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DEVELOPMENT OF ECONOMIC SCIENCES

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**COMITETUL DE ORGANIZARE AL SIMPOZIONULUI ȘTIINȚIFIC  
AL TINERILOR CERCETĂTORI  
28-29 aprilie 2017**

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2. Anna CEBOTARI, drd.
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28-29 aprilie 2017**

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# **SECTION 1: DISCIPLINE: – 522.01. FINANCE**

## **VULNERABILITY OF THE MOLDOVAN BANKING SECTOR TO A NEW CRISIS**

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Scientific coordinator: Assoc. Prof., PhD Victoria COCIUG*

*International economic and financial environment was characterized by an increasing volatility, but the effects on financial stability in the Republic of Moldova were mixed. Prospects for future developments remain uncertain and may generate significant effects on banking sector stability in the Republic of Moldova. In addition, exacerbation of the situation in the Russian Federation, the uncertain evolution of the conflict in Ukraine, bank fraud in 2014-2015 left unresolved systemic vulnerabilities. The lack of transparency over shareholders of banks from Republic of Moldova and blur of the preventing mechanisms to new scheme of financial fraud, thus, is maintaining the tense situation of the big banks, which put pressure on economic and financial conditions and leaves risk of a new banking crisis repetition. For the next period, these factors remain the main sources of vulnerability for the banking sector in the Republic of Moldova and for financial stability of the country. In this context the question arises whether there will bring, on the domino principle, to a new recession and thus to a new crisis? How vulnerable is banking sector from Republic of Moldova, this time, to a similar scenario?*

**Key words:** *vulnerability, banking sector, crisis, financial stability, financial shocks, risk of contamination.*

### **Introduction**

Financial crises are a component part of economic life. Each crisis brings an economic decline. The 2007 global crisis has shown that price stability, low price levels do not guarantee financial stability. Similarly, the crisis has shown us that there are very high costs related to the maintenance of systemic banks, as well as the lately intervention of regulators, of the central banks and of the governments. The same fact was observed in 2015 – 2016 in the Republic of Moldova, when took place “The heat of the century” and the banking crisis triggered the bankruptcy of 3 commercial banks, one of them (JS Banca de Economii) being systemic. Similarly, the government and the National Bank of Moldova (NBM) intervened too late, and the funds allocated for the "rescue" of bankrupt banks created a huge budget deficit, thus the economy of the Republic of Moldova is very weak compared to new shocks. The question arises as to how vulnerable the Moldovan banking sector is to a new crisis and are there any prerequisites at the moment for triggering a new financial crisis?

### **Analysis of bibliographic sources in the field of researched matter**

Today we live an era characterized by a permanent and relatively free capital movement. Markets have evolved from local to international ones. Developing countries are increasingly participating in international financial market transactions, and is noticed a globalization of economies. In this way, there is interdependence between financial markets, linked to the capital flows. But this leads to a deepening of the crisis concept and its propagation. There is no unanimous definition of the crisis in the literature. The word “crisis” comes from the Greek “Krisis”, which would mean a circumstance that requires decision-making.

In his paper “Anatomy of the Financial Crisis”, Mishkin defines the crisis as a situation when moral hazard worsens, and markets lack the ability to direct resources to the most favourable investments [8]. Friedman has analysed crisis from the psychology point of view [6]. Thus, he proposes an approach whereby panic-stricken depositors are prone to withdraw their deposits, so banks are deprived of resources and come into an acute crisis.

J.M. Keynes argues that crises, in the conditions of a self-regulating market, are unpredictable and pro-cyclical, and state interventions have no effect; instead, they cause difficulties in the balance of the market. On the other hand, the followers of the theory of economic development comply with the idea that the economy is cyclical and crises are indispensable, but they believe it is necessary to do everything possible that the falls were as short as possible, and for the new entrepreneurs need to create better conditions than for the old ones, so that they relaunch the economy.

The National Bureau of Economic Research proposed a definition according to which the essential GDP reduction, the reduction of individual income levels, the rise of unemployment, the reduction of industrial production and consumption represent the crisis.

Caprio, Klingebiel have defined the banking crisis as a situation when the bank's capital is exhausted [9]. In this case bankruptcy is possible. In the literature, we distinguish two types of bank crises: systemic and non-systemic. Systemic can be characterized by the fact that a bank's bankruptcy can cause major difficulties for the entire banking system in a country or region, while non-systemic are characterized by the fact that a bank's fall will not cause a system-wide decline, but only a locally one.

The vulnerability of the banking system is given by its two major features and the costs of this vulnerability are influenced by the intermediary nature of the banks. The financial system and, in particular, the payment system is very important for the functioning of the economy, and in these circumstances the divergence of the financial system will generate substantial economic and social costs.

The banking sector in the Republic of Moldova was subjected to a major crisis in 2015, when 3 commercial banks from the Republic of Moldova, namely JSCB Unibank, JSCB Banca Sociala and JS Banca de Economii, were liquidated. If the first two had a weaker influence on the sector, JS Banca de Economii was a systemic bank and its liquidation had a huge impact on the national economy and the budget.

In the last year, the regulators massively intervened in the Republic of Moldova banking sector. Thus, was established supervision of the biggest banks in the Republic of Moldova (JSCB Moldova Agroindbank, JSCB Victoriabank, JSCB Moldindconbank). A series of measures were also taken to identify the effective beneficiary of commercial banks' actions, thus blocking about 64% of JSCB Moldindconbank's share capital, the control being taken over by the NBM, the bank being subsequently sold to a strategic investor.

We believe that banking crises are the result of deficiencies in the work of financial sector supervisors. The lack of consistent data on activity in the financial sector makes it difficult to analyse the existing situation and the ability of the financial sector to survive in adverse conditions.

#### **The methodology of research**

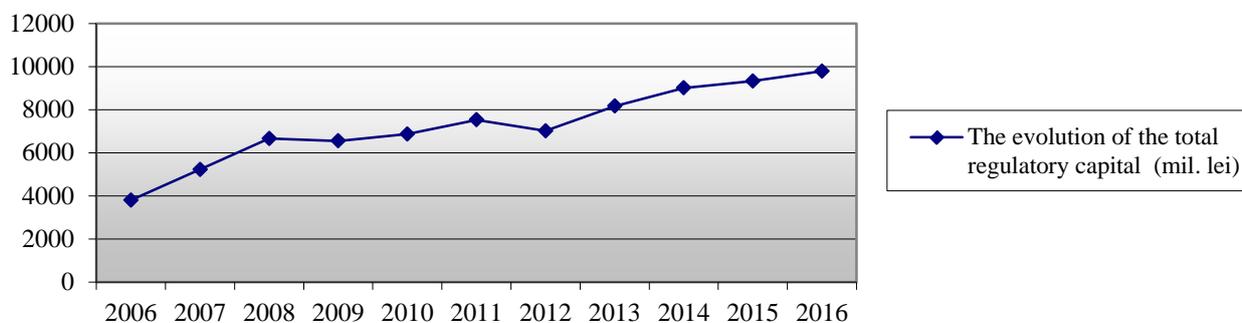
Taking into account the costs that economies have to bear in the wake of the financial crisis, it is necessary to identify the early signs of the crisis. In this context, we consider it appropriate to analyse the vulnerability of the banking sector to a new crisis and if it is premise that such a crisis will occur. In this sense we will analyse some variables in dynamics, so we can dynamically identify the evolutions of the indicators and the framing in the pre-crisis parameters.

In this regard, we will analyse the evolution of 5 indicators, namely: total regulatory capital, the risk-weighted capital adequacy ratio, the value of non-performing loans, the share of loans granted to SMEs to the total credit portfolio and the short-term liquidity. Dynamic analysis over the last 10 years will allow us to see fit in a similar picture of pre-crisis, crisis and post-crisis indicators. The data will be taken over from the ones provided by the NBM and will integrate the banking sector in the Republic of Moldova.

#### **The results obtained**

At the base of the crises, as well as their overcoming, there is a set of macroeconomic indicators. We also believe that it is important to analyse the behaviour of indicators in the pre-crisis, crisis and post-crisis period.

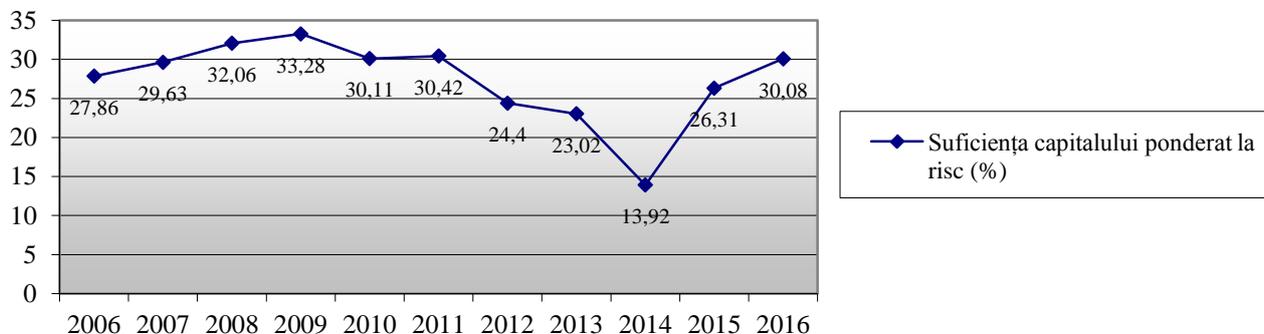
One of the main indicators of the banking sector is its capitalization. Thus, we consider that the banks are more capitalized; they will be more resistant to the crisis. In this way, analysing the evolution of the Republic of Moldova banking sector total regulatory capital (Figure 1), the indicator is in continuous growth, the only reduction being in 2012 due to raider attacks and the license withdrawal of JSCB Universalbank.



**Figure1. The evolution of the Republic of Moldova banking sector total regulatory capital during 2006-2016**

*Source: Developed by author based on NBM data*

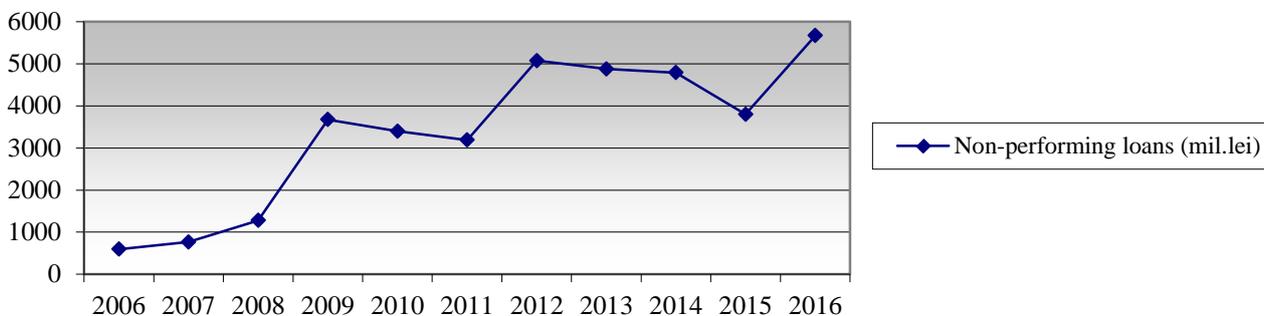
Prudential regulation and effective control of banks are essential in financial stability creating. According to the NBM rules, the risk-weighted capital adequacy ratio must be higher than 16%. All banks in the Republic of Moldova respect the given norm. Analyzing in dynamics (Figure 2) the given indicator shows that the maximum level was reached in 2008 (33,28%), then decreasing. In 2015, was reached the minimum level of 13.92%, which led to the rapid contamination of the banking sector and its poor immunity. The situation is improving now, with the indicator returning to a level of 30%, but the same trend is seen before the 2008 crisis.



**Figure 2. The evolution of the Republic of Moldova banking sector risk-weighted capital adequacy ratio during 2006-2016**

*Source: Developed by author based on NBM data*

The underlying problem of the 2015 crisis was linked to the granting of non-performing loans of large proportions. In general, the crisis situation is characterized by the increase of the non-performing loans level, which is explained by the fact that the capacity of the economic agents' payment is reduced; as a result, the reimbursement of the loans becomes more difficult. In this way, it is noticed that in 2009 there was a substantial increase of non-performing loans. The same is observed in 2013 and 2016. Here it is necessary to mention that after the liquidation of the three banks, their bad loans were covered from the budget.

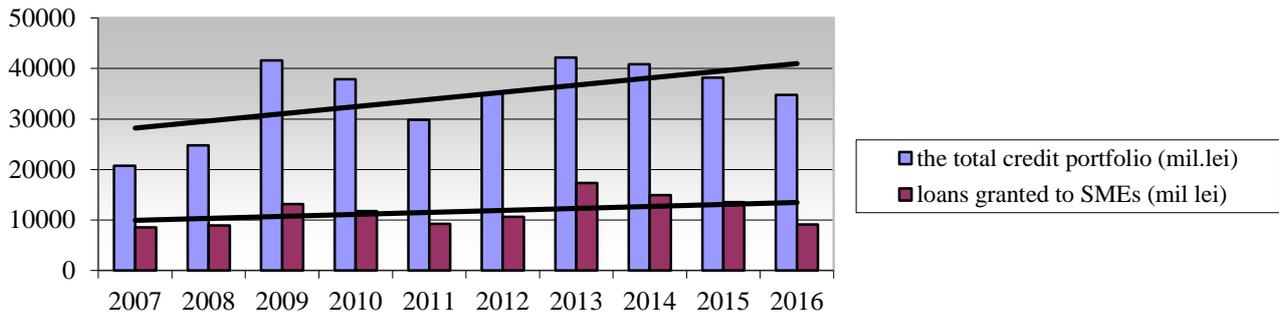


**Figure 3. The evolution of the Republic of Moldova banking sector non-performing loans during 2006-2016**

*Source: Developed by author based on NBM data*

Today, small and medium-sized businesses are the basis for creating and developing a modern, dynamic knowledge-based economy. The respective sector of the national economy can make a substantial contribution to the GDP, increase employment opportunities and stimulate growth of exports. In the conditions of a market with strong competition, SMEs have the ability to react flexibly and to adapt quickly to cyclical and structural economic changes. From this point of view, a well-developed small and medium-sized enterprise sector can contribute to strengthening macroeconomic stability and growth in the country.

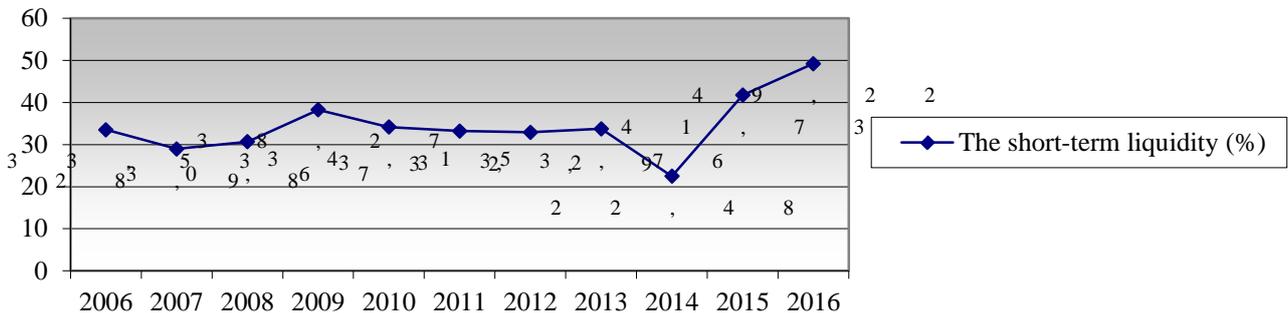
Analysing the lending of the given sector (Figure 4) it is observed that in 2007 and 2013 this share of credits to SMEs reached the maximum level (41.1%), after which it was decreasing. In 2016 was reached the minimum level (26.25%) of the indicator, being closely linked to the reduction of the loan portfolio per sector. We consider this negative for the improvement of the economic situation in the country and the recovery of the economy.



**Figure 4. The evolution of the Republic of Moldova banking sector share of loans granted to SMEs to the total credit portfolio during 2006-2016**  
*Source: Elaborated by the author based on data of the NBM*

At the same time, the causes of banking crises are often similar to those of currency crises, in particular the conditions of weakening the national currency, the inflationary tendencies of the economy, and the increase of financial bubbles number, thus artificially rising asset prices and other indicators that are also similar.

An indicator, in this regard, is short-term liquidity. Following the analysis of its evolution (Figure 5) it is observed that it oscillates about 30%. The main distortions are distinguished in 2014, when the minimum level is attested — 22.48% and in 2016, when a maximum value of 49.22% is observed. This indicates an unhealthy state of the economy, so banks have enough operating liquidity, but it does not have an adequate demand. This is due to the NBM base rate reduction. Also, it should be noted that according to the NBM rules, the value of the indicator should be 20%.



**Figure 5. The evolution of the Republic of Moldova banking sector the short-term liquidity during 2006-2016**  
*Source: Elaborated by the author based on data of the NBM*

Distortions in the financial sector, along with macroeconomic volatility, form another set of factors behind many banking crises. To all this, it must be added that governments often take political action, so they are presented as promising and fair, but consequently they make more and more difficult losses to manage.

### Conclusions

Following the analysis we can conclude that it is virtually impossible to predict a crisis. Even though there is a set of statistic and econometric indicators, the crisis is also composed of relative factors. Moreover, crises resulting from contagion effects, early warning signals may not be available because crises stem from market reactions inherently and unpredictably.

We can say that the Republic of Moldova’s banking sector is improving. The NBM adopts measures to restructure and restore the banking sector. However, the banking sector in the Republic of Moldova is vulnerable to a possible shock. Even if there is an improvement in the indicators and are not prerequisites for a new financial crisis, but an imbalance created by a relative factor (e.g. politically, socially) could trigger a new recession. Taking into account the current state of the national economy, namely low immunity to shocks, extensive measures are needed to redress the situation.

Concluding, we can say that it is clear that the financial stability situation can not be achieved through some mathematical-econometric indicators, not even through a set of financial indicators. These assessments

are based on the results obtained by a commercial bank, i.e. the results attributed to a past moment, but this is still a good basis for forecasting within a reasonable horizon, in an economic context, sustainable development of the banking sector. Such an assessment allows for the setting of safety thresholds and a substantial reduction of risks, because information is a decision-making tool and the decisions taken in show the assimilation of the present and the future.

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### **THE NEED OF INFLATION EXPECTATIONS ANCHORING FROM THE PERSPECTIVE OF MONETARY POLICY EFFICIENCY**

*PhD student Olga HINEV, ASEM*

*This research analyses the pros and cons aspects related to the transparency of a central bank in different periods of time with implications on the side of inflation expectations anchoring and monetary policy efficiency. The opinion of these aspects has been researched in the literature of speciality in order to identify an optimal communication of a central bank. There was analysed the inflationary process in the developed, developing and emerging countries, of which the last ones are facing an increased inflation volatility. Following the researches carried out, it was concluded that the inflation expectations anchoring is an indispensable condition for the performance of the inflation direct targeting regime and not only, fact confirmed by the study of inflation and inflation expectations development in New Zealand.*

**Key words:** *inflation expectations, central bank's transparency, monetary policy, inflation targeting regime.*

**JEL:** E43, E52, E58.

#### **1. Introduction**

**The research actuality** lies in the importance of taking under control the inflationary process along with the promotion of a monetary policy able to ensure and maintain the price stability. The inflation disbalance is a universal reality, affecting in various form and magnitudes all world countries, both the developed, developing and emerging countries, while the concern for ensuring an adequate inflation level capable of producing a lasting economic growth though the efficiency of the promoted monetary policy was and is an important concern for the monetary authorities. Currently, in the circumstances in which the world central banks have made use of all theories related to monetary policy in order to optimize it, from the monetary aggregates targeting to direct inflation targeting and the implementation of certain unconventional monetary policy strategies, they strengthen their own actions so that to achieve the inflation objectives set out in line with the institutional and macroeconomic specificity. One of these directions is the improvement of the monetary policy transmission mechanism based on the inflation expectations channel through the increase in

transparency and credibility of the central bank, which confers originality and confirms the *importance* of this research. The success of the inflation expectation anchoring is based on the confidence of market participants in the monetary authority, which pursuant to psychological factor may be hardly gained and easily wasted. Thus, the monetary authority benefits from credibility by taking responsibility for its actions.

*The purpose of research* consists of arguing the need to anchor the inflation expectations in order to achieve the monetary policy objective.

## **2. Bibliographic data analysis**

The theoretical aspects and practices related to the interdependence between the communication process of a central bank, inflation expectations and monetary policy objectives to ensure the price stability have been approached in the studies of the following foreign scientists: R. Lucas, T. Sargent, N. Wallace, F. Kydland și E. Prescott, S. Blinder, M. Woodford, B. Bernanke, M. Ehrmann, M. Fratzscher, J. Hann, D.-J. Jansen, S. Eusepi, B. Preston, N. Dincer, B. Eichengreen, M. Isărescu, S. Cernă. The studies and researches of the aforementioned authors represent a theoretical value and a significant practice. At the same time, it should be mentioned that the aspect on inflation expectations management in line with monetary policy optimisation remain unchanged and was not subject to research in the Republic of Moldova.

## **3. Research methodology**

*General research methods* focus mainly on theoretical proceedings, such as:

- scientific abstraction method – which allowed to eliminate the insignificant, provisional and adventitious concepts and theories and to determine the ideas and fundamentals, which reveal the essential, general and relevant character for defining the aspects on inflation expectations and communication policy of a central bank;
- induction and deduction method – contributed to orient the author's capability towards the research of evolutions, starting from knowing the effective particularity to highlighting the concepts, assumptions and theories with generality character, and reversely, to apply the conclusions made in form of arguments and principles for the analysis of facts, defined in time and space in form of real phenomena;
- method of analysis – defined the aspects on inflationary process development in developed, developing and emerging countries, as well the aspects on inflation expectations development in New Zealand based on inflation dynamic;
- analogue and comparison method – reflected with certainty the comparison aspects on different views in the literature of speciality about the importance of inflation expectations for the monetary policy efficiency, contributing thus to the identification of own conceptions regarding the optimal transparency of a central bank.

Based on the research character, the method of research is predominately applied, causal, descriptive and interdisciplinary.

The theoretical literature related to monetary policy presented multiple views on the need of an inflation expectations transparency and management for an efficient monetary policy.

The transparency and communication process of the central banks recorded a significant development, from the deliberated obscurity to a greater openness in its actions, affecting mainly the monetary policy theory and conferring the prerogative of inflation expectation anchoring. If, until the beginning of 80's, monetary policy was influenced by the arguments, which provided that the monetary policy affects the real variables and the economic growth, only in the circumstances when the policy actions were not anticipated. This may be confirmed by the speech of President, Paul Volcker, in defending the Fed, concerning the non-immediate announcement of his monetary policy decisions in 1984 cited in Goodfriend (1986, pp.76-77) „One danger in immediate release of the directive is that certain assumptions might be made that we are committed to certain operations that are, in fact, depend on future events, and these interpretations and expectations would tend to diminish our needed operational flexibility”. Thus, it was supported the idea to provide imprecise announcements by the central bank, so the transparency limitation together with Karl Brunner (1981).

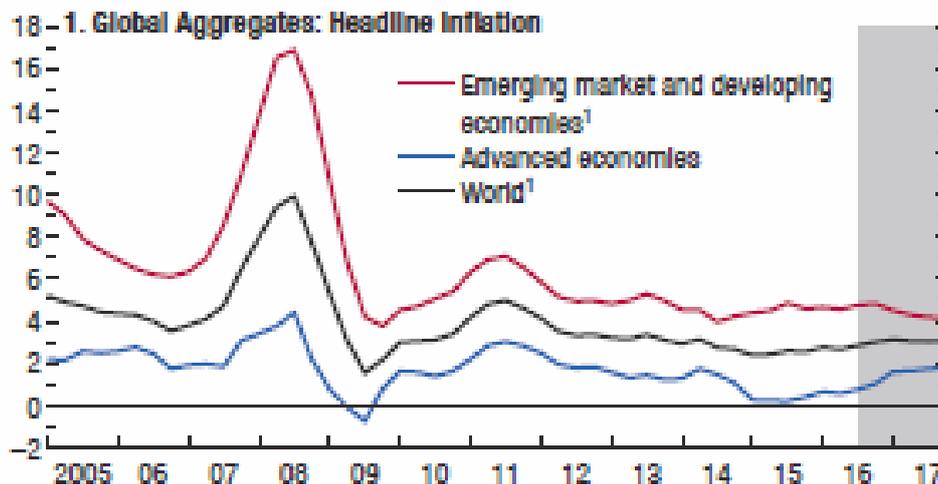
However, in 90's, F. Kydland and Prescott considered that namely the transparency and not the discretionary monetary policy actions confer efficiency and credibility to the central bank in achieving its objectives. Kydland and Prescott (2004), focused on fact that when the economic agents are rational and the expectations influence the policy decisions, the promotion of a discretionary policy framework will not bring benefits, to the contrary it will impose the credibility issue. The inflation expectations anchoring, in Trichet (2005) and Bernanke (2007) vision, has a significant importance in monetary policy realisation. McGough, Rudebusch and Williams (2005) consider that the monetary policy is mainly a process of expectations formation related to further evolution of interest rates on short-term in order to achieve the different macroeconomic objectives. Blinder and others (2008, p.2) affirms that: „Greater openness might actually

improve the efficiency of monetary policy ... [because] expectations about future central bank behaviour provide the essential link between short rates and long rates. A more opened central bank ... naturally conditions expectations by providing the markets with more information about its own view of the fundamental factors guiding monetary policy..., thereby is creating a virtuous circle. By making itself more predictable to the markets, the central bank makes market reactions to monetary policy more predictable to itself. And that makes it possible to do a better job of managing the economy.” While, Woodford (2001, p. 12) insists on the fact that the conditionality of a successful monetary policy is not reflected by the overnight interest rates management, but by inflation expectation management, focusing on the main role of the central bank transparency in order to achieve the monetary policy objective. At the same time, according to affirmations of Morris and Shin (2002), the communication of the central banks may be dominant, which constitutes an obstacle in formulating the independent opinions of the private sector. Thereafter, the literature of specialty defines the existence of three opinions on communication policy and monetary policy transparency. However, it is necessary to also use the practical arguments in order to make the most opportune conclusions and welcome visions.

#### 4. Results obtained

In order to provide practical representativeness to research and interdependence between the monetary policy transparency and objective on ensuring price stability, it was proposed to analyse the inflationary process in the developed, developing and emerging countries.

Figure 1 shows that inflation both in developed, developing and emerging countries recorded an increasing volatility until 2009, registering a relatively stable trend after 2011. It should be mentioned that inflation in emerging and developing countries is higher than that of developed countries.

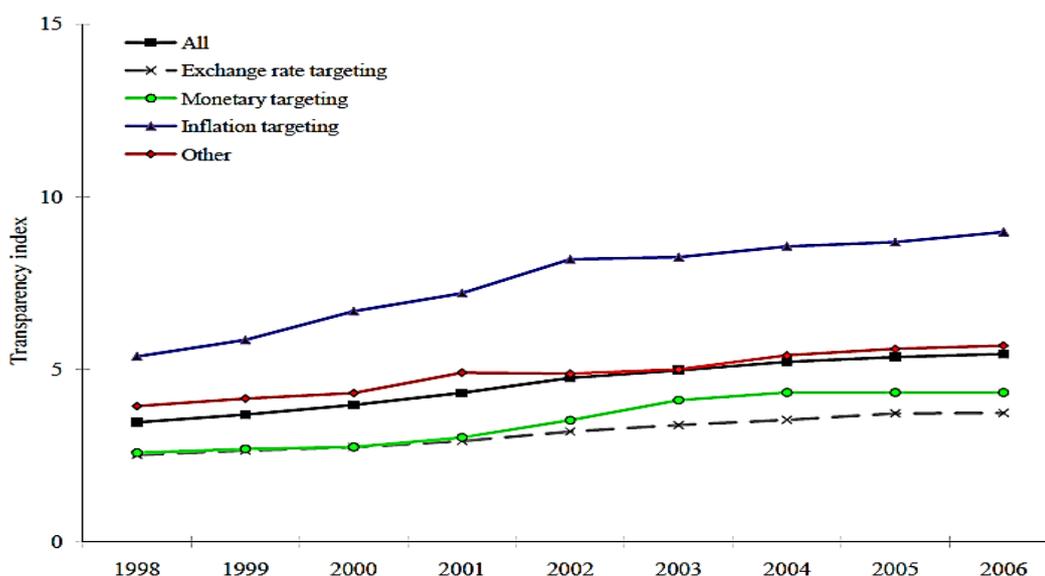


**Figure 1. Evolution of inflation in the developed, emerging and developing countries in 2005-2017 (2016-2017: forecasted data)**

*Source: World economic outlook, October 2016, Subdued Demand: Symptoms and Remedies, IMF, <http://www.imf.org/external/pubs/ft/weo/2016/02/index.htm>*

Although, the low inflation is a widespread phenomenon in the developed countries, ensuring a monetary policy framework is a priority in many of these countries, relying on an increased transparency and communication. The ability of monetary authorities in the developed countries to maintain medium-term inflationary expectations anchored at the inflation target range is important for convincing the economic agents and the public in the context of overcoming certain side effects caused by the inflation development. It may exemplified by the cases of the Central Bank of England, the Bundesbank, the Reserve Bank of New Zealand, which have an increased credibility, a significant transparency and a low inflation level, respectively.

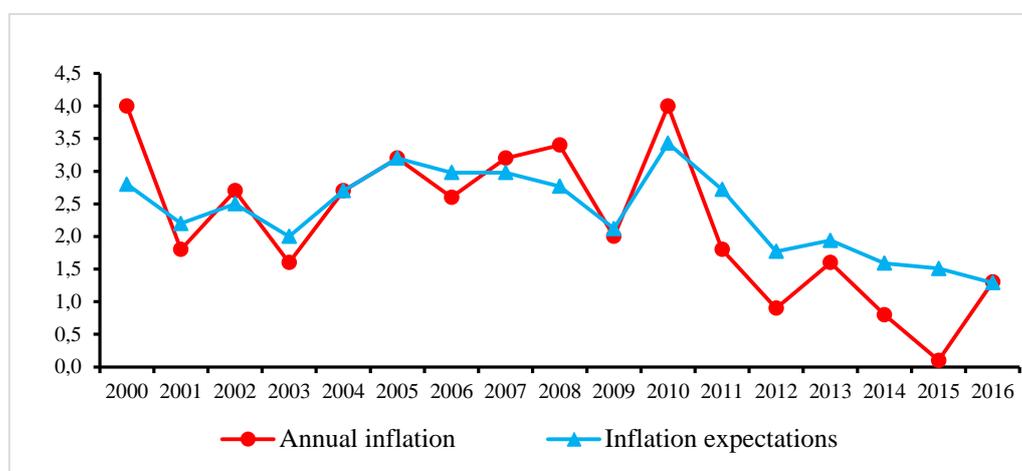
It should be noted that the empirical studies supported the idea that the transparency of a central bank is a prerogative and an indispensable condition of the direct inflation targeting regime, which is confirmed by Figure 2. So, it may be observed that the transparency index is increased in the central banks whose monetary policy is promoted under the direct inflation targeting regime, followed by others than the foreign exchange rate and monetary aggregate targeting, this is the case of the countries with implicit anchors, or the case of New Zealand.



**Figure 2. Dynamic of the central bank’s transparency in line with monetary policy regimes**

*Source: Trends in Monetary Policy Transparency, Petra M. Geraats, University of Cambridge, August 2009*

New Zealand was the first country, which implemented the direct inflation targeting regime in 1989 and in 1999, it has already dropped this regime by setting the “official cash rate” (OCR), the wholesale price of borrowed money. The Reserve Bank of New Zealand is capable to influence the wholesale price of money through this conventional instrument, according to international standards and, due to its links with the banking system and the financial markets, influences a number of economic factors that contribute to maintaining the inflation under control, as confirmed by Figure 3.



**Figure 3. Evolution of inflation and inflationary expectations in New Zealand during the period 2000-2016**

*Source: elaborated by the author based on data of New Zealand CB: <http://www.rbnz.govt.nz/>*

Figure 3 shows that inflation in New Zealand was below 4.5 per cent in the period 2000–2016, being mostly around the inflation target of 2.0 per cent with a possible deviation of 1.0 percentage points, and the inflation expectations were close to the inflation level. It should be mentioned that, in terms of transparency, the Reserve Bank of New Zealand publishes quarterly Monetary Policy Statements, which, according to the Law, contains an agreement signed between the Minister of Finance and the Governor of the Reserve Bank of New Zealand on monetary policy achievements in order to achieve the inflation target. In the case of significant inflation target deviation, it is necessary to justify the results and namely this assumption of responsibility confers credibility to the central bank. At the same time, the Reserve Bank of New Zealand publishes data on inflation expectations, being considered as good international practices on central bank transparency.

## 5. Conclusions

The inflationary expectations anchoring is based on the central bank's credibility and its reputational gains, which may be achieved only through an increased, open and consistent transparency, together with a well-defined communication strategy in line with the instruments used, capable to include different target groups. The developed countries register a low inflation, relying on an increased transparency and the inflation expectations anchoring. Although, the analytical research in the literature of specialty shows that the transparency and inflation expectations anchoring represent a feature and prerogative of the direct inflation targeting regime, it is considered that these are the determinants of an effective monetary policy in New Zealand as well.

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## ALTERNATIVES RECOMMENDED FOR SOLVING THE PROBLEM OF INFORMAL PAYMENTS IN HEALTH SYSTEM

*PhD student Elena ZUBCOVA, ASEM*

*“Informal payments in the public health system – payment for life?”<sup>1</sup>*

*As reflected in the issues raised, a whole range of issues are affecting the functioning of the public health system and causes dissatisfaction beneficiaries. This is a result of reduced funding (reduced rate of Gross Domestic Product allocated to health), which generates the low level of salaries of medical staff, continuing with a low quantity and quality of health services, poorly equipped health units, fewer doctors and arriving to the practice of informal payments. In addition, the new measures on introduction of co-*

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<sup>1</sup> Stavaru Ana Maria, Ministerul Sănătății, Unitatea de politici publice, iunie 2011 “Plățile informale în sistemul sanitar public românesc-plata pentru viață?”, 11 pagini.

payment, the adjusting of medical-sanitary services tariffs to the legislation and the closing of some hospitals are the latest causes of dissatisfaction of beneficiaries.

**Key words:** *informal payments, corruption, alternatives, health system, hospitals, medical personnel.*

**JEL:** H51, I11, I18

## **Introduction**

Identified problem to be solved is the high level of informal payments in the public health system. There is a vicious circle as a result of underfunding the system, resulting in low salaries of medical staff compared to other European countries. This includes in the vicious cycle a greater availability of health professionals to accept informal payments and also a greater willingness of patients to use the practice of informal payments in order to qualify for a medical service of a better quality or in order to avoid the waiting, considering that the number of patients per doctor is higher than the European average. As defined the informal payments are amounts paid by patients for a service that should be free<sup>1</sup>, either that initiative comes only from patients, or they have been suggested or even required by healthcare professionals. Arguments that sustain that is a problem are the high level of a spread practice of informal payments, their association with corruption in the health system and in violation of ethical principles and with the principles and values on which is based a public service. The arguments are supported by data that are found in some reports by the World Bank, Transparency International, Eurostat and other analysis reports on informal payments and corruption in healthcare, which confirm the high level of total amounts paid and a high spreading of the phenomenon, resulting in a far higher real cost of the medical service than the official cost.

### **Analysis of the references**

*1. Transparency in reorganizing the network of public hospitals and the functioning of the National Medical Insurance.*

The first variant of solving consists in a transparent reorganization of the network of public hospitals. In addition, the measure should be accompanied by implementing a transparent system of cash inflows and outflows of NHIC that “will ensure transparency and fairness in how the money of citizens is spent for payments in health system”<sup>2</sup>. Values and principles underlying this alternative are: transparency of public spending, equity in offering public medical services and ethics of the medical staff in their professional practice.

