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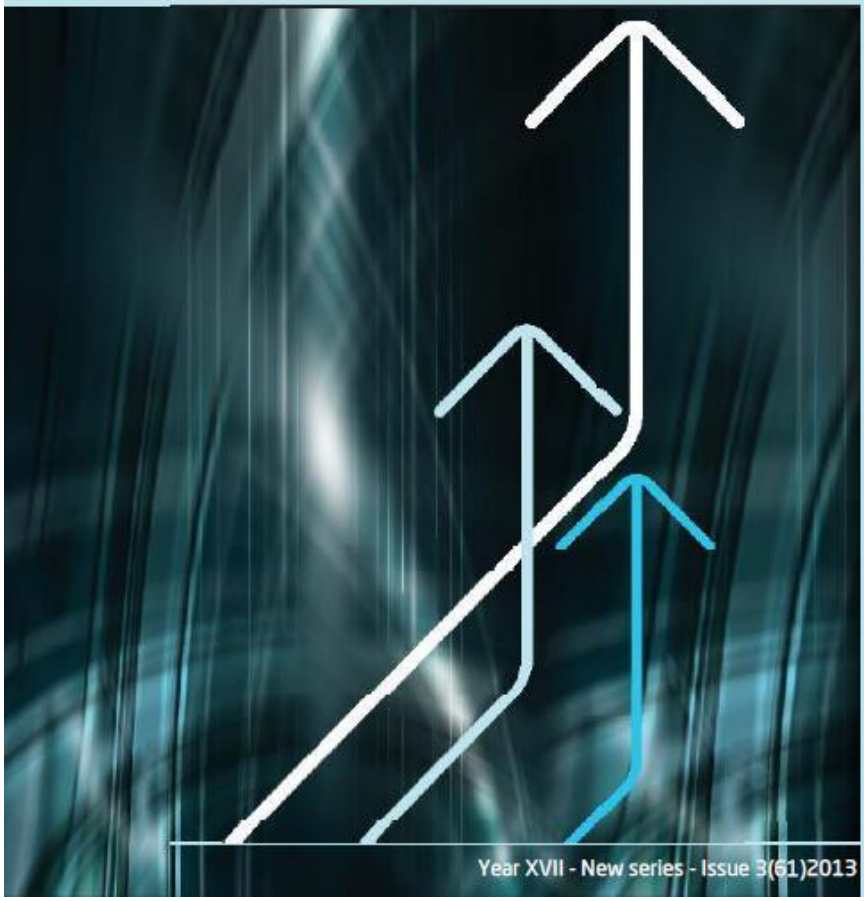

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“VICTOR SLĂVESCU” CENTRE FOR FINANCIAL
AND MONETARY RESEARCH

FINANCIAL STUDIES

ROMANIAN ACADEMY
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CONTENTS

FINANCIAL STABILITY – PREREQUISITE FOR THE PROPER FINANCING OF THE REAL ECONOMY[1]

Napoleon POP, PhD*

"By its instruments, the monetary policy can have systematic influence on price stability only"
Mugur Isărescu**,** Academica BNR, 2013

Abstract

The interventions done by central banks in order either to provide liquidity or to help the recovery of economic growth, during the lasting effects of the recent financial crisis, have again brought into the light the question how the monetary policy is serving the best a sustainable growth. Beyond the fact that in Europe, especially within the European System of Central Banks (ESCB), we still stack on the independent mandate of price stability connected with that of the financial stability, there still exists the propensity to think in a different way the contribution of a central bank to the stated issue through its monetary policy conduct. I think that we cannot compare National Bank of Romania`s mandate with those of FED or other central banks issuing international reserve currency, but we also cannot totally neglect that between the monetary policy effects and the economic growth there is a link. The difference is that many believe that this has to be on purpose, e.g. the central banks instruments are ex ante calibrated for economic growth, while a correct approach is that the monetary policy conduct responding primarily to price stability is creating ex post the potential for a sustainable growth. Accepting that, we can start from financial stability to explain better how the monetary policy has a role in economic growth by not diluting the mandate and the independence of the central bank.

[1] *Presentation during the Economic forum:"Both Worlds: Finance and Manufacturing at a Glance", hosted by Confindustria Romania, October 2013, Bucharest.*

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Keywords: central bank, monetary policy, price stability, financial stability, solvability standards, stress test, financial system.

JEL Classification: E31, E58, F43

Clarifications on the role of the monetary policy

The Central European bankers are insistently asked, particularly during these days marked by the effects if the financial crisis, what they can do to boost the economic growth. The term used was "*what they can do"*, because there still is awareness on the mandate of a central bank within the European System of Central Banks (ESCB), and on the fact that this mandate must be accomplished under conditions of full independency. The statement of ECB President, Mario Draghi that *he will do what it takes to save the Euro* might have caused some confusion, but the subsequent actions in this direction have shown that what is necessary is not always pleasant for a central bank.

Indeed, we are experiencing, due to the extensive quantitative easing (QE) mentioned among the non-standard measures of a central bank, a serious incertitude of the effects of giving it up, and the mere intention of the FED to use them less already disturbed the financial markets. However, the problem of the role of the monetary policy for the economic development is a current issue, at least because the steady and convincing revival of the economic growth in Europe, in the absence of the fiscal space, is yet to come.

I think that a correct revelation of this relation is displayed better by the financial stability, a subobjective of the central banks which is closely related to the main objective of price stability. Therefore, the reference to the financial stability is more comprehensive and allows understanding how the monetary policy can influence the economic growth and that it includes a picture that captures better this correlation.

The National Bank of Romania released in 2013 its 8th annual report on the financial stability; the content of this report is increasingly targeting the business sector in general, not just some financial specialists. Why? Because such report distinguishes the assembly of the financial relations between the economic actors, creditors or debtors, financial and non-financial entities or individuals, how the financial obligations are paid, the level of indebting, all these being useful information for both sides when we are speaking of the potential of a solvable demand for goods, services and financing.

More than ever we have to define or redefine the role of the monetary policy so as not to interfere into the mandate of the central banks directed towards price stability and not to diversify uselessly the action of their instruments, which are few but efficient, towards effects for which they were not designed. We will not make comparisons with the behaviour of particular central banks, such as the FED, or those that issue currencies used by other countries to make international reserves (Bank of England). As EU member state, we can only follow ECB pattern, which issues the Euro, currency which forms the bulk of our international reserves and to which the Leu is rated.

NBR, by its law of functioning (312/2004), harmonized with the main operational principles of the ECB (mandate and instruments), struggled against a strong hyperinflation and this is why the objective of price stability is still running and consolidating. However, even with strict mandate, completed with the financial stability, the role of the monetary policy must be understood properly. There is an impact on the economic growth, but not in the way desired by those thinking that a central bank can credit the economy directly, can capitalize economic entities directly, can cover the budget deficit directly by monetization and may use parts of the international reserves directly in public, even private investments.

Usually, the intention of such forced correlation is done *ex ante*, in a wrong manner in terms of using the monetary policy instruments, when we should actually judge *ex post* the impact of the monetary policy, benefitting of their properly guided effect, i.e. whether price stability creates favourable conditions for sustainable economic growth.

From now on we have nuances, which are absolutely necessary, our expectations being divided between the short-term, medium-term and long-term influence of the monetary policy. On the short-term, the monetary policy acts on the economic growth by regulating the aggregate demand using own instruments, aiming to flatten the large upwards and downwards oscillations of the economic cycle. The upwards oscillations reveal an excess of demand with positive gap compared to the potential GDP, situation in which the inflationist pressure builds up and endanger the general stability of prices, which causes the so-called conjunctural overheating. Since the regulation of the aggregate demand is usually included in the prudential policy of the central bank, the conjunctural overheating defines an exuberance, either by a higher attractiveness of the investors towards risk, or by the procyclicality of the fiscal-budgetary

policy of the public sector in the situation when the drive of the economic growth is already firmly ensured by the private sector.

The downwards oscillations of the cycle bring about the danger of recession and the monetary policy acts on the insufficient liquidity and on the cost of money, establishing the conditions for normal crediting. On both amplitude oscillations of the economic cycle, upwards and downwards, observing the establishment of a positive or negative gap of the aggregate demand compared to the potential GDP, the instruments used by the central bank are the monetary policy interest rate, the minimum reserve requirements ratio, liquidity management which may also impact on the exchange rate, however, within the stated exchange rate policy of the central bank, known by the business sector.

On the long-term, the monetary policy targets the general stability of the prices, and its systematic influence is to preserve this stability. This price stability, achieved by the behaviour of the monetary policy, has a direct impact on the long-term economic growth by decreasing as much as possible the incertitude that may affect business plans predictability and the normal operation of the markets. The persisting incertitude will stimulate speculations, will deter the formation and correct allocation of resources for development, all these eroding the potential of a sustainable economic growth created by price stability.

Thus, **the monetary policy cannot influence directly the level and rate of economic growth, but it determines, on the long-term, the inflation rate within the economy**. Many, older or more recent, studies support this conclusion, such as those of Laurence Meyer (1996) and Milton Friedman (1970). Meyer doubts that the monetary policy can lead directly to the growth of the GDP: *"Would it be possible to generate long-term economic growth by mere printing money, we would have long time ago create much higher standards of living by monetization"*. Friedman, on the other hand, warns on the danger of increasing the monetary mass without the support of economy: *"Inflation is always and everywhere a monetary phenomenon in the way that it is the mere result of a faster expansion of the volume of money than of the production"*. These truths have been demonstrated by the economic growth of most countries.

It is correct to see the long-term effects of the monetary policy of our central bank by its prudent and anticyclic character, which was much criticised. However, the thing that many saw as exaggerations (high rates of the minimum reserve requirements, recommendations regarding the

credits in hard currency, particularly in the *exotic currencies*, warning on the developing bubble in the real estate sector etc.) saved us from the financial crisis. Leaving aside the debates regarding the intensity of prudentiality used by the central bank, we may say that we benefitted of the buffers created by such behaviour, with the specification that all decapitalizations of some commercial banks were repaired exclusively by their shareholders, who remained in the front-line for readjusting their balance sheets.

Following EU and ECB recommendations regarding the *stress tests*, the Report on financial stability for 2012 (ECB, 2013) allowed thorough analyses which concluded that the financial stability in Romania is now staunch, with all the significance of this term. By this characterization, before going into relevant details, we synthesize that: (1) the resilience and resolution of the financial system are above the international standards; (2) the resilience of the financial system is not endangered if the normal crediting of the economy is resumed; (3) resilience id sufficient to control possible adverse evolutions external to the national space, tested with strict prudential filters. Are these conclusions on the financial stability resulting from a monetary policy directed with priority towards price stability, relevant for a sustainable economic growth? I wish that the answer to this question is found by those who will read patiently the above-mentioned report.

