market conjuncture in accordance with the preferences of the bank owners' management. Namely they must make decisions about the use of credit derivatives.

The economic role and advantages of transactions with credit derivatives in Moldova's EU aspirations are relevant also because they represent an efficient market economy mechanism and their efficient functioning is the basis for stable economic growth in the context of the changes taking place in the world financial architecture.

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