Reorganization involves primarily a network assessment of existing hospitals, but also of the role they have in their geographical area, by evaluating aspects such as: geographical location, number of inhabitants of the geographical area, the average number of patients who use the services of the hospital per month, types of cases and the severity of the most commonly treated cases at the hospital, distance from other hospitals, hospital equipment, medical services they can provide, the number of healthcare professionals and their specialization. Such a comprehensive image may be the basis of a reorganization methodology of the hospital network in a transparent way. The impact on vision stems from the fact that, following this evaluation, hospitals from smaller towns or with a lower influx of patients may be converted into ambulatories in order to reduce some unnecessary costs in certain areas. At the same time, it is needed to preserve at least a hospital within a geographical area of reasonable size in order to transport patients to the hospital if necessary. The target groups of this alternative are public health persons insured and public health workers. Supporters of this proposal shall be the Ministry of Health, Ministry of Finance, health unions. The necessary resources for the achievement of the alternative imply time and costs to perform the assessment for public debate and for measures implementation, cost estimations based on market prices for the implementation of IT systems and staff cost can be accessed through a project. Regarding human resources, the staff that will no longer be required in hospitals transformed into ambulatories may replace some of the shortage of staff in the remaining hospital units.

Expenditure savings thus made (ambulatories were spending less than hospitals) can be used to increase salaries of medical staff, which will thus be more motivated to enter the system and will be less tempted to accept informal payments or to leave the system in order to work in hospitals from other states. Assess and public communication of the results of the hospital network situation assessment are meant to legitimize the criteria to follow in the reorganization of hospitals, the lack of which is one of the major

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<sup>1</sup> D. Balabanova, M. McKee, “Understanding Informal Payments for Health Care: The Example of Bulgaria”, *Health Policy*, vol. 62, no. 3, 2002, pp. 243-273, *apud* Cătălin Baba, Răzvan Cherecheș et al, “Informal Payments in the Health Care System – Research, media and policy”, *Transylvanian Review of Administrative Sciences*, No. 32/2011, p. 6.

<sup>2</sup> Victor Alistar, Iulia Coșpănar, “Raportul național asupra Corupției – Octombrie 2009 – Februarie 2011” Transparency International România, București, mai 2001, p. 71.

problems the National Strategy had, which did not show a clear, transparent and detailed methodology, nor had a public debate of the criteria by which hospitals would be closed. Regarding the feasibility of alternative, it is possible, especially because the necessary funds are available from the European co-financing funds from the public budget and the support from health unions will be a strong one, because it implies an increase of the salary.

In terms of benefits, it was chosen this option because it implies a considerable impact in tackling the vicious circle of poor payroll – corruption – informal payments, an increase in wages in the public health determining a reduced temptation to receive or request informal payments. Intermediate steps implied by the alternative consist in the assessment of the existing hospitals network and public discussion of the methodology and criteria for reorganization.

Other benefits that will result are reducing medical staff shortages, transparent use of inputs, increasing access to health care (by restricting the spread of informal payments) and increasing the quality of medical services through better management of funds.

#### 2. The legalization of informal payments.

A second option is to legalize informal payments (opportunity supported by ex-Minister of Health Mr Andrei Usatî)<sup>1</sup>, and the money gathered in this way-concentrated in a special budget of each hospital. It states that the money collected from these payments will be accumulated in a special account of each medical institution and will be used to stimulate employees or reconstruction of buildings.

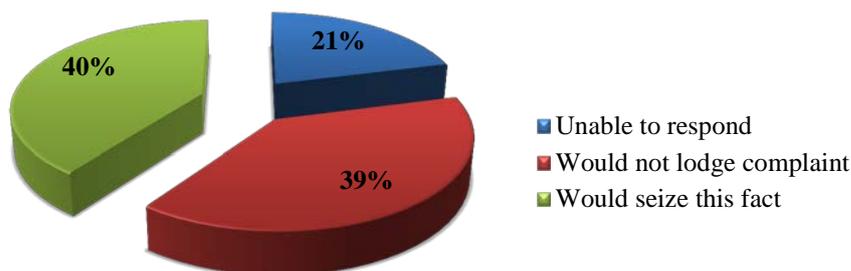
In Moldova there is a huge number of patients who abandon treatment or refuse to go to hospital because of these conditionings. In the hospitals from the Republic of Moldova bribes exist at all levels, that reconciles all. Bribes are given at the stage of diagnosis, treatment administration, auction, everywhere. In the case of public auctions there are certain regulations which "are being respect".

#### Methods used

Research strategy included identifying both online resources as well as reviewing the literature in the field. E-Search included the following key terms: health, satisfaction, Moldova, informal payments, opportunities. Additionally, the search included a review of local public health journals. The final sources included annual reports on the performance of the health sector, study analyzes, reports and information manuals that have raised the issue of informal payments, both published and unpublished materials.

#### Obtained results

Results of a study conducted by the National Bureau of Statistics show that 4 out of 10 Moldovans, 39 percent of people would not lodge any complaint if they were asked to pay additionally for health care services. Another 40 per cent would seize on this and almost 21 percent-were not able to answer this question (Figure 1).



**Figure 1. Filing of complaints by respondents, %**

*Source: Developed by the authors according to data presented by Stavaru Ana Maria, Ministerul Sănătății, Unitatea de politici publice, iunie 2011 " Plățile informale în sistemul sanitar public românesc-plata pentru viață?", 11 pagini.*

Research shows that 15 percent of those who found some fraud may file a complaint with the Ministry of Health, 17% – directly to the doctor and only 2% would go to the police. Three per cent of respondents, who said they would denounce fraud in the medical system, declared they have already paid a bribe.

Thus, almost 18% of the urban population would lodge complaints with the Ministry of Health, while only 13% of the rural population would inform the competent institutions about fraud committed by health

<sup>1</sup> <http://www.e-sanatate.md/News/249/ministrul-sanatatii-andrei-usatii-se-pronunta-pentru-legalizarea-platilor-informale-la-medic>

workers. However the share of people would not react in the event of fraud on the part of health system employees is higher in rural areas.

### **Conclusions**

Moldovan experience presented in this profile reflects briefly how the health system has been adapted to the new realities that have emerged after the gain of independence by the Republic of Moldova as a result of the collapse of the Soviet Union, the demographic transition, constraints of resources as a result of socio-economic changes and the political changes in lifestyle, massive migration flows abroad and external factors such as the financial crisis.

The challenges that persist are those aimed at ensuring equity in financing, further expansion of coverage with MHI to have the assurance that poor households are adequately protected against catastrophic health costs and to reduce the proportion of substantial informal payments in the health expenditures, through the extension of MHI service package and encouraging transparency in the health system.

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## **OPPORTUNITIES OF MOLDOVAN BANKING SYSTEM TO IMPLEMENT THE EUROPEAN UNION EXPERIENCE**

*PhD student Irina FRUNZĂ, ASEM*

*Scientific supervisor: Professor Hab Dr. Maria CIUBOTARU*

*The signing of an agreement between Moldova and EU involves a series of macroeconomic effects that should affect commercial banks, positively or negatively. Strengthening the position of banks in national markets in most European countries inevitably requires the strengthening of the internationalization of their activities. The crisis of 2007–2009 and its aftermath constituted a shock to competition policy practice, which either had to accept being superseded by financial stability considerations, or adapt quickly trying to control the competitive distortions introduced by the massive help to the banking sector. A good example to follow, the transformation of banking system from worst one in a strong and stable one, is banking system from the Czech Republic. Ensuring the necessary conditions for the transition to a single monetary and monetary policy and a single currency on the basis of splicing of national economic complexes occurs in accordance with certain objective laws.*

**Key words:** banking, Czech experience, European Union, Banking system

**JEL:** E52, E58, G210, G33

### **1. Introduction**

The banking system is one of the sectors most deeply embedded in the national economy due to its lending activity, as well as collection and aggregation of savings of the population/companies. Therefore, it is most sensitive to changes regarding the macroeconomic situation and expectations. Moldova's signing of an agreement with the EU involves a series of macroeconomic effects, at least theoretically, should affect

commercial banks, in a positive or negative way. Thus, the first aim of this study was to highlight the most important features of European Union banking system and its experience and draw important conclusions about the opportunities of Moldovan banking system to apply EU experience. First of all we have identified factors affecting the development of the Moldovan banking system, then the measures and strategies implemented by EU countries. In this sense, was evaluated the situation in the sector compared to other banking systems, especially Czech banking system, based on series of conventional indicators such as: legal framework, structure and financial situation of the banking sector, the evolution of financial indicators for 5 years. In this research was tried to explain the causes of high cost of credit, high levels of inefficiency as well as other major factors hindering dynamic development of the Moldovan banking sector and the problem of shareholders' non-transparency. The creation of the European Union (EU) required closer coordination of the monetary and foreign exchange policies of these states and the creation of a collective currency regulation mechanism, first, in order to minimize transaction costs in the process of mutual trade and economic cooperation and secondly, to increase the efficiency of the implementation of money in the territory of the integrated economic space functions cost measures, means of circulation and means of payment.

In modern conditions, currency integration, implemented on the basis of a single European currency, creates a powerful incentive for further socioeconomic unification of the EU countries. It accelerates the flow of capital, makes the banking and credit system more mobile and efficient. The currency integration in the EU has a particularly strong impact on the banking system of the member countries. Here we can distinguish these effects:

- 1) a clearer division of service sectors between different types of monetary systems;
- 2) changing the role of the dominant monetary system – the Central Bank;
- 3) implementation of joint fight against banking risks on the basis of standardization of methods for recognition of risk factors, their systematic normalized accounting, analysis, control and forecasting.

The main directions of changes in the banking systems of the euro area countries include the following:

- Unification of requirements for participants of the credit and financial market;
- Unification of methods of regulation of commercial banks and other participants of the credit and financial market;
- Unification of reporting and forms of applied documents;
- Unification of business conditions of commercial banks of different countries;
- Processes of bank mergers at the national level and interpenetration of banks of different countries.

The restructuring of banking systems in European countries was largely “defensive”, those.

## **2. Methodology and data**

The paper is concerned with the situation of comparing banking sector from 2 different countries: the Republic of Moldova and the Czech Republic. The comparison of banking sector in Moldova and the Czech Republic is based on the data from: IMF Country Report No. 08/274 about Financial System Stability Assessment of Moldova, based on the work of the joint IMF-World Bank Financial Sector Assessment Program (FSAP), World Bank, databases were indicators were collected for the period 2012-2016, NBM Report on financial information on activity of commercial banks from Republic of Moldova for the period 20012-2016, CNB Report on information on financial sector in Czech Republic or the period 2012-2016 and trading economic indicators for the same period. The methodology is based on comparative analysis, deductive analysis based on the balance sheets of banks, statistical data analysis; basic rate applied by the National Bank from Moldova and the Czech Republic, efficiency indicators: ROA, ROE, non-performing loans and all these indicators were analysed for the period 2012-2016.

## **3. Results and discussion**

First of all have to take into account that the Czech Republic is a member of the EU and structure of banking sector differs from that of the Republic of Moldova. A common aspect of both countries is two-tiered banking system: National Bank and commercial banks. With the collapse of the socialist bloc and the Soviet Union, Moldova and the Czech Republic have stepped energetically towards building democracies and market economies competitive, and aspiring to become a legitimate part of the European Union. The particularities of banking system of the Republic of Moldova are: two tiered system, similar to banking systems in the EU Member States; exchange rate fluctuations; high and floating interest rates on long-term interest rates; diversification of non-banking methods of attracting money (issue of securities); banks' increased risk appetite; low institutional quality and functionality. Particularities of Czech Banking system are: well capitalized and funded; a great potential for growth; a single money market; more integrated and competitive banking industry; low and stable long-term interest rates; currency and foreign exchange transaction risks have been eliminated, etc.

**Table 1****Financial indicators of banking system**

Non-performing loans from total gross loans (%)					
	2012	2013	2014	2015	2016
Republic of Moldova	14,5	11,57	11,72	9,95	16,31
Czech Republic	5,23	5,19	5,6	5,47	5,15
ROA (%)					
Republic of Moldova	1,1	1,5	0,85	2,1	1,97
Czech Republic	1,3	1,23	1,19	1,2	1,1
ROE (%)					
Republic of Moldova	5,6	9,4	5,86	12,78	11,95
Czech Republic	11	12,8	7,28	12,9	11,2
Bank capital to asset ratio (%)					
Republic of Moldova	17,21	15	13	13,57	13,42
Czech Republic	6,87	7,2	7,3	7,8	7,4
Domestic credit to private sector (% of GDP)					
Republic of Moldova	40,29	42,49	36,9	34,7	32,5
Czech Republic	49,76	51,16	49,8	50,31	51,1

*Source: data from NBM and CNB for 2012-2016*

Moldova's banking sector is the basic financial market while the other elements are underdeveloped (capital market), have a low share (microfinance and non-bank lending institutions, leasing), or are virtually non-existent (investment funds and venture capital). Contemporary banking system includes three basic elements: the Central Bank, commercial banks and specialized financial-credit institutions, comprising both banking organizations as well as non-banks.

#### **4. Conclusions**

This research has enabled a broader analysis of the situation in the banking sector of the Republic of Moldova and the Czech Republic, after which we can deduce following conclusions: Moldova could benefit enormously from the experience of the social and economic transformations of the Czech Republic, achieving the transition to a market economy, maintaining broad access to basic services and establish rule of law. In the transition from a centrally planned economy to a market economy and one-party political system to a democratic regime, the Czech Republic has advanced faster than Moldova. Given that in some cases both countries followed the same path to a market economy, some experiences, positive and negative, can be a lesson for the future development of Moldova. Although, Czech experience cannot be total applied to Moldovan, there are some base lessons which must be appropriated.

In conclusion, macroeconomic stabilization achieved is one of the most significant successes of Moldova in its way to a market economy, but still more efforts must be made to reduce the risks of inflation, even more because inflation is not only a macroeconomic indicator, but an indicator of the economy's competitiveness.

As shown in the Czech and Moldovan experience, politically dependent judiciary can significantly undermine banking sector climate. Another important lesson, which is required to be learned from the Czech Republic, is the need to build an institutional infrastructure to support the efficient Moldovan banking sector. Banking system policy should be simple and transparent as possible. The chaos in the banking system did not bring economic progress anywhere, so it is necessary to maintain monetary and banking stability. It should be further promoted free and fair competition entering the market: the failed banks must be subject to a modern bankruptcy laws that would protect the rights of creditors. The banks that went bankrupt should not be saved by using state funds, but by privatizing them in transparent auctions with an emphasis on strategic investors with experience. The financial sector should not be forced to provide subsidized loans or lending based on political preferences (bankruptcies banks are very expensive, as shown by the Czech experience).

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## **CORPORATE GOVERNANCE ROLE IN ATTRACTING FOREIGN INVESTMENTS**

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*Part of the recent globalization around the world is the increased flows of Foreign Direct Investments (FDI). The beginning of the 21st century is marked with changes in corporate governance policies in the countries all around the world. Most of the developing countries have changed significantly their policies through liberalization so the share of FDI in their domestic economy can be increased. Therefore, it can be analyzed whether FDI impact on the corporate governance trends in the host countries can lead to improvements for the economy of the hosting country or it can be argued that there are more important aspects for capital flows in countries than corporate governance policy. Recently the most desired economies to invest in are the emerging markets economies and transiting market economies. Analyzing their corporate governance policies in connection with investment developments is one way to get closer to the answer whether corporate governance trends affect the FDI inflows. Is the potential in these markets due to recent corporate governance changes, made so these countries can offer more flexibility and better opportunities for an investment? A key factor for cash flows towards is the liberalization process in corporate governance laws as well as better understanding of domestic characteristics and improvement of the latter.*

**Key words:** *corporate governance, Foreign Direct Investments, capital growth, stakeholders, shareholders, transparency and accountability standards, emerging market countries, investment climate*

The positive effects of FDI in corporate governance practices have been documented with regard to companies that have either been acquired by, or entered into joint venture with, foreign companies.

However, the changes in corporate governance practices of companies that compete or deal directly with FDI have never been examined. FDI should have an effect on these companies through competition or other types of affiliations. This article aims to fill the gap in the literature and provide hypotheses and a framework to examine the changes in corporate governance of companies that compete or deal directly with companies acquired by FDI. It attempts to determine the scope of FDI effects beyond those that have a direct impact on acquired local companies. It intends to clarify the role of FDI in corporate governance changes, such as changes in board of directors, executive compensation, ownership concentration and investor protection. The article demonstrates the leading function that FDI plays in organizing both our economic and social institutions. It also establishes a framework to examine the nature of the relationship between FDIs and local companies on one hand, and on the other hand, their effect on the corporate governance of local companies.

The establishment of proper corporate governance has become increasingly important, as foreign investors tend to put greater importance in selecting their investments.

In the last few decades, international financial markets have dramatically changed. One of the prominent changes is their globalisation. Vast amounts of capital are now transferred from one country to another on a daily basis. The globalisation of capital markets benefits transition countries. Although the recent financial crises in emerging economies have highlighted the risks involved in such transactions, it is still true that foreign investment played a key role in the remarkable economic growth in these economies before the crisis. Moreover, the evidence suggests that equity investors, either portfolio or FDI, were not the ones to rush for the exit. It was mostly short-term bank lending that created the sharp reversal in capital

flows. The growing foreign investment trend is largely irreversible, because excessive savings in advanced market countries seek investment opportunities in developing countries that lack sufficient domestic savings. Sizeable assets accumulated in pension and investment pools need to be diversified. They are partly allocated into high-risk but high-return investments in developing economies. Large-scale institutional investors also tend to pay attention to corporate governance, as many of them, especially pension funds and life insurance companies, have a long-term investment perspective to match the long maturities of their liabilities. Instead of selling-out quickly whenever returns do not match expectations, these investors have been trying to make sure good corporate governance, in particular transparency and proper protection of minority shareholders, is in place to ensure sufficient long-term value growth. In order to attract these long-term foreign investors, it is of urgent necessity for transition economies to establish good corporate governance. Empirical analysis suggests that economies with poorer corporate governance have been more severely damaged, as a result of foreign investment outflows. Foreign portfolio investment comes, most would argue, second to foreign direct investment as a facilitator of rapid transition. Foreign direct investment has been shown to address most effectively the problems faced by corporate sectors in transition. It does not only consist of a transfer of funds but also of skills, market access, technology and know-how. Thus, economies that have attracted more direct investment among transition countries have consistently outperformed the rest in terms of the speed and sustainability of their transformation over the last ten years. Is corporate governance relevant to FDI? After all, a direct investor assumes control so that she can function without external constraints. In practice, however, direct investors worry very much about the corporate governance framework. As most of them function under transparency and accountability standards set globally, they might find themselves severely disadvantaged in an environment where local companies can externalise these costs through corruption, hidden subsidies and opacity. Direct investors need a sound company law framework as much as portfolio investors as they will often have to deal with minority shareholders and creditors in environments lacking in rule of law. In transition economies, one is not surprised to find direct investors having the state, local government or voucher recipients in the capital of the companies they control. If the corporate governance rules are not clear, these situations can create (and have in the past created) a lot of problems.

Corporate governance – it is just the system to balance the interests of all stakeholders in the company, and if the system of corporate governance rebuilt correctly, and correct, then the investor will have more confidence that their interests are protected. Undoubtedly, corporate governance is one of the most important but not the only advantage.

Companies should pay attention to the following points to improve the investment climate. Firstly, the need to improve the reporting content, aimed at improving the quality awareness of different groups of stakeholders about the company. Secondly, companies should take part in a wide variety of projects with different stakeholder groups, including for the exchange of experience in the implementation of corporate projects and programs aimed at improving internal and external processes, identifying common problems that require consolidated promotion of the views of the business community in authorities, media, etc.

Information interaction stakeholder should be used as an effective feedback mechanism by which the corporate policy may be adjusted, and established a trust relationship with customers and partners, etc. The meaning of good corporate governance is very simple - the company has owners and other stakeholders who are called stakeholders, and the owners should be able to effectively exercise their right of ownership in relation to the company, which is the corporate governance mechanism. In any case, the implementation of corporate governance practices, and at least a minimum set of elements allows you to get the company back on track and, with proper management, can lead to a very good finish.

#### **Benefits of FDI**

1. FDI is indeed the source that can provide substantial benefits for the economy of countries. Many studies have been devoted to examining the connection between the corporate governance and the FDI inflows in emerging market countries, most importantly because many experts consider that this is the way for expanding on the global market and develop economically. Many experts point out that FDI is indeed the key for economic growth in countries for centuries. Following the steps of developed countries emerging market countries' governments have made significant changes in their corporate governance policies with the aim to attract more foreign direct investments. More liberalized policies, privatization processes, increased transparency - these are just some of the ways by which emerging economies countries are trying to improve their business environment as to be more attractive to foreign investors. Not only emerging market countries are trying to implement better corporate governance policies in their legal framework, but transitional countries as well.
2. Good corporate governance is more likely to attract FDI inflows. Firstly, FDI has a positive impact on the economic growth and employment in the receiving county. FDI brings capital flows which are long -

lasting, because they are invested in long term assets. The competition is bigger between the companies in the country, the performance better, which results in benefits for the economy of the country.

3. With more cash flows the opportunities for additional jobs are another positive outcome. Companies grow bigger, enter more markets, therefore more workers are needed, and eventually the wages will grow with the performance getting better.
4. FDI brings transfer of technology and know – how to the receiving country. Innovation is the result - management techniques are improved, advance technology is used, which leads to higher productivity and lower costs.
5. FDI will bring new goods and services to the local consumers as well.

The policy makers should consider the factors that will contribute to attracting more FDI inflows. Many case studies have shown that improvements in a country's corporate governance regime will lead to more FDI inflows. Governments that establish good legal framework, investment protection and intellectual property protection are more likely to contribute for the financial growth and stability of the country, because these policies will make them competitive on the market for FDI. It may be also needed an adjustment of the infrastructure, tax regulations, labor legislation etc. Developing countries are adjusting on the global market, by implementing reforms in different areas, but that is of course a long process, during which it has to be considered that not always the answers taken from other countries' practices is the solution in the particular case. Foreign direct investment strategies differ in somehow when looked from a particular country's perspective. Nevertheless, there are some determinants that are considered by investors crucial – protection of shareholders' rights, low levels of corruption, transparency, enforcement of legal rules, good economic environment.

Still, even all the measures taken by the governments in some East – Europe countries, other factors are still stopping investors from considering business opportunities there, such as political and economic risks. The problem is that even if there are such risks, there are not much higher than in other countries, but past history events marked these markets negatively and the adjusting process and reforms are even harder to achieve.

In Moldova improving the implementation of corporate governance, often used in practice is not enough, often superficial fully obtain the confidence of investors, including shareholders, reducing investment risks and increasing access to various sources of capital, nationally and internationally. International practice regarding corporate governance need to be applied by local companies, but taking into account the characteristics and objectives of the national economy.

Investment activity in Moldova is the most important factor that determines social and economic development of the country. Both investment activity carried out, as well as social and economic development depend largely favorable investment climate. The latter helps to maintain a sustained investment in the local economy and local companies.

Moldova does not have sufficient financial resources and is therefore forced to resort to external assistance, to look for new and new loans. However, as international experience shows, such a policy is ineffective because of the need to pay interest and the lack of effective mechanisms for use of the borrowed money flows. In these conditions, Moldova's economy can only be effectively financed externally through foreign investment. According to Moldovan legislation, foreign investment is the investment of a foreign investor in entrepreneurial activity carried out in Moldova, including income from his investment and reinvested in the country.

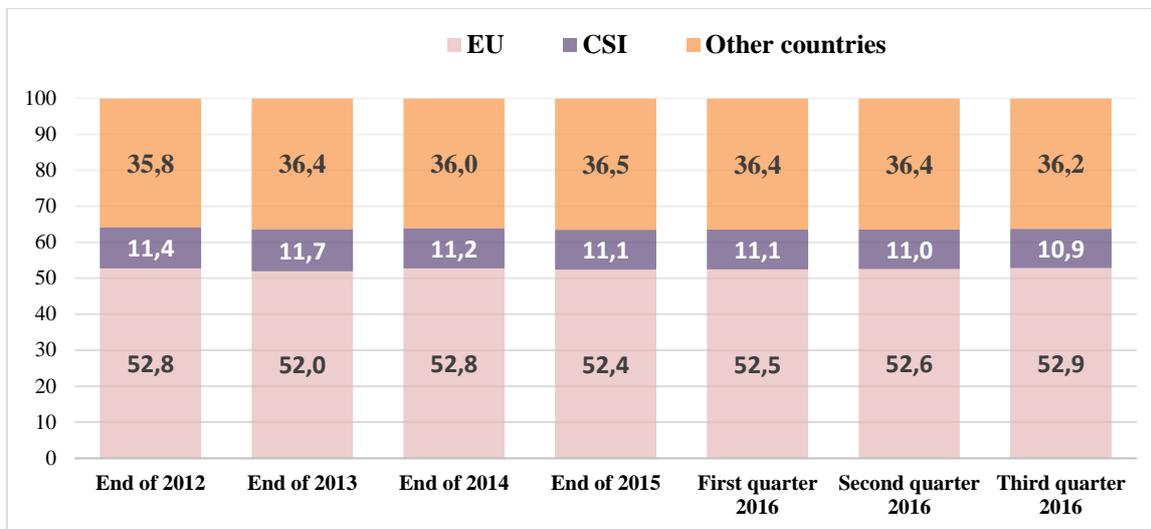
**Moldova needs foreign direct investment for the following reasons:**

- 1) its investment potential is reduced, that is still a shortage of resources in the private sector;
- 2) the need for Moldova's integration into the world economy on favorable terms;
- 3) create a competitive environment with the participation of foreign investors, raising competitiveness of domestic production;
- 4) the need to implement in Moldova's economy, advanced technologies and know how's economic activity, which becomes possible with the arrival of foreign investors.

As in other countries, Moldova, foreign direct investment is considered an acceleration of economic and technical developments, renovation and modernization of the production apparatus, knowledge of advanced methods of production organization, staff training according to the needs of the market economy. Attracting foreign investment remains a fundamental current load and an efficient outcome that depends walking, pace and results of implementation of reforms. To ensure reforms required a significant amount of foreign investment.

The geographical distribution of accumulated capital, investors from EU countries has returned the largest share – 52.9 per cent. Investors CIS countries held a share of 10.9 per cent of capital accumulated those from other countries have investment rate of 36.2 per cent. According to the distribution of FDI stock

as a capital by branches of the national economy, the main economic activity which benefited from foreign investment remains manufacturing (24.0 per cent), followed by financial activities (23.8 per cent). Other activities that have attracted foreign investors were trade, real estate, wholesale and retail, transport and telecommunications, energy industry.



**Figure 1. The stock of FDI\* - Share capital, by geographical area (millions USD)**

\* stock calculated according to historical cost principle

Source: Data of the National Bank of Moldova (NBM)

Foreign Direct Investment in Moldova increased by USD 73.98 Million in the third quarter of 2016. Foreign Direct Investment in Moldova averaged USD 47.78 Million from 1995 until 2016, reaching an all-time high of USD 244.77 Million in the third quarter of 2008 and a record low of -8.98 USD Million in the fourth quarter of 2015.



**Figure 2. Moldova Foreign Direct Investment – Net Inflows**

In the context of the above analysis there can be **summarized** the following facts:

1. Good corporate governance practices ensure:
  - Adequate disclosures and effective decision making to achieve corporate objectives;
  - Transparency in business transactions;
  - Statutory and legal compliances;
  - Protection of shareholder interests;

- Commitment to values and ethical conduct of business;
  - Long-term survival of the companies.
2. Good corporate governance is very important because of its role in attracting foreign investment. The extent of foreign investment, in turn, shapes the prospects for economic growth for many developing countries.
  3. Corporate governance can play a role in reducing corruption, and decreased corruption significantly enhances a country's development prospects. The aim of "Good Corporate Governance" is to ensure commitment of the board in managing the company in a transparent manner for maximizing long-term value of the company for its shareholders and all other partners.
  4. Good Corporate Governance practice increase transparency accountability, enforceability in the market place. It equally built confidence among stakeholders.
  5. Good Corporate Governance ensures country's long term success on financial platform as well on social responsibilities platform.
  6. Good Corporate Governance boosts or establishes investor confidence in the economy. The credibility offered by good corporate governance procedures also helps to maintain the confidence of investors both foreign and domestics, to attract more long term capital.
  7. Corporate Governance help create a clement environment for investors in the country.
  8. Also strengthen the investors from sudden crisis.
  9. Effective Corporate Governance reduces perceived risks which reduces cost of capital and enhances quick and better decisions, which ultimately improves the bottom line of the corporate.
  10. By raising the bar in the public and private sectors and with stiff penalties for executives or corporation, Corporate Governance attracts foreign direct investment inflows, and enhances competitiveness and international perception.
  11. Sound Corporate Governance is a back bone of those countries which strongly rely on stock market to raise foreign capital.

In order to attract FDI through efficient corporate governance are proposed the following **recommendations:**

1. More liberalized policies, privatization processes, increased transparency - these are just some of the ways by which is necessary to improve the business environment for companies as to be more attractive to foreign investors;
2. Government need to establish good legal framework, investment protection and intellectual property protection that are more likely to contribute for the financial growth and stability of the country, because these policies will make them competitive on the market for FDI;
3. It may be also needed an adjustment of the infrastructure, tax regulations, labor legislation etc.;
4. International practice regarding corporate governance need to be applied by local companies, but taking into account the characteristics and objectives of the national economy;
5. Companies should take part in a wide variety of projects with different stakeholder groups, including for the exchange of experience in the implementation of corporate projects and programs aimed at improving internal and external processes, identifying common problems that require consolidated promotion of the views of the business community in authorities, media, etc.

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# THE MANAGEMENT SYSTEM OF PUBLIC FINANCES – A COMPONENT PART OF GOOD GOVERNANCE

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*The Budget establishes the financial framework within which the Government delivers its economic and social policy objectives for the benefit of its citizens. The distribution of the budget resources is difficult and very responsible task for every government. The Principles of good governance in the field of Public Finance Management, remembered in this article, provide the framework for a good public procurement system that are reflected in a wide range of international regulatory frameworks.*

**Key words:** *management of public finance, national public budget, public authorities and institutions*

## 1. Introduction

Motto:

The government is not a cow that is fed in Heaven and can be milked on Earth.

(Ludwig Erhard)

The national public budget means, in the modern theory of economics, the economic relations in money form, that appear as a result of the placement of the gross domestic product in accordance with the objects of the economic, social and financial policies of each period. The budget resources result out of the gross domestic product. That is why it is important to have a strict control over the public budget funds, to keep the integrity and the right placement of the goods of the state property. These are the functions that the authorities have to carry out in order to keep an efficient and effective management of the public finances.

The public management has to control the flow of the financial public resources and to assure the economic development of the state that grows the life quality of the citizens.

## 2. Public Budget – the study object of the Finance Management

*“The budget should be balanced, treasury should be restocked, public debt should be reduced, the arrogance of civil servants needs to be moderated and controlled, and the help offered to other countries should be stopped, so that Rome doesn’t go bankrupt. People have to learn to work instead of leaving on the social aid”*

(Cicero, 55 BC)

As a central financial instrument, the public budget offers the government the possibility to carry out different development programs, to finance different public activities, such as state administration, public order maintenance, national defence, environment protection etc. But the social branch is the most important for the budgetary policies. These are the public education, health, security and social aid.

The public financial resources are formed out of taxes and fees paid by the economic agents and by citizens. If the wage incomes show a growth, the public financial resources grow too. But if this growth is not significant, a good growth of economy cannot be expected.

In order to supplement the budget with additional financial resources, a raise of the taxes and fees cannot be avoided, but if the number of the population is reducing, the number of the enterprises that have a profit will reduce as well. The statistic data of the last years show that the number of the population is reducing, the number of unemployed and old people is growing. This will affect the payment shall into the budget for the future. That means that the state will not be able to collect sufficient financial resources for the budget and will not be able to allocate efficiently the obtained incomes.

Every public budget possesses an income and an expenditures chapter that according to the principles should be kept in balance. The classic theory about the balance between the income and the expenditures promoted in the XIX<sup>th</sup> century has highlighted the principles of prudent management of private finance, according to which an economic agent should spend for a long time only so much as it earns from its economic activity. Such economic behaviour meant a manifest in the economic environment only as a simple consumer, a not interventionist state. As a result the budget implementation meant only the achievement of this financial balance between the income and expenditures. A possible budget deficit were to be accepted only in exceptional situations such like wars, natural calamities etc.

In the second half of the XX<sup>th</sup> century, new theories about the budget policies have appeared. The classic budget balance was more a break in the economy growth and development. In the last decades of the last century, the projection of social development through the systematic assumption of public deficits has become a common practice of development accepted and used in the economies of the world. The state was invited to be more active in the management of investments aimed at enhancing the nation's entire social and economic life through its budgetary policies. According to the French economist M. Duverger<sup>1</sup>, the modern state doesn't carry out only its traditional tasks, army and police, but it supports the social life during crises to prevent price rising and to maintain the purchasing power of the currency during the inflation period, to assure an efficient use of the technical, material, human and financial-currency potential

### **3. Institutional Infrastructure of the Public Finance Management System**

The management system of the public finance is a component part of the public sector. The complexity of this system has the prerogative to manage the public finance and the administrative accountability, according to the Law no.181 of 25<sup>th</sup> July, 2014, referring to the public finance and the fiscal responsibilities that provide a division of responsibilities between the institutions, as it follows:

✓ **Parliament** adopts the legislative framework in this field, adopts annually the macro-bugging limits for medium-term, updates the budgetary-fiscal policy, adopts and amends annual budget laws, and finally reviews budget execution reports, approves annual reports on state budget execution, state social security budget and mandatory health insurance funds. The annual reports, after the review process, are approved by the Parliament;

✓ **Government** performs general management of the executive activity in the field of public finance management, ensures the sustainability of the government program and other budgetary-fiscal policy documents, secures the state debt management and public sector debt monitoring, approves the medium-term budgetary framework and presents Parliament the draft law on medium-term macroeconomic limits, approves and submits to Parliament the draft annual budget laws, as well as draft laws on amending budgets, ensures the efficient and transparent management of the reserve fund and the government intervention fund, approves the framework regulation activity of financial services within public authorities, presents to Parliament reports on the execution of the national public budget and its components;

✓ **The Court of Accounts** is responsible for the external audit function (Law of the Court of Accounts no. 261-XVI of 5 December 2008);

✓ **The Ministry of Finance** ensures, according to Law no. 181 of 25 July 2014 on public finances and budgetary-fiscal responsibility, the fulfilment of the functions of public finance management: the general coordination of the budgetary process, the elaboration and coordination of budgetary-fiscal policy according to budgetary and fiscal principles and rules, the elaboration and coordination of the budgetary planning process in the medium term (MTBF); managing the financial means of the national public budgets, managing the state budget and monitoring the execution of the other budgets of the national public budget. Besides, the Ministry of Finance organizes and ensures the functioning of the treasury system (State Treasury), the system of the fiscal administration (the State Tax Inspectorate established by the Law no.876-XII of 22 January 1992), the public procurement system (the Public Procurement Agency, created on 31 December 1997, in accordance with the Government Decision No 1217 of 31 December 1997), the Customs Administration (Customs Service), the Internal Financial Control System and the Financial Inspection (Financial Inspection, established by the Government Decision on the organization of the activity of Financial inspection no. 1026 of 02.11.2010). It draws up and publishes regular and annual reports on the execution of the state budget as well as regarding the execution of the national public budget; manages state debt and state guarantees and monitors the public sector debt and other important public finance responsibilities. According to the Decision no. 1265 of 14.11.2008 on the regulation of the activity, the Ministry of Finance has the function of accumulating the revenues to the national public budget; Management of public finances; Control of the intended use of public finances; State debt management and state guarantees; the adjustment of the legal framework in the budgetary, fiscal and customs fields to European and international standards and practices;

✓ **The National House of Social Insurance** (Government Decision No. 739 of 25.07.2000 on the approval of the statute of the National Social Insurance House of the Republic of Moldova) is responsible for the management of the social insurance budget;

✓ **The National Health Insurance Company**, established on the basis of the Government Decision no. 950 of 07.09.2001 on the establishment of the National Health Insurance Company, is responsible for compulsory medical insurance funds;

✓ **Central public authorities**, regulated by the Law no. 98 of 04.05.2012 on central public administration, are responsible for budget planning on the basis of policy papers for each field of activity and ela-

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<sup>1</sup> Luigi Popescu, The Analysis of the Functions of the Tax System, Taxes and Fees, pp. 24-27

boration of medium-term sectorial spending strategies in the medium-term budgetary framework, the preparation of annual budgets, execution and reporting according to legislation;

✓ **Local public authorities** governed by the Law no. 436 of 28.12.2006 on local public administration, elaborates, approves and administers local budgets in compliance with the principles and rules established by the legislation;

✓ **The budgetary institutions** manage the available budgetary resources in accordance with the legislation.