Financial stability and economic growth

We are all aware about the disturbance which the financial crisis caused to the ability of the financial sector to ensure finances for the medium- and long-term investments, under the influence of the climate of incertitude and risk aversion generated by the poor global macroeconomic situation. Specifically, the small and medium enterprises (SMEs) still suffer from this, and, as a formally acknowledged of this critical situation, the EU member states, individually and within the European institutions, explore the possibilities to find new ways to facilitate SMEs financing, particularly by designing new instruments which guarantee their crediting.

The concern starts from a strong economic reason, that the support of SME during this period is necessary because of their potential to restore the economic growth and to create jobs by short- and medium-term active measures. We are therefore in front of an emergency whose approach responds a political creed pertaining to the establishment and

consolidation of the middle class within the context in which countries with experience in this field are concerned by the polarization of their societies, with the erosion of the middle class and of its capacity of private economic initiative.

NBR, which, within the limits of its mandate, participates and monitors this action, has taken all measures necessary to strengthen the domestic financial stability, as confirmed by the evaluations of the international financial organisms. The monetary policy, which combines inflation targeting with the subobjective of financial stability, established the conditions for a lower cost of the credit in national currency and an ambience which favours the collaboration of the credit institutions with the beneficiaries of such credits, so that the real economy starts to be financed in a fluid, normal manner.

We may say, according to the local actions (monitoring and stress trials) and to the structural analysis of the relevant directorates within NBR, that the financial stability in Romania, at the consolidated level of the financial system, reached a fair level of robustness, which provides a considerably higher resistance or resilience than the current international standards. This resilience is not endangered by the release of a relation of normal confidence between the financial system and the non-financial sector; it is an important prerequisite that enables the local banking sector to cope adequately with the possible adverse (external) evolutions. The central bank will continue to support the evolution of the real economy at the level of its potential, which presumes sustainable growth.

The quality of the resilience is given by the fact that the maintenance of the financial stability was achieved under the conditions of challenges to it; the main vulnerabilities of the banking sector – high level of the non-performing credits and acceleration of the process of financial de-intermediation – remain within manageable limits. Solvability, the coverage of risks by provisions and the liquidity also were within adequate limits. They have the potential to resume crediting within sustainable conditions, on the background of a continuing and even intensifying process of financial de-intermediation and of the proper management of the banking assets quality in relation with the exposure of the credit institutions.

The successful finalization of the preventive financing agreement concluded with the European Union, International Monetary Fund and the World Bank, and the negotiation of a similar agreement which to ensure

the continuation of the reforms necessary for the consolidation of the domestic macro-stability and of the domestic financial system, contribute to the maintenance and consolidation of the financial stability.

The Romanian **banking sector** continued to be properly protected against the different unfavourable evolutions, both local and international. The level and quality of the own funds maintained within satisfying parameters: (a) the **solvency rate** remained at an adequate level (14.7% in June 2013), significantly higher than the regulated minimal level (8%); (b) the **own funds** consist mainly of good and very good quality items (13.6% first grade own funds in June 2013), and (c), NBR decided to **maintain the use of prudential filters** when calculating the own funds and the indicators of banking prudency throughout 2013.

According to the results of the **stress testing** of the banking sector solvency covering the period 2013 3Q – 2015 2Q, overall, the credit institutions preserve a good capacity of coping with macroeconomic shocks. According to an adverse scenario characterized by 20%+ depreciation of the national currency and by persistent recession, under the conditions of non-reimbursement rates comparable with those from 2009, the decrease of the aggregate banking solvency indicator would be of about 4%, up to 10.8%, which is above the prudential limits set by NBR.

The level of coverage of the non-performing credits by IFRS provisions, also analysed in terms of evaluations using prudential filters, remains at a comfortable level (88.2% in June 2013), being among the highest compared to the countries in the region. Such prudent behaviour overlaps the constraints still affecting the financial results of the credit institutions. The decrease of the expenditure with provisions compared to the similar period of 2012, as well as the lower costs of financing on the background of a better perception of the sovereign risk of Romania, helped the banking sector in Romania to turn back to profit during the first quarter of 2013 (1.2 billion lei).

The **exposure of the mother banks** towards their branches in Romania decreased so far in an orderly manner, the 24% decrease (December 2011 – June 2013 – from 20.3 billion Euros to 15.4 billion Euros) being compensated by the branches by drawing deposits from the local market. The effects of the de-intermediation have also been preponderantly corrective so far: the dependency of the banks ion the external financial resources decreased gradually, the level of indebting of the population decreased slightly, while the sectors of activity displaying a

potential to change sustainably the pattern of economic growth of Romania generally received additional financing compared to the rest of the sectors.

In the hypothesis that the process of de-intermediation initiated by the large banking groups continues to speed up, its significant level generating in short time liquidity shocks within the local banking system, the latter would have a fair capacity to cope with those adverse evolutions, but some vulnerabilities cannot be omitted. According to the **results of the macroprudential stress testing for liquidities**, the challenges regard the transformation of the lei resources into Euro, the sales of assets and the impact on the credits for the real sector. The autochthonous banks with capital from Euro zone countries, perceived by the international markets as being affected more by the sovereign debts crisis, generally have higher solvency rates and higher coverage rates (with provisions) of the non-performing credits than the system average rate. However, the specific conditions confronting the mother banks from the country of origin claim continuous attention to evaluate the possible risks.

Besides the ordered continuation of the profess of financial disintermediation, other two challenges for the sustainable resumption of the credits for companies regard the maintenance of the recent trends of balanced evolution by currencies of the new credits and the consolidation of the favourable structural changes regarding the credits for the non-financial companies. The new measures implemented by NBR starting with 2011, motivated both by the poorer quality of the credits in hard currency compared to the credits in lei, and by the need to align to the requirements of the European Committee for Systemic Risk, contributed to a more balanced dynamics of the flow of new credits starting with September 2012 and to a more balanced evolution by currencies of the new credits.

The **financing of companies** displayed favourable structural evolutions from December 2011 to June 2013, the most note-worthy ones being: (a) the credits for the companies that produce high value added goods (*medium high-tech* and *high-tech*) increased by 4.3% compared to the 1% decrease in the case of the companies incorporating less value added in their products (*low-tech* and *medium low-tech*), (b) the sectors producing tradable goods received 0.6% more credits, while the companies producing non-tradable goods received 1.1% less credits and

(c) according to the profile of the activity, agriculture stands out with 20.9% increase of the credits, followed by trade and the processing industry with 3.3% and 0.6% increase of the credits. However, the *knowledge-intensive* service providers displayed a 6.2% decrease, while the *less knowledge-intensive* service providers displayed a 0.2% decrease.

The **essential challenge** for the next years is to maintain the internal macrostability by a sound financial stability, so that the trust of the main players (resident and non-resident investors, consumers, the financial system etc.) in the Romanian economy consolidates. In order to preserve and improve macrostability and the financial stability, the structural reforms from economy must speed up, the labour market constraints should alleviate, and the economic development must increase. The fiscal consolidation must continue with a better discipline of the economic agents for the payment of all their obligations.

At the **level of the real economy**, the constraints on the economic and financial situation of the companies lessened slightly in 2012, the performance of the companies was heterogeneous, but one can see a process of change if the business pattern, but it is yet to become general. The causes reside in the slow progress for the payments of the duties, more acute insolvency phenomenon starting with 2012, a lower capacity of the companies to pay their debts to the bank (the rate of non-performing credits increase from 14.4% in December 2011 to 22% in June 2013).

Even under these conditions, the credit institutions hold adequate levels of capital and provisions necessary to cover the risks entailed by the financing of the companies, as well as administration techniques for these risks that have not yet used at their full potential. In turn, NBR implemented additional prudency measures, particularly for the debtors not covered for the hard currency risk, in line with the European recommendations.

The new economic program to be concluded for a period of two years with the European Union, International Monetary Fund and the World Bank, includes stipulations for the continuation of the structural reforms in economy, which will alleviate the vulnerabilities identified among the non-financial companies.

The delay of resuming the economic growth in the main EU countries, foreign trade partners of Romania, influences adversely the

economic growth in Romania and may affect the ability of the import-export companies to cope with the different adverse evolutions. So far, these **risks have been limited**, particularly because of: (a) the capacity of the exporters to diversify the foreign market outlets, while reducing their exposure towards the Euro zone countries (by 1.5 percentage points in 2012) by identifying new markets; (b) maintenance of the access to finances of the foreign trade companies (for instance the non-resident mother companies increased by 10.6% their credits for the local net exporting companies from December 2011 to June 2013, and (c) maintenance at a rather good level of the economic-financial situation of the foreign trade companies, above the economy average.

The Romanian exports with high value added and with a high level of innovation continued to increase, the *medium high-tech* products being the most important category, by volume, of goods exported by the Romanian companies. The encouragement and stimulation of the innovative industries is an essential objective that derives from the implementation of Europe 2020 Strategy too, being desirable to be implemented with priority, because these industries from Romania have proved that they can cope very well to the crisis.

In turn, the progress of the proper administration of the capital flows presumes the consolidation of the foreign debt services sustainability, which will allow maintaining the access to proper foreign financing sources in terms of volume and costs. The improved structure of the foreign financing flows will consolidate a sustainable pattern of growth of the Romanian economy.

The image of the potential and capabilities of the financial sector that was briefly presented here may be completed by the study of the 2013 NBR Financial Stability Report. The non-financial sector should follow directly NBR policy from its periodical reports and communiques, in order to interpret with priority by the people using this information to develop own business plans. Such approach for the people from the real economy is accomplished by NBR through the multitude of economic seminars hosted to this purpose, which enjoys particular attention, as evidence of the trust in the partnership between the central bank and the business environment.

Some conclusions

The brief picture of the potential and capabilities of the financial sector can be completed by the study of the 2013 NBR Financial Stability Report. The non-financial sector should follow directly NBR policy from its periodical reports and communiques, in order to interpret with priority by the people using this information to develop own business plans.

The National Bank of Romania assists the actors from the real economy by a broad range of economic seminars that is hosted, and the large audience proves the trust that is being built between the central bank and the business environment.