#### **4. Public finances – the object of the National Development Strategy**

The public finances play an important role in the financial, economic and social branches.

The financial resources are collected from the fees, taxes, contributions and the financing of public spending on the different destinations. A process of redistribution of the income and wealth of natural and legal individuals occurs.

This redistribution takes different forms, such as:

- granting of benefits, allowances, pensions, scholarships for persons belonging to certain social categories;
- subsidizing the production or marketing of certain goods and services from the budget;
- the free supply of public goods (public order, social protection, national defence, education to certain grades, health care, etc.).

The public finances are also used to assure the economic and social development of the country. Through fiscal and budgetary instruments the public authorities have an influence over economic processes and remove the economic imbalance that appears in this way:

- reduction of the taxes to stop inflationary pressures or boost economic activity; increasing the taxes to reduce certain consumption or activities;
- financing certain activities for creating new jobs, retraining and new qualification for the unemployed;
- contracting of foreign loans by the state for the completion of internal resources or the guarantee by the state of the loans contracted by the private enterprises to achieve objectives of national interest.

The state involvement in the economy occurs also through the adoption by the public authorities of regulations absolutely necessary for the proper functioning of the national economy: laws, government ordinances, government decisions, methodological norms etc.

Nevertheless, there is a mark that reports the grade of the state involvement in the economic and social life of the country and the capacity of the economy to contribute to setting up the country's financial resources and the way to manage them. In the modern economy, the budget also represents a short-term macroeconomic plan.

*The budget* is the main instrument of the government to control and manage the functioning of the national economy. The main characteristics of the budget are the followings:

- ✓ it is an instrument of the state government to predict resources and their allocation in order to achieve objectives;
- ✓ it is an accounting tool – acts as a state account;
- ✓ it is a legal instrument – as a document that is approved by the law, an act of authorization by the Parliament;
- ✓ it is a political tool – transposes financially a political vision;
- ✓ from the economic point of view, the budget reflects macroeconomic correlations, especially in its relation to gross domestic product.

The World Bank mentioned, at the beginning of the last year, that Moldova should improve the efficiency and the Equity of public spending, especially through a better management of the public capital investments that are important for the economic growth. The World Bank is actively involved in the supporting of the authorities' efforts to deepen the level of financial intermediation in Moldova, through technical assistance and investment.

At the start of the negotiation process on Moldova – EU Association Agreement, the authorities have undertaken to work on the following directions:

- to improve the quality and systematic realization of impact assessments (economic, social and environmental) as well as to increase the transparency of their results; to improve the consultation process and dialogue with recipients of national and Community regulations;
- to evaluate the administrative costs and reduce the administrative burdens generated by regulations for the economic sector by: establishing the method for evaluating the administrative costs and extending its use to the level of the entire central public administration;

- to take concrete actions in reducing administrative burdens, resulting exclusively from national legislation;
- to support the action program launched by the European Commission in order to reduce administrative burdens resulting from Community legislation;
- to facilitate the administrative procedures;
- to facilitate the regulatory process at the level of regulatory agencies and regulators;
- to apply effectively the national legislation.

In order to implement the fiscal-budgetary policy, the authorities of the Republic of Moldova have elaborated and approved the Government's Program of Activity for the years 2013-2020.

The Management System of the public finances is a process that insures that the management of the public finances occurs at the highest standards of efficiency, close to those of integrity and transparency<sup>1</sup>. The Action Plan for 2016-2018 about the implementation of the Public Administration Reform Strategy for 2016-2020 was elaborated under the provisions of point 2 of the Government Decision no. 911 of 25 July 2016 for the approval of the Public Administration Reform Strategy for the years 2016-2020 and in accordance with the provisions of Chapter IX. The monitoring and evaluation framework of the above mentioned Strategy.

The action plan was elaborated on the basis of the provisions of the Public Administration Reform Strategy 2016-2020 and therefore reflects the structure of the Strategy with respect to the components of the reform, which are the accountability of the public administration; developing and coordinating public policies; the modernization of public services; public finance management; public service and human resources management, as well as the general objectives, specific objectives and priority actions for the 2016-2018 period.

The formulation and the establishment of actions have been taken according to the provisions of the Government Program of Activity 2016 – 2020, recommendations of the development partners, as well as according to the results of the “Principles of the Public Administration” study, carried out by the OECD SIGMA Program from October 2015 to March 2016 and the informative notes from Moldovan development partners launched in January 2015

Here are the 16 European principles in the field of Public Finance Management recommended by the OECD SIGMA Program<sup>2</sup>:

1. The government publishes a medium-term budgetary framework on a general government basis that is based on credible forecasts and covers a minimum of three years; all the budget organizations cooperate within it.
2. The budget is formulated in line with the national legal framework, with comprehensive spending appropriations that are consistent with the medium-term budgetary framework and are observed.
3. The Ministry of Finance, or authorized central treasury authority, centrally controls disbursement of funds from the treasury single account and ensures cash liquidity.
4. There is a clear debt management strategy in place and implemented so that the country's overall debt target is respected and debt servicing costs are kept under control.
5. The transparency and scrutiny are ensured.
6. The operational framework for financial management and control defines responsibilities and powers, and its application by the budget organizations is consistent with the legislation governing public financial management and public administration in general.
7. Each public organization implements financial management and control in line with the overall financial management and control policy documents.
8. The operational framework for internal audit reflects international standards and its application by the budget organizations is consistent with the legislation governing public administration and public financial management in general.
9. Each public organization implements internal audit in accordance with overall internal audit policy documents as appropriate to the organization.
10. Public procurement rules (including public-private partnerships and concessions) are aligned with the acquis, include additional areas not covered by the acquis, are harmonized with corresponding regulations in other fields, and are duly enforced.
11. There is central institutional and administrative capacity to develop, implement and monitor procurement policy effectively and efficiently.

<sup>1</sup> <http://www.worldbank.org/ro/country/moldova/overview#1>.

<sup>2</sup> <http://www.sigmaxweb.org/ourexpertise/public-financial-management-external-audit.htm>

12. The remedies system is aligned with the acquis standards of independence, probity and transparency and provides for rapid and competent handling of complaints and sanctions.
13. Public procurement operations comply with basic principles of equal treatment, non-discrimination, proportionality and transparency, while ensuring the most efficient use of public funds and making best use of modern procurement techniques and methods.
14. Contracting authorities and entities have the appropriate capacities and practical guidelines and tools to ensure professional management of the full procurement cycle.
15. The independence, mandate and organization of the Supreme Audit Institution are established and protected by the constitutional and legal framework and are respected in practice.
16. The Supreme Audit Institution applies the standards in a neutral and objective manner to ensure high quality audits, which positively impact on the functioning of the public sector.

For the budgetary fiscal consolidation it is important to continue the measures on improvement of the fiscal policy and administration, as well as to assure adjustments by maintenance of expenditure constraints and structural fiscal reforms.

Austerity measures about the expenditure will lead to a stable trend of public finances.

As elements for fiscal consolidation for medium term (2015-2017) the followings have been established:

1. Macroeconomic consolidation and maintaining of economic growth, ensuring a real 4.5% rise in the environment on the reference horizon, by stimulating consumption and developing investment projects with significant effects on the economy.
2. Maintaining public revenues and expenditures in the 37-35% range of GDP and 39.5-37.1% of GDP respectively, with the budget deficit falling within the limits of 2.5-2.1% of GDP, so that in 2018 the budget deficit, excluding grants, will not exceed the 2.5% of GDP limit.
3. Continuous improvement of fiscal policy and tax administration, as a basic factor in the budgetary-fiscal consolidation;
4. Improvement of the economic activity climate;
5. Reducing the shadow sides of the economy and fighting corruption as significant sources of budgetary revenue growth;
6. Prioritization of public spending by reallocating available resources to priority programs, reasonable allocation of resources between current expenditure and capital expenditures and improvement of the budgetary planning and reporting mechanism;
7. Maintaining the state debt at a sustainable level: as a share of GDP, the state debt balance will register a steady trend over the years 2015-2017 from 24.0% in 2015 to 23.5% in 2017;
8. Continuing the policy of reducing and preventing the emergence of new arrears, because the budget arrears are a potential medium-term risk to fiscal-budgetary sustainability, further corrective measures will be taken to reduce them.

Besides, it is important to make a budgetary consolidation for a long term on the basis of the structural budgetary reforms. In this context, the following measures are important to be taken:

- Public administration reform, to increase the efficiency of the public sector and improve the quality of services rendered to the population. The budget decentralization model should be strengthened by tightening the boundaries of the indebtedness of local public authorities and by consolidating of the number of local public authorities.
- Reform of the Public Social Security system. It is essential to ensure a solid financial base for the pension fund, accommodating to demographic pressures, and reversing the trend of increasing the gap between the level of pensions and the level of wage;
- Tariffs for the public utility services should be adjusted to the level of cost recovery to avoid further accumulation of arrears towards energy resource providers and to ensure an adequate level of investments in this sector;
- Consistent implementation of structural reforms is crucial to boosting potential economic growth and reducing poverty.

Moldova's National Development Strategy (NDS) Moldova 2020 sets seven strategic priorities. These are justice and corruption, tertiary education, social insurance and pensions, the business environment, road infrastructure, affordable and advantageous financing and energy efficiency.

The strategy aims to prioritize state interventions to achieve the overall objective of assuring qualitative economic development and poverty reduction.

To achieve these objectives, particular attention should be paid to the development of the business environment, technical-material infrastructure and human resources.

The strategy provides a synthesis of existing strategies dedicated to action plans and the multitude of technical reports elaborated by the development partners and international financial institutions that are being implemented in all the core components of public finance management.

#### **4. Conclusions**

The solution for good governance in the Republic Moldova is: the assurance of a higher grade of political stability, a rigorous implementation of the laws, a predictable nature of legislation and investing in an educated and healthy human capital.

A good governance and public administration are very important for the structural reforming, that is necessary in raising the standards of living in the society. The importance of good governance became evident during the global financial crisis. The limited resources have been the main topics for discussion in many countries, pointing out that good governance has got a significant impact on how efficient the available funds turn into expected systemic results.

Thus, the promoting of effective governance and application of assessment tools for the governance quality represent the performance accelerators that generate well-anchored policies in European and global trends capable of reflecting the needs of the territory, efficient management of resources, and the existence of a solid institutional framework favourable for this development. This is because the competitive advantage is no longer based exclusively on products or services, on the existence of natural resources or on geographic or historical particularities.

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## **THE CONCEPT AND PREMISES OF BANK INNOVATIONS**

*Scientific researcher Cristina PANFIL, NIER*

*Learning and innovation go hand in hand.  
The arrogance of success is to think that what you  
did yesterday will be sufficient for tomorrow.*

**William Pollard**

*Nowadays all people, from teenagers to elders, are bound to bank accounts. As modern bank marketing environment is characterized by being highly technologized, having a rough competition and is permanently unstable (due to laws, inflation, clients behavior), it requires more precise marketing approach regarding bank innovations. In order to reach the objectives of commercial banks: profitability, social responsibility and fulfillment of customer needs, it is compulsory to analyze innovation opportunities with extreme precision. In this article are analyzed marketing concepts of bank innovations and are highlighted certain strategies for improvement, suitable for commercial banks in Republic of Moldova. As the key task of the commercial bank is not only to attract and win more and more customers, but also to retain them through effective products and customer service, innovation is the main instrument for bank readjustment to continuously growing needs of the market.*

**Key words:** bank innovations, bank survival, bank performance, products and services, competitive environment.

**JEL:** G21, O30, Z33.

## Introduction

A country's potential for innovation is also a sign of its financial market development. As a rule, in developed economies, banks design and implement "cutting-edge" products and processes to stay competitive and pass to higher value-added activities. Scientists and thinkers had different opinions regarding innovation- some considered it a measure to pep up the economy, others judge innovation as a flimsy measure, which under stressful economic conditions may cause systemic tension and enhance damages.

### *Analysis of the literature on this topic*

Before 1880 the notion of innovation was used to describe something unusual. The first economist who had greater contribution in defining the notion "innovation" was Joseph Schumpeter. He first introduced the idea that "innovations create major disruptive changes" whereas "incremental" innovations continuously advance the process of change (Schumpeter 1934). One of the first publications in which innovation was mentioned not as a development engine, but as a destructive factor for the goals of the nation, was in 1966 in the Journal "The American Economic Review" by Gregory Grossman. In this publication it was stated that technical progress is not only synonymous with human progress, but also an overriding national goal. The first theoretical base for innovation in different fields and classification of the existing types was done in the Oslo Manual. In the manual is described the full range of concepts and theoretical approaches adapted on surveys of OECD and non-OECD countries regarding innovation.

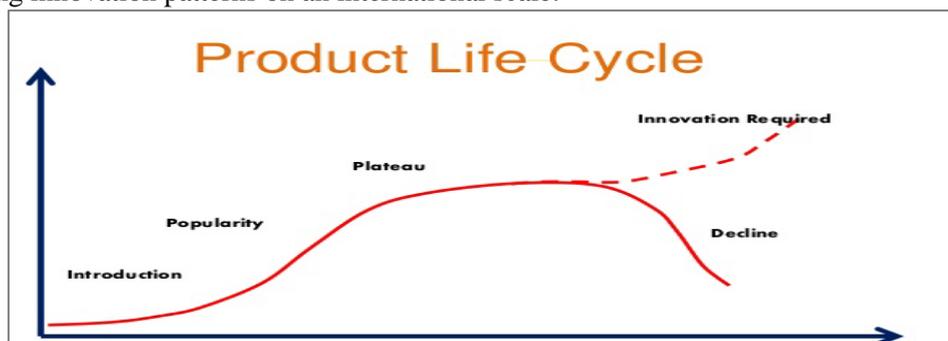
The nature of this study is qualitative. **Methodologies** of the research used for the paper are the comparative methods of theories in terms of their applicability, synthetisation of opinions, which include selection and discussion of theoretical material and descriptive material.

### *Study of the actual situation of innovation on Moldovan banking market*

Although conclusions are mixed, generally it is supported the view that an increase in credit market competition has first-order positive effects on financial intermediation. The results in this paper suggest that competition caused by financial innovation encourages banks to better assess the quality and improve access to the financial system.

According to Slawomir Lachowski, in the book "Disruptive Innovation in Banking: A Business Case in Low Cost Finance", approximately 2/3 from the developed countries' growth is linked to introducing innovation. Economy's maturity, higher GDP level, enhanced education; all these raise the awareness of necessity to innovate. Conversely - poor developed countries allocate little financial resources on research and development and their scientific infrastructure is insufficient for serving as the sole for innovations development, thus limiting the growth of financial system.

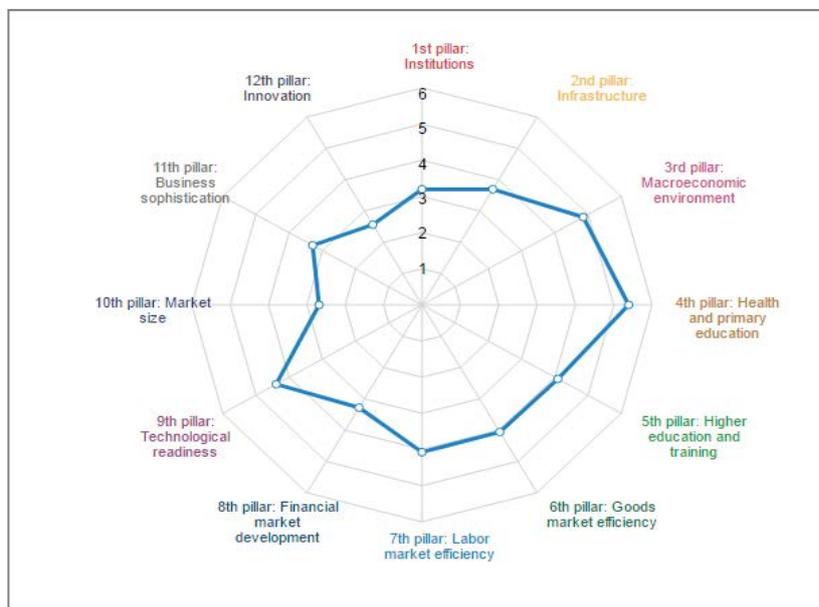
The potential of innovation in foreign countries, usually, is seen from the perspective of high financial outlays on research and development, which are funded by public and private sectors. However, in the era of the internet, access to information and sharing the ideas is much easier and globalization allows entities to use the existing innovation patterns on an international scale.



**Figure 1. The role of innovation in the lifecycle of products and services**

As it is stated, in the business lifecycle theory, every enterprise after the first stages- launch, growth, expansion and maturity, can evolve in different directions. There are companies that manage to keep their positions in the long run, but this requires a certain effort. Usually, if the company doesn't keep up with the pace of evolving market, it is meant to decline. So that, when new technologies are adopted, a "reverse" product cycle may appear. Theory of innovation in service industries indicates the possibility to generate growth cycles. This stage begins with process improvements to increase the efficiency of existing services and products and then processes innovation which improves overall banking services quality. The most important action to be taken by bank institutions is to invest in time, in innovating their activity. After the maturity stage, in order to avoid reduction of market share or even company collapse, the company requires innovation.

According to the Global Competitiveness Report 2016-2017, incentivizing innovation is especially important for finding new growth engines, after laying the foundations for long-term, sustainable growth by working on all factors and institutions identified in the Global Competitiveness Index. The competitiveness indicator of the Republic of Moldova economy occupied place 100 in the rank from 138 countries, but according to innovation index, economy of Moldova is placed on the 133 position.



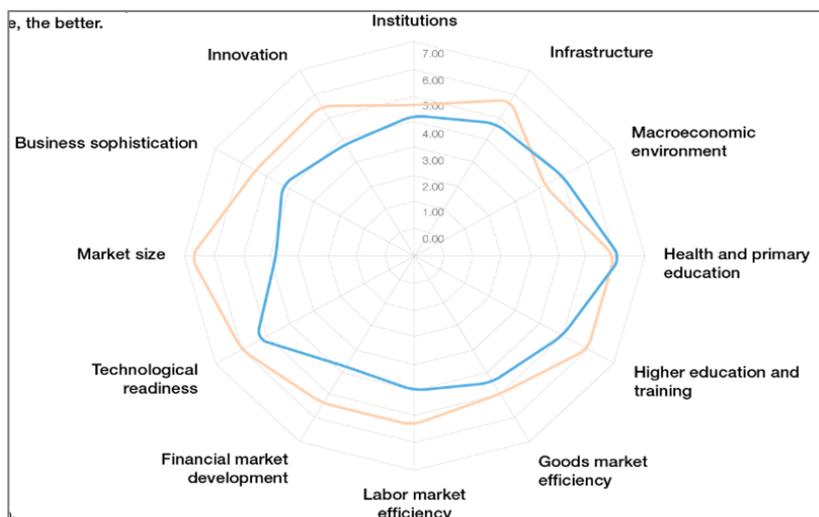
**Figure 2. Republic of Moldova index result in the “Global Competitiveness Report” 2015-2016**

When a comparison is made with the leading countries in this rank, it is noticed that the indicator innovation might influence financial market development. It is seen on the radar chart that both innovation pillar and financial market development pillar are both with the higher ranks.

According to European Innovation scoreboard 2016, innovation leaders and strong innovators are performing best in the financial sector. As stated in this report, the top-5 performers are:

1. Finland (leading the rank);
2. Sweden;
3. the Netherlands;
4. Denmark.

These countries are characterized by a public sector which is well endowed to perform R&D activities and by the availability of risk capital for private entities and financial institutions to develop new technologies. In contrast, our country invests very little in research and development of the beneficiaries of the study is not private entities. Thus, commercial banks should themselves allocate a part of their income for innovation.



**Figure 3. Result of EU (central series) and USA (exterior series) “Global Competitiveness Report” 2015-2016**

The global financial system is the cornerstone of economic activity, which is critical for long-term economic growth and development. Analyzing the data from the Global Competitiveness Report, it is observed that all leading countries are characterized by a higher score on the innovation index, while Republic of Moldova innovation is marked with 2,5 from 7, this being the lowest mark from all indicators. Advocating innovation efforts is being crucial to regaining higher level of prosperity, i.e. national banking system can obtain high returns from focusing its resources on nurturing innovation.

In order to draft a qualitative innovation scheme, it is necessary to determine which type of innovation is required on the market. As stated in the “Oslo Manual for measuring innovation”, there are four main types of innovation:

- product innovation;
- process innovation;
- marketing innovation;
- organizational innovation.

Globally, there are certain fields that bank innovation is focused on; here are the most important of them:

- Creation of mobile applications or **digitization**, in order to ensure services mobility for clients which do not manage to use banking during working hours or are too far from the bank agency of branch they need.
- **Risk management** and personalized service, which is regard of the process of management of the technology used to store customer information, usually called “Big Data”, some of the banks are even interested in digital ledger technology.
- Actually, all banks have a form of social initiative in progress. In the vast majority of cases, this involves the **use of social media** as a feedback tool and delivery of information on additional social channels.
- Tendency to **simplify banking procedures** by introducing one-click processes, loyalty programs, winning bonuses or other practices in banking sector not so accustomed in past.

#### **Concluding comments**

In order to conclude, there are drafted some recommendations for improvement of the banking sector in Republic of Moldova, especially now, when the intensity of utilization of banking services and products is poor (due to the lack of trust in banking sector after the 3 banks collapse). In the last 3 years, major changes took place in the structure of banking institutions. As a result an oligopolistic competition was established, the first three banks Agroinbank, Moldindcombank and Victoriabank, forming a dominant position, as all together hold 2/3 of the total assets in the banking sector. And the first 4 banks by size contribute 80% to aggregated profit of the banking sector. This is why, in the Republic of Moldova, more types of innovation are required. Product innovation, process and organizational innovation are needed to improve the consequences of reducing the number of customers in banks and weak financial intermediation. It also needs to be stated that, the key to sustained growth of a company may lay not so much in a high overall rate of investment as in an entity’s ability to direct sufficient resources toward activities associated with the accumulation of new knowledge and its incorporation into productive processes.

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# GENDER RESPONSIVE BUDGETING: THEORY AND PRACTICE IN PERSPECTIVE

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*Gender Responsive Budgeting is gender mainstreaming in the budgeting process. This means gender-based assessment of budgets, incorporating a gender perspective at all levels of the budget process and restructuring income and expenditure to promote gender equality.*

*Gender equity is an integral part of the general principle of equity, which means absence of any inequality or limitations of human rights of civil freedoms. Achieving gender equity requires equality of outcomes for women and men. This implies recognition that the needs, preferences and interests of women and men from diverse groups may differ. In its turn, this affects the way women and men can benefit from policies and budget allocation [1].*

**Key words:** *gender equality; gender responsive budgeting; gender; human rights*

**JEL:** A120, J120, D120, D130, O, Z1

## **Introduction**

Gender equality is a multidimensional term, encompassing economic, cultural and social dimensions. There are good reasons for reducing gender inequality to boost economic growth and reduce poverty. Reducing gender inequality, especially in the most extreme forms, is also welcome from human rights perspective. Gender analysis of expenditures is an instrument within a vast school of analysis called Gender Responsive Budgeting (GRB). Gender responsive budgeting provides a set of methodologies to analyse expenditures and revenues from gender perspective, allowing decision-makers, analysts and governance to understand the differential impact of political decisions on men and women. Gender responsive budgeting not only implies increased attention to gender-specific spending or income but, on the contrary, it allows decision-makers to analyse the prerequisites of gender neutrality and examine the gender-blind approach to policy-making and evaluation of their outcomes [2]. The main purpose of the research is to demonstrate the need of introducing GRB in the Republic of Moldova by justifying the benefits for the country's economy.

Gender responsive budgeting is a tool for making sure that gender commitments are reflected and achieved in public budgets. Since the 1990s, gender responsive budgeting (GRB) is increasingly used in developed and developing countries by various actors (ministries of finance, line ministries, NGOs, gender advocates and universities) to assess the impact of Governmental expenditures on citizens, women and men, as well as transforming budget programs for priority purposes and reducing gender gaps. Starting from the basic elements of the principles of gender equality, through the public budgets and principle of gender equality, the most effective way of combining knowledge on gender with knowledge on public finances is to address gender equality, de facto, and use efficiently use the budgetary funds [3].

## **Research methodology**

Methodology selected to research the identified problems and achieve and demonstrate the proposed goals will be predominantly applicative, so that knowledge in the area of gender responsive budgeting and experiences of its application, as well as the benefits for the country are used and capitalized to the maximum.

## **About gender responsive budgeting**

Budget is a financial plan developed for a certain period of time where the likely revenue and expenditure of a state, municipality, enterprise, family, etc are foreseen.

Experiences of different times and different countries show that not always budgets elaborated at state, regional or school level take into account interest and benefits of all participants / beneficiaries of the implemented budget. Different societal groups are reflected differently and disproportionately in the budgetary plans, and the final results also have a disproportionate impact. The most common disproportion is caused by gender inequality in society and, as a result, it is disproportionately reflected in the impact of budget implementation.

In most countries, gender equality is an important national objective, which is particularly true for some areas of human development (especially education and health). For many low-income countries, gender issues are equally important in the field of agriculture. Finally, several governmental commitments to achieve the Millennium Development Goals (MDGs) also underline the importance of analysing the allocation of resources for MDG priorities, including gender mainstreaming [4]. Gender responsive budgeting (GRB) brings together two issues that are not commonly associated with one another: gender equality and public financial management. GRB argues that gender equality principles should be incorporated into all stages of the budget process.

GRB has been actively promoted and received support from many international organizations such as UNIFEM (now UN Women), UNDP, ILO, UNECE, Council of Europe, OECD, Nordic Council and some European institutions. However, implementation of GRB is still slow and sporadic, and has not been applied to all policy areas. However, in some countries, GRB has been implemented to pay more attention to gender issues in public budgets, particularly spending. There have been pilot examples in many European countries.

GRB initiatives aim at improving budget outcomes in general, but also gender equality and women empowerment in particular. They focus on key economic and social issues that are often overlooked in budgets and policy analyses as well as in decision-making [5].

Several different approaches can be used when working on GRB initiatives, and the main steps will include:

- Analysis of whether budget programmes are gender responsive (GRB analysis). Such analysis can provide significant feedback to government and non-government actors on whether the programme is meeting the needs of different groups of women and men, and different social groups. GRB analysis is an important public financial management tool that helps determine how and to what extent state policy affects different groups of men and women, as service users and taxpayers. GRB analysis does not just examine the situation of men and women: it also uses other social categories, such as age, socio-economic background, location, educational level and others, if relevant and if data is available. It therefore provides important insights to inform decisions on financial issues and the effective use of public resources; Making changes to programmes and budgets, based on the results of GRB analysis, to make them more gender responsive;

- Integrating GRB systematically in planning and budgeting processes – examples include introducing gender-related strategic objectives into policies and budgets, establishing requirements for gender analysis of budget programmes, including gender indicators in budget requests, and providing statements of impact of budget funds on gender equality. This step involves institutionalizing GRB to ensure that the different needs of social groups, men and women are continuously taken into account in the budget process.

GRB brings much-needed analytical tools to the public finance management, contributing to:

- ✓ Better data collection: the requirement for sex-disaggregated data and gender analysis of budget programmes can significantly contribute to the ongoing collection of data about budget programmes and their results.
- ✓ Improved indicators for budget programmes: GRB work usually contributes to better performance indicators and understanding of programme results, and by introducing gender indicators enables the monitoring of budget programmes' impact on men and women and different social groups.
- ✓ Improved efficiency, by ensuring expenditure benefits those who need it most (as assessed in gender budget analysis).
- ✓ Improved monitoring of the achievement of political goals, namely those ensuring gender equality.
- ✓ Improved budgetary decision-making processes, by engaging a wider range of society's interests and improving their capacity for budgeting and policymaking. Gender-sensitive budget circulars issued by the Ministry of Finance to agencies and departments are important for aligning budgetary decision-making with policies.

Ministries of Finance need to play a leading role if GRB is to be successfully introduced and institutionalised, but MFs often fail to understand GRB as 'their reform'. They tend to see pursuing gender equality as beyond their remit – as the role of gender mechanisms or NGOs. It has been challenging to change this understanding and to help MFs embrace GRB as a tool that both enhances gender equality and improves the budget process [6].

GRB is not a separate process from PFM reform: it can be perceived as a significant 'add-on' that provides better information and ensures better and more equitable budgeting.

The problem is that the most marginalized women, men, girls and boys are not only confronted with poverty and lack of income to invest in their economic and social development, but also with the lack of access to non-monetary education, services and resources, *thus being held within a vicious circle of poverty*. A genuinely sensitive and inclusive budget should therefore also seek to address marginalization of groups by focusing on revenue growth and improving access to resources and services.

The most obvious outcome of initiatives on gender responsive budgeting is to improve women's economic equality. However, GRB is not just about equality for women. GRB can also improve the efficiency, effectiveness, accountability and transparency of governmental budgets. *GRB can also reveal state priorities and discrepancies between what a government says it is doing and the real impact of its policies.*

### **Five steps of gender budgeting:**

- An analysis of the situation for women and men and girls and boys (and the different sub- groups) in a given sector.
- An assessment of the extent to which the sector's policy addresses the gender issues and gaps described in the first step. This step should include an assessment of the relevant legislation, policies, programs and schemes. It includes an analysis of both the written policy as well as the implicit policy reflected in government activities. It should examine the extent to which the above meet the socio-economic and other rights of women.
- An assessment of the adequacy of budget allocations to implement the gender sensitive policies and programs identified in step 2 above.
- Monitoring whether the money was spent as planned, what was delivered and to whom? This involves checking both financially and the physical deliverables (disaggregated by sex)
- An assessment of the impact of the policy / program / scheme and the extent to which the situation described in step 1 has been changed, in the direction of greater gender equality [7].

Worldwide, women are largely responsible for managing family budgets, controlling 65 per cent of global spending. But, women's needs are often ignored when it comes to government budgeting, delegates at an international meet in Turkey's largest city observed.

Over the last 10 years, there has been a growing movement to monitor national, regional, and local budgets and demand changes to allocation priorities to give women their due.

### **Conclusions**

In conclusion, we would like to point out that, on a long run, the Republic of Moldova should carry out a detailed gender analysis of public expenditures, in order to identify how to optimize and use public resources efficiently by using the concept of gender mainstreaming, which will lead directly to economic growth and prosperity. In support of this assertion, Mary Rusimbi, Executive Director of Women Fund Tanzania, said: "The need to "go deep down into the data" to create gender-responsive budgets "increases transparency and accountability because you have to know where the money goes. It also raises issues of corruption that haven't been talked about before".

The opinion that the Republic of Moldova is experiencing significant economic problems and the timing of GRB implementation is not an opportune one – *is totally wrong*. Just because an austerity budget has to respond to many challenges, and as many people as possible benefit from the implementation of a budget policy, each MDL needs to be spent / invested following profound, well-balanced analysis with a well-defined purpose. The impact must reach as many people as possible (men, women, people with special needs, others). Another idea, also expressed by Mary Rusimbi, the executive director of the Women Fund of Tanzania, was that: "When you have limited funds it is when you really need to look at equality. It's very important for us to demystify the budget. At the end of the day, that's our money" [8].

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## **IMPLEMENTATION OF THE FATCA AGREEMENT TO COMBAT TAX EVASION**

*PhD student Marian GROSU, ASEM*

*Tax evasion consists in subtraction of income, in whole or in part, from the payment of taxes and fees due to the national public budget and to the budgets of the administrative territorial units by taxpayers – natural persons and legal entities. According to the FATCA Agreement, the Republic of Moldova will benefit from the exchange of information useful for detection of tax frauds, such as money laundering and improved methods of combating tax evasion on a large scale that will allow tax authorities to collect more budget revenues in the form of taxes and fees.*

**Key words:** *Tax evasion, public finance, taxes, fees, FATCA agreement*

**JEL:** E62 - Fiscal Policy

### **Introduction**

In order to ensure sustainable public finances and economic growth, it is necessary to set an optimal level of taxation of economic operators and population, as well as full collection of fees and taxes to the revenues of the national public budget. The Constitution of the Republic of Moldova provides that: “Citizens have the obligation to contribute through taxes and fees to public expenditures” [1]. Regardless of the fact that this obligation, established by the Constitution, exists, the tax evasion has been growing increasingly, affecting the financial system of the Republic of Moldova. The purpose of this research is to define the possibilities to combat the phenomenon of tax evasion in the Republic of Moldova through the conclusion of the FATCA agreement.

### **Analysis of the bibliographic sources in the area of the researched matter**

The topic of tax evasion is being discussed by many specialists from various domains in different countries. It is a common world-wide problem. Thus, the Russian specialist – Danilov N. in his doctor's thesis describes the types of tax evasion and the responsibility of the entities. In the same way, the specialist in law from Romania – Stati V. reflects in his works the possibilities of combating the tax evasion. At the national level, the specialists in economics – Ursu V. and Litovcenco A. have characterized the process of withholding at source of payments and transfers made in the context of the FATCA provisions, as well as progress and aspects related to the FATCA implementation process in the Republic of Moldova.

### **Research methodology**

From the methodological point of view, in this research a series of analysis methods have been used that are widespread in national and international practice of studying the tax system and combating tax evasion in order to be able to examine its development. Throughout the research, the following traditional methods were used: systemic method, logical and dialectical method with the corresponding instrumentation: scientific abstraction, analogy, induction and deduction, analysis and synthesis.

## Results obtained

Tax evasion consists in subtraction of income, in full or in part, from the payment of taxes and fees due to the national public budget and to the budgets of the administrative territorial units by the taxpayers – natural persons and legal entities. These actions or inactions take place through different methods, either by legally bypassing the tax provisions or by deliberately circumventing the tax obligation, committed not by means of direct violation of the concrete tax rule, but by the deliberate avoidance or bypassing thereof through simulated legal acts that at first glance seem real.

The objective side of the tax evasion by entities, institutions and organizations consists of:

- the action of including in the accounting, tax or financial documents some distorted data about the expenses, incomes, or concealment by any action or inaction of other taxable objects;
- non-payment of the tax, in amounts exceeding 1500 c.u.
- causal correlation between the submission of erroneous data and the non-payment of the tax [3].

Based on the aforementioned, we note that there are 3 alternative possibilities to evade taxation:

- inclusion in the financial and accounting documents of some manifestly erroneous data on income and expenditures, which implies indicating in these documents some data that do not correspond to reality and which reflect the diminished amount of income or, on the contrary, the exaggerated amount of expenditures;
- recording in the accounting, financial or tax documents of expenditures that are not based on actual transactions or on fictitious transactions;
- action or inaction of concealing the of taxable objects [4].

The subjective side of tax evasion is characterized by direct intent, which is assumed, and implies non-payment of the tax to the national public budget. The reason for tax evasion, most often, is the financial interest [5]. The offense is deemed to be consumed from the moment when the intentionally erroneous information was presented or upon abstention to submit the required data, if the deadlines for their submission had expired and tax evasion has been committed in large proportions [6]. The date of submission of the tax accounts shall be considered the day when data was officially sent to tax authorities. In the case of concealment of other taxable objects, the consumption of the crime shall be related to the submission to the tax authorities of manifestly distorted data on other taxable objects (except for the data on income and expenditure), as well as to the situation of failure to submit them when required by law. In both cases, the amount of the tax to be paid must exceed 500 conventional units [7]. If the accounting documents have been distorted, though were not presented to the tax authorities or the due date set for submission has not expired yet, it might be the case of an attempted offense.

In other train of thoughts, in the opinion of N. V. Danilov, tax offenses can be related to other crimes, first of all, money laundering crime. This is explained by the fact that, without legalizing the funds, goods or illicit proceeds obtained by the perpetrator, following the commission of tax offenses, it is virtually impossible to use them [9]. The subject of the tax evasion described above is:

- a) responsible natural person, who at the time when the offense was committed turned 16 years;
- b) legal entity (except for public authority).

The natural person in this case must be a special subject, namely: the head of the company, institution or taxpayer organization or the chief accountant, the financial and accounting director, or hold another job position in it, which would allow him-her to keep accounting, tax or financial documents or to handle taxable objects. Also, for tax evasion, there shall be held accountable the natural persons, who do not engage in entrepreneurial activity, for avoiding to lodge the personal income tax return or by including in the return some distorted data, where the amount of the income tax that should have been paid exceeds 2,500 conventional units, in accordance with the provisions of the Criminal Code of the Republic of Moldova [2].

By its nature, the tax evasion causes economic, political, social negative effects, as well as negative effects on the formation of the national public budget revenues. Tax evasion also occurs through the illegal conduct of entrepreneurial activity, namely:

- carrying out economic activity without legal registration;
- avoidance by entities to submit data attesting tax liabilities to the budget;
- concealment of real income from taxation;
- non-payment of already established taxes.

During the year 2015, elements of the tax offenses were identified and therefore the law enforcement bodies were notified by the tax authorities, i.e. 438 materials were referred to them, tax evasion totalling MDL 3083 million. In turn, the law enforcement authorities initiated criminal prosecution in 128 cases [8].

At the same time, there is a problem faced by tax authorities and law enforcement bodies related to the application of the legislative framework that needs to be examined by means of analysis of two general issues:

- correct and consistent application of all the aspects of the existing tax and criminal legislation;
- amendment of the legislation, being underpinned by the legislation and tax practice of other states, especially those with similar development principles and concepts.

From the international practice, there may be highlighted different methods of preventing or combating tax evasion. Frequently, the tax evasion is largely occurring on international arena, when by means of complex transactions funds are transferred abroad, due to evasion.

A very important role in counteracting these cases is the exchange of information between countries and the impact of taxation of undeclared funds. In this regard, it was proposed to create an informational mechanism for data exchange. In conformity with this proposal, there will be collaboration on the automatic exchange of information based on regulatory provisions, for example, the EU Member States will exchange as much information as they have committed themselves to exchange with the USA under the Foreign Account Tax Compliance Act (FATCA).

The Republic of Moldova signed the FATCA Agreement with the USA on November 26, 2015, and by Government Decision no. 765 of 28.10.2015 regarding the approval of the draft law for the ratification of the Cooperation Agreement between the Government of the Republic of Moldova and the Government of the United States of America facilitating the implementation of the provisions of the Foreign Account Tax Compliance Act (FATCA), signed in Chisinau on November 26, 2014, the Agreement was submitted for ratification to the Parliament.

This Intergovernmental Agreement provides that the financial institutions of financial, banking and non-banking sector, which fall under the FATCA provisions, shall report to the US Internal Revenue Service information on financial accounts held by American taxpayers or by foreign entities with shareholdings made up substantially by American taxpayers. Otherwise, these institutions shall withhold 30% tax from the amount of all payments from USA to FATCA non-participating institutions and to account holders who refuse to disclose the necessary information. The agreement aims to counteract tax fraud admitted by USA subjects jointly with the STS of Moldova [8].

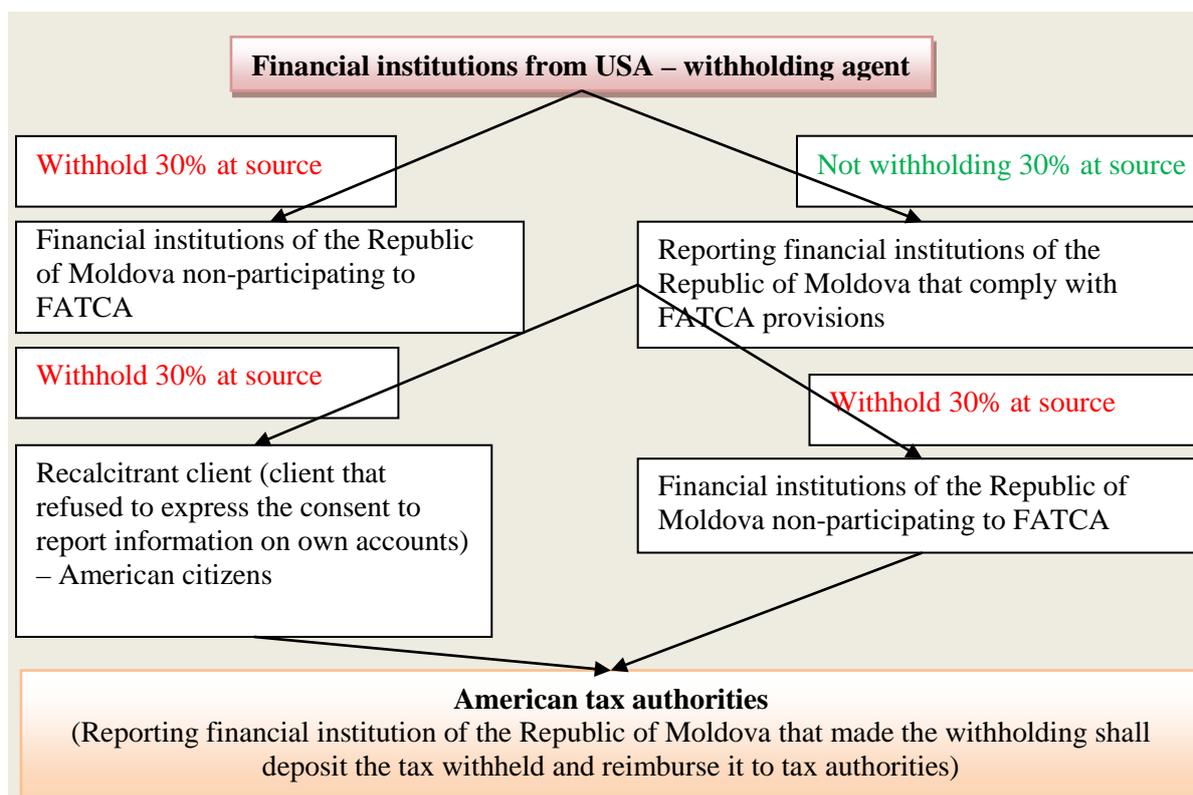
In international tax approaches, FATCA has become a global standard on measures to combat tax evasion, and more countries have concluded such intergovernmental agreements.

Based on the definitions set out in the Agreement, it is stated that the reporting institutions of the Republic of Moldova are the following:

- commercial banks operating under the Law on Financial Institutions No.550-XIII of July 21, 1995. According to the data available on the official website of the National Bank of Moldova, at present 11 commercial banks are licensed to conduct business in the banking area;
- insurance companies operating in conformity with the Law on Insurance No. 407-XVI of December 21, 2006. According to the information published on the official website of the National Commission of the Financial Market, at present 16 insurance companies have a license to carry out the activity in the area of insurance;
- investment companies operating under the Law on Capital Market no. 171 of 11 July 2012. According to the information published on the official website of the National Financial Market Commission, at present 19 investment companies are licensed to carry out the investment activity, of which 8 are commercial banks. [11]

Based on the FATCA provisions set out in the Tax Code of the USA, it is noted that foreign financial institutions may both be subject to withholdings made by American financial institutions and withholding agents that shall withhold at source tax amounting to 30% and then transfer it to the American tax authorities (see Figure 1). [12]

Transfers and payments subject to 30% tax withheld at source are interests and dividends, rent related payments, wages and awards, compensations and remunerations, as well as other fixed or variable payments related to various incomes sources, provided that they originate from the USA, as well as any financial benefits derived from the sale of property from the USA generating income or dividends, as well as any type of interim transfers starting with January 1, 2017 [12].



**Figure 1. Process of withholding at source, in conformity with FATCA requirements**

*Source: Veronica Ursu, Ana Litovcenco. Characteristics of the process of withholding at source related to payments and transfers made under the FATCA provisions. Accessible on on-line: <https://monitorul.fisc.md/panorama/caracteristici-ale-procesului-de-retinere-la-sursa-afere-nde-platilor-i-transferurilor-efectuate--in-contextul-prevederilor-fatca.html#cut>*

### Conclusions

Under this FATCA Agreement, the Republic of Moldova will benefit from the exchange of information useful for detection of tax offences, such as money laundering, and for improvement of methods to combat large scale tax evasion, allowing tax authorities to collect more budget revenues in the form of taxes and fees. Obviously, the signing of the above-mentioned agreement will not solve all the existing problems encountered in the process of detection of tax offences; however it will allow implementation of modern techniques to combat tax evasion in the Republic of Moldova.

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## **IMPROVING BANK RISK MANAGEMENT IN THE CREDITING PROCESS BY IMPLEMENTING THE FICO CREDIT SCORING MODEL IN EFFECTIVE COMBINATION WITH THE CREDIT HISTORY BUREAU**

*PhD student Leonid BEJENARI, ASEM*

*According to the changes made in the regulatory framework, established by the Basel Committee on Banking Supervision, banks have to improve their credit rating systems. Under these circumstances, one of the solutions to banking success in customer lending becomes the possibility of automating the decision making process. An optimal solution to this is the credit-scoring model.*

**Key words:** *banking risks, risk management, FICO credit scoring model, Credit History Bureau, crediting process*

**JEL:** G21 - Banks; Other Depository Institutions; Micro Finance Institutions; Mortgages

### **Introduction**

The topicality of the risk management issue in the banking sector has grown considerably at the end of the 20th century. During this period, due to the high interest rate diversity, generated by the accentuated inflation and the energy crisis, due to the significant fluctuations in currency exchange rates following the abolition of the Bretton Woods system, and due to tighter competition on the capital market, instability becomes a characteristic feature of the environment wherein the financial institutions operate. Under these circumstances, banks' vulnerability has increased and the number of bank bankruptcies has risen [2]. At present, risks have become characteristic of the banking activity, generating several approaches to this concept. The purpose of the research is to analyse the concept of banking risk and the particularities of credit risk management in commercial banks, as well as the possibilities offered by the FICO credit scoring model for streamlining the banking risk management in the lending activity.

### **Analysis of bibliographic sources in the area of researched matter**

In the area of credit risk management in commercial banks there are many researches elaborated at national and international levels. The researches on improving the management of credit relations of commercial banks in order to reduce the risks have been reflected by Gîrlea M. in the doctor's thesis. The methods of credit risk assessment and management in commercial banks have been presented in more detail by Perciun R. in published materials. Similarly, during the research international sources of modern credit risk mitigation methods, namely the FICO scoring method, have also been consulted.

### **Research methodology**

A complex and systemic methodological approach was applied in the research, which facilitated the harmonization of the theoretical arguments with the practical application of the proposed approach. The fact that the researched phenomenon has an impact on the banking and financial system, the applied research methodology is based on the general principles of the complex system analysis: systemic analysis method, data analysis methods, international scenarios and comparisons method. These specific methods followed the established consecrated methods: scientific abstraction, analysis and synthesis, induction and deduction, observation, reasoning, comparison and grouping.

### **Results obtained**

The crediting risk approach, developed in accordance with the basic principles laid down in the Basel II agreement, provides for the following terms:

- The risk is the uncertainty state faced by the bank with regard to the probability of obtaining a certain financial result. Taking into account the specificity of financial institutions' activity and the high requirements for banks' financial stability, this state is being determined by the magnitude of unexpected losses with 99% confidence.

- Credit risk represents the possibility of loss arising as the result of the credit beneficiary's inability to meet the contractual commitments.
- The probability of default is the possibility that the credit beneficiary will go bankrupt, become insolvent, or will not be able to pay the liabilities within a certain period.
- Exposure to risk at the time of default is the assessment of the cost of the balance sheet positions of the credit beneficiary exposed to risk at the time of the default, without taking into account the sources of insurance. For relatively simple financial instruments (simple loans, ordinary bonds), the exposure to risk is constant and equal to their nominal cost.
- The size of loss in the case of default is the loss in the case of non-repayment of the loan, which is equal to the bank's exposure to risk at the time of inability to pay without the recoverable amount of money, adding the additional expenses related to the recovery of the loan.
- The economic capital inherent in credit risk is the weight of the share capital, which must be reserved to cover potential maximum losses that are inherent to the lending activity with 99% probability. The size of this capital is the estimate of the credit risk assumed by the bank [2].

In conformity with amendments made to the regulatory framework set by the Basel Committee on Banking Supervision, banks are required to improve their credit rating systems. The totality of banking risks should be accompanied by information on the quality of these risks. This gives a complete picture of the risks that the credit activity generates [3].

Ratings are scores that quantify the risk due to losses in the event of a debtor's inability to pay and the extent of recovery of such losses. Most rating systems contain between six and ten different ranks that are sufficient to complete a classification depending on the risk [6].

Currently, the independent ratings agencies that use quantitative and qualitative methods to determine the strengths of a bank, dominating the global market are the following:

- Standard & Poor's Ratings Group;
- Moody's Investors Service;
- Fitch-IBCA.

In the vast majority of cases, the credit rating agencies measure the quality of the risk for the contracted debt and not the debtor's financial situation. The reason is that debtors may have debts with different degrees of risk, and investors are more interested in the risk pertaining to the debts contracted by a borrower and less in his/her financial situation [6].

Under these circumstances, one of the solutions to bank success in customer lending becomes the possibility of automating the decision-making process (processing of applications, analysis of the financial situation and making the decision itself) by minimizing the participation and influence of the human factor in making this decision. An optimal solution to this is the credit-scoring model.

The **credit-scoring model** is a mathematical or statistical model, with the help of which, and based on the credit history of previous customers, the bank attempts to determine the likelihood that the potential debtor will pay off the liabilities fully and in due time. In a simplified view, the scoring model represents a totalizing sum of the values attributed to some predetermined characteristics of the debtor (level of financial indicators, experience in activity, statement of accounts, reported history, existence of other loans, data of last payments, unpaid amounts, area of activity etc.). Finally, a comprehensive result (score) is obtained, which represents a customer delimitation threshold (good or bad) [7].

In commercial banks, this credit-scoring model is used for both for individuals and legal entities. According to these scoring models, the financial performance is assessed by each bank and, depending on the borrower's total accumulated score; the economic operators will be included in one of the following categories:

**“Category A”** – companies in this class of risk have the highest financial standing. Such clients have no problems in providing strong collateral (counter-guarantees) in order to obtain a possible bank loan. There are no irregularities in payment terms for the company's suppliers, and, with these companies, there is low likelihood that any loss will incur. Present and future performance is very good, which at the same time ensures the repayment of loans by maturity.

**“Category B”** – companies in this risk class have a very good financial standing and are able to offer strong collateral (counter-guarantees). As regards payments to suppliers, this flows normally; is not impossible that some minor issues related to this aspect might arise, but these could be solved very easily and with minimal financial effort. At the same time, the present performances are good and very good, however with a degree of uncertainty for a longer perspective.

**“Category C”** – Companies in this risk class have a fairly good financial standing, but there may be problems related to receipts. In turn, these lead to irregularities in the supplier’s payment schedule, but can be resolved without recourse to rescheduling or postponement of the due dates. Such companies may have problems with the provision of strong collaterals and counter-guarantees and no losses are expected that would cause problems for the company. The performances are satisfactory, but posting an obvious worsening trend.

**“Category D”** – companies in this risk class have serious problems with the receipts from beneficiaries, which leads, similarly to companies in III Group, to financial bottlenecks resulting from the inability to pay by the deadline set by the suppliers, but is resolved by implementation of a new payment schedule (rescheduling). These companies bear losses; thereby they are exposed to relegation to the lower risk class.

**“Category E”** – this class includes companies that have serious cash flow problems. The likelihood of irregularities in payments is very high, and this situation is usually resolved by means of rescheduling or interest charges. With small exceptions, all companies in this class have great problems in providing strong security, but also have poor performances that foreshadow a state of insolvency [3].

In European countries, the possibility of reducing the non-performing loans is underpinned by the presence of the *credit history bureaus* (CHBs), which submit to the banking system a vast and varied volume of information about the credit history of each client.

In the Republic of Moldova, there is the Law No. 122-XVI on credit history offices [1] in force, which aims at creating the conditions for the formation, processing, storage and presentation by credit history bureaus of the information that characterizes the compliance by the borrowers with the commitments made through credit agreements.

Establishing credit history bureaus and implementing a scoring model would be a priority prerequisite to promoting mass lending. For these reasons, at the initial stage, banks could minimize the risks of mass lending only by applying to crediting qualitative and efficient statistical and mathematical models. Credit history is the file on a natural person or legal entity, which includes information about paid accounts, repaid loans, observed contract obligations and other financial events in borrower’s life. In most countries of the world, creditors exchange information on the solvency of their clients through their credit history bureaus (hereinafter referred to as CHB).

World experience shows that CHB activity entails a number of advantages:

- *firstly*, they reduce the obstacles to financing by raising banks’ level of information about potential borrowers, enabling a more accurate loan repayments forecast.
- *secondly*, in most banks using credit histories, the processing time and the costs required to issue a credit have significantly reduced, as well as the volume of non-payments; consequently, bureaus contribute to lower interest rates on loans.
- *thirdly*, they form the so-called disciplinary mechanism for borrowers. Everyone is informed that in the case of failure to fulfil the obligations, their reputation before potential creditors will dissipate instantly, entailing therefore isolation thereof from lending or higher borrowing costs. This mechanism stimulates the debtor to meet the obligations, reducing the risk of unconscientious behaviour.

It is worth mentioning that the countries wherein the Credit History Bureaus operate enjoy a higher degree of creditor security and lower credit risks.

As a way of improving the risk management in the credit process, it is proposed to use the Fico credit-scoring model in effective combination with the Credit History Bureau. This method is a qualifying indicator that assesses the probability that the borrower will pay off the loan and the interest rates at maturity date. By applying this method, each customer is assigned a score ranging between 300 (weak) and 850 (very good).

The FICO Score method expresses the likelihood that a customer will repay the credit. Higher the score, greater is the likelihood of repaying the credit at maturity. Designed to be used irrespective of the particularity of the Credit Bureau or country in which this institution operates, the FICO Score is an international standard, a universal tool for credit risk management with regard to individuals [5].

FICO is a software company based in San Jose, California, founded by the engineer Bill Fair and the mathematician Earl Isaac in 1956. Its FICO score, which is a tool assessing the credit risk, has become an accessory of consumer credit in the United States and other countries. FICO went public in 1986 when it was first involved in New York Stock Exchange transactions.

The method proposed by *Fair Isaac* is based on the scoring model, which allows its swift implementation in any country that has a Credit Bureau.

According to the information provided by the company that developed and perfected this system (*Fair Isaac Corporation*), the FICO score is calculated based on to 5 criteria:

- payment history (which has a weight of 35% or a maximum of 297.5 points in the final score);
- amount owed, i.e. existing credits (30% or maximum 255 points);
- length of history (15% or maximum 127.5 points);
- new credits (10% or maximum 85 points);
- types of credits used (10% or maximum 85 points) [8].

The weight of each criterion differs for different customers, that is, for those who have not requested credit for a very long time, the importance of the criteria is slightly altered.

1. *The criterion "Payment history" focuses on following information:*

- repayments of loans in the past;
- maximum number of days of delay, if there were arrears;
- outstanding amounts;
- time passed since the arrears arose;
- number of arrears;
- number of loans repaid without delays

2. *"Amount owed" criterion is assessed by means of:*

- balance of existing credits, by type of loan (credit card, personal expenses loan, mortgage loan, etc.);
- number of credits;
- share of credit in the total credit line approved by the bank in the case of overdraft and credit cards.

3. *"Length of history" criterion uses:*

- time passed since the accounts were opened;
- time passed since there has been no activity recorded in the accounts

4. *"New Credits" criterion focuses on:*

- number of accounts that have recently been opened and their type;
- number of records at the credit bureau;
- time passed since the last account was opened;
- time passed since the last recording;
- restoring a positive payment history, following the disappearance of past issues

5. *"Credit type used" criterion analyses:*

- number of customer's active accounts, diversified by product types, number of customer's active accounts, diversified by product types [5].

The FICO score method is based on the aforementioned criteria, so that the ultimate result, the final "grade" does not depend only on one criterion. At the same time, the importance of each criterion has a direct dependence on information reflected in the Credit History Bureau, information that configures data about the customer. As the data is changed, the client moves on to another category, so it is impossible to determine pre-emptively on individual level how much each criterion accounts for. This can be seen as an opportune aspect because it reflects the real situation of the client.

This score takes into account both positive and negative information. Arrears with credit reflected in the past reduce the score for a client, but as the interest and the credit are paid on time in the following period, this aspect will be taken into account and FICO score will improve.

Fair Isaac has collaborative relationships with credit bureaus from other countries outside the United States, namely: Russia, Korea, Ireland, Bahrain, Great Britain, South Africa, Brazil, Singapore and Canada. In European countries and the Orient, the FICO Score was implemented in Poland, Sweden, Saudi Arabia and Turkey. In Asian countries, the FICO Score is used in Thailand and Taiwan, as well in countries in Latin America (Brazil, Mexico, Peru and Panama) to improve risk management. Currently, the FICO score is also being analysed by banking and financial institutions in other countries.

The FICO score will help the banks of the Republic of Moldova with assessment of the credit risk, substantiation of the lending decision, and as a result it will reduce the credit risk. At the same time, the FICO score, being combined with the Credit History Bureau's database, will help the participants obtain veridical information from the database, which is characterized by increased predictive value, by combining the score obtained with the information presented by the customer in the credit application and internal evaluation used by credit officers. The banks will be able to measure the credit risk peculiar to individuals with a very high degree of accuracy. This method of credit risk analysis and assessment will allow them to

match their credit offers to the type of the risk pertaining to a client and thus increase the degree of financial market monitoring in an informed, controlled and flexible manner.

### **Conclusions**

In broad terms, the FICO score method applies scoring technology to credit risks and places credit applicants according to their past financial behaviour, i.e. based on the payment history with regard to both interest and credit principal, which largely reflects the risk level for the bank when providing credits to this customer.

Thus, higher the score and the points are, more attractive is the respective applicant for the bank, or lower the risk higher the chances for the applicant to get a loan. Depending on this qualifying rating and based on the data presented in the credit application, and additionally where appropriate, by using the internal rating, commercial banks can get a wider picture of the applicant's capacity to pay and come to the right decision whether to offer or not the credit [5].

Using the scoring model (FICO score) to make decisions on lending will allow commercial banks accelerate the process of processing credit and loan applications, reduce bank staff, reduce administrative costs as a result of job cuts, making prompt analyses, and making optimal decisions in the credit process.

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## **SECTION 2: DISCIPLINE: – 522.02 ACCOUNTING, AUDIT, ECONOMIC ANALYSIS**

### **CONCERNS REGARDING THE CALCULATION OF AMORTIZATION OF INTANGIBLE ASSETS AND DEPRECIATION OF TANGIBLE ASSETS**

*PhD student Andrei APOSTU, ASEM*

*This article examines aspects concerning the calculation of amortization of intangible assets and depreciation of tangible assets for accounting and fiscal purposes in terms of the new national accounting and fiscal regulations which became effective on January 1, 2014, compared to the international ones and those, which were valid until this date.*

**Key words:** *amortization/depreciation, tangible and intangible assets, methods of amortization/depreciation calculation, wear for fiscal purposes.*

Tangible and intangible assets gradually lose their value while used in the production process, services provision, sales of goods and products or for administrative purposes, as well as a result of the action of natural factors and technological – scientific progress. This gradual value loss is called wear and its monetary expression is called amortization/depreciation.

In the Republic of Moldova the determination, recognition and accounting of the amortization of intangible assets and depreciation of tangible assets is regulated by NAS “Intangible and tangible assets”, which was developed on the basis of the EU Directives, IAS 38 “Intangible Assets”, IAS 16 “Property, Plant and Equipment” and IFRS 6 “Exploration for and Evaluation of Mineral Resources” and became effective on January 1, 2014 [1, p. 71].

Some problems might arise when calculating and accounting for the amortization/depreciation, mainly related to:

- Defining the amortization/depreciation process;
- Identifying the object of amortization/depreciation calculation;
- Deciding on the period of amortization/depreciation calculation;
- Selecting the amortization/depreciation calculation method;
- Applying the accounting methods for amortization/depreciation calculation upon the deduction of fiscal expenses.

Literature in this field covers many concepts on how to define the depreciation process. For accounting purposes, amortization can be analyzed from the following three perspectives: accounting, economic and financial [6, p. 152].

From an accounting perspective, amortization represents the decrease of the value of an element of the asset, as a result of its impairment due to its use by the company during a certain period of time, superannuation, competition, change of technology or other causes. By deducting the depreciation from the entry value or the cost of the good we will get the carrying amount (the net carrying amount).

From an economic perspective, the decreasing of the value of that element, resulting from impairment, requires the preparation and substitution with a new one. As a result, the acquisition and the use of assets represent an expense and a component of the company’s costs. This leads to the need to establish funds required for the renewal of depreciated assets upon completion of their life cycled using the future revenue, without resorting to equity or contracting debts.

From a financial perspective, depreciation is a self-financing source of immobilized capital which is constituted, even when the company is not profitable, through deductions from the income. Depreciation is thus an essential component of the self-financing capacity.

NAS „Tangible and Intangible Assets” defines depreciation as a systematic depreciable distribution of assets by management periods during their use. This definition is similar to the one contained in IAS 16 “Property, Plant and Equipment” [5]. Unlike NAS 16 “Accounting of Long Term Material Assets”, the terms used in NAS “Tangible Assets” were amortized with the one from IAS 16 “Property, Plant and Equipment”.

Thus, as of January 1, 2014, in the national accounting regulations, “wear” was replaced by “depreciation”, “long term material assets” – by “tangible assets”, “non-material assets” – by “intangible assets”, “long term material assets” – by “fixed assets” etc. [4, p. 69]

NAS “Tangible and intangible assets” stipulates that depreciation shall be calculated for each object separately. The notion of object (element) of assets is foreseen in point 5 of the mentioned standard and includes a separate asset, meant for the individual use or a set of components meant to be used together. At the same time, the standard stipulates that the entity sets up independently the nomenclature of the respective objectives. The last provision fully corresponds to the applied accounting treatment under point 9 of IAS 16 “Property, Plant and Equipment”, which imposes the use of the professional judgment to determine the distinctive elements of tangible assets under the specific circumstances of an entity [7, p. 69]. This treatment foresees the possibility of accounting for a group of objects that fulfill the same function as a unique object of tangible assets or the ascertainment of the components of a complex asset, which have a different period of exploitation as separate objects of tangible assets.

Note that according to the provisions of the NAS “Tangible and Intangible Assets” the following are not depreciated: the library and film funds, art and museum objects, buildings and special constructions considered architecture and art monuments, fully depreciated objects, which continue to function. Also, it states expressly that the calculation of fixed assets depreciation cannot be interrupted for objects which are repaired, modernized, in storage, under preservation or which are not used for different reasons. Previously, according to the provisions of the Comments to the application of NAS 16 “The Accounting of Long Term Materials Assets” [2], depreciation calculation used to be interrupted for such assets.

NAS “Tangible and Intangible Assets” offers two options for the starting date of asset depreciation: the commissioning date or the first day of the month, following after the commissioning month. The starting date for depreciation calculation is selected according to the accounting policies of the entity. Until January 1, 2014, according to the provisions of NAS 16 “The Accounting of the Long Term Material Assets”, only the second option was applicable. The date of interrupting the depreciation calculation was also changed. Thus, according to the NAS “Tangible and Intangible Assets” the depreciation calculation can stop on the date when the exploitation period ends or/and the object is written off, or starting with the first day of the month, which follows after the month in which the exploitation period ends and/or the object is written of. The two solutions are matched with the depreciation calculation starting date.

NAS “Tangible and Intangible Assets” foresees three methods of immobilization amortization calculation:

- Straight line method,
- Units-of-production method,
- Declining balance method.

The same methods are foreseen in IAS 16 “Property, Plant and Equipment”. Compared with NAS 16 “The Accounting of the Long Term Material Assets”, the digressive method with decreasing rate was excluded, and is not contained by IAS 16 “Property, Plant and Equipment”.

The depreciation methods are selected by stating them in the entity’s accounting policy. It is possible to foresee various depreciation methods for different groups of assets. The chosen method has to reflect the model (scheme) of acquiring economic benefits from the use of the assets by the entity.

Thus, it is recommended to use the following depreciation methods, based on the type of asset:

- The straight-line method for buildings and special constructions;
- The units-of-production method for equipment and cars, transportations units, instruments;
- The declining balance method for technological equipment, computers and other assets that are subject to technical obsolescence.

The selected depreciation method must be consistently applied between various reporting periods. If a significant modification is registered in the model of achieving future economic benefits from the use of the object, the applied depreciation method shall be changed, as well. Such a change in the accounting estimations is reflected in NAS “Accounting policies, changing the accounting estimations, errors and future events”, which foresees the acknowledgment of the effect of the accounting estimation effect in a prospective, starting with the date of the estimation modification and without affecting the previous reporting periods.

As for intangible assets, NAS “Intangible and Tangible Assets” introduces a new term “non-amortizable intangible assets”, meaning those assets for which it is not possible to establish the period when the asset will generate economic benefits. These assets are not amortized, as they are subjected to the impairment test according to NAS “Impairment of Assets”.

The current version of the Tax Code does not allow applying accounting methods for depreciation calculation to deduct expenses for fiscal purposes. This forces the entities to determine the annual wear for fiscal purposes according to the method foreseen in the Regulation on Keeping Records and Calculating the Fixed Assets Wear for Fiscal Purposes [3] and to adjust the depreciation expenses when developing the Income Tax Declaration. However, so far the calculation of depreciation for accounting and fiscal purposes was harmonized only for certain categories of entities. Thus, according to the Accounting Methodological Guidelines for individuals, who carry on entrepreneurial activities the depreciation of fixed assets and amortization of intangible assets, which are used in the entrepreneurial activity, are calculated according to the approach foreseen by the fiscal legislation (Tax Code, the Regulation on Keeping Records and Calculating Fixed Assets for Fiscal Purposes). The amount of the calculated depreciation/amortization for the respective management period is reflected as expenses in the General Ledger [1, p. 238]. However, this approach does not fully solve the harmonization problem of calculating the depreciation of fixed assets for accounting and fiscal purposes. The calculation method of fixed assets depreciation for fiscal purposes has a number of flaws, which were criticized by various specialists in the field. This refers mainly to the difficulties in setting up the length of usage, to the calculation of depreciation based on property categories, and not for each separate object, to the distortion of the value basis of the fixed assets at the end of the reporting period, if during the reporting period fixed assets were sold, to problems related the determination of the value basis of the decommissioned, dissolved and preserved fixed assets, etc. At the same time, the adjustment of the wear for fiscal purposes leads to significant differences in the profit before tax and the taxable income, which creates the need of calculating the deferred income tax assets and liabilities, even if according to NAS "Expenses" the calculation and the reflection of these assets and liabilities in accounting is not mandatory, when applying the method of the current income tax. However, the entities for which the fixed assets contain a significant percentage in the total assets, are required to continue applying the deferred income tax method, according to IAS 12 Income Taxes in order to anticipate the effects of temporary differences on income tax expenses, and thus on net profit (net loss).

Most of the entities in the Republic of Moldova use the straight line method to calculate the fixed assets, as this is the easiest to use. Therefore, in order to harmonize the calculation of depreciation for accounting and fiscal purposes it would be welcomed to allow the application of the straight line method for fiscal purposes. This would exclude the differences between the wear amount calculated according to the straight line method for accounting purposes and the one allowed for fiscal deduction. This proposal is based on the fact that currently such an approach is applied for intangible assets based on Article 28 of the Tax Code, according to which it is allowed to deduct the amortization of each unit of amortizable intangible property (patents, copyright and connected rights, industrial drawings and designs, contracts, special rights, etc.) with limited operational period, calculating the operational period by the straightline method.

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## ACCOUNTING PROVISIONS FOR VACATION PAY

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*In the present article are proposed for examination related theoretical notion of provision. The authors describe the method of calculation and accounting for provisions for payment of leave.*

**Key words:** *provision, employees, salary, average salary in one day, annual leave, debt, uncertain value, with debt chargeability.*

### **Introduction**

Provisions according to NAS "Own capital and duties" hereinafter NAS "CPD" represents debts with chargeability or uncertain value. So, the only difference between normal and debt provision is that the amount of debt to be estimated and paid, the provision is not.

According to NAS "CPD" provisions are recognized respecting simultaneously the following conditions:

1. A present obligation (legal or constructive) has arisen as a result of past event (the obligation event);
2. Payment is probable (more likely than not); and
3. The amount can be estimated reliably.

Thus, we have a contradictory situation: definition of provision provides its uncertain value and recognition criteria related – determination of credible value. Therefore, it is necessary to solve the dilemma: if the value is reliably determined then it cannot be uncertain or if the provision is uncertain, it cannot be reliably determined. We believe that value cannot be uncertain. Unfortunately, the case mentioned is not the only the IFRS according to which criterion recognition accounting element is presented as part of its definition.

### **Methods applied accounting and tax treatment**

Provision for vacation pay can be calculated in different ways. Examination of bibliographic sources allows us to mention the main of them:

- Based on the average salary for a day (calculated for all staff, each employee by category of employees),
- Based on average salary one day planned,
- Normative method.

Employees entity, usually go on annual leave in the summer months (June-August) which gives a hardship for the production process, and this are not interrupted departing employees is leave are replaced. The entity is obliged in such cases to calculate staff salaries replacing people who left for holidays and that the amounts of which have gone on leave, making a final product cost and expenses during the reported period is higher than in other months of the reporting period. It appears that for July and August, the cost of manufactured products will be inflated compared to other months, which is not correct. For uniform accounting principles, materiality and prudence, vacation pay must be carried out evenly throughout the reporting year, and for this will be an entity's allowance for staff. Result the entities that have a kind of seasonal activities, a technology that cannot be interrupted or have a large number of workers involved in the manufacture of products; services need to establish provisions for rest.

In our view, the establishment of any provision, including for vacation pay, money may be argued, if it has its destination to cover the costs or expenses conditional on production of future economic fact – in this case, leaving employees on annual leave and calculating their revenues.

The accounting records to reflect the provision for staff vacations; it is intended to account 538 "current provisioning". It is necessary that record provisions for this account to be reflected by the types of provisions recognized entity by opening sub-accounts. Such of provisions constituted amounts will be credited to this account bounces in return for expense accounts / cost that reflects the calculation of wages for the category of employees to which the provision is calculated. Decrease provision is made at the actual amount of allowances paid leaves when they are calculated.

After determining the value, the establishment and use of the provision for annual leave following generates accounting entries (Table 1).

Table 1

## How reflection of provisions for vacation pay

Content operation	Debit account	Credit account	Description
1. Establishment provision	811 "Core activities"	538 "Current provisioning"	The amount of provisions for vacation pay up for workers involved directly in the manufacture of goods, services, works in the main activity.
	812 "activities ancillary"	538 "Current provisioning"	The amount of provisions for vacation pay for workers who perform work created in ancillary activities.
	821 "indirect production costs"	538 "Current provisioning"	The amount of provisions for vacation pay up for technical staff and engineers (section chief, adjust, technologists, mechanics, engineers, etc.) of the department.
	121, 123, 712, 713, 714	538 "Current provisioning"	Depending on the destination of the work performed by workers
1. Reflection of payments in the month of the leave granted leave	538 "Current provisioning"	531 "Personal debt to the remuneration"	Indemnities for the amount actually calculated when employees go on annual leave.
	538 "Current provisioning"	533 "Debt on social security and healthcare"	The amount of social security contributions and health related allowances calculated (for medical insurance in case the calculation and payment holidays are held in the same month)
	538 "Current provisioning"	541 "Debts preliminary"	The sum of the first healthcare payment and in case the calculation of holiday allowances is held in different months.
1. The payment of payment for leave, after being carried withholding tax	531 "Debts to staff on Remuneration"	241 "Casa" 242 "Current accounts in national currency"	The sum of paying allowances for the holidays.

*Source: elaborated by author*

Let's examine the methods of formation and use of provisions for vacation pay mentioned above.

1. Method constitution provision on the basis of average salary for all staff one day.

Under this method the amount of the provision can be determined *each individual employee or groups of employees* including all personnel. The method in question is the simplest of the other.

The provision in this case will be equal with the size of the average wage actually one day and the number of days of unused leave at the time of calculation, which will insert the amount of social insurance contributions and mandatory nurse first, after the relationship:

$$PR = \bar{S}_z \times Nr.zn + \left\{ \left[ (\bar{S}_z \times Nr.zn) \times 23\% \right] + \left[ (\bar{S}_z \times Nr.zn) \times 4,5\% \right] \right\}$$

Where:  $PR$  – size provision, lei,

$\bar{S}_z$  – the average wage on a daily, lei,

$Nr.zn$  – the number of days of unused leave at the time of calculation, days,

$[(\bar{S}_z \times Nr.zn) \times 23\%]$  – calculating social security contributions, lei,

$[(\bar{S}_z \times Nr.zn) \times 4.5\%]$  – calculation of premiums for compulsory nurse lei.