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QUALITATIVE RISK COVERAGE IN AGRICULTURE THROUGH DERIVATIVE FINANCIAL INSTRUMENTS BASED ON SELYANINOV INDICES

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Abstract

The financial product designed by the authors belongs to the class of derivative financial instruments, having "weather conditions" as basic variable; the settlement is oriented to options on OTC markets, which are able to adapt to the farmers' risk exposure level. Unfortunately, they cause certain problems at position liquidation, and, moreover, due to lack of stock prices, they require proper evaluation models. The transformation of the weather risk into financial risk and its trading on financial markets relies on the willingness for risk taking of those groups of farmers which are using this particular financial instrument. One needs to emphasize that the proposed product is covering the risk for the production segment only of a specific crop that cannot be covered by the regular agricultural insurance, and it is based upon the Selyaninov index. The calculation formulae for a put type option will be presented: pay-off, strike, tick, and the level of the insurance premium for cereals. The reference weather stations will be: Tulcea, Brăila, Buzău, Galaţi, Focşani and Medgidia.

Keywords: Selyaninov index, weather risk, hedging, derivative instruments, options

JEL Classification: Q14, G22, G23

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Introduction

More than 90% of production losses are due to unpredictable or extreme weather conditions. In this context, the agricultural policies of many countries include important economic mechanisms for agricultural production insurance, in the sense of compensating farmers in the case of extreme situations that result in totally or partially compromised farm production. The agricultural insurances currently on the market are marked by ”informational asymmetry and systematic risk”. The United States and Canada tested and implemented a wide range of advanced insurance products, such as those of “multiple-hazard” type. In this context, we mention the range of products offered by WeatherBill, where the *Total Weather Insurance* product stands out, which combines Big Data, Climatology and Agriculture in an attempt to supply online agricultural insurance for weather risk coverage. However, there are certain analysts who advocate a re-evaluation of the scope and utilization modality of these products (Skees, 2001).

The paper investigates the opportunity of financial product utilization for limiting the weather risks – the weather derivative contracts used in the agricultural sector. The approach finds its rationale in the identification of connections between the weather derivative contracts markets (Jewson, Brix and Ziehmann, 2005).

We consider it appropriate to focus on the agricultural sector, starting from the negative effects that the natural disasters (e.g. flooding) (Skees and Barnett, 1999) and the weather variables (e.g. temperature) generate on this sector, both at national and international level. At the same time, we consider that an integrated approach to these is also justified by the fact that in the specialty literature these two types of contracts are also found in the large family of market-oriented environmental instruments, named mechanisms belonging to the field “Environmental Finance” (White, 2013), or “Eco-Finance” (Ali and Yano, 2004) – a hybrid between the regulations on the environment and the financial markets.

State of knowledge

The scientific literature paid a particular attention to the weather indices and derivative contracts in agriculture (Skees, 2000; Skees et al., 2001; Diskel, 2002; Barnett and Vedenov, 2004). These

contracts originate in the deregulation of the energy sector in the US starting with the year 1997, which led to the disappearance of monopolies in the electric power and natural gas industry, which had an impressive dynamics in the developed countries at that time, according to a study made in the year 2001 by PricewaterhouseCoopers (PWC) on the demand of Weather Risk Management Association (WRMA). As regards the contracts introduced in the developing countries (India, Morocco, Ukraine), one should mention the research efforts (mainly as regards the research and data availability infrastructure), the construction of econometric models and their testing and the special efforts with regard to the implementation of new financial structures (part of these were developed under certain projects funded by the World Bank - World Bank Commodity Risk Management Group (CRMG) or by the United Nations Organization - United Nations World Food Program (WFP).

A standard contract for a weather derivative financial product comprises:

- the period of contract: beginning date and ending date of contract;
- the weather measuring station;
- a weather variable, measured at the weather station during the contract period;
- an index, which aggregates the weather variable during the contract period;
- a pay-off function, which converts the index value in cash at the end of contract period;
- for certain types of contract, a premium is paid to the seller by the buyer at contract initiation.

These basic attributes are in direct concordance with the existence of the following:

(a) an agency in charge of measuring the weather variables;
(b) a paying agent, responsible for supplying the final index value, based on the values obtained according to a family of previously defined algorithms;
(c) a back-up station, which would be used in case of the main station failure;
(d) a defined time period during which the settlement (payment) is done.

Briefly, the financial product resulting from our research falls into the category of derivative financial instruments with the basic variable "weather conditions", and the settlement is based on options, with transactions on OTC *(Over The Counter)* markets, which can be structured according to the needs; unfortunately, these raise certain problems at position liquidation, and furthermore, due to the absence of quotations, impose the utilization of evaluation models.

One must underline that the proposed product covers only the production risk at the level of a given crop, based on the hydro-thermal Selyaninov index.

For a put type option, we shall indicate formulae for calculating: pay-off, strike, tick and the premium level for cereals. The reference weather stations will be the following: Tulcea, Brăila, Buzău, Galaţi, Focşani and Medgidia.

The weather impact upon a large and various business category begins from small diminution of sales in a shop on a rainy day up to total disaster, i.e. in the situation when catastrophic flooding destroys large areas under crops together with the processing factories of certain large companies that operate in agriculture and not only in agriculture. The extreme weather conditions result in significant material damages and loss of human lives. The companies willing to protect themselves against the financial impact of such disasters can buy products of the insurance companies on the basis of which they will get compensations according to their losses.

The weather derivatives are financial products designed to help companies involved in agricultural business to get insured against non-catastrophic weather risks (Cao and Wei, 2000). The non-catastrophic weather fluctuations include the alternation of warm and cold periods, rainy or dry periods, storm or calm periods, and so on and so forth, their emergence being reasonable. However, these can induce drastic diminutions of profit depending on the moment from the vegetation period of crops when they occur.

The utilization of hedging with financial instruments such as weather derivatives is mostly desired, as it contributes to the diminution of the yearly volatility of profit, this being beneficial in making the unavoidable crediting costs predictable under the conditions of high profit volatility. If the company is quoted on the stock market, a low profit volatility entails a low volatility of shares

price, and implicitly an increase of their attractiveness for investors. Although hedging incurs additional costs, these might be insignificant as compared to the potential production losses and of their influence upon profit, which most often led to company bankruptcy. The usual instruments for limiting the risk at farm level are the following:

(a) production diversification;
(b) increase of reserves at farm level;
(c) irrigations.

An alternative variant to this weather risk coverage scenario is that of the financial instruments used as vehicle to transfer risk to markets specialized in this type of operations: insurance contracts and derivative financial instruments.

A derivative instrument is a transfer contract of a risk sized depending on the value of a basic asset. The basic asset may be any transactional instrument agreed by the contracting parts. A derivative instrument is characterized by the fact that its value depends on the value of an asset (agricultural production) and does not need an initial investment as in the case of usual risk limiting instruments that have been previously presented; furthermore, the payment is made at a subsequent date.

Depending on how the settlement is done, there are:

- futures financial instruments (Kevorchian and Hurduzeu, 2010) (forward, swap, futures);
- options (put and call, collar, swap, etc.).

Depending on the market on which these financial instruments are transacted, we might find:

- *transacting on organized markets,* where there are standardized contracts as well as certain advantages, i.e. liquidity, available quotations as well as an increased possibility of position liquidation. Standardization obstructs a coverage;
- *transacting on OTC markets*, which allows an adaptive structuring to own needs, yet difficulties in position liquidation are met, and the absence of quotations imposes the utilization of adequate models for evaluation.

Depending on the “basic variable” we might find derivatives based on: exchange rate, interest, stock indices, weather, etc.

Methodology and data sources

The approach described in the previous chapter requires the construction of a subscription index model on the basis of which the derived product value is established. The simplest solution in index modeling is based on the distribution of its historical values. Parametric or non-parametric variants of distribution can be adopted as well.

Temperature and moisture are essential parameters during the vegetation period on which the quantity and quality of production depend, yet the predictive power of models for the entire vegetation period is quite limited. We consider that a better result might be obtained by modeling the process of index generation on a finer scale. In the case of contracts on temperature only, in the model based on the daily average (or min/max value), the time series thus obtained can be relatively easy to predict.

The model can be constructed by using the common statistical models, time series (e.g. ARMA *(Autoregressive Moving Average)* or Fourier transform in frequency domain), exclusively based on the characteristics displayed in the historical time series of the index. A more sophisticated approach is to incorporate certain exogenous data in our statistical models based on spatial-temporal correlations from the weather zone (for instance the effects of hurricanes with temperatures and rainfall can be integrated). A superior approach for the daily or monthly modeling of the variable time series is to combine the weather, statistical and physical models using the weighted data horizon on the basis of which they are obtained, after the optimization on the basis of data from the combined systems performance evaluation sample.

Results and discussions

In general, the financial instruments of weather derivatives type target the low risk events, but with high occurrence probability, compared to the weather insurances that target high risk events, but with low occurrence probability. Hence, on the basis of a proper risk coverage policy, the two instruments can be combined into a mix of products accessed according to the farmer's risk aversion level.

We tried to calculate the necessary elements for the construction of contracts for the most important 5 crops from Region

2 South-East: wheat, maize, barley, sunflower and rapeseed. Region 2 South-East was selected on purpose, as the largest and most modern farms are found there, which benefit from the best soils in the country, yet at the same time they are subject to the strongest weather variations (excessive temperatures, excessive drought, excessive rainfall).

We consider the Selyaninov hydro-thermal index as the subscription asset, as it reflects the couple temperature-moisture into a single variable:

$$SHR = \frac{P}{\sum_{T>10} \frac{T}{10}} \quad (1)$$

where: T = temperature;
P = rainfall volume measured at a given weather station.

The National Meteorology and Hydrology Authority issues a forecast for the Selyaninov index value for all the weather stations in the country on a quarterly basis, and afterwards it publishes the yearly average values effectively reached (Table 1).

For the Romanian crops, the weather conditions for obtaining the best harvest possible, in general, require a Selyaninov index in the interval $1 \leq SHR \leq 1.4$. When the index exceeds the value 1.6, production decreases due to excessive moisture, and when the index is lower than 0.6 production decreases due to excessive drought.

As a spot value to be used in the transactions on the market, the index was calculated on the basis of daily measurements of temperature and rainfall in 6 weather stations in the 6 counties from Region 2 South-East (Brăila, Buzău, Medgidia, Galaţi, Tulcea and Focşani).

The contract period is that period for which the contract index for that particular crop was calculated. In our case, it is the Selyaninov index, and for the wheat crop, for instance, the period is 15 April-30 June, namely that critical period in which temperature and rainfall have a decisive impact upon production.