The information related to the number of days of unused leave is provided section human resource.

The average salary for one day is calculated based on provisions. *The calculation of the average salary, approved by Government Decision R.M. nr. 426 of 26.04.2004.*

**Example 1.**

"Cartier" S.R.L., its accounting policies mentioned that at the end of each quarter is provision for paid leave, and the method of calculating the allowance is based on daily average salary for all staff. According to data provided by specialists from department cadres at January 1, 2016, unused holidays for 2015 do not exist. So, unused allowance from the previous period 01/01/2016 to leave will be equal to zero. On 31.03.2016, the total number of unused vacation days was:

– 24 days of leave for workers in the core business

- 35 days of leave for workers serving subdivisions,
- 28 days of leave for administrative staff.

The average wage per day for a period 01.01.2016 –31.03.2016 was:

The administrative department: 104,04 MDL,

The editorial department: 43,30 MDL

The serving department: 202,35 MDL.

According to initial data are drawn following calculations:

- The amount of unused annual leave allowance for the situation of 03.31.2016, will be: 11034,84 MDL [(35 × 104,04)+(24 × 43,30)+(28 × 202,35)].
- Social security contributions: 2538,01 MDL (11034,84 lei × 23%)
- The first mandatory health insurance: 496,57 MDL (11034,84 MDL × 4,5 %)
- amount of the provision at 03.31.2016: 14069,42 lei (11034,84 MDL + 2538,01 MDL +496,57 MDL)

Accounting records will generate on 31/03/2016 as follows:

- Provision for the establishment of leave allowances for workers in the core business: Debit 821 “Indirect production costs – 1325,12 MDL
- serving department: Debit 712 “Distribution costs” – 9029,93 MDL
- administrative staff: Debit 713 “Administrative costs” – 3714,37 MDL
- Credit 538 “Current provisioning” – 14069,42 MDL

The disadvantage of this method: the sum of the allowance will not coincide with the actual amount of indemnities for the entity will be calculated at the time the cause economic future, related information are not as accurate and relevant. In order to eliminate this drawback, we propose calculating the provision for each worker individually, using the average salary for a day.

2. The method of establishing normative provision.

Under this method the reserve is determined based on the percentage of total compensation fund entity. Both indicators will be determined based on the data of previous years. The presented method is simple, and it shall indicate in its accounting policies that the percentage will be calculated provision. However we mention that it is not most exact method, which makes the end of the reporting period the entity to record corrections relating to the provision determined.

#### Example 2.

The accounting policies of the entity “Metropola” SRL is mentioned that the 2016 constitution provision will be made being based on normative method and the percentage of fund provision in the amount of remuneration is 11.3%. Herewith as a table 4 we present data on the calculation of the provision for each month of the reporting period.

Table 2

Calculation of the provision for vacation pay for year 2016, MDL

Period	Remuneration Fund	Amount of provision included		
		Indemnities	Contributions to social insurance and mandatory health first	Total
1	2	3=2*0,113	4=3*0,275	5=3+4
January	736900,00	83269,70	22899,17	106168,87
February	562000,00	63506,00	17464,15	80970,15
March	698000,00	78874,00	21690,35	100564,35
April	598000,00	67574,00	18582,85	86156,85
May	436000,00	49268,00	13548,70	62816,70
June	545600,00	61652,80	16954,52	78607,32
July	497000,00	56161,00	15444,28	71605,28
August	395200,00	44657,60	12280,84	56938,44
September	678000,00	76614,00	21068,85	97682,85
October	679000,00	76727,00	21099,93	97826,93
November	574600,00	64929,80	17855,70	82785,50
December	856000,00	96728,00	26600,20	123328,20
<b>TOTAL</b>	<b>7256300,00</b>	<b>819961,90</b>	<b>225489,52</b>	<b>1045451,42</b>

For 2016, the entity “Metropola” SRL will be a provision for vacation pay in the amount of 1,045,451.42 MDL.

At the end of the management entities to conduct enumeration provisions created, used and unused, the Regulation on inventory nr. 60 of 29.05.2012. Inventory process will consist of drawing up a list of workers who did not use the leave, specifying the number of days and then will determine the balance of the provision at the end of manager depending on the method of calculating the provision mentioned in the chosen entity and accounting policies. Subsequently carried out the following:

- Calculate the allowance, taking into account its balance at the beginning and end of the reporting year,
- Comparing provision constituted one used during the reporting year, determining the difference between them and her character.

#### **Conclusion**

Towards the end we can say that provision is the amount the entity will be pay in normally at the balance sheet date to reduction an obligation. Need to determine the exact amount of provisions is a major objective of the company, as the information related to them will be reflected in the financial statements for internal and external users. Provisions for payment of holiday are economic arguments. They are needed to cover the costs / expenses to be from the production of future economic fact. They coordinate with the principle of prudence, materiality not reflect the period of leave significant amounts of personnel costs, namely, coordinating and uniformity reflect these costs. If you do not consider these items easiest and less costly method is provisioning for unused vacation pay at the end of the year, that year goes in the future, and based on a planned average salary day. Thus, for vacation pay used in the same year, provisions will not constitute.

For tax purposes it is proposed to bring in consistent art. 31 aligned. (2) the deduction of provisions *Annexes CF on 1D and 2D from declaration VEN12. In Annex 2D* in reality is recognize only used provisions. We believe it is necessary in art. 31 par. (2) to CF include the same content as in Annex 2D.

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## **IMPACT OF RECOGNITION OF FINANCIAL INSTRUMENTS ON THE FINANCIAL POSITION**

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**Summary:** *The scientific article aims at presenting the main provisions of the international norm in comparison with the national rules applicable by entities operating in the transactions with financial instruments. The need to develop standards on financial instruments, implicit in financial activities and debts, has arisen against the backdrop of the use of financial instruments in its activity not only of banking institutions but also of entities that try to obey the current economy. The obligation to present financial instruments in the balance sheet of financial assets and liabilities and to impose a detailed description of the information on financial risks, fair value, nature and contractual conditions of financial instruments are the essential contributions of the accounting rules developed in this respect.*

**Key words:** *Financial instruments, financial asset, financial liability, equity instruments.*

**JEL:** G23

## **Introduction**

Under the current conditions in which the economic environment is marked by ever more rapid and complex changes, domestic entities will increasingly resort to financial instruments. A beneficial effect of financial instruments is attracting private funding from other public sources, including international financial institutions. Consequently, their accounting, presentation and disclosure of information and impact analysis of methods for recognizing and measuring their effect on the performance and financial position of the entities are subjects of great interest for both auditors and users of information.. The relevance of the article also stems from the fact that IFRSs are designed to promote and explain options, treatments and accounting solutions whose transposition into domestic financial reporting is closely correlated with the exercise of professional judgments and value judgments that are hardly embedded in a regulatory environment.

### **Analysis of bibliographic sources in the field of the researched matter**

The issue of recognizing and evaluating financial instruments has generated many controversial debates and discussions, and has been the subject of numerous studies and researches made both by professionals, accountancy regulators and capital markets.

Analysing the specialty literature of the Republic of Moldova in the field of accounting and financial audit of financial instruments, we find that it contains a relatively small number of works without impact on economic-financial research because they have a classical didactic methodological approach (Grigori and Lazari, 2009; Lapitzkaya, 2011 Corniciuc, 2016). We have noticed the similarity of approaches by limiting the presentation of the content of IFRS, the theoretical presentation of recognition and accounting methods. In the opposite direction, at international level, research in this field is developed and extensive due to the numerous empirical studies encountered in most scientific papers (Aasthova, 2013, Kuzmin, 2012; Ryan, 2007).

### **Research methodology**

The objectives of this scientific article are: i) the identification by small and medium-sized entities of the methods of accounting for financial instruments at their initial recognition, and ii) investigating their impact on the financial position of the entity.

In order to achieve the proposed objectives, the theoretical method and the data analysis and interpretation methodology are used as research methodology. Investigation is done using mainly quantitative tools, but also qualitative tools. From the sphere of qualitative tools, we used documentation, analysis, synthesis, logical reasoning, and interpretation. The sources of documentation underlying this research are mainly represented by international financial reporting standards, articles published in specialist journals, relevant reference books, official documents and other documents issued by various international bodies active in the field of accounting (IASB, IFAC).

Also, in order to achieve the objectives, a case study is made on the recognition and accounting of financial instruments according to the two methods of recognition allowed for use. The case study can be defined as a well-established research strategy focused on a concrete case (which is interpreted in detail, i.e. giving detailed references to individuals, groups, target organizations), taking into account all its contextual particularities (G. Robson, 2002).

R. Yin (Case Study, Polirum, 1989) shows that the case study, like any investigation, usually starts from a theoretical framework that is essential in data collection. So, for the purpose of carrying out the research by case study the normative framework was studied, the direct observation, the attending observation, the consultation of the specialists, etc. were made.

Specifically, it was intended to answer the following questions:

- How are financial instruments recognized for initial recognition according to: i) the trading date and ii) the settlement date?
- What is the impact of recognition and accounting methods on the financial position?

### **Obtained results**

In order to record in the balance sheet (statement of financial position) and to obtain reliable and useful information on financial assets and liabilities, an entity must take into account both the recognized amount and the recognition moment. An entity shall recognize a financial asset or a financial liability in the balance sheet only when it becomes a party to the contractual provisions of the instrument (IFRS 9, Article 3.1.1). As a consequence, an entity must recognize in its balance sheet all contractual rights and obligations arising from financial instruments, such as financial assets or liabilities.

For example, financial assets and liabilities that arise as a result of a firm contract or firm commitment to purchase goods and services are recognized only when at least one of the parties to the contract will act in accordance with contractual obligations, ie will deliver, pay, etc. (firm order in the case of delivery of client products is not recognized in the accounting records, being associated with a contingent asset).

Recognition of a classic purchase of financial assets must be based on the date of the conclusion of the contract (representing the date on which the entity commits to purchase an asset) - the valuation method at the trading date – or the settlement date (representing the date of the transfer or delivery of the asset) - the valuation method at the settlement date. Any change in the fair value of the asset between the date of the conclusion of the contract and the settlement date shall be recorded using the same method as that used for recognizing the asset.

The method used should be applied consistently for each of the four categories of financial assets: Financial assets available for sale; Financial assets measured at fair value; Financial assets held to maturity; Financial assets created by the entity (loans and receivables).

It is necessary to note that the above mentioned categories, currently applicable: “retained to maturity”, “loans and receivables” and “available-for-sale” are not included in IFRS 9 to be implemented from 1 January 2018, although the initial deadline was 1 January 2015. IFRS 9 contains three categories for the classification of financial assets measured at: i) amortized cost; ii) fair value through other items of comprehensive income (FVOCI) and iii) fair value through profit or loss (FVTPL).

Upon initial recognition, a financial asset or a financial liability must be valued at its cost, which would mean determining the fair value of the consideration offered or received for it. Trading costs are included in the initial cost of all financial assets or liabilities. So, the cost of entry is as follows:

$$\text{Initial cost} = \text{The fair value of the payment received or received} + \text{Associated trading costs} + \text{or} - \text{Certain gains or losses arising from hedging operations}$$

As already mentioned, one of two methods can be used to recognize and account for standard contracts:

- ☒ transaction date (i.e. the date on which the entity commits to purchase an asset);
- ☒ the settlement date (the date of transfer / delivery of the asset).

Normally there is no interest accruing between the two dates. In the case of the second option, for items measured at fair value, it is necessary to recognize the related gains or losses occurring at the date of the transaction, even if those assets or financial liabilities are recognized in the balance sheet only at the date of settlement of the contract. Any change in the fair value of the asset between the above mentioned moments will be recorded using the same method as that used to recognize the asset. The method used should be applied consistently for each of the four categories of financial assets, which are valued according to the principles outlined in Table 1.

*Table 1*

**Methods of recognizing and evaluating financial assets**

Financial Assets	Evaluation	Methods of recognition
Financial assets at fair value (Financial assets at fair value through profit or loss – FVTPL)	Fair Value	Changes in fair value are recognized in the income statement
Claims and loans	Amortized cost	The change in the fair value is not usually recorded. They undergo depreciation tests.
Financial assets held to maturity (Financial assets measured at amortized cost)	Amortized cost	There is no change in the fair value. They undergo depreciation tests.
Financial assets available for sale (Financial assets at fair value through other comprehensive income –FIFG)	Fair Value	Changes are recognized in equity. They undergo tests for depreciation.

The accounting of standard contracts by the transaction date method implies: i) in the case of the buyer – the recognition of the asset to be received and the debt represented by the price to be paid; ii) in the case of the seller – the cancellation of the recognition of the sold asset and the appearance of a claim for the price received.

Accounting for standard contracts by the settlement date implies: i) in the case of the buyer – recognition of the asset only at the date of receipt; ii) in the case of the seller – de-recognition at the moment of delivery to the customer.

We illustrate these methods through the following case study: An entity purchases in financial year N a financial asset (bonds) for the amount of MDL 100 000, which is the fair value at the date of the conclusion

of the contract (trading date). On December 31, year N, the fair value becomes MDL 110 000, and at the end of January, the N + 1 year (settlement date), this is MDL 130 000.

The change in the fair value depends on the category of financial instruments in which the financial asset is classified and the reference date (transaction or settlement date).

If the **transaction date** is used as the reference date, the accounting records presented in Table 2 shall be prepared.

*Table 2*

**Accounting records for transactions in financial instruments applying to initial recognition the transaction date**

<b>Categories of financial assets</b>	<b>On purchase date</b>	<b>On December 31, year N:</b>	<b>At the end of January, The N + 1 year</b>
Financial assets held to maturity	<b>Debit</b> Financial asset MDL 100 000 <b>Credit</b> Financial Debt MDL 100 000	They are recorded at cost, no accounting records are recorded	<b>Debit</b> Financial liabilities MDL 100 000 <b>Credit</b> 242 Current accounts in national currency MDL 100 000
Financial assets available for sale		<b>Debit</b> Active Financial MDL 10 000 <b>Credit</b> Reserve for fair value variation MDL 10 000	<b>Debit</b> Financial asset MDL 20 000 and <b>Debit</b> Financial liabilities MDL 100 000 <b>Credit</b> 242 Current accounts in national currency MDL 100 000
Financial assets measured at fair value		<b>Debit</b> Financial asset MDL 10 000 <b>Credit</b> Unrealized gain from the fair value change of MDL10 000	<b>Debit</b> Financial asset MDL 20 000 <b>Credit</b> Unrealized gain from the variation of the fair value of MDL 20 000 and <b>Debit</b> Financial liabilities MDL 100 000 <b>Credit</b> 242 Current accounts in national currency 100 000 MDL

Some clarifications and recommendations are needed:

- i) if the bonds are held for a period longer than 1 year, they are considered as financial assets and may be recorded, under the General Accounts Plan, through account 141.5 “Other long-term financial investments”. If the holding period is less than 1 year, the bonds are assigned to current financial investments and are reflected in the account 251.5 “Other current financial investments”.
- ii) regarding financial liabilities, according to the General Chart of Accounts there are provided for liabilities in the groups 41 “Long-term financial liabilities” and 51 “Current financial liabilities”, aimed at generalizing the information regarding the existence and modification of the financial liabilities of the entity, the focus being on bank loans and simple loans. For the purpose of faithfully applying IAS 39, it is proposed to introduce a separate account for the delimitation of other financial liabilities related to transactions with other financial instruments.
- iii) The subsequent measurement of financial instruments held for sale reflects increases or decreases in fair value that is to be recorded as other comprehensive income. Under IAS 39, this account should be bifunctional / rectifying. The current General Accounts plan provides Account 343 “Other Equity Items”, intended to generalize information about the existence and modification of equity items that are not accounted for in other Class 3 “Equity” accounts. As a rule, this is known through the revaluation of tangible assets, but it only records the positive spread. In the case of financial instruments, it is advisable to open a separate account for the fair value reserve as a bifunctional account.

For the situation where the **settlement date** is used, the accounting records are presented in Table 3.

Table 3

**Accounting records for transactions with financial instruments applying  
the settlement date to initial recognition**

Categories of financial assets	On purchase date	On December 31, year N	At the end of January, year N+1
Financial assets held to maturity	No accounting records are recorded	They are recorded at cost, no accounting records are recorded	<b>Debit</b> Financial asset 100 000 lei <b>Credit</b> 242 Current accounts in national currency 100 000 lei
Financial assets available for sale		The revaluation is carried out to the new fair value but without the instrument itself, but only the claim for the change in value: <b>Debit</b> Financial claims 10 000 lei <b>Credit</b> Reserve for fair value variation 10 000 lei	Asset recognition, settlement and revaluation are carried at fair value: <b>Debit</b> Financial asset 100 000 lei <b>Credit</b> 242 Current accounts in national currency 100 000 lei <b>Debit</b> Financial asset 10 000 lei <b>Credit</b> Financial receivables 10 000 lei and <b>Debit</b> Financial asset 20 000 lei <b>Credit</b> Reserve for fair value variation 20 000 lei
Financial assets measured at fair value		<b>Debit</b> Financial claims MDL 10 000 <b>Credit</b> Unrealized gain from the fair value change of MDL 10 000	The financial asset is recognized, the liability settled and the change in fair value is adjusted at that date: <b>Debit</b> Financial asset MDL100 000 <b>Credit</b> 242 Current accounts in national currency MDL 100 000 <b>Debit</b> Financial asset MDL10 000 <b>Credit</b> Financial receivables MDL 10 000 and <b>Debit</b> Financial asset MDL 20 000 <b>Credit</b> Unrealized gain from the variation of the fair value of MDL 20 000

The methods applied at the time of recognition of the financial assets, based on the trading date or the settlement date, have a completely different impact on the financial position of the entity.

In order to assess the impact of a recognition method or other on the entity's financial position and results, the comparative scenario for the three types of financial assets analysed in Tables 4, 5 and 6 is presented.

Table 4

**The impact on the financial position of the financial asset recognition  
methods measured at fair value**

Element	"Transaction date" method, lei			"Settlement date" method, lei		
	Purchase Date	31 December	Settlement Date	Purchase Date	31 December	Settlement Date
Current accounts with banks (1)	-	-	-100 000	-	-	-100 000
Financial asset(2)	100 000	110 000	130 000	-	-	130 000
Financial claims (3)	-	-	-	-	10 000	-
<b>Total assets(1+2+3)</b>	<b>100 000</b>	<b>110 000</b>	<b>30 000</b>	<b>-</b>	<b>10 000</b>	<b>30 000</b>
Financial liabilities (4)	100 000	100 000	-	-	-	-
<b>Total liabilities(4)</b>	<b>100 000</b>	<b>100 000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Unrealized gain (5)	-	10 000	20 000	-	10 000	20 000
Current result (5)	-	10 000	20 000	-	10 000	20 000
Reported result (6)	-	-	10 000	-	-	10 000
<b>Total Equity(5+6)</b>	<b>-</b>	<b>10 000</b>	<b>30 000</b>	<b>-</b>	<b>10 000</b>	<b>30 000</b>

As shown in Table 4 but also in Table 5, at the settlement date, the impact of the methods for recognizing financial assets at fair value and available-for-sale financial assets, irrespective of the recognition method used, is the same: assets increasing by MDL 30,000 and the increase of the equity by MDL 30,000 on the account of the current and reported result, in the first case, and based on the reserves for the change in the fair value, in the second case. The situation is similar for the other two moments of the assessment (acquisition date and 31 December). Instead, a different asset and liability situation is recorded at the reporting date, based on the method applied in accounting for these categories of financial assets – the transaction date or the settlement date. There are also different values of total assets and debts at the acquisition date, depending on the methods applied.

*Table 5*

**The impact on the financial position of the recognition methods for available-for-sale financial assets**

Element	“Transaction date” method, MDL			“Settlement date” method, MDL		
	Purchase Date	31 December	Settlement Date	Purchase Date	31 December	Settlement Date
Current accounts with banks (1)	-	-	-100 000	-	-	-100 000
Financial asset (2)	100 000	110 000	130 000	-	-	130 000
Financial claims (3)	-	-	-	-	10 000	-
<b>Total assets (1+2+3)</b>	<b>100 000</b>	<b>110 000</b>	<b>30 000</b>	<b>-</b>	<b>10 000</b>	<b>30 000</b>
Financial liabilities (4)	100 000	100 000	-	-	-	-
<b>Total liabilities (4)</b>	<b>100 000</b>	<b>100 000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Reserve – the change in fair value (5)	-	10 000	30 000	-	10 000	30 000
<b>Total Equity (5)</b>	<b>-</b>	<b>10 000</b>	<b>30 000</b>	<b>-</b>	<b>10 000</b>	<b>30 000</b>

With regard to the maintenance of financial assets held to maturity at amortized cost, without recording changes in value, they do not result in a change in equity, at all three dates presented: acquisition date, reporting date, settlement date as presented in Table 6. However, we have different situations of presentation of total assets and debts, depending on the methods selected for application.

*Table 6*

**The impact on the financial position of the financial asset recognition methods held to maturity**

Element	“Transaction date” method, MDL			“Settlement date” method, MDL		
	Purchase Date	31 December	Settlement Date	Purchase Date	31 December	Settlement Date
Current accounts with banks (1)	-	-	-100 000	-	-	-100 000
Financial assets (2)	100 000	100 000	100 000	-	-	100 000
<b>Total assets (1+2)</b>	<b>100 000</b>	<b>100 000</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>0</b>
Financial liabilities (3)	100 000	100 000	-	-	-	-
<b>Total liabilities (3)</b>	<b>100 000</b>	<b>100 000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Current result (4)	-	-	-	-	-	-
<b>Total Equity (4)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Conclusions**

Measuring and reporting financial assets either at the date of the transaction or at the settlement date constitutes a real challenge for both the parties responsible for preparing and presenting the financial statements, the financial auditors who give an opinion on those financial statements, and for those users who use Information in making decisions. It was verified that the methods applied - the trading date or the settlement date have a completely different impact on the financial position of the entity. Therefore, in accordance with IAS 1 Presentation of Financial Statements, the entity will present the measurement bases used for financial assets in its accounting policies, as well as other accounting policies used that are relevant to the understanding of the financial statements. It will also describe in the notes to the financial statements the measurement of the extent to which the purchases or normal sales of financial assets are accounted for at the trade date or at the settlement date.

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### COMPARATIVE ASSESSMENTS OF INVENTORY RECOGNITION ACCORDING TO NATIONAL AND INTERNATIONAL REGULATIONS

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*Recognition is the process of incorporating in the financial statements of items that meet the definition of an element and satisfy the recognition criteria. National and international regulations contain similar approaches of inventory recognition. However, there are issues proposed for investigation and resolution:*

- *identification of assets that can be reported to inventories;*
- *establishing the recognition criteria;*
- *recognition the advances payments made for the procurement of inventories;*
- *analysis of cases when the recognition criteria are not met;*
- *tax effects resulting from the recognition and valuation of inventories.*

*These issues are investigated in order to propose recommendations considering international approaches, including the Accounting Directive of European Union, planned to be transposed into national regulations.*

**Key words:** *inventories, recognition, criteria, low value assets, advance payments, returnable packaging.*  
**JEL:** M41

## I. Introduction

Recognition is an important and mandatory stage of the accounting cycle and is the process of incorporating into financial statements of elements that satisfy the definition and recognition criteria. Inventories represents a significant asset in entities balance sheet, therefore it requires distinct approach on the recognition stage.

Depending on the time of performing, there are two forms of inventory recognition:

- **initial recognition** – performed on the moment of inventory admission on the basis of primary documents and consists in determining the reporting period in which inventories are recorded in the accounts and presented in the financial statements;
- **Subsequent recognition** – done on sale, inventory consumption or in the event of a reduction in the value of inventories to the net realizable value for the purpose of presentation in the financial statements.

The purpose of this study is to provide a comparative assessment of inventory recognition according to national and international regulations, to make a complex analysis of accounting problems related to recognition of inventories in domestic entities. The study also intends to formulate the recommendations for solving above issues in accordance with International Financial Reporting Standards (IFRS), the Accounting Directive of European Union (EU) and based on advanced international practices.

## II. Analysis of reference sources

Recognition of inventories in general terms is regulated:

- in the normative acts of the Republic of Moldova by:
  - *Accounting Law* [5], which establishes general rules regarding the accounting of the accounting elements;
  - *National Accounting Standard* (hereinafter – NAS) “*Inventories*” [17], applicable to all entities keeping double-entry accounting, except those of public interest and other entities that apply international accounting regulations;
- in international regulations by:
  - *Conceptual Framework for Financial Reporting* [1] (hereinafter – Framework), issued by IASB in 2010, which sets out the general principles for preparation and presentation of financial statements under IFRS;
  - Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on annual accounts, consolidated financial statements and related reports of certain types of undertakings [3] (hereinafter – Directive 2013/34/EU), which sets out the general principles of financial reporting in the European Union;
  - International Accounting Standard (hereinafter – IAS) 2 “*Inventories*” [15], applicable to public interest entities and other entities applying international accounting regulations.

NAS “*Inventories*” elaborated based on IAS 2 and European Union (EU) Directives establishes the criteria for initial and subsequent recognition of inventories, as well as the rules for their measurement. At the same time, in the context of the implementation of Association Agreement “*Republic of Moldova – European Union*”, the provisions of NAS on inventory recognition and measurement should be harmonized with the requirements of Directive 2013/34/EU [3].

Local and foreign researchers generally investigate some issues related to inventory recognition, such as:

- Practical recommendations on the application of NAS “*Inventories*” [8];
- Issues related to initial and subsequent inventory measurement [9];
- Management, accounting and control of inventories [19];
- Accounting for Inventory [18];
- Accounting and others.

On the other hand, there are unsolved issues concerning:

- identification of assets that can be reported to inventories;
- establishing the recognition criteria;
- recognition the advances payments made for the procurement of inventories;
- analysis of cases when the recognition criteria are not met;
- tax effects resulting from the recognition and valuation of inventories.

## III. Methodology of research

The research is based on a deductive approach, from general to particular, starting from the current state of knowledge of the practical and theoretical aspects of inventory recognition.

In the research process, the results of the investigations of the local specialists, as well as aspects of advanced international practices, have been taken into account.

#### IV. Data Presentation and Analysis

In accordance with the national accounting regulations – NAS “Inventories” [17, point 11], inventories are recognized as current assets while meeting the following conditions:

- ✓ it is controlled and owned by the entity;
- ✓ future economic benefits are probable to be obtain by the entity from the use of inventories;
- ✓ it is intended for use in the normal production / service cycle or will be sold within 12 months;
- ✓ the input cost can be determined with reliability.

In the case if the recognition criteria a not met, the purchased asset is recognized as current expenses, fixed asset or reflected in off-balance sheet accounts [17, point 12].

According to international accounting regulations, recognition is the process of incorporating in the balance sheet or the profit and loss statement an item that meets the definition and satisfy the set out recognition criteria [1, paragraph 4.37]. Note that although IAS 2 [15] does not contain specific inventory recognition criteria, the General Framework [1] lays down general provisions on the recognition of elements in the financial statements. Thus, section 4.38 [1] establishes that an item satisfying the definition of an element should be recognized if:

- ✓ it is probable that any future economic benefit associated with the item will flow to or from the entity; and
- ✓ the item has a cost or value that can be measured with reliability.

The recognition process involves the depiction of the item in words and by a monetary amount and the inclusion of that amount in the balance sheet or income statement totals. Therefore, the items that meet the recognition criteria should be recognized in the balance sheet or in the income statement. The failure to recognize such items is not rectified by disclosure of the accounting policies used nor by notes or explanatory material.

According to point 4.39 of the General Framework [1], consideration of the extent to which an item meets the recognition criteria in the financial statements must be given due consideration to the materiality considerations. The interdependence of the elements consists in the fact that if an element meets the definition and fulfils the recognition criteria for a particular asset, for example an asset, it is automatically required to recognize another element, for example, income or debt.

On inventory recognition, the following general principles should be considered:

- *accrual accounting*, which requires the recognition of accounting items as they arise, regardless of the time of receipt / payment of cash or compensation in another form;
- *prudence*, which does not allow overvaluation of assets and revenues and / or under-valuation of debts and expenses;
- *priority over form*, which implies that the information presented in the financial statements must reflect the essence and content of economic facts rather than their legal form.

By generalizing the above, we can conclude that according to national and international accounting regulations, recognition requires the aggregation of three basic conditions: **1) the definition of an accounting element, 2) the probability of obtaining the subsequent economic benefits, and 3) the cost can be measured with reliability.**

By comparing the criteria for recognition in national and international regulations, we find that the provisions of the NAS “Inventories” are more restrictive, namely the limitation of the definition to current assets, the need for controlling / ownership of the entity and the limitation of the sale period within 12 months.

In our opinion, the extension of recognition criteria, definition of inventories and the recognition criteria related to usage and sale, creates confusion in accounting practice. Thus, we agree with the recommendations of the authors of the paper “National and International Approaches to the Definition, Composition and Inventories Measurement” [20], regarding the definition of inventories as “*assets controlled by the entity, purchased for resale or held for sale, in the execution stage and intended for use in the production process, used for services rendering in the normal course of the entity’s activity*”.

Questions arise about the duration of the normal production / service cycle or the 12-month sales period. The normal production / service cycle may be longer or shorter than 12 months. Thus, in some branches of the national economy the production cycle can be a batch, a shift, a day, a month, an year, and in other branches – more than a year. For example, in the wine industry, the process of maturing products (wines, cognacs, etc.) can take several years. However, maturing products are recognized as inventories. Regarding the 12-month sale term, we can state that it is set at the date of purchase of the goods. If the goods

have not been sold within 12 months, they continue to be in inventory and should not be transferred to the non-current assets category. This statement is deducted from the definition of current assets set in p.24, subp. 1) of the NAS “Presentation of Financial Statements” [17].

One of the most widespread problems in national accounting practice arises from the definition and inclusion of low value and short-term assets (LVA) to the inventory category. According to paragraph 6 of SNC “Inventories” [17], two options for determining the composition of LVA are provided:

- (1) assets, the unit value of which does not exceed the limit stated by law, irrespective of the duration of service or of a service duration of not more than one year, irrespective of the unit value;
- (2) assets, the unit value of which does not exceed the materiality threshold established in the accounting policies, regardless of the service duration or with a service duration of no more than one year, regardless of the unit value.

The option of recognizing the goods to LVA is determined by the entity itself. At the same time, when applying the second option, the entity should determine the materiality threshold for LVA under the NAS “Accounting Policies, Changes in Accounting Estimates, Errors and Subsequent Events” [17] and present them in accounting policies. It should be noted that, when applying this option, the entity must correlate the recognition to LVA criteria to the approach applied for determining the fixed assets categories.

It should be noted that international regulations does not provide such category of inventory as LVA. At the same time, considering the provisions of IAS 16 “Property, plant and equipment” [16, item 6], tangible assets are assets that:

- (a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
- (b) are expected to be used during more than one period.

Therefore, we can conclude that in accordance with international regulations, LVA which have a term of use longer than one year should be recognized as long term tangible assets.

Comparing the definition of fixed assets in the NAS “Tangible and intangible assets” [17, paragraph 4] with IAS 16 [16, paragraph 6], we find that national regulations requires an additional recognition criterion for fixed assets – the value threshold provided by the tax legislation or materiality threshold established by the entity in accounting policies.

In our opinion, national regulations, although drafted on the basis of IFRS and the European Directives, also contain rules laid down in the tax legislation. Thus, the Fiscal Code [2, art. 26, par. (2)] establishes the minimum limit in the amount of MDL 6000, for the property for which is calculated the amortization for fiscal purposes, respectively this ceiling should be considered for the recognition as fixed assets. It should be noted that accounting regulations in countries such as Romania, Russia, Ukraine also provide terms for LVA with some particularities. Considering the above and taking into account the national accounting practice with respect to LVA, we propose to recognize in inventories only LVA with a term of use of no more than one year, irrespective of the unit value or within the significance limit established in accounting policies of the entity. At the same time, inventory items that may be used for more than one year are recognized as fixed assets in a separate group or in existing groups of similar fixed assets category. This recommendation is in line with international requirements as well as practices of EU member countries, such as Romania, as well as the practice of other countries that have implemented international regulations.

Another problem that arises in identifying goods that may or may not be reported to inventories, and recognized differently in international regulations, is the recognition of reusable / returnable packaging to inventories. Thus, according to NAS “Inventories” [17, paragraph 6, subp. 7], inventories include packaging - goods that comprise single-use or **reusable packaging**, purchased or manufactured, intended for packing of finished goods and / or other goods.

In accordance with the draft Regulation on packaging and waste [13, pct. 6, lt. d)], elaborated on the basis of the EU Directives, reusable packaging represents the packaging that is for the same purpose, the return of which by the consumer or the trader is ensured by the payment of an amount – deposit system, by repurchase or otherwise. Reusable packaging is considered to be placed on the market when it is made available for the first time, together with the product it is intended to contain, to protect, to manipulate, to distribute or to present it. Reusable packaging is considered packaging waste when removed at the end of its useful life. Reusable packaging is not considered packaging waste when returned for reuse.

Thus, we find that reusable packaging is not recorded in accounting to cost after its first use, therefore being in the ownership of the entity may be used for longer period.

Analysing the destination of this group of assets, allows us to consider that returnable packaging does not meet the criteria for recognizing as inventories. In our opinion, returnable packaging meets the

recognition criteria for tangible assets under IAS 16 [16, paragraph 6], since it can be used in the production of goods and have a service life longer than one year. At the same time, the criteria for recognition provided by the NAS “Tangible and intangible assets” [17, paragraph 4], namely setting of the threshold provided by the tax legislation or materiality threshold established by the entity in the accounting policies, may mislead the essence of long term asset. Based on the above and analysing the practice of some local entities, we consider reasonable to create a distinct group of fixed assets – Returnable packaging. In addition, the entity's accounting policies should determine the useful life (reuse) of packaging based on previous experience. Such an approach complies with international regulations on the recognition of tangible assets. We also recommend the delimitation of accounting rules from the fiscal ones by modifying the NAS “Tangible and intangible assets”. Respectively, the exclusion from the definition of fixed assets of the minimum value of the fixed assets by the value threshold provided by the tax legislation (the limit provided by the Fiscal Code , Article 26, paragraph (2)) in the amount of MDL 6000).

Currently, there are often cases when some sellers, for the purpose of customers loyalty, provide free of charge goods or sell goods at symbolic price or much lower than market value (mobile phones, tablets, TVs, etc.). Thus, in practice, there are problems related to recognition of goods received as well as their recording in accounting. Some issues regarding the recognition of these goods are addressed in the study “Об учете мобильных телефонов, приобретенных по специальной цене<sup>1</sup>” [22].

In our opinion, the recognition of goods received free of charge or purchased for symbolic value have to be considered approaches described above for LVA and returnable packaging. To solve the problem, it is proposed to harmonize the accounting regulations with the *acquis-communitaire*, as well as the delimitation of the accounting rules from the fiscal ones.

In accordance with Directive 2013/34 / EU [3, Art. 12], special rules are applied for the subsequent recognition of certain items in the financial statements. Thus, according to art. 12, par. (3), the presentation of assets as long term assets or as current assets depends on the purpose they are provided. At the same time, Annex III to Directive 2013/34 / EU [3] contains the inventory items to be presented in the horizontal balance sheet, including: 1) Raw materials and consumables, 2) work in progress, 3) Finished goods and trade goods, 4) Advances.

Accordingly, in line with European regulations, advances made to suppliers for the procurement of inventories should be recognized and presented in the financial statements as inventories.

National regulations do not consider such an approach. Thus in accordance with the NAS “Receivables and financial investments” [17, paragraph 16], advances provided to suppliers of assets and services for a period not exceeding 12 months are recognized and disclosed in the balance sheet in accordance with the NAS “Presentation of Financial Statements” [17] in the line 210 “Current advances paid”.

In our view, the approach of subsequent recognition of advances depending on their purpose is useful and necessary for different categories of users to make managerial and economic decisions. Thus, we consider necessary and obligatory to transpose into national accounting regulations the provisions related to subsequent recognition of advances paid to suppliers depending on the purpose of such payments and should not be classified based on term of use as stated in the current regulation.