Table 1

Yearly value of Selyaninov index for the six investigated weather stations

Year	Weather station					
	Brăila	**Buzău**	**Medgidia**	**Galaţi**	**Tulcea**	**Focşani**
2001	0.86	1.02	0.71	1.21	0.92	1.04
2002	1.08	1.26	1.31	1.28	1.04	1.39
2003	1.03	1.02	1.29	0.95	0.91	1.06
2004	1.55	1.17	1.51	1.41	1.42	1.40
2005	1.53	1.81	1.62	1.73	1.38	1.89
2006	0.91	1.41	1.20	1.01	1.13	1.24
2007	0.82	1.10	0.93	0.80	0.80	1.37
2008	0.94	0.92	0.92	0.91	1.15	1.22
2009	0.80	1.05	1.08	0.93	0.92	0.98

Source: National Authority for Meteorology and Hydrology (NAMH)

We propose the following scenario: a farmer whose farm is located in Tulcea county wishes to use financial derivatives to cover the risk that the hydro-thermal Selyaninov index may reach values ranging from 0.71 to 0.73 (forecasted values), as it is known that this value of the index in the case of the wheat crop can result in a qualitative depreciation of production. The forecast value of index is below the historical average (a low risk event, but with high occurrence probability). With index values within this interval, the farmer's incomes will be significantly diminished due to production losses caused by unfavorable weather conditions. The calculation formula of Selyaninov hydrothermal index (SHR) for the winter wheat vegetation period (15 April – 30 June), SHR_{wheat} is:

$$SHR_{wheat} = \frac{\sum_{April15-June\ 30} \text{Daily rainfall.}}{0,1 * \sum_{April15-June30} \text{Daily average temperature}} \qquad (2)$$

The weather derivatives financial products are based on a subscription asset, in our case Selyaninov index. As the Selyaninov

index is not a tradable asset, through a family of functions attached to each crop and weather station a fraction of the Selyaninov index is associated to a certain amount of money that reflects the production loss or gain depending on the favorable/unfavorable weather conditions for obtaining the desired production.

The valoric Selyaninov index associated to a certain crop measures the weather suitability level for reaching a certain production level and it is identified with the value SHR_{crop} for a given day in the contracting period, relative to a given weather station.

The negative impact of the temperature – moisture combination on the wheat crop was calculated, expressed in production losses (table 3). The impact upon production was calculated using the following formula:

$$I(SHR) = \begin{cases} \min\{M, (1 - SHR) * \theta\} & SHR \in [0,1.0) \\ 0 & SHR \in [1,1.4) \\ \min\{M, (1 - SHR) * \theta\} & SHR \in [1.4,2) \end{cases} \quad (3)$$

where: M = contract value;
θ = calculated value in table 3.

The functions estimating the production variation on the basis of Selyaninov index were determined (the Selyaninov index-production dependence adjustment curves) for all the 5 crops in all the 6 weather stations (30 functions in total – table 2).

Table 1

Adjustment curves determined for contract sizing

Crop	Selyaninov-production dependence adjustment curve	Step	Production loss (tons)	θ index value (RON)
Brăila Station				
Wheat	$F_{wheat}(x) = 5.948x^2 - 2.711x^3$	0.01	0.03237	15.3721
Maize	$F_{maize}(x) = 11.785x^2 - 6.522x^3$	0.01	0.05263	27.5817
Barley	$F_{barley}(x) = 11.413x^4 - 6.089x^5$	0.01	0.03215	10.2896
Sunflower	$F_{sunflower}(x) = 4.262x^2 - 2.341x^3$	0.01	0.0256	36.864

Crop	Selyaninov-production dependence adjustment curve	Step	Production loss (tons)	θ index value (RON)
Rapeseed	$F_{rapeseed}(x) = 2.661x^2 - 0.9998x^3$	0.01	0.0104	7.280
Buzău Station				
Wheat	$F_{wheat}(x) = 3.560x^2 - 1.291x^3$	0.01	0.02269	10.7753
Maize	$F_{maize}(x) = 7.114x^2 - 2.954x^3$	0.01	0.05383	21.8013
Barley	$F_{barley}(x) = 2.952x^2 - 1.400x^3$	0.01	0.0109	3.505
Sunflower	$F_{sunflower}(x) = 1.8954x^2 - 0.8315x^3$	0.01	0.01465	21.1060
Rapeseed	$F_{rapeseed}(x) = 1.4736x^2 - 0.5805x^3$	0.01	0.00582	4.0735
Medgidia Station				
Wheat	$F_{wheat}(x) = 4.9947x^2 - 2.4737x^3$	0.01	0.025210	11.9719
Maize	$F_{maize}(x) = 3.4695x^2 - 0.55819x^3$	0.01	0.028876	15.1330
Barley	$F_{barley}(x) = 5.3725x^2 - 3.0620x^3$	0.01	0.06607	21.1441
Sunflower	$F_{sunflower}(x) = 1.8703x^2 - 0.8042x^3$	0.01	0.009913	14.2749
Rapeseed	$F_{rapeseed}(x) = 2.7519x^2 - 1.4289x^3$	0.01	0.026735	18.715049
Galaţi Station				
Wheat	$F_{wheat}(x) = 4.0245x^2 - 1.267x^3$	0.01	0.02757	13.0950
Maize	$F_{maize}(x) = 12.902x^2 - 6.142x^3$	0.01	0.06762	35.4281
Barley	$F_{barley}(x) = 4.905x^2 - 2.365x^3$	0.01	0.021003	6.7208
Sunflower	$F_{sunflower}(x) = 2.1033x^2 - 0.9449x^3$	0.01	0.018512	26.6578
Rapeseed	$F_{rapeseed}(x) = 1.8944x^2 - 0.7140x^3$	0.01	0.00428	2.9970

Crop	Selyaninov-production dependence adjustment curve	Step	Production loss (tons)	θ index value (RON)
Tulcea Station				
Wheat	$F_{wheat}(x) = 3.943x^2 - 1.858x^3$	0.01	0.02085	9.9014
Maize	$F_{maize}(x) = 3.386x^2 - 0.589x^3$	0.01	0.02797	14.6582
Barley	$F_{barley}(x) = 4.262x^2 - 2.341x^3$	0.01	0.01921	6.147
Sunflower	$F_{sunflower}(x) = 4.262x^2 - 2.341x^3$	0.01	0.03607	51.843
Rapeseed	$F_{rapeseed}(x) = 2.172x^3 - 1.065x^4$	0.01	0.0264	18.480
Tulcea Station				
Wheat	$F_{wheat}(x) = 3.952x^2 - 1.471x^3$	0.01	0.02480	11.7772
Maize	$F_{maize}(x) = 3.159x^2 - 0.7654x^3$	0.01	0.023942	12.5472
Barley	$F_{barley}(x) = 4.1218x^2 - 2.0856x^3$	0.01	0.038123	12.19957
Sunflower	$F_{sunflower}(x) = 2.2380x^2 - 1.0232x^3$	0.01	0.015105	2175061
Rapeseed	$F_{rapeseed}(x) = 2.1273x^2 - 0.8484x^3$	0.01	0.007482	5.2374190

Source: authors' calculations

Calculation example:
Crop: winter wheat;
Weather station: Tulcea;
Step (variation tick): 0.01;

$F_{wheat,\ Tulcea}(x) = 3.943\ x^2 - 1.858\ x^3$ *where:* $x = SHR_{wheat}$

Thus, at a variation ("step") of Selyaninov index of 0.01, it results a calculated variation of wheat production of 0.02085 tons, for which θ_{wheat} = 9.9014 RON.

Table 2

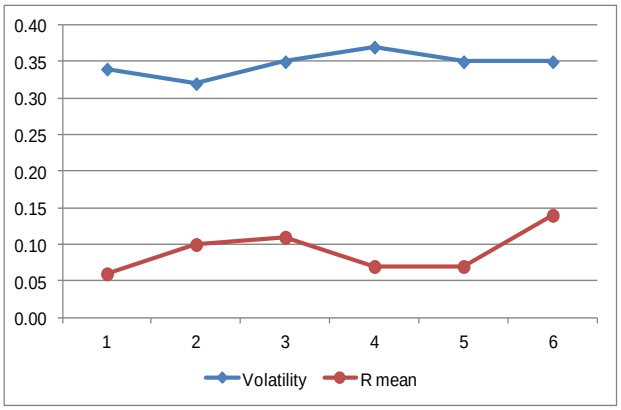
Evaluation of wheat production losses according to Selyaninov index value measured at the weather station Tulcea

Date	Average temperature (°C)	Rainfall (mm)	SHR_{wheat} (Selyaninov index calculated on a daily basis)	I(SHR) (impact upon production – losses in tons)
16.04.2010	8.4	6.2	0.40	1.25
17.04.2010	8.5	0.0	0.26	1.54
18.04.2010	10.1	0.0	0.18	1.70
19.04.2010	12.0	0.6	0.15	1.77
20.04.2010	12.8	0.0	0.12	1.84
21.04.2010	13.0	0.2	0.10	1.88
22.04.2010	15.3	0.0	0.08	1.91
23.04.2010	12.9	6.8	0.14	1.79

Source: authors' calculations

The index volatility was calculated in the area of the six weather stations where the study was conducted; the picture is shown in Figure 1.

Fig. 1 – Index volatility calculated for the 6 weather stations



Source: authors' calculations

Conclusions

Risk coverage in the case of certain weather phenomena with low risk but high occurrence probability is a necessity that can reduce the negative impact at farm economy level.

The weather derivatives market requires certain adjustments in the sense of unifying the price establishment methodologies. Practically, the financial product designed by the authors falls into the "black-box" modeling tendency for determining the option price, on the basis of the technologies belonging to Cloud Computing and Big Data paradigm (Kevorchian, 2013).

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ROLE OF THE DELEGATED ADMINISTRATOR COMPARED WITH THE ROLE OF THE SPECIAL ADMINISTRATOR IN BANKING

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Abstract

The articol presents the new Romanian legislation refering at a new legal institution about the delegate administrator. This institution is comparate with the legal institution about the special administrator, which was adopted in 2006 when appeared the Gouvernement Emergency Ordinance no.99/2006. This instituted the right of the National Bank of Romania to decide to adopt one of the stabilisation measures instituted.

These stabilisation measures are very important in banking practice, especially in the time of the banking crisis.

It is important to distinguish between the two legal institutions for to select the best stabilisation measure.

Keywords: credit institutions, banking crisis, delegate administrator, special administrator, practice in banking, supervisory authority, the National Bank of Romania.

JEL Classification: K10, K22

Credit institutions' business can no longer be considered as an activity limited merely to the interests of these institutions' shareholders or, at most, limited to their customers' interests. Needless to say, shareholders' interest is fully justified since shareholders have invested their resources and have been involved in the business of these credit institutions. But, when a credit institution has a certain market share in its business sector and, more and more, it expands cross-border into several national systems – some credit institutions being even considered significant for the global banking system - it is but natural that the business of such a credit institution attract more and more the interest of other persons, institutions and states working directly with it or the interest of those on whose territory this institution conducts business.

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At global level, the phenomenon represented by the current banking crisis has meant a lot of problems for those involved and a lot of problems for the entire community as well, due to the consequences of this crisis. Indeed, at global level, the current crisis is a particular phenomenon, beyond the ordinary, known patterns - if it were only due to the fact that this crisis has affected the most developed countries from an economic point of view, countries that impact the developments of the global economy. Today, we could no longer state that in a certain country, a person can afford not to be interested in the fact that this phenomenon becomes manifest more strongly or more chronically in another far-away country. Every day, practice in banking has shown us that the perception of states, the national banking supervisory authorities and even each person has changed. At the beginning of the crisis – i.e. less than six years ago - we were all less interested whether the crisis happened in a small, far-away country like Iceland or in the most developed country of the globe, since our own banking sector was not anchored through immediate or strategic ties to the banking institutions of these countries. The persons and banks from Romania had no links with the banks of Iceland, and our banking sector included only two banks with US capital: one was a peripheral bank, belonging to a family who owned it, while the other one, despite being the subsidiary of a major bank of the USA, represented only 1% of the Romanian market, so it could not generate worries. But, since the crisis expanded to Europe as well and, more precisely, to the countries that make up the union we are part of – the European Union – the perception had to change. Whether we liked it or not, as an EU Member State and as a participant to the European system of central banks, we had to put on our agenda the same concerns that are of interest for all those who are part of this body. Our banking legislation has increasingly integrated the new regulations devised at EU level, enforced, in a direct manner, in the Romanian banking sector too. On the other hand, the prudential supervisory system - adapted to be in line with this legislation - has included, besides solo supervision, consolidated and sub-consolidated supervision as well, as the case may be, with a view to prevent and mitigate the risks specific to banking.

Moreover, the Romanian banking supervisory authority has now new concerns in its activity. Contemplating the provisions of Art. 186 of the Government Emergency Ordinance nor. 99/2006 on credit institutions and capital adequacy, with subsequent amendments and

completions, the National Bank of Romania (NBR) cooperates closely with other competent national authorities and with the European Banking Authority, to which it provides all the necessary information with a view to carry out its competencies set forth by Directive no. 2006/48/CE of the European Parliament and the European Council of 14 June 2006 on initiating and exercising the business of credit institutions. In order to exercise supervisory competencies for a solo entity and/or for consolidated supervision, the respective authorities provide, upon request, all the relevant information and, *ex officio*, all essential information. In paragraph (2) of the same law, the notion of 'essential information' is defined, by mentioning that information "*is considered essential if it can influence significantly the assessment of the financial stability of a credit institution or of a financial institution from another Member State*".

With every day that passes, this cooperation has become more and more obvious and, at the same time, more and more efficient. The examples are countless, from the Vienna meetings that started in 2009, meetings with international financial institutions, with the parent banking institutions of the main banks that operate in the banking sector of Romania, to the recent collaboration with the supervisory authority of Cyprus on the situation of the Romania-based banking entities with Cyprian capital.

The concerns of the Romanian supervisory authority must be all the more active as the information flooding us every day has been more and more alarming. The daily press such as *Ziarul financiar* tells us that: "*In the race to reduce debts and budget deficits, the European Union incurred a recession in the first quarter, while the euro area continued its longest economic downturn since the introduction of the European currency, in 1999, with its main growth engine, Germany, fuelled "almost exclusively" by the population's spending*" (Cojocaru, 2013). This finding relies on the statements of the German statistics institute quoted by *Bloomberg*, supported by the fact that investments are lower and net trade had a minimal contribution to growth, a growth which, anyway, stood at merely 0.1%.

From the discussions of some businessmen and journalists invited to a CNN talk show on economic issues, we could infer that the "club" of the EU rich countries has been facing the slow breakdown of their economies, while trying hard to absorb the poor countries from Eastern and Southern Europe.

If Quentin Peel, an editor of the Financial Times, suggested that the problem of Europe is its "dramatic expansion" i.e. to include all the economies of Eastern Europe, Marco Simoni, an economist with the European Institute, stated that: "The Europeanization has not gone far enough. One is not safe even being inside. One must go on doing one's lessons."

On the same date and in the same *Ziarul financiar* newspaper, there was a title stating that "*The Supervisors of the Central Bank Have Put the Screw on Banks*", the title of an article which underlined the fact that the "*National Bank of Romania maintains pressure for an assessment as close to reality as possible of the collateral banks rely on*" (Voican, 2013). The article showed that the "*verification conducted last fall ended up with impressive additional provisions, i.e. €600 million, which made the system incur a record loss of lei 2.12 billion. But the market conditions were different: some banks that kept postponing recognizing the depreciation of their collateral, set new provisions even as high as €100 million, while as regards other banks, the amounts were much lower*" (Voican, 2013). In the current general context, special interest is given now to approaching the aspects related to the stabilisation measures introduced in the Romanian law via point 18 of the Government Ordinance no. 1/2012, starting with 21 January 2012, i.e. in the middle of the European crisis. Thus, Art. 240^{23} of the Government Emergency Ordinance no. 99/2006, supplemented on that date, instituted the right of the National Bank of Romania to decide to adopt one of the stabilisation measures instituted, as follows:

1. Total or partial transfer of the assets and liabilities of a credit institution to one or more eligible institutions;

2. Involvement of the Bank Deposit Guarantee Fund as delegated administrator and, as the case may be, as shareholder, if beforehand, the measure of suspending the voting rights was disposed of for the shareholders who hold control over the respective credit institution; and

3. The transfer of the assets and liabilities of a credit institution to a bridge-bank established for this end.

Any of these measures can be decided by the banking supervisory authority based on its findings, when this authority thinks that "*there is a threat to financial stability",* as the legislator words it. Previous to adopting such a decision, the supervisory authority has the obligation, instituted by law, to decide which of these stabilisation

measures would be best to be applied - a situation which shows the responsibility of the National Bank of Romania as regards its selection, function of the concrete situation of the respective credit institution, as the adopting of the respective decision should not be a random measure.

Implementing such a measure implies the responsibility of the National Bank of Romania both as regards enforcing the appropriate provisions from other law texts of the same law chapter, and as regards the express requirements instituted by law applied for the stabilisation measures.

Analysing the institution of delegated administrator, we must contemplate this institution compared with other roles, such as the role of the administrator and the role of the special administrator, whose regulating was set forth previously in other normative acts.

About the institution of the administrator, the legal framework is found in chapter VII – the company contract in Book V of the Civil Code, including concrete provisions under Art. 1913 – 1919 of this normative act. Art. 1913 paragraph (2) determines who can be an administrator, mentioning that "*they can be associates or non-associates, Romanian or foreign, natural or legal persons".* The governing of this institution is provided via the company contract or via separate acts, set forth expressly in par. (1) of the same article, which shows that via such acts, diverse aspects can be set, such as: appointing the administrators, their manner of organizing themselves, the limits of their mandates, as well as any other aspect pertaining to company management.

As regards its scope, Art. 1914 sets forth that, in the absence of the opposition of his/her associates, the administrator "*can perform any administration action for the company's best interest"* and, taking into account his/her activity, the administrator is *personally* accountable, in conformity with Art. 1915, "*before the company for the prejudice generated by breaching the law, the mandate received or by guilt, while administering the company".* At the same time, administrators can have the right of representing the company in court, by observing Art. 1919.

Of course, these legal provisions apply to the administrators of credit institutions also, taking into account the fact that these institutions are trading companies, to which the general regulations of the matter apply in principle.

The institution of the special administrator occurred in banking legislation at the same time with regulating the institution of special administration, i.e. as a supervisory measure that can be decided by the national banking supervisory authority, observing the law. The special administrator is a person appointed by the National Bank of Romania via the decision to institute the measure of special administration, being the person with whom this measure is actually realized; this person is accountable before the National Bank of Romania for the deployment, under the best conditions, of his/her entire activity during his/her mandate, a mandate that, in principle, lasts for 4 months, in conformity with Art. 240^4 or for another period of time mentioned in the decision issued by the supervisory authority, either initially, or later, if the period is prolonged and if this action is deemed necessary to complete the measures for the restructuring of a credit institution.

The special administrator appointed can be one or several natural persons or a legal person. Contemplating legal persons, the legislator stipulated that the Bank Deposit Guarantee Fund can also be one of them, considering the specialization of this institution.

The decision of the National Bank of Romania must include the appointment of the person nominated as special administrator, and his/her specific goals and competencies, in conformity with the law text, his/her remuneration, the permitted level of expenditure that can be engaged when carrying out the competencies and any other conditions considered important by the National Bank of Romania. Art. 240^5 paragraph (3) sets forth the conditions that the National Bank of Romania must contemplate when appointing a person as special administrator. Thus, the natural person appointed or, if it is a legal person, the natural persons empowered by the legal person to assure its representation, should not be in any of the incompatibility situations set forth by the law text that regulates incompatibilities for the position of a credit institution's administrator. They are mentioned under Art. 110 of the Government Emergency Ordinance no. 99/2006 and refer to concrete cases. If the first case refers to a certain situation regarding a job in the same credit institution which could not have been carried out for practical reasons, the other two refer to the notoriety of the person, as regards his/her legal situation and refers either to the fact that, in the last 5 years, the person was withdrawn by the supervisory authority, his/her endorsement to exercise the competencies of administration or management in a credit institution,

a financial institution or an insurance/reinsurance company or another entity doing business in the financial sector, or was removed from the position exercised in such entities due to reasons he/she can be blamed for, or due to the fact that he/she is forbidden, via a legal disposition, a court sentence or the decision of another authority, to exercise administration or management duties in such an entity or to do business in one of the domains specific to these entities. Moreover, he/she must not be debtor or creditor of the credit institution or a person with strong ties with the institution. In addition, this person or those who support the special administrator to carry out his/her duties must have a good reputation, the appropriate qualifications and the professional experience and be independent, in conformity with the criteria set forth by Law no. 31/1990 on trading companies, recast, with subsequent amendments and supplementations, for the appointment of an independent administrator.

Related to the person of special administrator, the National Bank of Romania has the obligation to mention in the decision appointing this person, in case several natural persons are appointed, the distribution of competences among these persons and their coordination and subordination.