There are cases when not all the recognition criteria are met. Such situations may arise in cases of the receipt of materials for processing, goods receipt in custody or on commissions basis and in the case of inventories received free of charge and intended for charitable purposes.

Goods received for processing, in custody or on commission contracts basis do not meet all the criteria for inventory recognition, namely the criterion of being controlled by the entity and being in the its ownership. Therefore, these assets should not be accounted in inventory accounts, but recorded in off-balance sheet accounts such as 914 “Goods received in custody”, 915 “Goods received for processing or repair” or 916 “Goods received under commission contracts”.

In accordance with the Methodological Guidance on Accounting in Non-Commercial Organizations [4, p. 19], special purpose goods recognition is based on reasonable assurance that:

- the goods will be received by the non-commercial organization;
- the conditions for the use of these goods will be fulfilled;
- the value of the goods can be credibly determined.

The recognition of goods received free of charge and with charity purposes are conditioned by the place where the charity activity takes place. Goods received for charitable purposes intended for the transmission to other legal entity or individuals do not meet the criteria for inventory recognition and should be recorded in off balance sheet account 914 “Goods received in custody”.

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<sup>1</sup> Translation from Russian: Accounting of mobile phones purchased for special price.

## V. Conclusions

Depending on the timing, two forms of inventory recognition are distinguished: initial and subsequent. Recognition involves the aggregation of three basic conditions: 1) the definition of an accounting element, 2) the probability of obtaining the subsequent economic benefits, and 3) the cost can be measured with reliability. The comparative assessment of inventory recognition criteria in national and international accounting regulations reveals differences both on initial and subsequent recognition.

The recognition criteria for inventories in current national regulations do not fully meet international requirements and do not sufficiently ensure users with in full, accurate and transparent information on the existence and movement of inventories. Thus, inventories include assets such as low value assets, returnable packaging, and goods received free of charge or at a symbolic value with useful life exceeding one year and therefore should be recognized as fixed assets. In this context, we recommend modification of fixed assets definition in NAS "Tangible and intangible assets" by excluding the unit value requirement that exceeds the value threshold provided by tax legislation. These changes will ensure the completeness and transparency of inventory and tangible asset information required by different categories of users to make managerial and economic decisions.

We consider important harmonization of regulations on the subsequent recognition of advances paid to suppliers depending on the purpose of these payments, but not based on the term of use as stated in the current NAS. In particular, we propose to introduce such a provision in NAS "Presentation of Financial Statements", respectively by changing the balance sheet format. In our opinion, such an approach will ensure a fair and transparent presentation of the information in the financial statements, necessary for the management and economic decision-making by all categories of users.

In case of goods receipt for processing, in custody or on commissions contract basis, the registration of goods received free of charge and with charity destination, the criteria for recognition as inventory are not met. Therefore, we recommend recording of these types of goods in off-balance sheet accounts.

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## **PROBLEMATIC ISSUES AND INTERNAL AUDIT OF PERFORMANCE EVALUATION OF THE ENTITIES**

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*The Internal Audit is the most useful tool of the entity’s management in assessing its performance by objective review of the whole of its activities. Its purpose is to evaluate the management at the different levels, to control the management process and to use rationally the resources of the entity.*

**Key words:** *audit, internal audit, bookkeeping, accountancy, administration, evaluation, performance, internal control.*

### **I. Introduction (with indication of the purpose of the research).**

In the accounting practice, were investigated multiple aspects related to the methods, techniques and other accounting tools, managerial and performance tools, as well as aspects related to the internal control, management control or approaches related to their assessment, including through the prism of the performance evaluation. Related the internal audit, in terms of techniques, accounting tools, the performance of the entities evaluation has remained in the shadow of domestic researches.

In this article, we will try to express an opinion on internal audit, especially by evaluating the performance used by the entities.

### **II. The analysis of the references to the problem investigated and the methodology of research.**

In the specialized bibliography we find definitions related to the concept of audit, so according with the provisions of the Law on Audit Activity [1], the audit activity is an entrepreneurial activity which consists in the provision of professional services performed on a contractual basis, in order to express the opinion about truthfulness of the financial reports in accordance with this law and the relevant legislation. At the same time this law also defines the audit by independent review of the annual financial reports, consolidated annual financial reports and other related information of the audited entity to express a professional opinion of the auditor on their compliance, under all significant matters and the requirements set for these reports.

In the opinion of Romanian economist T. Danescu [2], financial auditors must implement and apply their own internal rules based on economic realities, from their own practice and experience.

The scientists Arens, Alvin A dan James K Lobbecke (2009). "Auditing and Assurance Services" Jakarta [3], describe through the services with character of assurance or other services, with or without assurance, explaining the concepts of the audit of the financial statements, the financial internal audit, reviews, the operational audit, specific managerial consulting, and internal auditors, government auditors and auditors of the expertise firms.

However, the internal audit in the Republic of Moldova, is regulated only for public entities and recommended for the private enterprises generally by:

1. Law on Public Internal Financial Control no. 229 of 23.09.2010;
2. National Standards of Internal Audit (approved by Order of the Minister of Finance no.113 of 12.10.2012);
3. Ethical Code of the Internal Auditor (approved by Order of the Minister of Finance no.139 of 20.10.2010);
4. Internal audit charter (approved by Order of the Minister of Finance no.139 of 20.10.2010);
5. Methodological Norms of Internal Audit in the Public Sector (approved by Order of the Minister of Finance no.105 of 15.07.2013);
6. Other normative acts and instructions.

According to the regulations mentioned above, the internal audit is an independent and objective activity that provides to the managers assurance and consultation, carried out by improving the activity of the public entity. This objective helps the public entity to achieve its objectives, by systematically and methodically assessing system and providing recommendations for enhancing its effectiveness.

Therefore, the goal of the internal audit, according to the Law of the public internal financial control [4], is to provide consultation and objective assurance on the effectiveness of the system of control and financial management, offering recommendations for its refining and to contribute to improve the activity of the public entity, covering all activities and operational processes.

At the same time, in order to understand the importance and the opportunities of the audit, in case of improvement of the activity and consolidation of the effectiveness, we'll expose the opinion of the scientists Alvin A. Arens and James K. Loebbecke [3] "the propose of the operational audit must be determination of the efficiency and effectiveness of all components of the entity".

In the opinion of the Romanian scientist Emil Horomnea [5], internal audit represents an evaluation or monitoring organized by the management of the entity, as independent service, in order to examine their systems of accounting and internal control, being an independent activity of the objective assurance and consultation, intended to add value and to analyse the improvement of the activity of the entity.

The Russian economists A.D. Serement and V. P. Suit [6] argue that the purpose of the internal audit is to analyse the individual functional problems, to elaborate and verify the information systems of the entity and to be an indispensable part of the entity's internal control. Internal audit represents an independent internal review of all the activities, transactions, operations, governance processes, internal control within the entity for objectively determining the effectiveness of the entity's business.

### **III. Results obtained**

In our opinion, the internal audit is an independent internal examination of the entire business, transactions, operations, management processes, internal control system within the entity to determine the effectiveness of the entity's objective.

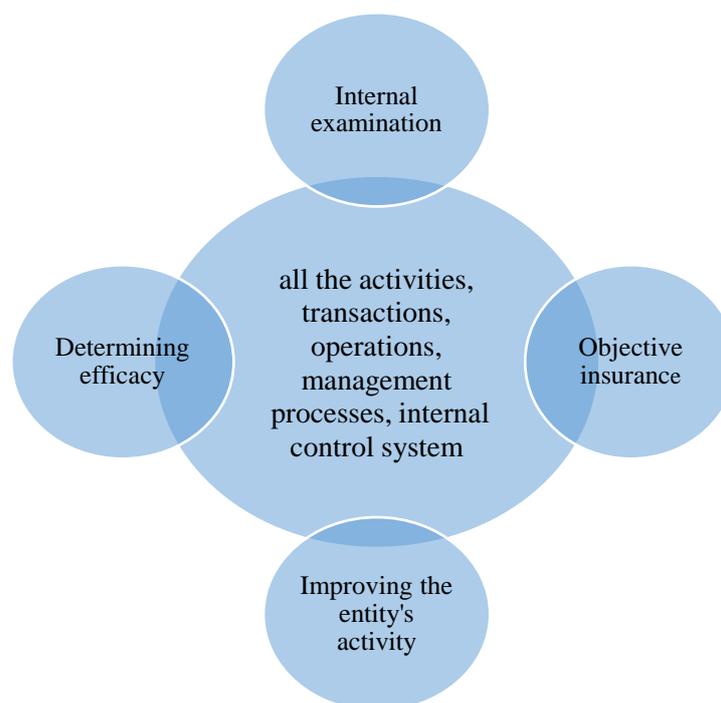
In this context, the internal audit, in the case of processes like the calculation of cost or the price formation through the performance analysis is an important tool to check the effectiveness and efficiency of the business.

Therefore, an objective examination of the activities, transactions, processes, techniques, and internal control systems by exposing opinion and professional recommendations will provide an assessment of the entity's performance.

In our opinion, the concept of the internal audit may be exposed as following:

- the internal examination;
- the determination of the effectiveness;
- the analysis of total business, transactions, operations, management processes, internal control system;
- the objective insurance;
- the improving of the entity's activity.

Below we present in Figure 1 the concept of internal audit methodology.



**Figure 1. Introducing the concept of the internal audit**

*Source: Developed by the author*

According to the opinion of the Romanian scientist Emil Horomnea [5], the information that are subject of auditing represents an accounting product. In these circumstances, prior to the actual audit approach, it is necessary to present accurate figures of the accounting.

To take the conversation further, we are going to examine some general concepts, which, in our opinion, create the basis of internal audit, such as internal control system, management accounting, financial accounting, performance.

The Law of Accounting [7] explains the notion of “internal control system”, as the totality of the policies and procedures adopted by the management of the entity, to ensure organized and efficient deployment of the economic activity, including the strict observance of the integrity of the assets; the prevention and the finding of the causes of fraud and error; the accuracy and completeness of the accounting records and relevant preparation of certain financial information.

This Act defines the management accounting as a system for collecting, processing, preparing and transmitting accounting information for planning, calculation of costs, monitoring and analysing the budget execution, in order to prepare internal reports for managerial decisions.

At the same time, another essential component, in the case of performance evaluation of the entities, is the information provided by the financial accounting, which in accordance with the Law of Accounting means, a system for collecting, grouping, processing and systematizing the information of the existence and moving of the assets, equity, debts, incomes and expenses in value terms, in order to issue the financial reports.

However, in order to express opinions of the performance evaluation of the entity, it is necessary to investigate the real concept of performance. Briefly mentioning, that in the Rules of internal audit regulation in the public sector are defined both concepts: the performance and the audit of performance.

Therefore, the audit of performance is defined as a mission that examine how are used the resources within the framework of program, functions, operations or management system to determine if the resources are used in the most cost-effective, efficient and effective way to achieve the objectives of the public entity.

Thus, by performance are supposed that the operations of the business are done at the highest professional parameters, for the purpose of fulfilling their duties with prudence, effectiveness and efficiency. Therefore, the public sector norms determine the audit of performance, like: the focus on the management objectives, the managerial responsibility, as well as criticizing managerial decisions in case of irrational using of the resources.

According to the Romanian Language Explanatory Dictionary (DEX) [8], the performance is a significant achievement in a particular area of activity, the best result achieved by a technical system, a machine, a device, etc.

However, in the literature, the performance is addressed through wider aspects such as:

- the general concept of economic efficiency;
- the accounting evaluation;
- the economic and financial analysis;
- the process of substantiating of decisions.

#### **IV. Conclusions**

In this context, we can mention that the internal audit in the assessment of the entity's performances holds a strong place, examining the efficiency of the entity's activity through the correct application of different procedures and techniques, not only through the rational use of resources but also through the proper fulfilment of competences at different levels, as well as by objective consulting of the management system which will contribute to the development and the continuous improvement of the business.

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## **FACTORS INFLUENCING ACCOUNTING FOR EDITORIAL ACTIVITY**

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*In order to properly organize accounting in a separate branch of the national economy, it is necessary to determine the factors that influence it. The editorial activity differs from other branches of the production field, which requires a profound analysis of its specifics and the way it influences the operation of accounting. In the present paper, the author carried out investigations on the subject on the basis of editorial companies.*

**Key words:** *civil code, accounting, producing entity, editorial activity, general production costs, intellectual property, basic activities, work-in-process.*

**JEL:** D23, K15, M41.

#### **Introduction**

At present, editorial activity is a branch of the business, which is of great need for the information society. Generally, editing is done on the basis of intellectual property, which may be entered into the publishing house as a result of its development, purchase or transmission by contract. Afterwards the contract is made as the three stages of the publishing activity like prepress, printing and broadcasting are executed. The purpose of this paper is to follow what tasks the accounting performs at each stage and how it contributes to rationalizing the use of the company's resources. In this context, the content of the factors influencing the accounting at each stage will be analysed.

#### **Literature review**

According to *the Law of the Republic of Moldova* on editorial activity, "editorial activity represents the total set of publishing activities (organizational, creative, economic)" [1]. This law delimits the following stages of editorial activity:

- a) prepress, which includes the processes of literary and technical writing, correction and layout of works;
- b) printing – technological process of multiplication of the editorial original;
- c) broadcasting – distribution of editorial production through the trade network, libraries and other channels.

According to the Russian author E. Behtereva, the first stage should also include the procedure for concluding the contract between the publisher and the beneficiary [2]. The publishing house is a specialized legal or natural person, which ensures the editing of editorial production on the basis of state property or other form of ownership. The publisher may be a legal or natural person entity who orders the editing of the

materials by assuming their respective financial costs. As the beneficiary can be the author – person or colleague who created a literary, artistic, scientific, publicist work, etc.

Generally, editing is done on the basis of intellectual property, which may enter the publishing house as a result of writing, procuring or transmitting, on a contract basis, containing information about extraordinary or ordinary rights in intellectual property.

The creation of the object of intellectual property with the subsequent obtaining of the extraordinary rights on it is possible through the realization of the contract. Its conditions must comply with the legislation and other normative acts on intellectual property rights.

In the Civil Code of the Republic of Moldova, on each entry of intellectual property objects, the requirements for legal documents are determined [3], which are taken into account when reflecting objects in accounting. These requirements must be respected and they constitute the legal basis for asset accounting. Irrespective of the type of the contract, all conditions necessary for the execution of the works must be provided for the safety of both parties in the contracts.

The acquisition of the extraordinary rights related to the object of intellectual property is documented in the contract on the assignment of the exceptional rights. Thus, the contract confirms the output of the object of the intellectual property of the entity's intangible assets. The party receiving the exceptional right becomes the owner of this right [2].

The financial accounting of the producing entities, including the editorial field, aims to organize the bookkeeping of the patrimony and to know the financial results from one period to another.

An important factor on which the accounting of entities in general and in the Republic of Moldova depends is normalization.

The entity's financial accounting is organized on the basis of accounting standards and can only be influenced if the entity applies national or international accounting standards. In particular, managerial accounting is influenced by various factors. These can be multiple, but some authors highlight as the main ones the following [4]: the technology of the production process, the continuity of the production process, the organizational structure, the degree of mechanization and the automation of the production process.

The size of the economic entity is the factor, which determines the choice of the type of accounting organization. If the entity is small or medium, the organization of managerial accounting is based on the accrual criterion, according to which all the work is executed in the general accounting at the level of the enterprise. In large entities, managerial accounting is carried out in a decentralized manner, requiring more staff and complicating the flow of documents [5]. The production structure refers to the basic sections according to which the costs are divided. The continuity of the production process influences the size of the production in progress, and the degree of automation of the production process depends on how indirect costs are allocated.

The process of technology determines to a large extent the way of accounting for the cost of objects, the distribution of costs by type of products, the application of the costing method: the standard-cost method, the method of calculating by phases, the method of calculating orders, etc. [6].

The Russian economist Cuznețov B., considering the specifics of editorial activity, proposes the following composition of costing articles:

1. the author's honorary for the object of creation;
2. the author's honorary for graphic works;
3. the value of the paper, cardboard and cover;
4. printing costs;
5. drafting costs;
6. general production costs;
7. distribution costs [7].

Based on the cost and trade margin, the price of an issue is determined, which makes it possible to calculate the profitability of the issue. The higher the print run, the lower the cost and the profitability of the publication, and vice versa. The above mentioned author presents special formulas for calculating the profitability indicator.

In literature, it is argued and recommended to apply modern costing methods, as for example ABC and ABM [9], standard-cost [10]. These methods can be applied in any manufacturing branch, including editorial activity.

The organization of financial accounting to some extent also depends on tax regulations. There are some tax exemptions in the editorial field and when the operations of this activity are subject to taxation, the respective amounts have to be calculated and reflected in the accounting according to known methodology [11, 2].

### Research methodology

The research on the subject was carried out on the basis of the Law of the Republic of Moldova on the editorial activity, specialized literature, related to the economy and organization of the editorial activity, the accounting regulations in the domestic entities. The practice of the largest publishing houses in the republic – the Central Printing House and the Polygraph Combination in Chisinau was also examined. To determine the most cost-effective method of costing editorial products, advanced costing methods applied in international practice were analysed.

### Results obtained

1. Editorial activity is an important informational element in ensuring the development of society. The object of this activity is the intellectual product. The editorial process has its own specifics and consists of the following elements: planning of writing, working with the author and the manuscript; preparing the edition for the polygraph process; placing the order in polygraph; control and receipt of circulation; achievement of finite editorial production.

The organizational structure of the publishing house is not stable because it is influenced by both internal and external factors, for example change in the editorial policy or editing market juncture. The results of publishing activity are influenced by the volume of editorial products, publishing specialization, technical level and qualification of employees. Editorial policy should be directed not only to obtain quantitative indicators, but it is also important that it also takes into account the quality of editorial products. A major role in this context belongs to marketing, but also to accounting service.

2. At the base of the editorial publications is the intellectual property, which is offered to the publisher by the author. The publisher may obtain the right to intellectual property objects, which is more rational than creating them. However, the transfer of rights to intellectual property objects is made against payment. Under the terms of the contract, the user pays charges or fees throughout the use of the intellectual property right. The fee can be determined as a percentage of the overall profit, cost, sale price or other activity indicators in which the right is used. In the accounting, this operation is recorded as follows:

- Debit 714 “Other operating expenses”
- Credit 5242 “Operating lease liabilities”.

3. Editorial and typographic entities often at the end of month attest both finite production and production under execution. In this context, it was argued that the simpler and more rational method is the accounting method using only the account 811 “Basic activities”, which allows the determination of two indicators: finished products and production in progress (see table 1).

In the contract, the paper waste standard must also be provided insofar as over-use can be allowed. The norm depends on the width of the bobbin, the length of the paper cut, its hardness and the print.

Work-in-process at the end of the period is determined by the following formula:

$$\text{Ending WIP} = \text{Beginning WIP} + \text{Ca} - \text{FPC} - \text{RPC} - \text{WC}$$

The cost of finished production, rebate production and waste is determined on the basis of the documents justifying their quantity and value.

*Table 1*

### Scheme of applying the 811 “Basic activities” account

Indicators	Data of account 811
Beginning WIP – work-in-progress at the beginning of year	Account debit – initial balance
Ca – Costs accrued during the registration period	Account debit – registered turnover costs
Ending WIP – ending work in progress	Account debit – final balance
FPC – finished production costs	Account credit – the actual cost of manufactured (qualitative) products
RPC – rebuffed production cost	Account credit – the cost of defective products
WC – waste cost	Account credit – the cost of waste resulting from the use of paper

4. In the cost of editions, the weight of material costs, of which the paper belongs, is significant. The Publishing house may reflect the costs of purchasing the paper directly on Account 811 “Basic Activities”, if the printing house in the papers presented to it indicates the consumption of paper together with printing, photo printing and other services.

*Example.* The publishing house to print a newspaper uses the paper of the printing house. For each issue of the newspaper, the documents are drawn up, indicating the quantity of paper used, the value of printing services and photo-printing.

**Table 2**

**Calculation of value due to printing**

<b>Works' specification</b>	<b>Measure unit</b>	<b>Quantity</b>	<b>Price, MDL</b>	<b>Sum, MDL</b>	<b>VAT, MDL</b>	<b>Total, including VAT, MDL</b>
Paper	kg	2 520	1,5	3 780,00	756,00	4 536,00
Printing	lei/ex	4 000	0,8	3 200,00	640,00	3 840,00
Photo printing	lei/un	20 000	0,1	2 000,00	400,00	2 400,00
<b>Total</b>				<b>8 980,00</b>	<b>1 796,00</b>	<b>10 776,00</b>

In bookkeeping, the following records will be made on the basis of these data:

- 1) To the amount due to the printing service:
  - Debit 8111 "Paper used" – 4536,00 MDL
  - Debit 8112 "Printing services" – 3840,00 MDL
  - Debit 8113 "Photo printing" – 2400,00 MDL
  - Credit 5211 "Trade debts in the country" – 10776,00 MDL
- 2) To the amount of VAT recovery:
  - Debit 5344 "Value-added tax liabilities" – 1796,00 MDL
  - Credit 5211 "Commercial debts in the country" – 1796,00 MDL
- 3) Debt settlement:
  - Debit 5211 "Commercial debts in the country" – 10776,00 MDL
  - Credit 242 "Current accounts at banks" – 10776,00 MDL

Buying paper from printing is not always economically convenient, so sometimes the entity is given the priority to purchase the paper. In this case, between the publishing house and the printing house operations with raw material given in custody are created. Their specificity lies in the fact that the lecturer preserves his right of ownership not only on the production produced but also on the paper handed over to custody. And the printing company performs the necessary raw material processing services and then sends the finished products to the customer.

5. Settlements with the author (the client) also depend on the stipulations that take place in the contract: if literary writing is required, if the author (the client) finances and realizes the edition etc. If the works are paid in full by the beneficiary, he pays an advance at the beginning of the works, and at the end of the works he pays the full amount due, after which he receives the production. In this case, the publishing house does not bear the realization costs, as the beneficiary will make its own production. Some publishers (especially while editing books) finance all the work, including the production. Distribution costs are then incurred which are not included in the cost of the issue but are transferred to the expense of the period (debit account 712 "Distribution expenses"). The publisher, under the contract, undertakes to pay the honorary to the author, as part of the circulation, amounts included in the cost of the issue. The actual cost of the publishing house may also include the cost of technical editing and layout, the payment of the painter's services and the cost of directing.

6. The cost of each edition, executed under the contract, can be determined on the basis of the "order" method, summing up all the costs accumulated on items and on the whole by order. By dividing the total cost by the number of units (number of copies printed), the cost of a unit (books), manufactured and realized, is determined. There are cases when the publishing house performs publications for its own purposes (newspaper, various advertising materials, etc.). Then cost accounting is no different from the case when orders are made, except for the lack of selling costs. Settlement of own finished output shall be reflected in the debit of account 713 "Administrative Expenses" and the credit of account 216 "Finished Products" or 211 "Materials" at their actual cost.

Investigations have shown that the technological process of editorial activity, the existence of strict rules at all stages, allows the application of the "standard-cost" method or ABC.

7. When applying VAT to editorial entities, it is necessary to take into account that according to the Fiscal Code of the Republic of Moldova, art.103, p.20 "the publishing of books and periodicals, except those that have the character of advertising and services related to the production of books and periodicals are exempted from VAT payment"[10].

Therefore, the VAT amount for the materials and services used to produce VAT-exempt deliveries is not charged to VAT Example. The publishing house used paper for editing books worth 25 000 MDL, the VAT amount – 5 000 MDL. The following records will be recorded in bookkeeping:

- 1) For the value of used materials:
  - Debit 811 “Basic activities” – 25 000 MDL
  - Credit 211 “Materials” – 25 000 MDL
- 2) For the value of VAT related to used paper:
  - Debit 713 “Administrative costs”, sub account 7134 “Costs with taxes and fees” – 5000 MDL
  - Credit 2321 “Preliminary claims on budget settlements” – 5000 MDL.

Thus, the amount of the VAT that is transferred on the account is determined by the monthly editorial entities by applying the conventional rate of payment or the prepayment of the VAT amount of the purchased materials and services, which are used for VAT-deductible supplies. Also, VAT amounts for materials used in out-of-date VAT-exempt production, which is settled, will be transferred on account.

### **Conclusions**

Editorial activity is a significant value for the information system of society, which confirms the adoption of a special law in the field, while editorial entities use intellectual property and must be governed by intellectual property law.

An important instrument of the management of any entity is accounting, which should be organized not only on the basis of general normative acts (accounting standards, the chart of accounts), but also by analysing the factors that influence it. This allows, on the one hand, the application of an advanced accounting methodology in the given field, as well as a rigorous control of the economic operations, which contributes to obtaining and presenting the necessary information for the decision making.

In this context, following the investigation, two groups of factors influencing the accounting for the editorial entities – external and internal were delimited. The external factors are attributed to the legislation and normalization, which determines the applied accounting model, respectively, the methodology of the accounting records, synthesizing the accumulated information and presenting it in the financial statements. All relations with third parties are concretized in contracts (with suppliers, beneficiaries, employees), the conditions of which greatly influence the methodology of accounting records. In particular, the terms of the contract with the authors must be mentioned, which is not only legal, but also the formation of the cost of the issues, their price and the type of settlements made.

The most important internal factors are: the organizational structure, the technological process of the editorial activity, the circulation of the edition, the specialization of the publishing house. In particular, it is important for accounting, if there are two structures in the editorial entity – the publishing house and the printing house. In this case, there is a need for separate cost accounting on these subdivisions (ABC) and then the cost calculation for each order.

In the case of periodicals, the editorial staff only performs the works of the “prepress” stage, and the printing services are executed by a contract printing entity. Thus, the technological process, based on well-defined stages and operations, allows normalizing the goods used and the services received. This provides the possibility to apply at the editorial entities an advanced cost-control and cost analysis method. The effective cost and profitability of editions depend to a large extent on their circulation, which must be determined objectively in the planning process. Finally, when calculating VAT and drawing up the VAT return, there will be considered editions that are imposed and which are exempt from VAT.

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## COMPARATIVE ASSESSMENTS OF RECOGNITION OF TANGIBLE ASSETS ACCORDING TO NAS AND IFRS

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*The recognition of tangible assets is a mandatory phase of the accounting cycle for each entity. The accuracy of recognition will subsequently result in the way, how the depreciation will be calculated, in the subsequent valuation, in the depreciation and the de-recognition of the tangible asset. The way of recognition differs depending on the category of property and its entrance source (by acquisition, self-creation, received in exchange, as form of contribution to the corporate capital, free of charge, from economic management, etc.). This article describes how to recognize the tangible assets under NAS, IAS, and the European directives, taking into account the views of domestic and foreign scholars.*

**Key words:** *tangible assets, recognition, fixed assets, plots of land, materiality.*

**JEL:** M-41

### **Introduction**

Any entity that aims to carry on its operations sooner or later is found in the position of recognizing tangible assets. Recognition of tangible assets is the first stage an entity faces, when it wishes to expand its assets.

The purpose of this investigation involves setting the following research objectives:

- elucidation of the way of recognizing the tangible assets in accordance with the provisions of the national, international standards and the European directives, taking into account the opinions of the local and foreign scholars;
- identification of the ways of recognition according to the source of entrance of tangible assets;
- formulation of recommendations on the resolution of problems related to the recognition of tangible assets in accordance with advanced international practices.

The documents governing the recognition of tangible assets are:

- National Accounting Standard (NAS) “Intangible and tangible assets” [15];
- International Accounting Standard (IAS) 16 “Property, Plant and Equipment” [9];
- International Financial Reporting Standard (IFRS) 6 “Exploration for and Evaluation of Mineral Resources” [10];
- The general conceptual framework for financial reporting [1];
- Directive 2013/34 / EU of the European Parliament and of the Council of 26 June 2013 (hereinafter – Directive 2013/34 / EU) [5].

At the same time, the national regulations were used, such as: NAS “Accounting Policies, Changes in Accounting Estimates, Errors and Subsequent Events” [16], Accounting Law [11], Fiscal Code [2], as well as of Romania. The problems of recognition of tangible assets are not sufficiently investigated in the national specialty literature. In this context, the works of scholars from abroad is of great interest.

The comparative method has been used in this research, and the arguments justifying the use of the above-mentioned method is that it allows the identification of the similarities, but also of the differences between the national regulations and the European directives or the IFRS. The method of document analysis has also been involved, as the analysis of the bibliographic sources used, the comparative studies and the interpretations of the specialists from the national and international literature allow for a content analysis of the issues addressed.

### **Problems and discussions**

The composition of tangible assets is different depending on the standard approached. NAS, IAS and Directive 2013/34 / EU list the following groups for the classification of tangible assets:

NAS “Intangible and tangible assets” [15, point 4]	IAS 16 “Property, Plant and Equipment” [9, par. 37]	Directive 2013/34/EU [5, Annex IV]
<ul style="list-style-type: none"> <li>• fixed assets</li> <li>• plots of land</li> <li>• fixed tangible assets in operation</li> <li>• mineral resources</li> </ul>	<ul style="list-style-type: none"> <li>• plots of land</li> <li>• land and buildings</li> <li>• machinery and equipment</li> <li>• ships</li> <li>• aircraft</li> <li>• automobiles</li> <li>• furniture, installations, spare and assembly parts</li> <li>• office equipment</li> <li>• productive plants</li> </ul>	<ul style="list-style-type: none"> <li>• land and buildings</li> <li>• technical installations and machinery</li> <li>• other installations, machinery and furniture</li> <li>• advances and tangible fixed assets in operation</li> </ul>

Comparing with the IAS and Directive 2013/34 / EU, we can see that the compoence of tangible assets, according to NAS, does not include productive plants and advances, but mineral resources are found. The concept of fixed assets is also broader in NAS and includes buildings, machinery and equipment, ships, aircraft, automobiles etc., which are grouped separately in IAS.

The initial recognition of fixed assets is carried out on the registered objects, the nomenclature of which is established by the entity itself (for example, if a complex asset comprises several components, the entity may account for that asset as a single item of registration or each component as a distinct object) [15, par.5].

The object is recognized as an asset only if the following conditions are met simultaneously:

- 1) the object is identifiable and controllable by the entity;
- 2) its properties and particulars correspond to the definition of intangible or tangible assets;
- 3) it is probable that the entity will obtain future economic benefits from the use of the item; and
- 4) the cost of the object can be reliably assessed [15, par.5].

According to IAS 16 the cost of an item of the tangible assets should be recognized as an asset only if:

- (a) the generation of future economic benefits related to the item of the entity is probable; and
- (b) the cost of the item can be reliably measured [9, par. 7].

At the same time, this standard states that items such as spare parts, safety and service equipment will be recognized as tangible assets only, when they are consistent with the definition of tangible assets [9, par.8].

The recognition of tangible assets under the Conceptual Financial Reporting Framework is described exactly as in IAS 16. At the same time, it is indicated in the Framework that an asset is not recognized in the balance sheet, when the expense incurred is unlikely to generate economic benefits to the entity beyond the current accounting period. Instead, such a transaction will have the effect of recognition of the expense in the income statement. This treatment does neither mean that the management's intention of the purpose, for which the expenses were incurred, was other than obtaining an economic benefit for the entity, nor that the management was inadequate. The only implication is that the possibility of obtaining economic benefits in a subsequent accounting period is insufficient to justify the recognition of an asset [1, par. 4.45].

Directive 2013/34 / EU recommends that, in order to ensure comparability and equivalence of the reported information, the recognition and evaluation principles should include business continuity, prudence and accrual accounting [5, par. 16].

Recognition, measurement, disclosure, presentation and consolidation of financial statements should be governed by the materiality principle. According to this principle, the information considered insignificant may, for example, be aggregated in the financial statements. However, even if a single element could be considered insignificant, insignificant elements of a similar nature could be considered significant as a whole [5, par.17].

Going back to NAS, if land and mineral resources do not need a materiality threshold to be recognized as tangible assets, then for the recognition of fixed assets, their unitary value must exceed the value threshold provided for by the tax legislation or the materiality threshold established by the entity in its accounting policies. Otherwise, they are recognized as stocks.

NAS “Accounting Policies, Changes in Accounting Estimates, Errors and Subsequent Events” defines materiality as the entity's pre-determined criterion for determining the need to present or correct the information in their financial statements, taking into account the possibility of such disclosures or corrections to influence the economic decisions of users [16, par. 4].

According to the Accounting Law, the materiality threshold is a qualitative and quantitative characteristic of the accounting information, the omission or distortion of which influences the economic decisions made by the users on the basis of the information presented [11, par. 3].

Based on the above notions, the materiality threshold is a unit of measure more relative than absolute, and everything depends primarily on the size of the entity. Thus, if for a small entity an inventory object or a machine (computer, lathes) can have a significant value, then the entity may lower the materiality threshold for the recognition of the tangible asset in order for the above-mentioned objects to be recognized as fixed assets. Another situation may exist in a large entity for which a computer or a piece of furniture is less expensive in comparison with other fixed assets held. Respectively, this may increase the materiality threshold, and in this way it will have fewer assets for which to subsequently calculate depreciation, the subsequent valuation and devaluation.

From the taxation point of view, at the moment we calculate the wear-and-tear (tax depreciation) for the material property, reflected in the taxpayer's balance sheet in accordance with the law and used in the entrepreneurial activity, the value of which decreases presumably as a result of physical and moral wear-and-tear and the exploitation period of which exceeds one year and the value of which exceeds MDL 6000 [2, par. 26]. From the above, we deduce that the value threshold provided by the tax legislation for the recognition of an item as a fixed asset is MDL 6000.

This situation was also described by the national scholars, according to which NAS offers the entity the possibility to establish for the purpose of delimiting the fixed assets and small-value short-term objects (SVSTO) a materiality threshold, other than the value threshold stipulated by the tax legislation. From the practical point of view, it is reasonable to examine the following three situations:

- 1) no materiality threshold for the attribution of accounting objects to fixed assets or SVSTO are set in the entity's accounting policies. In such a case, the entity shall apply the value threshold provided for by the tax legislation;
- 2) in order to establish the list of fixed asset objects, the entity according to its accounting policies has decided to apply a materiality threshold equal to zero. This is absolutely similar to the treatment in IAS 16, which does not include the minimum unitary value for the tangible assets. In this case, all tangible items transmitted in service within the entity, intended for use for more than one year in the entity's activity or for rent, regardless of their unitary value, are accounted for as fixed assets;
- 3) for the inclusion of the items of evidence in the fixed assets or SVSTO category, the entity has set a materiality threshold, the magnitude of which differs from zero and the value threshold in the tax legislation. To apply this approach is possible, but less likely, in the practice of indigenous entities [17].

Examining the above-mentioned situations, we can conclude that the formation of the nomenclature of tangible property objects is closely related to the initial assessment, i.e. to the determination of their cost of entry [17].

In the opinion of some Romanian scientists, a corporeal asset should be recognized on the balance sheet, if it is expected to generate economic benefits for the legal entity and the cost of the asset can be reliably measured [4, par. 25]. The Romanian legislation recognizes an asset as tangible, if it is held by an entity to be used in the production or supply of goods or services, to be leased to third parties or to be used for administrative purposes and if it is used for a period of over one year. At the same time, the Romanian government decided to establish the minimum entry value of the fixed assets of 2500 lei (equivalent to MDL 11250). This amount changes regularly and is almost double as compared to the tax provisions of the Republic of Moldova.

Another important element of tangible assets is land. Land is a tangible fixed asset in the form of plots of land (land), the title to property of which is owned by the entity or it has been received as financial rent (financial leasing) to be used in the entity's business [15, par. 4]. The land includes the following categories: the plots of land under preparation for the pre-established use, land without constructions, land with constructions, lands with mineral deposits, lands with perennial plantations, land received for economic management and other plots of land.

The definition and composition of land in Romania as compared to the Republic of Moldova is roughly the same, except the fact that land accounting in Romania is classified in two categories: lands and landscaping [13, p. 193].

Landscaping is the administration cost of some plots of land, lakes and ponds such as the works of access (roads), connections to energy sources, dams, fences, etc. [7, p.39]. These investments related to the administration of lands, lakes and ponds are subjects to depreciation, even if the land is not subject to depreciation [6, p. 9].

We believe that the accounting legislation of the Republic of Moldova should take over this experience, at least in the case of connections to energy sources, dams, fences, lakes and ponds. All of these objects should be recognized as tangible assets, the depreciation of which is to be calculated, with further

repair works to be calculated and revalued. A lake like any other fixed asset (automobile or equipment) loses its properties with the time going and should accordingly be treated like all the other fixed assets.