The persons appointed to exercise the capacity of special administrator can be replaced by the National Bank of Romania if they do not act in conformity with legal provisions or in accordance with the instructions and dispositions of the banking supervisory authority or if they do not comply any longer with the conditions set forth by law.

The duties are exercised by special administrators in conformity with legal provisions and applicable regulations. Special administrators must observe the instructions and dispositions given by the supervisory authority during the entire period of applying special administration and are accountable only before this authority for the carrying out of the duties conferred by this capacity.

The National Bank of Romania can set certain limitations or conditionality as regards the activity and the administration of the credit institution that is under special administration and can restrict fully or partially the provision of certain financial services. A special administrator is accountable for their carrying out and for his/her entire activity and for carrying out the duties conferred by this position. A special administrator is empowered by law, to be able to

hire other persons: auditors, lawyers, valuators, other independent certified experts, to support him/her in carrying out his/her duties; this administrator can delegate specific tasks only in conformity with the instructions conferred by the National Bank of Romania. The liability of the special administrator and of any other person hired by him/her is limited only if there is proof that this person acted in bad faith or with gross negligence.

A special administrator replaces the administrators of the respective credit institution, taking over in full the competencies pertaining to the bank's administration and management. The law requests him/her, immediately after the taking over of the credit institution, to notify the bank's departments and branches, the correspondent credit institutions, the Trade Register and, as the case may be, the Bank Deposit Guarantee Fund, about this measure, while having unrestricted access to all the premises and locations of the respective institution and to all its assets, records, accounts and other records, having full control over them.

A special administrator must assess the outlook as regards realization and the approximate costs and benefits, and be able to choose to redress the credit institution, to restructure its business or to introduce a petition to start the winding up procedures.

We should remember that, in a delay of maximum two months, the special administrator must submit to the National Bank of Romania a written report with enough details to fundament his/her recommendations regarding the measures he/she deems adequate, function of the assessments made. In addition, during the whole period of special administration, the administrator must report to the National Bank of Romania, by the deadlines set by the central bank, the financial position of the credit institution and the stage of the measures implemented and, when impediments occur during the implementation of the measures approved, to propose to the National Bank of Romania either to amend these measures, or to withdraw the license of this credit institution. These reports submitted by the special administrator are the grounds for the National Bank of Romania to decide at any moment, the cessation of the special administration followed, as the case may be, by the resuming of the business of the credit institution under the control of its statutory bodies, or by the withdrawal of its license. In the first case, the special administrator is empowered, in conformity with Art. 240^{19} par.(3), to provide the administration and management of the credit institution

until the appointment and approval by the National Bank of Romania of the new persons who shall exercise responsibilities pertaining to the administration or management of this credit institution. This legal right prolongs the legal status of the special administrator after the cessation of the special administration measure as well. In conclusion, a special administrator is the only person empowered to provide the administration of the credit institution during the measure and the special procedure instituted by the supervisory authority.

Unlike this situation, during the enforcement of the stabilisation measure decided by the National Bank of Romania, the central bank appoints, via the same decision to adopt the measure, the person who shall assure the entity's administration and who shall acquire the capacity of delegated administrator. This title reflects the specific of the position of the person who shall administer the institution as a delegate of the supervisory authority, empowered to take all the measures necessary to assure the enforcement under the best conditions of the decision adopted by the National Bank of Romania. During the enforcement of the stabilisation measure, the functioning of the credit institution's general shareholders' meeting is adjourned, a situation which strengthens the idea that the delegated administrator shall act only observing his/her capacity of delegate of the authority, while not being subject to the shareholders' will.

The capacity of delegated administrator can be granted, in conformity with the law to the Bank Deposit Guarantee Fund also, the Fund being a specialised institution empowered with this capacity by its own by-laws. Choosing such an institution staffed with specialised employees can be a guarantee for the National Bank of Romania that such a delegated administrator shall be able to exercise competencies adequately, assuring the enforcement under the best conditions of the competent authority's decision.

If the Bank Deposit Guarantee Fund is involved, the National Bank of Romania's decision includes the person or persons endorsed to exercise the competencies of the delegated administrator, on behalf of the Fund.

The law sets forth expressly the deployment of the business of the credit institution for which stabilisation measures have been disposed, if the role of the delegated administrator is well defined. Moreover, Art.240[28] indicates the duration of the mandate of the Fund's delegated administrator, which ceases with its express

repealing by the National Bank of Romania, as the institution that delegated the Fund.

Conclusions

As we can observe, the delegated administrator, both via his/her statute, and via his/her competencies set forth by law, is a *sui-generis* legal construction, different from the administrator of a credit institution or the special administrator instituted via special procedures. This position occurred as a need determined by the National Bank of Romania's instituting stabilisation measures, adopted via the amendment that took place at the beginning of the year 2012 as regards the framework normative act on credit institutions. His/her competencies are different from those of the special administrator, even if both persons are appointed by the same authority and both report to it about the development of the measure related to their appointment. The special administrator serves a special procedure instituted under certain conditions for which the legislator has set certain finality. The delegated administrator acquires the role of direct instrument of the authority which appointed him/her, with the obligation to assure the enforcement under the best conditions of the mandate conferred to him/her via the National Bank of Romania's decision. The necessity to create such an instrument was determined by the creation of the legal framework for adopting stabilisation measures for a credit institution in case there is a threat to financial stability. Thus, we see how an economic need brings about the occurrence of a legal institution as an instrument to carry out the goal pursued. Moreover, instituting this instrument reflects the Romanian legislator and the national supervisory authority's concern to create the legal means needed to avoid problems in the banking sector during the banking crisis that occurred in European countries.

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NECESSITY OF A NEW TYPE OF SYMBIOSIS BETWEEN THE NOMINAL AND THE REAL ECONOMY

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Abstract: This paper deals with the rift between the nominal economy and the evolution of the real economy, which represented the main structural cause for the international crisis (since 2007/2008), followed by a prolonged recession and a stagnant growth rate. Analysing the causality and implications of the rupture between the real and nominal facets of the economy, the author is pleading for a new type of symbiosis between the nominal & real dimensions of the socio-economic activity of the human society in the 21st century.**

Keywords: nominal economy; real economy; international crisis; speculative monetary & financial flows.

JEL Classification: A1, B1, B2, D5, E5.

Far from being just purely theoretical notions specific to university *economics* textbooks, the two sides of the economy – real and nominal – have ample and profound implications on the functional structure of the socio-economic realm of the society.

Historically, the germ of the real/nominal dichotomy consisted in the emergency and subsequently extension of the use of money as a means of exchange and payment (for goods & services). As long as money had an intrinsic value, the tension between the real and nominal dimensions of the economy evolved gradually: "If money circulation itself separates the *real* content from the *nominal* content of a coin, as well as its metallic existence from its functional status, then it[money circulation] latently involves the possibility of replacing the metal money by a symbol"[1]

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[1] *K. Marx, "Capitalul", vol.I, Ed.Politica, 1960, p.157.*

Consequently, money becomes a token of the socio-economic value, so that centres/factors of power, which control the currency issuing and circulation, can monitor and even manipulate not only the money supply, but also the distribution and concentration of incomes and wealth by their monetary & financial forms.

For many centuries, real economy was the key-player and the nominal economy was a 'shadow' of the former, having a positive influence on social evolution, as long as productive investment was preferred to speculation.

Nevertheless, "if we leave aside the material content of the circulation of goods, the ultimate outcome of this process is *money*. This final result of goods circulation is, in fact, the *first form of the capital manifestation*."[2]

Until the beginning of the 20th century, both facets of the economy – real and nominal – evolved in a certain concordance, made possible, on the one hand, by the initial forms of free competition and, on the other hand, by the specific national and international monetary systems.

After the domination of oligopolies and, later on, monopolies was established together with *credit money* proliferation, when gold-exchange standard was accepted internationally, *nominal* economy expanded at a pace and in proportions superior to *real* economy. Ever more the monetary & financial flows and monetary & foreign exchange speculation have become an aim *per se*, movingaway from the trends and necessities of the real economy.

According to the above mentioned, the crisis which burst in 1929/30 (turned thereafter into the 'Great Depression') strikingly represented a dramatic manifestation of the*rift between nominal and real flows in the economic realm.*

It is relevant that John M. Keynes, analysing the causes and consequences of the 1930s depression, especially considered the definition and delimitation of *speculation* (speculative financial operations) and *enterprise* (productive investment). For the former, it is characteristic the obsessive target of obtaining profit by speculating on different forms of liquidity (generally in the short run), while the latter implies a vision in the long term: "…If I may be allowed to appropriate the term *speculation* for

[2] *K. Marx, op. cit., p.177.*

the activity of forecasting the psychology of the market and the term *enterprise* for the activity of forecasting the prospective yield of assets over their whole life, it is by no means always the case that speculation predominates over enterprise. As the organisation of investment markets improves, the risk of the predominance of speculation does, however, increase."[3]

Referring to the realities of the interwar period, J.M. Keynes warned of the danger that the capital development, as a factor of production, could become "a by-product of the activities of a casino", affecting the functions of stock exchanges themselves. Therefore, "the measure of success attained by Wall Street, regarded as an institution of which the proper social purpose is to direct new investment into the most profitable channels in terms of future yield, cannot be claimed as one of the outstanding triumphs of capitalism*laissez-faire* …"[4]

After almost 8 decades, the financial – especially banking – crisis, unleashedin 2007/08, has peremptorily confirmed the Keynesian assertion. In our opinion, the 'autonomy' of the monetary flows, irrespective of real economy evolution, constitutes the fundamental cause of the recent crisis phenomena and of the present stagnant growth, in the context of the aggressive campaign of the transnational financial capital to 'globalise' the monetary & foreign exchange flows.

The rupture between the nominal and real dimensions of the economy is ambivalent, distorting the evolution of both national/regional/international monetary systems and factors of production markets. As it is known, during the Middle Ages, the *rent* was a decisive element of the income generating process, due to the limits of the land (as a factor of production). According to the Keynesian conception, in the economy based on *capital*, 'normally', there should have taken place "the euthanasia of the rentier, of the functionless investor."[5] In this vision, the replacement would have evolved 'gradually', which would have made a 'revolution' useless. Such an approach reflected the facts and controversies characteristic to the interwar stage, when the main forms of socio-political organisation were represented by the Anglo-Saxon

[3] *J.M. Keynes, "The General Theory of Employment, Interestand Money", Prometheus Books,1997, p.158*
[4] *J.M. Keynes, op. cit., p.159*
[5] *J.M. Keynes, op. cit., p.376*

capitalism and Soviet dictatorial socialism (to which one could add the specific evolution of German society and economy in the 1930s).