The mineral resources are recognized as fixed assets after the completion of exploration works, if:

- 1) the properties of the disposed resources correspond to the definition of fixed assets;
- 2) the volume of the scrapped resources is identifiable, controllable, and the technical feasibility and commercial viability of which have been demonstrated;
- 3) the cost of resources can be reliably determined [15, par. 68].

IFRS 6 “Exploration for and Evaluation of Mineral Resources” does not offer any proper explanations as to the ways of recognition of these mineral resources, but states that an entity should set out an accounting policy, specifying which expenditures are recognized as exploration and evaluation assets, and should apply that policy consistently. In order to make this determination, an entity should take into account the extent to which the expense can be associated with the discovery of the specific mineral resources [10, par. 9].

The particulars of the recognition of tangible assets are different depending on the method of entrance: by acquisition, by creation within the entity, received in exchange, in the form of contribution to the registered capital, free of charge, for economic management etc.

Entrance by acquisition is the most frequent way of entering of tangible assets into the company. Purchases can be made from internal or external suppliers, and the tangible assets may or may not require erection and putting in operation. Depending on these elements, but not only, the accounting methodology for the entry of tangible assets is customized [18, p.11]. If costs are not required for the preparation of the fixed assets for use by destination and when the date of entry of the respective objects coincides with the date of starting the use, the cost of entry of such items is accounted for as a simultaneous increase of current assets and current liabilities [15, paragraph 9].

When the purchased tangible assets require additional expenses, such as transportation costs, installation costs and others, they are included in the cost of entrance of these assets as an increase in the current assets, together with the increase in the current liabilities and/or the decrease of the assets used for preparing the assets for exploitation. The additional expenses may be carried out on its own account or by other entities.

The transmission of those items into exploitation is recorded as an increase in the fixed assets in use and the decrease in the current assets [15, par.8]. The purchased assets, the value of which is expressed in a foreign currency, are valued in the national currency by recalculating the foreign currency. The differences in the exchange rate or in the amount that occur after the object recognition do not affect its cost [15, p. 10].

The self-creation of a tangible asset can occur in two ways: created by the entity (in its own direction) and by entrepreneurship. NAS describes only the creation of proprietary assets. The cost of entrance of the fixed assets (developed, constructed) created by the entity under its own control is evaluated at the actual cost that includes: the project cost, the value of consumables, the personnel costs, the social insurance contributions and the related healthcare premiums, the indirect costs of production and so on [15, par. 10].

According to the Romanian scholars, the creation of tangible fixed assets by entrepreneurship is the main way of creating tangible assets, especially of complex assets. Several construction and assembly companies participate in the execution of the works, one of which fulfills the role of general contractor and the others of the subcontractors [18, p. 15].

According to NAS the assets can be received in exchange for other non-monetary assets or as a combination of monetary and non-monetary assets. Such transactions are treated as two operations: the alienation of the transferred asset and the purchase of the asset received in return [15, par. 12].

The Romanians scholars give more examples concerning the entry by asset exchange. In their view, if we consider the cost at which an asset, acquired by asset exchange, can be valued, taking into account their fair values and their book values, the following accounting events arise:

1. The exchange of tangible assets at their fair value and at equal book values;
2. The exchange of tangible assets at their fair values and at different book values;
3. The exchange of tangible assets with different fair values and different book values;
4. The exchange of tangible assets, when the received tangible asset cannot be measured at its fair value [18, p. 21].

The assets received as contribution to the registered capital are valued in accordance with the legislation in force, at the amount approved by the decision of the authorized body to manage the entity, supplemented, where necessary, with directly attributable costs [15, par. 13]. The same procedure exists also in Romania, but according to the legislation of the country.

The assets received free of charge (as a donation) are evaluated according to the data from the primary entry documents, supplemented in the necessary cases by directly attributable costs. If the value of the object

received is not indicated in the primary entry documents, then the cost of entry is determined by independent expertise [15, par. 13].

According to the Romanian scholars for the fixed tangible assets, which enter the institution as donations, sponsorships or free of charge, it is used the fair value, which is determined on the basis of the assessments made by the authorized evaluators [3, p. 49].

They also describe another type of entry, in particular the entry from investment endowments. This category of operations include the inflows of tangible assets funded from government grants for investment and from non-reimbursable loans in form of investments, the entry of tangible assets through donation and those recorded as an excess to the inventory, as well as the inflows of tangible assets funded from other amounts received as investment subsidies [18, p. 17].

The entry of tangible assets into economic management in the case of receipt of assets from other entities (founders, public administration bodies) for temporary use is accounted for as a simultaneous increase of assets and liabilities [14, par. 65]. This topic has also been referred to by our scholars, who state that the entities can receive goods in economic management for an indefinite period based on the decision of the respective public authority (the founder), on the invoice and, as the case may be, on the basis of the reception protocol of the above assets. These goods are recorded as assets in the entity's balance sheet, but do not become the equity of the entity. The entity calculates the depreciation of the aforesaid assets for both accounting and tax purposes [12].

The possibility of entry of tangible assets as a surplus in inventory was omitted in the new NAS, but this does not mean that such cases cannot exist. In our opinion, these fixed assets should be measured at their fair value. If the fixed assets, identified as surpluses to the inventory, are not functional and cannot be used in the entity's activity, they must be accounted for as materials (scrap, other materials). In the case of land and mineral resources, they must be recognized only as tangible assets.

### **Conclusions**

The recognition of tangible assets is a mandatory phase of the accounting cycle for any entity, since the way in which it will be carried out depends subsequently on how the devaluation, subsequent evaluation, subsequent depreciation and de-recognition of the tangible assets will be calculated. The recognition, evaluation, description, disclosure and consolidation of financial statements shall be governed by the materiality principle.

In order for the objects entering the entity to be recognized as fixed assets, their unitary value must exceed the value threshold provided by tax legislation or the materiality threshold established by the entity in its accounting policies. We recommend each entity to determine the materiality threshold for the recognition of fixed assets depending on the size of the entity and on the number of fixed assets the entity holds in its assets. Thus, large entities holding more fixed assets will have to determine a higher materiality threshold, therefore they will have less workload, because they will calculate the depreciation and the wear-and-tear for fewer elements.

For small entities, we recommend determining a lower materiality threshold, thus they will increase the number of fixed assets in the equity and will have a higher degree of solidity, especially when contracting loans from banking institutions for which the number and amount of fixed assets held by the entity is important.

For land recognition, landscaping is included in the cost of land. In the accounting practices of Romania, landscaping is recognized as a distinct item and is depreciated separately, even if the land is not subject to depreciation.

This experience should be taken over by the regulatory accounting system of the Republic of Moldova. As a result, landscaping should be recognized as tangible fixed assets, to be depreciated, with further subject to repair works, and to be revalued. According to the NAS, the way of entrance of the object is: by purchasing, by self-creation, in the form of contribution to the registered capital, free of charge, in economic management, etc. Respectively, there are no explanations on the way in which entries are recorded as a surplus in the inventory, and the exchange of tangible assets is not described thoroughly, as stated by the Romanian scholars. In our opinion, the NAS should be supplemented with provisions on the recognition of tangible assets, according to their source of entry.

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## **ACCOUNTING AND TAXATION PARTICULARITIES OF BUILDING CONSTRUCTION UNDER A SIMPLE PARTNERSHIP AGREEMENT**

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*Integration of the Republic of Moldova into the European Economic Area makes the need for harmonization of accounting with the European Directives and IFRS. The present article includes the knowledge of the particularities in the sector of accounting and taxation of building construction under a simple partnership agreement and obtaining practical skills related to solving the specific problems of the respective branch. Previous research carried out in this field by native scientists refers only to some elements and cannot serve as a basis for the modernization of the accounting of the sector nominated under the conditions of the implementation of IFRS in the Republic of Moldova in 2014. In the sector of evidence nominated are formed a series of financial indicators that serve as a basis for key aspects: the main procedures of formatting and approval of a simple partnership agreement; accounting particularities and documentation of simple partnership activities; tax liabilities arising from the activities of a simple partnership; disclosure in the financial statements of simple partnerships.*

**Key words.** *Related parties, related party disclosures, joint arrangements, partners, key management personnel, simple partnership agreement, common property, joint assets, construction contracts.*

**JEL:** M41

### **Introduction**

To achieve the set goals more and more often builders combine efforts and means, carrying out joint activities without the formation of a legal entity, by creating a related parties.

The purpose of this article is to disclose current issues and problems arising in the formatting of a simple partnership agreement, of separate accounting and taxation of operations in the related activity of a simple partnership in the practice of the Republic of Moldova.

**Review of bibliographic sources.** Basic normative acts regulating activity of a simple partnership in the Republic of Moldova are:

- **Accounting law** of the Republic of Moldova;

- **National accounting standard** “Affiliated parties and contracts of simple partnership”;
- **IFRS 11** “Joint Arrangements”;
- **IAS 24** “Related Party Disclosures”;
- **Civil Code** of the Republic of Moldova;
- **Tax Code** of the Republic of Moldova.

**Research methodology.** Research methods include general and specific approaches concepts, classifications, recognitions, evaluations, documentation, reflection in accounting registers and financial statements. Will be used dialectical method of knowledge of matter, phenomena and processes with its components – analysis, synthesis, observation, selection, grouping, etc.

*The main procedures of formatting and approval of a simple partnership agreement.*

Civil Code of the Republic of Moldova in the chapter XXVIII, articles 1339-1354, considers as a simple partnership agreement contracts of joint arrangements without forming a legal entity. In accordance with the article 1339 of the Civil Code of the Republic of Moldova, under a *simple partnership agreement* joint control involves the contractually agreed sharing of control and arrangements subject to joint control are classified as either *a joint venture or a joint operation* [6, art. 1339]. Joint venture representing a share of net assets and equity accounted. In practice, builders are creating a simple partnership in order to consolidate contributions for completion of construction and joint operation representing rights to assets received as a result of construction, accounted for accordingly. At the conclusion of *partnership agreement* it should primary contain:

1. Name and location of contractors (related parties);
2. The exact values of the contributions of each participant (related parties);
3. Rights and responsibilities of each partner [6, art. 1343, 1344, 1347-1353];
4. The procedure for the creation of key management and their functions [6, art. 1345];
5. Distribution of a venture or a operation between partners [6, art. 1346];
6. A process of elimination of one or more partners [6, art. 1352];
7. The period for which the partnership is created;
8. Procedure of the termination of a simple partnership [6, art. 1352-1354].

Participants must make contractual contributions but if the sizes of contributions are not stipulated for each participant separately in the agreement, the contributions should be the same in size.

*Accounting features and documentation of simple partnership activities.*

A large role in accounting of simple partnership is assigned to accounting judgment, and, of course, to the accounting policies of partners. It is advisable that the annexes to the accounting policies set out the principles of assessing and recognizing assets, income, expenses and financial results (profit / loss) in proportion to the contributions of participation of a simple partnership, unless otherwise provided by the agreement.

In accordance with the article 18 of the NAS “Affiliated parties and contracts of simple partnership”, the accounting of a simple partnership depends on the nature of the transactions performed: *with joint assets or without joint assets* [2, art. 18].

Accounting for transactions *without joint assets* is conducted separately by each of the participants in a simple partnership agreement, in separate analytical sub-accounts, reflecting related expenses, incomes, accounts receivable and liabilities in accordance with accounting standards and other regulatory accounting acts. Accounting for transactions *with joint assets* is conducted by the participant key manager, who is responsible for the fulfillment of tax obligations on these transactions.

The concept of “*common property*” in joint arrangements is conditional and acts on the period of implementation of such activities [6, art. 1342], can be transmitted money, materials, low-value wear items, equipment, intangible assets (specifications, projects, programs and so forth). For the period of the agreement under a simple partnership, the participants (partners) jointly dispose of the property: the party that received the thing from another partner, disposes of it strictly under the terms of the contract – uses it in the management, production process.

In practice, there are two methods for accounting for transmitted assets from a partner who transfers them. One method is when assets are accounted for on previous balance accounts, but on special sub-accounts. Another approach is that the transmitted thing is regarded as a financial investment and then it is transferred to the account of financial investments.

The situation when two enterprises signed a simple partnership agreement, where one side transmitted assets to the other partner for their consumption during the construction of the building, will be described in the following example.

**Example.** *Commercial enterprise A – supplier of building materials, and enterprise B – builder, signed a simple partnership agreement without joint assets, to complete the construction of the residential*

building, parking spaces and with the purpose of distributing the shares of the completed asset among the participants in accordance with the contract:

- enterprise **A** contributes with the construction materials, the purchase of elevators to complete the construction of two floors of a residential building, as well as the arrangement of parking spaces intended for commercial premises;
- enterprise **B** is the owner of the unfinished building, organizes construction work, carries all costs associated with finishing work (materials, wages, maintenance costs, etc.).

Distribution of a operation between partners **A** and **B** after commissioning is following:

- enterprise **A** benefits ownership of 200 m2 of commercial building space and parking spaces;
- enterprise **B** benefits ownership of all other objects of the completed construction.

According to the contract of a simple partnership agreement, company **B** is appointed as a participant key manager. As it was said, a simple partnership agreement without joint assets, suppose that accounting is conducted separately by each of the participants, consider the main accounting records that can be reflected in the accounting as follows:

#### **Enterprise A**

	Contents of the business transaction Enterprises A	Accounting records [6]		The amount, MDL
		DEBIT	CREDIT	
	On the cost of transferred construction materials to enterprise <b>B</b> , according to estimates	211.10	211.1	6 000 000
	The cost of the materials used in the construction of the building, in the presence of a report from the partner to whom they were transferred (according to the calculations and production technologies approved by the parties)	142.2	211.10	6 000 000
	Reflection of asset benefits and the transfer of ownership of the objects from the enterprise <b>B</b> specified in the contract of simple partnership	121 151 217	142.2	5 800 000
	Reflecting the difference in the value of assets and financial investments	722	142.2	200 000

#### **Enterprise B**

	Contents of the business transaction Enterprises B	Accounting records [6]		The amount, MDL
		DEBIT	CREDIT	
	On the cost of received construction materials from enterprise <b>A</b>	211.10	422.1	6 000 000
	The cost of the materials received from the enterprise <b>A</b> and used for the construction of the building (according to the calculations and production technologies approved by the parties)	811	211.10	6 000 000
	Reflection of asset benefits transferred to enterprise <b>A</b> , to the objects specified in the contract of a simple partnership	422.1	216	5 800 000
	Reflecting the difference between the value of assets and liabilities to affiliated parties	422.1	622	200 000

*Tax liabilities arising from the activities of a simple partnership. The following main:*

##### *1. Specifics of VAT reflecting in a simple partnership agreement.*

Accounting for transactions without joint assets is carried out separately by each of the participants in the simple partnership agreement; each participant is responsible for the fulfillment of tax obligations under these operations.

In our example, an enterprise **A** that transfers its assets to a partner **B** for the purpose indicated in the simple partnership agreement does not transfer the ownership right to them and therefore the transfer of such

assets is not considered a delivery under the Tax Code, and is not subject to VAT, and is documented by a strict accountability form – a invoice (delivery note), in accordance with the Information message of the Ministry of Finance of the Republic of Moldova no. 26 from 28.03.2008 [8].

The use of these assets by enterprise **B** does not lead to the need to reverse the previously recognized VAT from enterprise **A**, since the asset is used in entrepreneurial activities. But it should be noted that the ultimate goal of the enterprises is the completion of the construction of an apartment house, with an adjacent commercial area. According to article 103 of the Tax Code, the alienation of housing stock, is an exempt supply, VAT is not accepted for offset, but relates to costs or expenses [7, art. 103].

As a consequence, the problem arises of dividing the contribution of participant **A**, depending on the direction of use of tangible assets for taxable, non-taxable or mixed supplies, and the reflection of the VAT in the accounts of enterprise **A**.

Due to the fact that the taxation procedure in such cases is not regulated to the end, the enterprises are obliged to secure themselves and to register with a high accuracy a clear calculation and name of the values, services transferred by the enterprise **A** and the direction of their use - taxable, non-taxable, mixed supplies.

### *2. Particularities of reflection and payment of real estate tax.*

According to article 277 of the Tax Code, the subjects of taxation are the owners of real estate, enterprise **B**, therefore, until the object is put into operation and ownership is transferred to the partner by the simple partnership agreement, the enterprise **B** will calculate the real estate tax based on the value, as of January 1, if it is not assessed by the territorial cadastral authorities, 50% or more are under construction and their construction is not completed after evaluation by the territorial, cadastral authorities, based on the estimated value multiplied by the specific tax rate [7, art. 277].

### *3. Is it income considered the asset received as a benefit of simple partnership agreement?*

It should be noted that the purpose of joint activities in this example is not the receipt of income or profit from the sale of goods, products, services, but the receipt of assets. That is, the partners sent their joint efforts to fulfillment of the asset (through the production, construction). As a result, through joint activities, there was a fulfillment, which is not an income, but an asset. This asset is not his income, but the result pursued in the conclusion of a simple partnership agreement. Enterprise **A** will receive income only at the time of alienation of the asset, which at the time of receiving income from its alienation will become an expense (its value).

Also on this subject in the *Generalized tax practice base of the Republic of Moldova*, there is an **ORDER 28.3.40**, the text of which also refers to the Informational message of the Ministry of Finance of the Republic of Moldova no. 26 from 28.03.2008. This order determines that the division / distribution of the product / fruit of the joint activity arising from the performance of the contract is not considered as a taxable supply [8].

### **Results obtained**

As a result, the following key decisions can be singled out when creating a simple partnership:

- It is advisable to format contracts of a simple partnership in writing and to notarize it.
- A common estimate of works and expenses, which is approved by the participants, the parties should divide for each participant its share of work, other procedures and expenses.
- In addition to the estimate, the contract and its annexes should contain technological schemes of work, their sequence and subordination, timeframe and responsibility of each participant.
- For a simple partnership, it is very important to determine the key management, its credentials and, terms of reference.
- The most important part of the simple partnership agreement is not only the exact designation of the contribution of each participant, but also the distribution of the product / fruit of the joint activity.
- Accounting for transactions without joint assets is carried out separately by each of the participants in a simple partnership agreement, in separate analytical sub-accounts, reflecting related expenses, revenues, receivables and liabilities in accordance with accounting standards and other accounting regulations.
- Any use or transfer of assets from one partner to another partner must be documented, in accordance with the normative acts of the Republic of Moldova.
- It is advisable to transfer tangible assets for the construction of real estate, consider them as a long-term financial investment, for the correct definition of real estate tax arising during the construction phase.
- In the contract of simple partnership clearly delineate, the purpose for which the tangible assets transferred by the partner will be directed to the correct determination of the VAT.
- The order of reflection in the accounting cases where the value of assets is more or less than the cost of financial investments (for expenses / income, compensation for cash / material, etc.).

- Determination of the periodicity of the preparation of the records by the participants of the partnership, which should reflect information on costs, revenues, receivables and liabilities related to controlled transactions without joint assets.

### **Conclusions**

For the credible assessment of the accounting and control of simple partnership agreement associated with construction contracts, it must to meet certain conditions as selection of the valuation basis, the establishment of the accounting model used, fundamental accounting principles must be ascertained. These conditions must be determined in accordance with the contract agreement. Problems solved in this article are not described in the specialty literature at a sufficiently high and accessible level, as well, informing the entities about the process of accounting particularities and documentation of simple partnership activities, tax liabilities arising from the activities of a simple partnership, disclosure in the financial statements of simple partnerships in the given branch is not carried out at an appropriate level. That is why the article elaborates the task of describing in detail the practical approach of the implementation of the new national accounting standards as well as the international norms.

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## **BOOKKEEPING PECULIARITIES OF LOW-VALUE ITEMS AND OF THEIR DEPRECIATION CALCULATION AT PUBLIC CATERING UNDERTAKINGS**

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*The Article considers the bookkeeping aspects related to **Low-Value Items** in terms of:*

- *their recognition and appraisal;*
- *reflecting the economic transactions related to recording in and withdrawal from the balance sheet accounts of low-value items;*
- *calculating and writing-off the depreciation.*

*It is suggested to improve the bookkeeping records, i.e. to streamline deployment of such assets by calculating their full depreciation at the time of their entering into service. This approach is in line with the IASs and IFRS Directives.*

**Key words:** *low-value items, depreciation/wear and tear, public catering, recognition, appraisal, recordkeeping.*

### **Introduction**

According to the Domestic Trade Law (No.231 dated 23.09.2010), **public catering** is an activity carried out by specialized undertakings, which are assigned to different categories depending on the types of services provided to customers [3].

Public catering services are provided in compliance with the requirements set forth by **Government Decision on “Providing Public Catering Services” dated 08.11.2007** and cover preparation, cooking, and delivery of ready-to-serve food and confectioneries, drinks and other products for consumption within specialized undertakings and beyond, as well as associated activity for recreational purposes [9].

#### **Issues and their discussion**

Such services have got certain peculiarities and patterns, which are mirrored in the activities carried out by undertakings, namely production, sale, consumption and leisure-time arrangements. This proves that public catering undertakings combine these three functions, i.e. production, trade and service provision related to eating, within their premises.

Hence, bookkeeping reflects both production and trade processes. This means that public catering undertakings have the opportunity to apply one of the following methods of bookkeeping:

- 1) *trade method* – bookkeeping is similar to the one applied by commercial enterprises;
- 2) *production method* – the costing of finished goods is determined like at production enterprises.

The undertaking is entitled to decide independently which of the aforementioned methods to use as the regulatory framework does not cover such specificities. The only requirement is to state the method used in the enterprise accounting policy [1].

To ensure its activity, a public catering undertaking shall have the appropriate physical infrastructure in place comprising also low-value items.

The low-value items represent one of the main inventory components of any enterprise. Their composition, recognition, evaluation and recordkeeping are regulated by the National Accounting Standard (NAS) “Inventories”, by the provisions of the General Chart of Accounts and by the Guidelines for keeping records on production costs and on costing of products and services (the part on cost estimates of low-value items, manufactured by the entity) and by other regulatory acts [7].

According to par. 6 of NAS “Inventories”, there are two options for assigning the valuables to the category of low-value items; each undertaking shall choose the option individually and reflect it in its accounting policy [5]:

- 1) *low-value items comprise those valuables, which cost per unit falls below the threshold set forth by the legislation; at present, this threshold is laid down by the Tax Code, Art.26 (2) and amounts to 6000 MDL, regardless of their length of service or with the length of service less than one year regardless of their cost per unit [4].*
- 2) *low-value items include those valuables, which cost per unit does not exceed the materiality threshold, set forth by the accounting policy regardless of their length of service or having the length of service less than one year regardless of their cost per unit.*

While choosing this option, the entity shall set the *materiality threshold* in compliance with the NAS “Accounting policy, changes in accounting appraisals, errors and future events” [6]. This *materiality threshold* shall be established by the entity independently in a fixed value (for instance, 2000 MDL, 12000 MDL) or relative value (for instance, 1-2% of the cost of Inventories).

In accounting the low-value items shall be evaluated as per their initial cost, which, in compliance with § 15 of NAS “Inventories” shall include [5]:

- ✓ the purchase (contractual) price (without VAT) of low-value items;
- ✓ expenses related to the receipt of low-value items (for example, transportation and provisioning costs, insurance coverage for shipping, upload and unload costs, commission costs for intermediaries, non-refundable taxes and charges, customs charges, etc.);
- ✓ expenses incurred to shape and deliver the low-value items to the place of their consumption (such costs include direct tangible costs, direct personnel costs, other direct costs for refinement and enhancing the quality and technical features of low-value items).

All transactions with low-value items are subject to registration in primary documents as per the provisions of the Accounting Law and of other regulatory acts. In this case, the entity may use standard primary documents or individually developed forms of primary documents.

Documentary registration of low-value items and their recordkeeping at Restaurant “FRUTUCINO” is done in quantities and values.

The arrival of low-value items from the Supplier at the undertaking premises shall be mirrored using the following bookkeeping entries:

- 1) The purchase price of low-value items (without VAT), i.e. kitchen utensils (stew pans – two units):  
Debit 213, subaccount 2131 “Low-value items in Inventories” – 2000 MDL (1000 MDL \* 2 units);  
Credit 521, subaccount 5211 “Domestic commercial liabilities” – 2000 MDL;

2) The amount of VAT related to kitchen utensils taken into account:

Debit 534, subaccount 5344 "VAT Liabilities" – 400 MDL

Credit 521, subaccount 5211 "Domestic commercial liabilities" – 400 MDL.

The recordkeeping of operations related to the entry of low-value items in service depends on their costs – *not more than and more than 1/6 of the threshold* set forth by the legislation (hereinafter referred to as the *threshold*), i.e. 1000 MDL per unit. In this case the option chosen by the entity for assigning the valuables to low-value items does not matter [7].

***In case of entering into service of low-value items with the cost per unit less than 1/6 of the threshold, their total cost shall be reported to operating expenses – paragraph 51 of NAS "Inventories" [5].*** No depreciation shall be calculated for such items. Nonetheless, for monitoring purposes (how such items are used and preserved), it is necessary to keep operating in-kind records by the places of their use (bar, kitchen, confectionary unit).

The entering into service/operation of low-value items with the price per unit less than 1000 MDL shall be reflected as per the following bookkeeping entries:

1) Book value of stew pans conveyed to the kitchen:

Debit 821 "Indirect production inventories" – 2000 MDL (1000 MDL \* 2 units)

Credit 213, subaccount 2131 "Low-value items in Inventories" – 2000 MDL.

***When entering into service of low-value items with the price per unit exceeding 1/6 of the threshold, they are reported to operating expenses, having calculated/accrued their depreciation.***

According to NAS "Inventories", the depreciation of low-value items shall be calculated [5]:

- mandatorily – for low-value items, which price per unit exceeds 1/6 of the threshold, i.e. 1000 MDL (**par. 52 of NAS "Inventories"**);
- voluntarily (according to the Accounting Policy) – for low-value items, which price per unit does not exceed 1/6 of the threshold (**par. 51 of NAS "Inventories"**).

Depreciation of low-value items shall be accrued in the amount of 50% of the item value, diminished by the sum of the supposed residual value – when the items are entered into service and 50% when such items are withdrawn (written-off) from service (**par. 53 of NAS "Inventories"**) [5].

Transactions related to the accrual of depreciation shall be reflected using the following bookkeeping entries:

1) The sum of accrued depreciation of a mixer entered into service, which value is 3000 MDL (without VAT):

Debit 2141 "Depreciation of low-value items" – 1500 MDL (3000MDL\*50%)

Credit 821 "Indirect production inventories" – 1500 MDL.

Nonetheless, at the beginning of its activity, Restaurant "FRUTUCINO" failed to calculate/accrue depreciation as per NAS due to the following reasons:

1. Large quantity of low-value items were entered simultaneously into service at the restaurant start-up.
2. The list of low-value items in the area of public catering is diverse (furniture, tableware/cookware, equipment, staff work outfit etc.), including low-value items related to the production process.
3. While entering into service of low-value items, the undertaking using the production method to determine the cost of dishes, would increase the share of indirect production costs, and, accordingly, the cost of dishes.

We can analyse the impact of economic transactions on the cost of cooked dishes using the example below.

#### **Example 1.**

*On 10 February 201X, the Restaurant "FRUTUCINO" started its activity and incurred the following costs for its kitchen: tangible costs – 130000 MDL, direct and distributed costs for labour remuneration - 51000MDL, indirect production costs (except for the costs of low-value items)- 170000 MDL. There was no work-in-progress (semi-finished products) inventory.*

*It is known that on 01 February 2017 low-value items with the total value of 450000 MDL were entered into service (of which 50000 MDL – low-value items with the cost per unit less than 1000 MDL and the remaining 400000 MDL – low-value items with the cost per unit over 1000 MDL. All those low-value items were related to the cooking process).*

The example-related bookkeeping entries are displayed in Table 1.

Table 1

**Bookkeeping entries for economic transactions related  
to dish costing process, including the costs of entering into service  
of low-value items during the month of February**

Item	Transaction content	Correspondence of Accounts		Sum, MDL
		Debit	Credit	
1	2	3	4	5
1	Reflecting the amount of used raw materials (foodstuff)	811 "Operating activity"	211 "Materials"	130000
2	Reflecting the amount of staff wages Accrued wages of kitchen staff	811 "Operating activity"	531 "Staff wages liabilities"	40000
3	Accrued amounts of contributions to the Social Insurance Fund and to the Health Insurance Fund	811 "Operating activity"	533 "Social Insurance and Health Insurance liabilities"	11000
4	Reflecting the amount of indirect production costs	821 "Indirect production costs"	521.1 "Domestic commercial liabilities"	170000
5	Entering into service of low-value items with the price per unit less than 1000 MDL (the whole amount shall be reported to operating expenses as the price per unit is less than 1000 MDL)	821 "Indirect production costs"	213.2 "Low-value items in service"	50000
6	Entering into service (in the month of February) of low-value items with the price per unit over 1000 MDL	213.2 "Low-value items in service"	213.1 "Low-value items in Inventories"	400000
7	Calculation of depreciation of low-value items in the proportion of 50% of their value when entering them into service	821 "Indirect production costs"	214 "Depreciation of low-value items"	200000
8	The amount of indirect production costs written-off at the end of the month (170000 + 50000 + 200000)	811 "Operating activity"	821 "Indirect production costs"	420000
9	Reflecting the actual cost of cooked dishes (130000 + 40000 + 11000 + 420000)	216 "Production"	811 "Operating activity"	601000

Based on the aforementioned example one can say that the share of low-value items cost amounted to 41.60 % (250000:601000) of the actual cost of cooked dishes during February.

The situation can be explained by the fact that the whole cost of low-value items with the price per unit less than 1000 MDL was written-off in February, as well as 50% of the initial cost of low-value items with the price per unit over 1000 MDL. This was the case regardless of the fact that those assets would be in service throughout the year, while some of them would be in service for more than one year. This is an infringement of quality patterns – information reliability (**Art. 6 (2) (c) of the Accounting Law No. 113 of 27.04.2007**).

Hence, the use of production method to keep records for low-value items as per NAS "Inventories" at the entity start-up is problematic.

According to our opinion, there is a plausible solution for this case. The costs of low-value items shall be reported to deferred costs and written-off at the end of the month proportionally to the released production. Such costs shall be reflected in the accounting policy.

This would allow distributing proportionally the costs throughout the period of using the low-value items and determining the real cost of dishes.

According to **Example 1** data and in compliance with the decision adopted by the Leadership in terms of low-value items length of service, it was decided to set the length of service of one year for the low-value items with the price per unit less than 1000 MDL, and the length of service of two years for the low-value items with the price per unit over 1000 MDL.

**Table 2**

**Bookkeeping entries for economic transactions related to dish costing process, including the costs of entering low-value items into service during the month of February**

Item	Transaction content	Correspondence of Accounts		Sum, MDL
		Debit	Credit	
1	2	3	4	5
1	Reflecting the amount of used raw materials (foodstuff)	811 "Operating activity"	211 "Materials"	130000
2	Reflecting the amount of staff wages Accrued wages of kitchen staff	811 "Operating activity"	531 "Staff wages liabilities"	40000
3	Accrued amounts of contributions to the Social Insurance Fund and to the Health Insurance Fund	811 "Operating activity"	533 "Social Insurance and Health Insurance liabilities"	11000
4	Reflecting the amount of indirect production costs.	821 "Indirect production costs"	521.1 "Domestic commercial liabilities"	170000
5	Writing-off the costs of low-value items with the price per unit less than 1000 MDL	261 "Deferred current expenses"	213.2 "Low-value items in service"	50000
6	Reporting the costs of low-value items to deferred costs related to the current month 50000: 12 months = 4167 – the cost rate per month	821 "Indirect production costs"	261 "Deferred current expenses"	4167
7	Entering into service of low-value items with the price per unit over 1000 MDL in February	213.2 "Low-value items in service"	213.1 "Low-value items in Inventories"	400000
8	Writing-off the costs to deferred expenses	171 "Deferred long-term expenses"	213.2 "Low-value items in service"	400000
10	Reporting the costs to deferred expenses of the current year (400000 : 24 months * 12 months = 200000)	261 "Deferred current expenses"	171 "Deferred long-term expenses"	200000
11	Reporting low-value items to costs for February (200000 : 12 months = 16667 )	821 "Indirect production costs"	261 "Deferred current expenses"	16667
12	The indirect production costs written-off at the end of the month (170000 + 4167 + 16667)	811 "Operating activity"	821 "Indirect production costs"	190834
13	The real cost of outputs has been reflected (130000 + 40000 + 11000 + 190834)	216 "Production"	811 "Operating activity"	371834

**Conclusions**

The detailed analysis of low-value items enabled the Author to reveal that when entering low-value items into service, their cost write-off or accrual of depreciation shall not be reported to indirect production costs, Class 8 "Administrative Accounts" as this infringe the principle of due diligence and interdependence

of the financial year. Such bookkeeping entries lead to artificial increase of costs and, afterwards, to the increase of dish costing and, finally, to the reduction of profits.

In light of the above, it was suggested to report the cost of low-value items to deferred costs for the low-value items with the length of service less than one year to account 261 “Deferred current expenses” and for the low-value items with the expected length of service exceeding one year – to account 171 “Deferred long-term expenses”.

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### **SECTION 3: DISCIPLINE:**

- **521.01. ECONOMIC THEORY AND POLITICAL ECONOMY**
- **521.02. GLOBAL ECONOMY; INTERNATIONAL ECONOMIC RELATIONS**
- **154.01. SOCIAL AND ECONOMIC GEOGRAPHY**

#### **FOREIGN FINANCIAL SUPPORT FOR THE REPUBLIC OF MOLDOVA FROM THE EUROPEAN UNION**

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*Scientific coordinator: Conf. Univ. Dr. Hab. Natalia LOBANOV*

*This research examines external funding from the European Union to the Republic of Moldova and the sectorial distribution of external sources. The goal is to observe the trend of developing external support from the EU into the national Moldovan economy, exactly its growth since 2012.*

**Key words:** *External financing, European Union, Budget EU, Donor countries, EU-Moldova Association Agreement, National economy.*

#### **Introduction**

At present, the external assistance for the development of the Republic of Moldova (RM) represent a series of complex actions that provoke the positive effects on the development of the national economy of the country. Through various agreements and programs to which Moldova has a part, it ensures a continuous and prosperous development of the state's economy and society. It is remarkable that this continuous development will only be through intense cooperation and communication between participating states of different international groups and organizations.

Pursuant to paragraph 5 of Annex 1 to Government Decision No.561 of 19 August 2015 on the regulation of the institutional framework and mechanism for the coordination of external assistance to the Republic of Moldova (RM) by international organizations and donor countries, external assistance is "External financial and technical assistance received by the Republic of Moldova from international organizations and donor countries to overcome critical situations, social-economic development and democratization of society".<sup>1</sup>

The State Chancellery of the RM in the Annual Report 2015 on foreign assistance to the Republic of Moldova presented information about the country's bigger development partners in 2015, where on the first place was the United States of America, also this was the last year of its application to the Compact Agreement for the years 2010-2015. Also in the above mentioned report, it was indicated that the European Union (EU) and the World Bank (WB) have invested a significant value in the development of the Republic of Moldova, being other partners of the country's prosperous development.<sup>2</sup>

#### **Foreign financial support for the Republic of Moldova from the European Union**

The last years are much discussed the subject of relations between the Republic of Moldova and the European Union, and from year to year relations become deeper and more multidimensional. Cooperation does not stop only on the economic field, but also the different development sectors of the country are reached. Following the signing in June 2014 of the EU-Moldova Association Agreement, which entered into force on 1 July 2016, certain commitments on common values and close links between the parties were taken by them, these commitments were set out in the Partnership and Cooperation Agreement between the European Communities and the Member States, which has been in force since July 1998. These bilateral commitments to make cooperation more effective are currently taking place in European development policy and objectives.