The post-war economic reconstruction tended to re-establish the necessary correlation between the nominal and real economy. The disintegration of colonial empires and an acceleration of the international economic growth contributed to a diminishing role of various types of *rent* and speculative financial flows, while productive capital grew in importance. This tendency last about 2 ½ decades, until mid-1970s, corresponding to the ascendant phase of the first post-war long cycle.[6]

After the 'oil shocks', from 1973/74 and 1978/79, the 1980s marked the prerequisite for a broader and deeper rift between the nominal and the real sides of the socio-economic activity. Moreover, "since the late 1980s the earth's peoples have been using more of the planet's resource production each year than could be regenerated in that year. In other words, the ecological footprint of global society has overshot the earth's capacity to provide."[7] If toward the end of the 1990s, according to the research team coordinated by M. Wackernagel, the mankind's *ecological footprint* (humanity's demands on the planet) exceeded by 20% the globe's *carrying capacity* (including the absorption of the wastes), at the end of the first decade of the 21st century the mentioned gap represented about 40%. Therefore the 'global' human society would need about 1.5 planets (of the Terra type) to meet its consuming necessities!

This dramatic phenomenon has firstly affected the evolution of the real economy (factors of production and goods & services supply), but it has also provoked the *recrudescence and multiplication of various forms of socio-economic rent*. This process has been favoured by the myth of 'free competition' which, in fact, masked the overwhelming influence of transnational monopolistic corporations (especially financial) at a global scale. For example, the most important 147 multinational corporations control over 40% of the global wealth (S.Vitali, J.B.Glattfelder, S.Battiston, "The nature of global corporate control", 2011). On this background, in the 1980s &1990s, there developed a galloping offensive of the "free market

[6] *Lucian C.Ionescu,"Correlation and interdependence between monetary/nominal and real economy in the context of the international financial crisis", UFB Review/Revista UFB,, no.1/2011,p.14 -15.*

[7] *Donella Meadows, Jorgen Randers, Dennis Meadows, "Limits to Grows: the30-year update",Ed. Chelsea Green, 2004, p.3.*

fundamentalism" (using G.Soros terminology), whichled to the famous 'de-regulation & liberalization' of the financial markets, having ultimately – a powerful destabilizing impact on the nominal economy in relation to real activity. I remarked the danger of that new deeper nominal/real fracture ever since the early 1990s.[8]

Under these circumstances, the Maastricht Treaty (Treaty on European Union, enacted in 1993) expressly mentioned only *nominal criteria* for adopting the single currency (euro) by the EU member countries, while the real convergencewas either considered 'implicitly' or even ignored. But the dramatic events of the last decade have determined an increased interest in the correlations between nominal & real convergences (as regards the Romanian research studies, a particular attention should be paid to acad. A.Iancu's works).

As long as the two types of EU convergence evolve de-synchronised or even in contrast, *Euro* would risk being mainly a vehicle for speculative monetary & financial flows and only collaterally a currency meant to stimulate sustainable growth by restructuring real economy. The most eloquent expression of the *gap between nominal and real convergences* has been the specific character of the last crisis, followed by a prolonged recession and a stagnant growth, recorded in most EU member states. In our view, the intricate problems faced by the Euro-zone economy have their roots in the above-mentioned gap. Therefore any haste in adopting the single currency, especially by the less developed countries, will be damaging both for the respective states and for the whole Euro-area. Asingle EU currency could be beneficial for all member states only conditioned by a well-balanced correlation between the nominal and the real aspects of economy.

Having in mind the effective failure of the initial versions of the Stability and Growth Pact, after almost two decades, there has been an initiative to supervise, in a more coherent manner, both nominal and real indicators by the so-called *Macroeconomic Imbalance Procedure* (MIP),[9] implying *Alert Mechanism Reports.* Although this is a step in the right direction, one should not neglect that the 'sacrosanct' macroeconomic

[8] *Lucian C. Ionescu, "The role of the central bank in a transition economy", published in «An Economy in Transition», CEPR, Cambridge University Press, 1993.*

[9] *Regulation(EU) of the European Parliament and of the Council, entered into force in December 2011.*

stability cannot be a goal in itself: the interwar experience (mainly the 1930s) showed that the 'macroeconomic equilibrium' may coexist with a strikingly low level of real economic activity (large quantities of *unemployed* factors of production). This paradox has been brought back by the present crisis phenomena. The obsessive quest of *macrostability* (at least by the vigilant 'troika' representing IMF, EC & ECB) has been so far accompanied by recession, stagnation or a stagnant growth rate (around 1% per year): while GDP has stagnated or shrunk in many states, the derivative debt has been 16 times greater than the World's gross product.

In our approach, this incongruous situation is another reflection of the dichotomy nominal – real in the economic life: the contradictory evolution at the macroeconomic level (mainly nominal) *versus* the mezzo- & microeconomic spheres (linked more directly to real economy).In this meaning, a significant example consists in the way the role of the central banks has evolved regarding prudential supervision: "The crisis has shown that central banks' macro-prudential supervision has lacked tools to mitigate systemic risks. In practice, the most important avenue for macro-prudential concerns to result in corrective action is to work through micro-prudential *regulatory and supervisory standards*.(…) Hard separation of the two functions would risk leading to a situation in which neither central bank nor supervisory authorities would be able to perform their functions satisfactorily…"[10]

It has become obvious that a new type of symbiosis between the nominal side and the real side of economy is dependent not only on a radically different mode of organising economic activity as such, but also on creating and implementing a new functional structure of society.

Thus the excessive social polarization of incomes and wealth is acting as a brake for economic development on a longer term, generating socio-economic gaps, inequities and conflicts at national, international and global levels. After the totalitarian state socialism broke down, capitalism remained the only model for social-political order. According to Robert B. Rich (professor at the University of California), "as supercapitalism has triumphed, its negative social consequences have also loomed larger.

[10]*Balling et al., "The Quest for Stability: the financial stability view", in SUERF Studies, 2010/4, p.26.*

These include widening inequality as most gains from economic growth go to the very top, reduced job security, instability of or loss of community, environmental degradation, violations of human rights abroad and a plethora of products and services pandering to our basest desires."[11]Using recent data, R.Rich underlines that 1% of the US citizens possess more than a third of the total national wealth. However, the social discrepancies are even graver in Eastern Europe, Asia or Latin America, not to mention the tragic case of Africa.

Despite these amplifying anomalies, in the last two decades (after 1990), a tendency to focus most of the economic and socio-political debates on extreme models of organising human society (regarding mainly economy) has been obvious: on the one hand, the offensive globalist neoliberalism and, on the other hand, the *historical* hyper-centralised state socialism (the former Soviet type). In reality, there has been and will be a much wider typology for structuring social systems, even creatively combining traits of different ideological orientations which proved to be valid within various historic circumstances.

Referring to the consequences of the last crisis (since 2007/08), Paul Krugman – the 2008 Nobel Prize in Economics – warned that "nothing could be worse than failing to do what's necessary out of fear that acting to save the financial system is somehow 'socialist'.The same goes for another line of approach to solving the credit crunch: getting the feds, temporally, into the business of lending directly to the nonfinancial sector. (…) If what has been done so far isn't enough, do more and do something different, until credit starts to flow and the real economy starts to recover."[12]

Only by knowing and learning both the benefits and the deficiencies or defaults of the various national & international social experiences, without prejudices, rigidities or imposed uniformness, human society can turn into account historical lessons and conceive a new socio-political system able to promote an efficient symbiosis between the real and nominal dimensions of the economy.

[11] *Robert B. Rich, "Supercapitalism", ed. Alfred A. Knopf, New York, 2007, p.209.*

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RISKS AND CONSTRAINTS FOR THE MONETARY STABILITY

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Abstract

Starting from the definition according to which monetary stability requires an appropriate level of liquidity in an economy with dynamic objectives, of growth and job creation, non-inflationary in terms of price stability, based on the analysis of the effects of some relevant economic phenomena and on the economic literature, in this article, the author has highlighted some of the risks to monetary stability. One of the major risks is represented by the loss of its instruments, i.e. the instruments for liquidity management, through monetary and exchange rate policies. Another important risk is represented by the capital fluctuation due to various shocks: exchange rate, political, financial and capital account liberalization. Also, as a result of the analysis of relevant studies and of the effects of the European integration in terms of monetary stability, the author has shown the elements on which depends monetary stability. Among these, there are: the existence of an institutional framework with a clear goal and a proper degree of responsibility, strong operational independence of monetary policy, monetary policy implementation with a view to ensuring an appropriate balance between discipline and discretion, the level of the interest rate of monetary policy, the efficiency of the transmission mechanism of monetary policy, the existence of a viable and stable financial system, the existence of enough instruments at hand for the central bank, the structure and soundness of the financial and banking system.

The paper is a capitalization of the research project “Global Risks for the Financial and Monetary Stability. Implications for Romania and European Union” elaborated in 2013, at “Victor Slăvescu” Centre for Financial and Monetary Research.

Keywords: liquidity, monetary policy, banking and financial system, instruments

JEL Classification: E43, E44, E52, E59, F36

1. Introduction

Although the targeting of monetary aggregates has been one of the three standard strategies of monetary policy that have been considered successful over the past decades in terms of providing an efficient nominal anchor, alongside exchange rate targeting and inflation targeting, it has lost support following the disintegration of the previously stable relationship between monetary aggregates and inflation. This development has been mainly related to accelerated remonetisation, which has occurred after inflation had fallen to moderate levels, the banking sector had been privatized and capital flows had been liberalized. It should be mentioned that the inflation targeting strategy, currently adopted in many countries, does not prevent the central banks to pay attention to monetary aggregates to the extent to which they offer useful information for the process of inflation forecasting.

Based on the definitions existing in the literature, we can say that **monetary stability requires an appropriate level of liquidity in an economy with dynamic objectives, of economic growth and job creation, non-inflationary in terms of price stability. Thus, monetary stability is one of the essential prerequisites for economic development**.

Monetary stability ensures the existence of conditions conducive to normal economic development, without shocks, and / or constitutes a potential buffer for possible shocks, by absorbing them, by gradual assimilation and by mitigation.

2. Risks to monetary stability

There are many risks to monetary stability. Considering the definition of monetary stability mentioned above, we shall present the risks that we have identified and that may affect monetary stability.

A risk is represented by the loss of instruments used for achieving monetary stability, i.e. the instruments for managing liquidity, through monetary policy and exchange rate policy (the interest rates on monetary policy, used in open market operations; the interest rates on standing facilities, the interest rates on required reserves, foreign exchange market intervention), for example by joining a monetary union, which implies a common monetary policy.

Joining a monetary zone means giving up the member country's own monetary policy. In a monetary union, there is a central bank that enacts the measures of monetary policy applicable to all member states. These measures should provide a response to the liquidity problems from each of the member countries, both under normal circumstances, and in the case of a shock. This is possible when all the countries from the monetary area are situated at a similar level of the economic development cycle, when they have a similar level of economic development and of the money market, both in terms of monetary policy transmission mechanism and its efficiency, and in terms of regulations, institutions, levels of interest rate on monetary policy, of interest rates on standing facilities and of the ratios of minimum reserve requirements.

Quitting one country's monetary policy before achieving real and nominal economic convergence, i.e. before being eliminated the imbalances that the economy is facing, as well as the different phase of the economic cycle of that country compared to the main economies of the monetary union would have negative consequences both concerning the real economy development and the monetary and financial stability. Thus, if there are regional disparities in terms of economic growth in the monetary area, some countries registering high rates of economic growth, while others recording low or negative rates of economic growth, differences of interests appear among the member countries. Whatever decision the central bank takes, through the measures enacted, it will influence positively the trend of economic growth and the liquidity only in a category of countries, in the other countries, the response of the monetary policy would be inappropriate in terms of the economic problems and of the monetary and financial stability.

Another risk is the emergence of an endogenous or exogenous shock with impact on liquidity in several ways: through the occurrence of investors risk aversion, due to the bankrupcy of banks. If they perceive the situation as extremely risky, the investors withdraw completely their investments from that country, causing instability on the money market.

Such an exogenous shock may be that of the sovereign debt crisis from the euro area which arose from the shock of the bankruptcy of the financial institution Lehman Brothers, in September

2008, and which had originally propagated through the interbanking[1] market channel, following the route towards the financial market and the real economy. This shock has led to increased uncertainty and risk aversion of investors, causing a qualitative distinction made by them. Thus, the investors have treated differently the debts of the euro area countries. So, they have reorientated from the countries with high economic growth (Ireland, Spain, Portugal) towards those with slower economic growth, but who had enjoyed long-term macroeconomic stability and institutional maturity (Germany). Thus, investors have quickly changed preferences for risky assets, the demand for low-risk instruments increasing significantly, although yields on these securities are lower. This generated the change of the liquidity level in the two groups of countries. In addition, investors' behavior with consequences in the direction of lower inflows of foreign direct investments (FDI) in the countries considered risky brought about the adjustment of the current account deficit (given that FDI are an important source for financing the external deficit) (Criste, Milea, Ailincă, 2013).

The financial and economic crisis has as consequences the reduction of international liquidity due to increased risk aversion of investors. On the other hand, financial instability has attached a high-risk of bank collapse, which in certain situations generates inflows of liquidity (see the measures taken by the European Central Bank after September 2008), with effects on monetary stability.

The excessive volatility of the capital markets brings about costly crises in the financial markets. The developments in the late 90s, especially the Asian crisis, have led many economists to believe that the globalization phenomenon, the cause of this volatility, has gone too far. Moreover, they (Stiglitz (1999), Krugman (1998), Rodrick (1998 and 2000)) have advocated for the return to the old order of controlled flows, arguing that the free movement of capitals leads to financial crisis as a result of their excessive volatility.

[1] *The disturbances in the interbanking market represent, generally, a fairly accurate indicator for evaluating the intensity of a financial shock. Also, the initial shock from August 2007, specific and local (the subprime shock), has been strongly reflected in the interbanking market.*

Another exogenous shock, with effects on monetary stability, may be the significant change in the interest rates of deposits or government securities, resulting in massive migration of capitals seeking to exploit profitable conditions.

The exchange rate shock leads, also, to the migration of speculative capitals from the country whose currency depreciates strongly generating significant reduction of liquidity in the money market.

Political instability is a factor causing migration of capitals towards more stable and more secure countries both economically and politically, as a result of increasing risk aversion of investors.

Monetary stability can be also affected by the effects of some shocks on the level of foreign investment. These shocks may be represented by the change of national investment policy (through macroeconomic policy decisions), capital account liberalization (which enhances FDI flows).

The increase of foreign prices may encourage foreign capital inflows and possibly discourage domestic capital outflows, if interest rates remain unchanged, with effects on liquidity.

3. Constraints for monetary stability

During the crisis, it increases the pressure on central banks, in terms of developing monetary policy, due to augmentation of uncertainties.

The limits of monetary policy derive from knowledge, from the prevalent approaches or from the operational framework of monetary policy (Croitoru, 2009).

Ensuring monetary stability depends on the existence of an institutional framework with a clear objective, on the existence of a proper degree of responsibility, on the strong operational independence of monetary policy, on the possibility to take the appropriate decision for the ongoing economic or monetary phenomenon. This refers both to the independence of the monetary authority inside that economy against the government and the other macroeconomic policies, as well as to whether a country is or is not part of a monetary union (which means giving up its own monetary policy), and also to the diversity and adequacy of the available instruments.

Thus, joining a monetary area by a country that does not have a sufficient level of development of the financial and monetary markets in order to control monetary stability, and giving up the tools provided by the monetary and foreign exchange rate policies for liquidity management, creates the premises for monetary instability in the event of a shock with effects in terms of liquidity. Thus, by quitting prematurely the possibility of using the changes in the exchange rate and in the interest rates in the processes of adjusting the differences between that country and the other countries of the monetary union means putting too much emphasis on the labor market and on the goods prices adjustments, as the only markets remaining for adjustments would be the labor and goods markets. The fiscal policy could absorb some of the shocks, although sometimes it must remain procyclical. But these policies influence only a little the liquidity and therefore they can not compensate for the liquidity management tools of the monetary and foreign exchange rate policies.

Obtaining monetary stability depends also on the way monetary policy is conducted, taking into consideration guaranteeing an appropriate balance between discipline and discretion (Croitoru, 2009).

Monetary stability depends on the level of the interest rate on monetary policy, but also on the level of the interest rates on standing facilities and on minimum reserve requirements. Thus, the identification of the equilibrium level of these interest rates is based on an adequate knowledge of the economy's structure. In addition, this level may be different from the level of the natural interest rate for long periods of time.

The period of time for which is established a certain level of the interest rate on monetary policy is also important. The appropriate level of the interest rate is difficult to estimate for a duration of more than 1-2 years (Croitoru, 2009).

Another constraint is represented by the efficiency of the transmission mechanism of monetary policy. Thus, in several models based on the prevailing theory, the liquidity plays no part or it plays only a very small role in the transmission mechanism. The current financial crisis has invalidated the hypothesis according to which the economy balances quickly, not allowing the buildup of financial imbalances that cause distortions in the current real spending and in

the investments. The abundant liquidity in the years before the crisis caused the assets prices and the credit to grow at rates significantly higher than the historical levels, indicating the accumulation of imbalances. But their coexistence with the relatively low inflation led to ignoring the signal (Croitoru, 2009). Therefore, we can conclude that both credit and assets prices can be a valuable signal about the accumulation of financial imbalances and it is advisable that their level and development should be considered in the conduct of monetary policy.

The characteristics of emerging economies, such as the predominance of supply-side shocks, the expansion of monetary substitution phenomenon, the fragility of institutions, the shallow financial markets, the vulnerability to sudden stops of capital inflows and the labor migration contribute to increasing complexity of the decisions of monetary policy. Thus, the shallow financial markets impede the efficient functioning of the interest rate and credit channels, limiting the ability of the central bank to fine tuning the economy. This could lead to a situation of excessive dependence on the exchange rate channel in the process of managing the aggregate demand. Therefore, the existence of a viable and stable financial system is essential in order for the monetary policy to be efficient.

In addition, the immaturity and the existence of a limited number of tools available for the central bank, in the context of nominal and real shocks, limit the effects of monetary policy. These limitations for the effectiveness of monetary policy make more imperative the need to implement a coherent mix of policies in the emerging economies. Without the support of other economic policies, monetary policy might have difficulties in securing, in a sustainable manner, monetary stability and, implicitly, low inflation. In other words, it is possible that price stability might be achieved at the expense of other macroeconomic equilibria (Isărescu, 2008).

The efficiency of monetary policy depends also on the degree of euroisation, dollarization of the economy. The higher is the degree of euroisation, dollarization, the lower are the effects of the monetary policy measures on the interbank market, on the real economy and towards guaranteeing monetary stability.

The structure and the functioning of the financial and banking system determines how monetary policy impulses are taken by the

liquidity and the prices of the financial markets and then passed on to macroeconomic behavior. In addition, the soundness of the financial and banking system is a prerequisite for the existence of monetary stability. Thus, in the case of turbulences in the financial markets, the problems of the financial institutions can generate inflows of liquidity from the central bank into the financial and banking system with effects on monetary stability.

4. Conclusions

Considering on the one hand, the importance of monetary stability for obtaining financial stability and price stability, and for the sustainable and sinuous development of any economy and, on the other hand, the existence of multiple endogenous and exogenous risks and constraints for monetary stability, we consider necessary that the achievement of monetary stability to become a target pursued by the central banks in the framework of the monetary policy strategy. The Central Bank is the institution the most eligible to pursue and achieve monetary stability, because it has the necessary tools and procedures and it has the position in order to influence the monetary market.

The existence of a monetary policy strategy[2] is one way to improve monetary stability. The argument is considering several ideas, as follows:

- the strategy requires an exact structure of the decision-making process,
- the strategy is a tool by which the decisions of monetary policy are explained to the public,
- the strategy concurs to central bank credibility in the financial markets.

Consequently, the emotional behavior is eliminated with positive influence on expectations.

Although monetary stability depends mainly on the characteristics of the national monetary policy, in the recent years,

[2] *The monetary policy strategy represents a coherent and structured description of the way in which the decisions of monetary policy are taken with a view to achieve the objective of the central bank.*

due to the expansion of globalization, monetary stability is increasingly influenced by the situation and the developments in the financial markets of partner countries.

Thus, the financial and economic crisis that started in 2008 has revealed the fact that, given the link, proven by the practice, between the fluctuations of the financial markets and monetary stability, it is necessary that the developments in the financial markets should be watched closely by central banks, because in the case of occurrence of tensions or turbulences, central banks should take the appropriate measures to maintain monetary stability and price stability.

The financial globalization has less potential to cause instability in those countries where financial sectors are more developed, institutions are stronger, macroeconomic policies are healthier and trade systems are more open (Rato, 2007b). Therefore, the fulfillment of these conditions represents a way of achieving monetary stability.

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