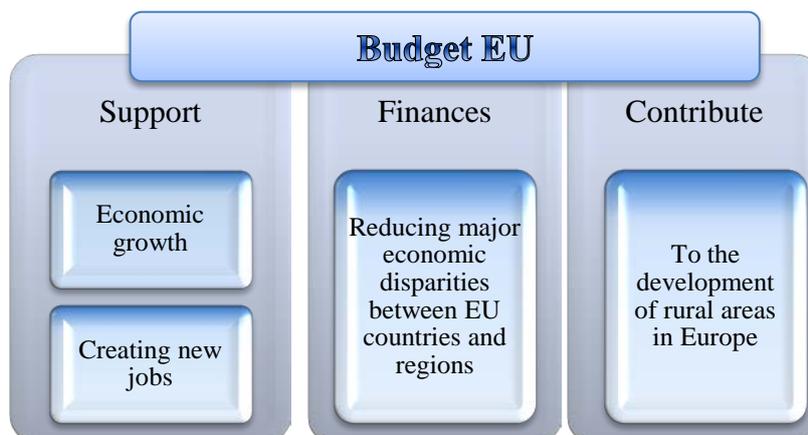
With reference to the EU budget, it is remarkable that it is intended to fund development areas where was determined, after some studies and investigations, that implementation of certain reforms or changes in

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<sup>1</sup> HOTĂRÎRE GUVERNULUI Nr. 561 din 19.08.2015 cu privire la reglementarea cadrului instituțional și mecanismului de coordonare a asistenței externe acordate Republicii Moldova de organizațiile internaționale și țările donatoare, <http://lex.justice.md/md/360497/>

<sup>2</sup> Raportul anual 2015 cu privire la asistență externă acordată RM, Cancelaria de Stat a RM, Chișinău, Iulie 2016, p.8.

the methods of achieving the objectives is necessary. The Union budget finances these areas, which may be deprived of investment from the national budget of the EU member state or if this investment is extremely high for the country's budget.



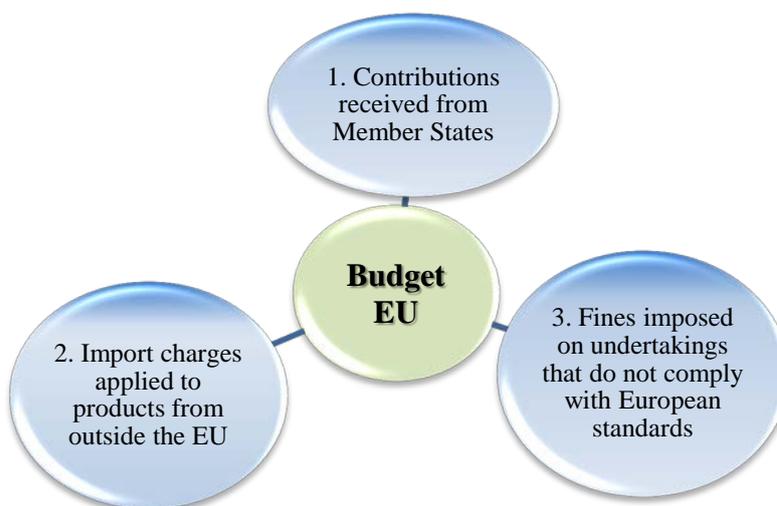
The trend of the last years shows that purpose and commitments of the EU budget are improving. According to the European Commission “The EU budget must always be in balance, therefore it never registers a deficit, does not accumulate debts, and the expenditure does not exceed the receipts”.<sup>1</sup>

Some of the most important functions throughout the Union belong to the EU Budget, such as:

- Supports growth and growth, creates new jobs and influences employment statistics;
- Finances the reduction of the economic gap between EU countries and regions;
- Contribute to the continuous development of rural areas in Europe.

The composition of the EU budget is composed of several sources of income, the three main ones being:

- a small percentage of each Member State's Gross national income (generally around 0.7%) – is the largest source of budget revenue;
- a small proportion of the Value added tax receipts, in line with each Member State (generally around 0.3%);
- a large proportion of Import duties collected for non-EU products (the country which levy it retains only a small percentage of these).



The efficiency of the Union budget is brought about by various reforms and innovations in various fields, for example in the fields of information and communication technologies, energy, science and scientific research, transport.

The EU provides funding for many projects and programs covering areas such as:

- ❖ regional and urban development, security and citizenship;
- ❖ employment and social inclusion, support for youth employment;

<sup>1</sup> Valoare pentru bani, Comisia Europeană, noiembrie 2014, file:///C:/Users/tabac.marina/Downloads/budget\_ro.pdf

- ❖ agriculture and sustainable rural development;
- ❖ Maritime and Fisheries Policies;
- ❖ culture, research and innovation;
- ❖ Humanitarian aid.

The reference to the division of financial sources, external financing of the Union is divided according to certain principles. Non-EU countries receiving support from the EU budget are divided into 3 main groups. The first group which can be highlighted is the developing countries with which some member states have strong historical links (especially the African, Pacific and Caribbean countries). Neighbouring countries can also be named as a group of EU aid recipients (for example, Eastern Europe, North Africa and the Middle East). The third and possibly closest to the Republic of Moldova is a group of countries that are preparing to join the EU (candidate or potential candidate).

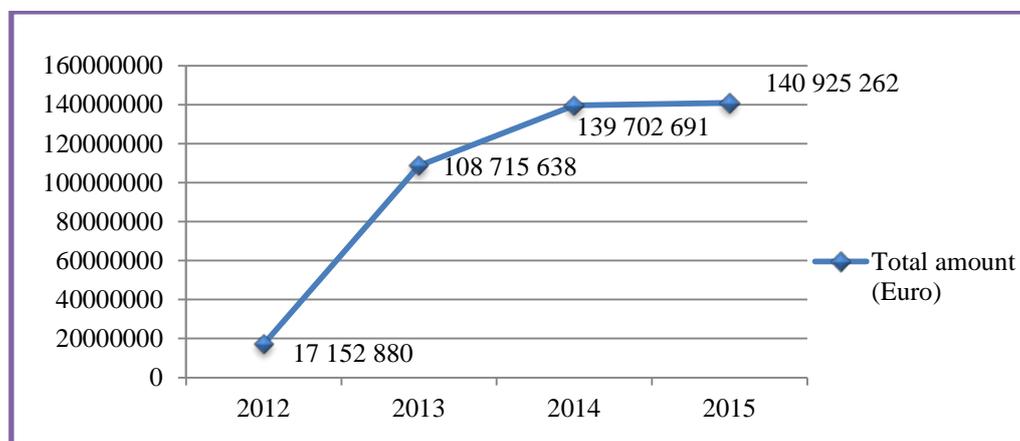
*Table 1*

**Financial presentation for the European Neighborhood Instrument (ENP) Program 2014-2020 and the Single Support Framework for EU Support to the Republic of Moldova (2014-2017)**

<b>Provisional allocation 2014-2020</b>		<b>€10,000,000 - €746,000,000</b>
<b>Provisional allocation 2014-2017</b>		<b>€335,000,000 - €410,000,000</b>
<b>Where:</b>	Public administration reform	<b>30%</b>
	Agriculture and rural development	<b>30%</b>
	Police reform and border management	<b>20%</b>
	Additional support:	<b>20%</b>
	Capacity and Institution Building	<b>15%</b>
	Civil Society	<b>≤5%</b>

*Source: Summary of the single support framework 2014-2017<sup>1</sup>*

Modernization of the system of public administration of the Republic of Moldova is one of the important points in the development plan of the country. This reform will contribute to the achievement of the goal of foreign policy and association, as well as economic integration with the EU. To strengthen the growth of agriculture, the government needs to strengthen the system of local and regional governance in all parts of the country. That is why, both sectors were provided for investments of 30%.



**Figure 1. The EU centralized budget allocated in the Republic of Moldova (Euro)**

*Source: [http://ec.europa.eu/budget/fts/index\\_en.htm](http://ec.europa.eu/budget/fts/index_en.htm)*

In accordance with Figure 1, the European Union invested 141 million Euro in economic development of Moldova in 2015, which is about 1 million Euro more than in 2014, it represent 0,88% of growth. In comparison with 2012 in 2015, the difference is about 721,58 % of total amount. The fact that the growth of financing from the European Union is registered proves that Moldova uses the resources received by the country to its destination. This fact causes confidence in the economic partners to support further various reforms for the development of our country.

<sup>1</sup> [http://eeas.europa.eu/archives/docs/enp/pdf/financing-the-enp/republic\\_of\\_moldova\\_summary\\_of\\_the\\_single\\_support\\_framework\\_2014-2017\\_en.pdf](http://eeas.europa.eu/archives/docs/enp/pdf/financing-the-enp/republic_of_moldova_summary_of_the_single_support_framework_2014-2017_en.pdf)

## Conclusions

In conclusion it is very important to note the fact that the Republic of Moldova, like any other country, strives for economic development, social balance and confident prosperity for the citizens of the country. The European Union in recent years supports the RM development and its desire for regional cooperation.

Moldova is a small but perspective country, as mentioned Pirkka Tapiola, Head of the European Union Delegation to the Republic of Moldova, about our country: "I have often disregarded the strategic importance of the Republic of Moldova. It is a small country, in the conditions in which almost everyone knows each other, but it is a country whose evolutions really matter to the European Union".

External financing has increased since 2012, which means that the country supports the status of the responsible country. A large number of reforms in various structures and spheres of development were approved. Their goal is to improve economic growth and to establish the country's position in the external market. The duty of the country is to continue close cooperation with external development partners, in particular with the European Union.

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## EXPORT AND IMPORT PROPENSITY AS INDICATOR OF INTEGRATION IN THE INTERNATIONAL TRADE

*PhD student Xenia MIGOVA*

*Scientific coordinator Professor, Hab.Dr. Boris CHISTRUGA*

*World trade in goods has increased dramatically over the last decade though in 2015 was registered a fall to about \$16 trillion. Trade flows involving developed countries and the East Asian region constitute major share of international trade, while trade among other developing country regions is of much lower magnitude. The object of this research is to evaluate interconnection between trade flows and GDP, trade flows and degree of integration in world economy by means of export and import propensity indicator. It can help to appreciate risks and prospects for trade flows, dependency on foreign markets.*

**Key words:** *trade flows, international trade, trade indicator, import propensity, export propensity, degree of openness, degree of integration.*

## Introduction

International trade in goods has increased substantially over the last 10 years, though export rates in current dollars are at much lower level in 2015. A substantial part of the drop in international trade was due to nominal factors, principally the fall in the price of commodities and the overall appreciation of the United States dollar. Weaker demand also played a role, especially in East Asia and in other parts of the developing world. This trade deterioration in 2015 has affected all geographic regions, though with different magnitude.

The objective of this paper is to analyse interconnection of trade performance and GDP, intraregional flows and trade flows between regions, and finding out the degree of integration in international trade of world economies, with identification of reasons and possible consequences. This objective was realized though the calculation of export and import propensity of the world economies. Also, the author analysed interconnection of trade volumes between the regions and degree of their openness with the estimation of possible risks for this region and recommendation of policies.

A specific objective represents a comparative analysis of the evolution of the export and import propensity indicator in Moldova, Ukraine and Georgia, with estimating the magnitude of this indicator and its influence of the economies.

For implementing of the objectives were used UNCTAD statistics database and world tariff profile by WTO.

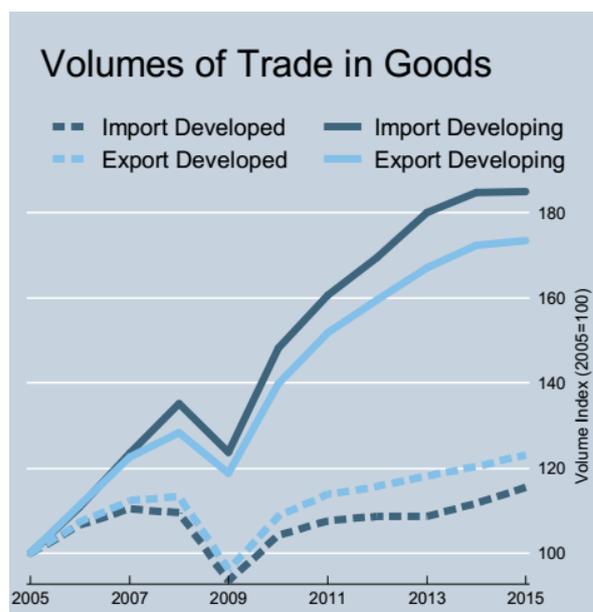
## I. GROWTH RATES AND VOLUMES OF INTERNATIONAL TRADE IN GOOD

International trade can be broadly distinguished between trade in goods and services. The bulk of international trade concerns physical goods, while services account for a much lower share. World trade in goods has increased dramatically over the last decade, rising from about USD 10 trillion in 2005 to more than \$18.5 trillion in 2014, then fall to about \$16 trillion in 2015. Following the strong rebound in 2010 and 2011, export growth rates in current dollars are now at much lower level than in the pre-crisis period and were negative for 2015, both for developing and developed countries.

In spite of the financial crisis of 2009, developing countries as a group have almost doubled the volumes of trade in goods since 2009. Import volumes have been growing relatively more than export volumes for developing countries. The relatively larger increase in the volumes of imports can be explained by the increase in consumer demand in developing countries. The opposite has happened concerning developed countries.

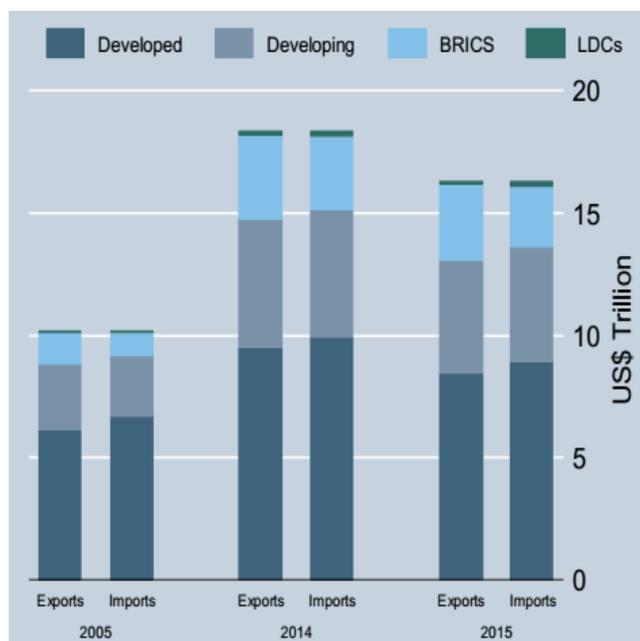
Growth in trade volumes has slowed down substantially in the last few years. Developed countries' trade volumes continued to increase, while trade volumes for developing countries stalled, both concerning imports and exports.

Developed countries' relative importance as suppliers in international markets is declining. Still, they account for about half of the value of exports of goods. In 2015 developed countries' exports of goods was about USD 8 trillion (Figure 2). In 2015, developing countries' trade sum up to about USD 8 trillion concerning goods. In 2015, BRICS exported about USD 3 trillion in goods. Least developed countries' (LDCs') contribution to world trade remains minimal, although some increases in exports and imports of these countries have been recorded over the past decade.



**Figure 1. Volumes of international trade in goods**

*Source: UNCTAD secretariat calculations based on UNCTADStat data*



**Figure 2. Values of exports and imports of goods and services by region**

*Source: UNCTAD secretariat calculations based on UNCTAD STATISTICS.*

## II. TRADE FLOWS ACROSS REGIONS

International trade in goods is largely composed of trade flows involving developed countries and the East Asian region. Trade among other developing country regions is of much lower magnitude. Developed countries have the largest trade flows with other developed countries both in terms of import and export. The intraregional flow amounts to 5444 billion USD. (See table 1).

East Asia region is characterized by large trade flows, including intraregional flows. Intra-regional exports account for more than 60 per cent of total exports in China, Malaysia, Singapore and Thailand. Nevertheless, developed countries represent very important export market for them. (East Asia exports to developed countries accounts to 2000 billion USD in 2015. See table 1). If any resilience in demand in developed countries appears, it will be reflected in negative export growth of East Asia region. Another risk for this region as a whole can be falling commodity prices that can negatively affect commodity exporters.

Transition economies have registered weak intraregional trade, because large share of exports are destined to contracting Russia and Ukraine where are observed geopolitical tensions. Countries that have registered reduced export value in 2015 are Belarus, Georgia, Moldova, Ukraine and Kazakhstan.

Latin America mainly exports to developed countries (622 billion USD in 2017). Due to the recovery in United States and Euro regional export performance improved in 2015.

Despite a number of regional agreements, regional trade remains limited, partly reflecting the lack of an extensive international value chain network and heavy reliance on commodity exports to external markets. The lack of economic diversification and narrow product base could be another contributing factor to the generally closed nature of the region (according to International Monetary fund, 2015h).

West Asia and North African countries have with deep trade ties with developed countries (378 billion USD exported and 490 billion USD imported), mainly with Europe. It means that these countries (especially Algeria, Morocco, and Tunisia) may receive an export boost as the Euro Area economy improves. The main economic partners of West Asia and North America countries are outside the region, although within-region remittance and trade flows are important.

South Asia, Sub-Saharan Africa are highly open to trade. There has, however, been a decline in economic integration with the rest of the world since the global financial crisis. Unilateral trade liberalization measures introduced in the late 1980s and 1990s have led to rising trade flows between South Asia and the rest of the world (according to Ahmad and Ghani 2007). Still, the degree of integration remains much lower in South Asia than in other major developing regions. Moreover, export flows tend to be highly concentrated, with the European Union and United States as major trading partners notwithstanding a recent shift of India and Pakistan toward East Asia and Sub-Saharan Africa.

*Table 1*

**Trade in 2015 across regions, billion USD**

<b>Import/ Export</b>	<b>Developed</b>	<b>East Asia</b>	<b>Transition Economies</b>	<b>Latin America</b>	<b>West Asia, North Africa</b>	<b>South Asia</b>	<b>Sub Saharan Africa</b>
Developed	5444	2000	277	622	378	165	126
East Asia	1388	2067	88	151	252	82	88
Transition Economies	178	78	76	10	20	6	3
Latin America	522	259	8	155	15	16	9
West Asia and North Africa	490	260	49	28	162	70	21
South Asia	141	201	12	27	119	33	35
Sub-Saharan Africa	115	108	3	7	35	22	56

*Source: Key Statistics and Trends in International Trade 2016, UNCTAD*

### **III. TRADE INDICATORS: IMPORT AND EXPORT PROPENSITY MAGNITUDE FOR COUNTRIES OF THE WORLD**

In order to understand, appreciate and predict the evolution of foreign trade can be used indicators for measuring the degree of integration of the economy in international trade.

For a substantial number of developing countries, gross domestic product (GDP) is closely dependent on the exports of goods and services to foreign markets. This is particularly true of many East Asian economies, Eastern European countries and of a number of African countries as well as Canada and Mexico.

- a) Imports of goods and services over gross domestic product
- b) Exports of goods and services over gross domestic product

Import and export propensity are computed as the value of imports or exports divided by the current GDP. The import propensity expresses the total income spent on imports. The export propensity shows the overall degree of reliance of domestic producers on foreign markets. Higher values imply greater dependence on foreign markets.

Export propensity indicator has registered values between 30...50% for many East-South Asian economies (Vietnam, Cambodia, Thailand), Eastern and Central European countries (Lithuania, Estonia, Czech

Republic, Slovakia, Hungary, Bulgaria) and for the number of African countries as well as Mexico. For these countries (GDP) is closely dependent on the exports of goods.

Dependence of GDP on imports is demonstrated by East-South Asia (Vietnam, Laos, Thailand, Cambodia, Malaysia), Eastern and Central Europe (Lithuania, Latvia, Estonia, Czech Republic, Slovakia, Hungary, Moldova) and some transition economies from Central Asia (Georgia, Kyrgyzstan, Armenia)

It is observed, that there are countries from Eastern and Central Europe as well as countries from Central Asia that are characterized both by high export and high import propensity. These countries demonstrate high degree of openness and integration in international trade. It means that these countries are vulnerable to effects from major advanced economies and emerging markets, due to high degree of dependence on foreign markets. In this region intra-regional trade integration is divided between east and west. The East Europe and Central Asia countries are integrated with the rest of the region—especially Russia—through trade and remittances. The western and central part of the region is integrated with the Euro Area through trade, investments and remittances. Current low commodity prices heighten the importance of diversification in commodity-exporting countries penetrate new and dynamic export markets.

#### IV. COMPARATIVE ANALYSIS OF EXPORT AND IMPORT PROPENSITY INDICATOR FOR GEORGIA, MOLDOVA, UKRAINE.

Below is presented evolution of import and export propensity indicator for Ukraine, Moldova and Georgia. These economies were chosen by the author as reference economies, because all of them are included in the group of transition economies, according to UNCTAD and all them have signed Association Agreement with European Union in the same period (27 June 2014).

According to the calculations, Georgia is characterized by low export propensity. The indicator does not exceed 20% during 10 years of evolution. Republic of Moldova has registered this indicator between 23,6% and 31,6% during the period, that is moderate export propensity. Ukraine has demonstrated high export propensity during the period, meaning that GDP of Ukraine is dependent on exports on foreign markets.

*Table 2*

##### Export propensity indicator evolution, %

Country / Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Georgia	12,1%	12,1%	11,7%	10,5%	14,4%	15,2%	15,0%	18,0%	17,3%	15,9%
Republic of Moldova	30,9%	30,5%	26,3%	23,6%	26,5%	31,6%	29,7%	30,4%	29,4%	<b>30,4%</b>
Ukraine	34,3%	33,1%	35,6%	32,7%	36,5%	40,4%	37,5%	33,8%	41,1%	39,4%

*Source: Author calculations based on UNCTAD STATISTICS.*

As for the import propensity indicator, Republic of Moldova has very high import propensity, registering 61,7% in 2015. It means that 61.7% of total income was spent for imports. Peak value was observed in 2008, before crisis. Both Georgia and Ukraine have smaller rates. (see table 3.)

*Table 3*

##### Import propensity indicator evolution, %

Country/ Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Georgia	47,5%	51,3%	49,2%	41,8%	45,2%	48,9%	50,7%	49,7%	52,0%	52,4%
Republic of Moldova	79,0%	83,8%	80,9%	60,3%	66,3%	74,0%	71,6%	68,8%	66,9%	61,7%
Ukraine	40,3%	40,8%	45,5%	37,4%	43,1%	48,8%	46,4%	40,3%	41,2%	37,8%

*Source: Author calculations based on UNCTAD STATISTICS.*

The positive growth of imports was influenced by the Republic of Moldova's accession to the WTO. After the Republic of Moldova joined the WTO in the summer of 2001, there was a process of successive cuts in import tariffs. As a result of these tariff concessions, in 2016 was registered the following rates (see table 3):

- simple average final bound is 6.9% of the value of the goods,
- simple average MFN (most favoured nation) applied rate is 5.4%, which is by 1.5% lower than the required rate.
- trade weighted average is 4.5% that implies: 11.5% for agriculture and 3.4% for other goods.

Table 4

**Tariffs and imports: summary and duty ranges for the Republic of Moldova in 2016, %**

Summary		Total	Ag	Non-Ag
Simple average final bound		6.9	13.8	5.9
Simple average MFN applied	2015	5.4	11.5	4.4
Trade weighted average	2014	4.5	11.5	3.4
Imports in billion US\$	2014	4.9	0.7	4.2

*Source: World Tariff Profiles 2016, WTO ITC UNCTAD*

A general rule is that commercial policy is one of the determining factors in explaining indicator of import and export propensity. However, not only commercial policy influences this indicator, because the tariffs applied by Georgia are lower than those applied by Moldova. (Table 5), therefore Georgia's trade is more liberalized: the MFN tariff applied by Georgia is 1.5 compared to 5.4 applied by Moldova. This means that applied commercial policies are not the only factor determining the degree of opening up the economy, import and export propensity.

Table 5

**Tariffs and imports: summary and duty ranges for Georgia in 2016, %**

Summary		Total	Ag	Non-Ag
Simple average final bound		7.3	12.5	6.5
Simple average MFN applied	2015	1.5	6.3	0.7
Trade weighted average	2014	2.0	7.1	1.0
Imports in billion US\$	2014	7.3	1.2	6.1

*Source: World Tariff Profiles 2016, WTO ITC UNCTAD*

Despite the fact that the Republic of Moldova has made progress in the liberalization of trade, structural reforms which allow the growth of the economy have not been implemented. Moreover, the rapid increase in imports, in particular intermediate and final consumption goods, was driven by rising incomes of the population and remittances that played major role in financing imports.

Table 6

**Tariffs and imports: summary, duty ranges for Ukraine 2016, %**

Summary		Total	Ag	Non-Ag
Simple average final bound		5.8	11.0	5.0
Simple average MFN applied	2015	4.5	9.2	3.7
Trade weighted average	2014	2.7	5.5	2.4
Imports in billion US\$	2014	54.1	5.5	48.6

*Source: World Tariff Profiles 2016, WTO ITC UNCTAD*

**Conclusion**

World trade has increased dramatically over the last decade. Developing countries played a very important role in it, registering growth in import volumes more than export volumes. This phenomenon is explained by the increase in consumer demand. Developed countries importance as suppliers in international market is declining. Trade-flows, involving developed countries and East Asian region constitutes the major portion of world trade. Both these regions are characterized by strong intraregional flows of goods, while in

transition economies, South Asia, Sub Saharan Africa, Latin America, West Asia and North Africa regional trade remains limited despite the number of regional agreements.

Import and export propensity magnitude helps to analyse the degree of integration of the economy in international trade and its dependence on foreign markets. Many East Asian economies, Eastern European countries and a number of African countries demonstrate high degree of openness, being vulnerable to effects from major advanced economies. Republic of Moldova has registered moderate export propensity in 2015, but very high import propensity, meaning that large share of total income is spent on imports. During the period of 10 years, increase in imports was registered mainly due to intermediate and final consumption goods. Recommendation is to change the structure of imports in favour of technologies, equipment and goods that can create value added. Reference countries Georgia and Ukraine, used in the research has registered much lower value of this indicators meaning that commercial policies are not the only factor determining the degree of openness of the economy, import and export propensity.

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### **INTERNATIONAL RE-EXPORTS EXPERIENCE**

*PhD candidate Mircea DIAVOR, ASEM*

*Although re-exports are not a new concept in the global economy they remain a relevant one and can produce benefits to the countries involved. We will analyse some of the more successful examples in the global economy and draw relevant conclusions from them for Republic of Moldova. Re-exports contributes to the integration of local business to the international economy, creating new links and increasing their turnover.*

**Key words:** *Re-exports, exports, contribution of re-exports, logistics and distribution hub.*

**Analysis of bibliographic sources in the researched field.** One of problems of such an analysis is the absence of data and the discrepancies of data. The main data sources are the UN Comtrade database, the Trade and industry department of Hong Kong, Statistics Netherlands (CBS), Hong Kong Trade Development Council (HKTDC) and various other publications on the subject.

#### **Introduction**

In a world economy which has become increasingly more integrated over the last decades re-exports represent a potential source of growth. The UN comtrade gives the following definition: “Re-exports are exports of foreign goods in the same state as previously imported; they are to be included in the country exports. They are also recommended to be recorded separately for analytical purposes, which may require the use of supplementary sources of information in order to determine the origin of re-exports, i.e., to determine that the goods in question are indeed re-exports rather than the export of goods that have acquired domestic origin through processing” [1].

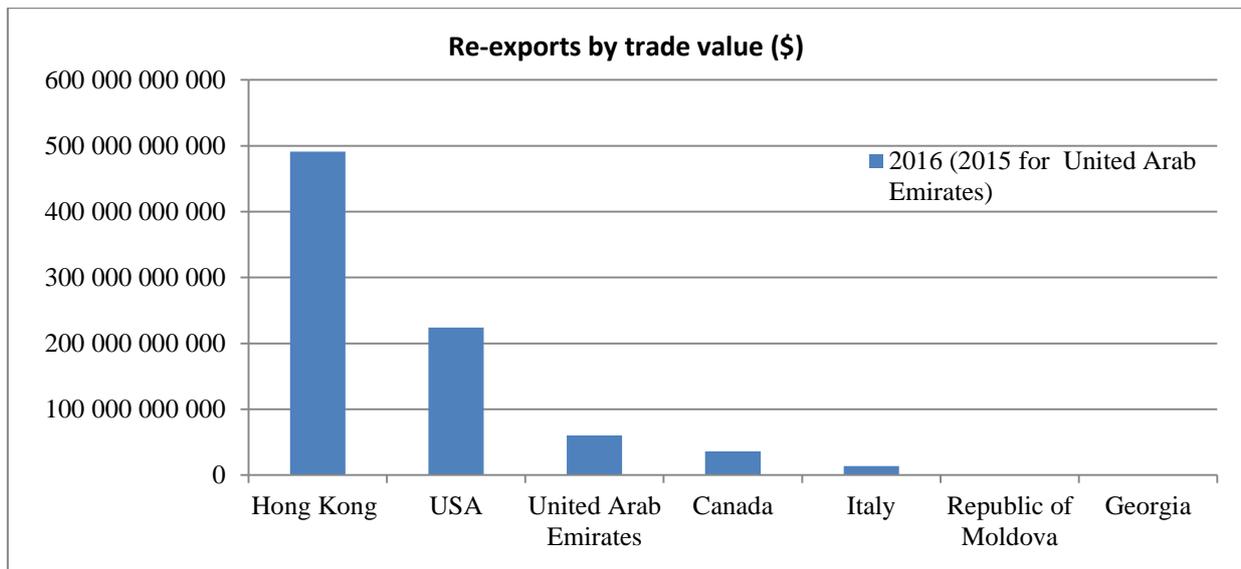
Of course a very important factor is geographical position, it's no surprise that countries like Hong Kong, Singapore or the Netherlands have a high re-export ratio. Countries like USA, Canada or Italy although have a high trade value of re-exports it represents a relatively small part of their total exports. We will analyse re-exports by value, by percentage of re-exports and the structure of re-exports.

#### **Methodology of research**

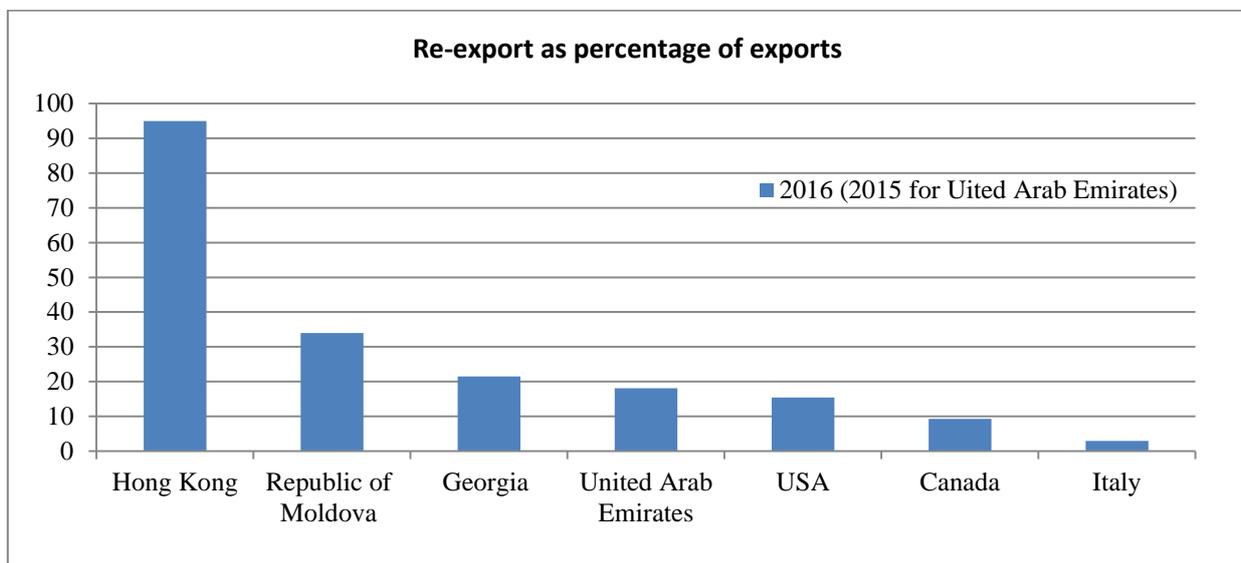
There are a number of reasons countries resort to re-exports such as to bypass trade embargos, to take advantage of trade agreements that the intermediate country has, taking advantage of the logistic networks, infrastructure and expertise in international shipping etc.

#### **The results obtained**

In the next figure we will analyse the countries in which re-exports play a substantial part of exports.



**Figure 1. Re-exports by trade value (\$)**  
*Source: UN Comtrade database*



**Figure 2. Re-export as percentage of exports**  
*Source: Calculations done by author based on UN Comtrade database*

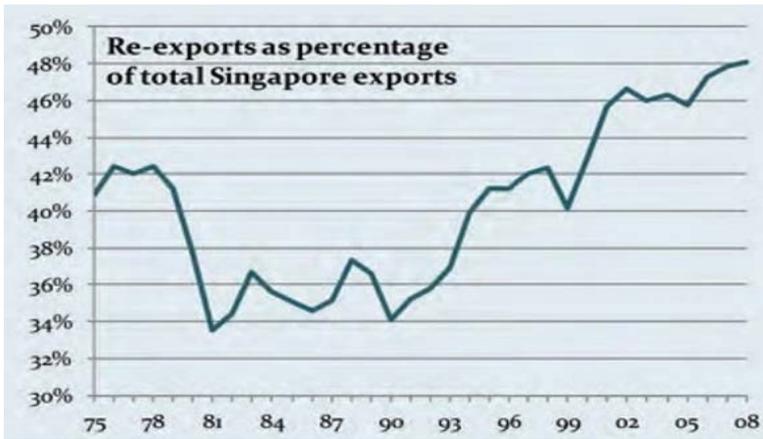
In the above figures we see Hong Kong leading in both re-exports by total value and as percentage exports. As expected Republic of Moldova and Georgia re-exports represents a high percent of total exports. It is important to note re-exports do have a smaller contribution to economy of a state, in the Netherlands the value added was 11 euro cents per euro cents while exports generated 57 cents per euro (for 2015). [3]

Hong Kong has become the most powerful logistics and distribution hub and is seen as the perfect gateway to the Chinese market. Hong Kong has zero per cent import duty and in 2003 signed the Closer Economic Partnership Arrangement with China creating a zero per cent import tariff rate between the two. That has made it very attractive to companies who want to export to China, for example China has an import tariff rate of 25% for frozen beef, while going through Hong Kong the rate would be zero.

United Arab Emirates has somewhat similar role, thanks to well-developed transit transport and maritime infrastructure, free economic zone, favourable trade laws and fiscal laws have contributed to making the United Arab Emirates a powerful export hub, the most important in the region.

Georgia's re-exports are especially high in couple of groups: cars 95% are re-exported, medicaments 74% and spirits 56%. [8]

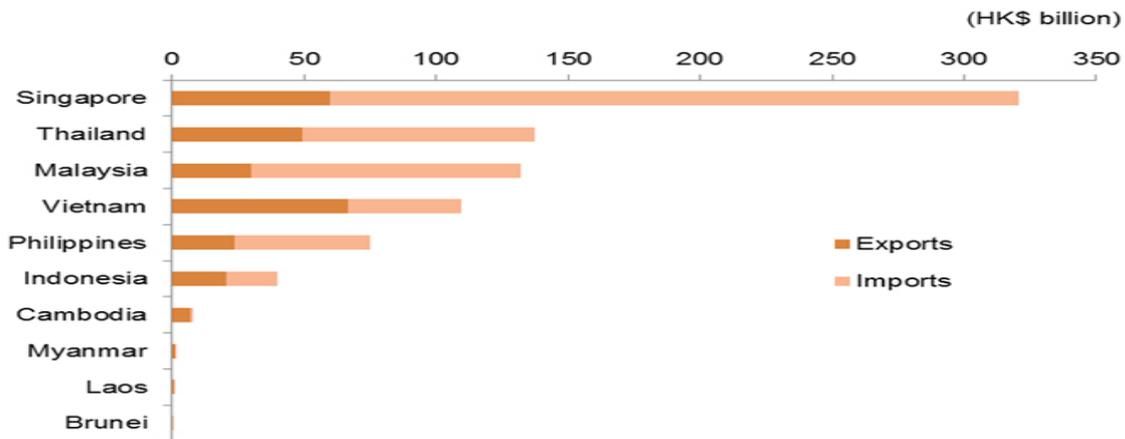
There no data on the UN Comtrade database for Singapore re-exports or for the Netherlands on which we will analyse separately.



**Figure 3. Re-exports as percentage of Singapore exports**  
*Source: [4]*

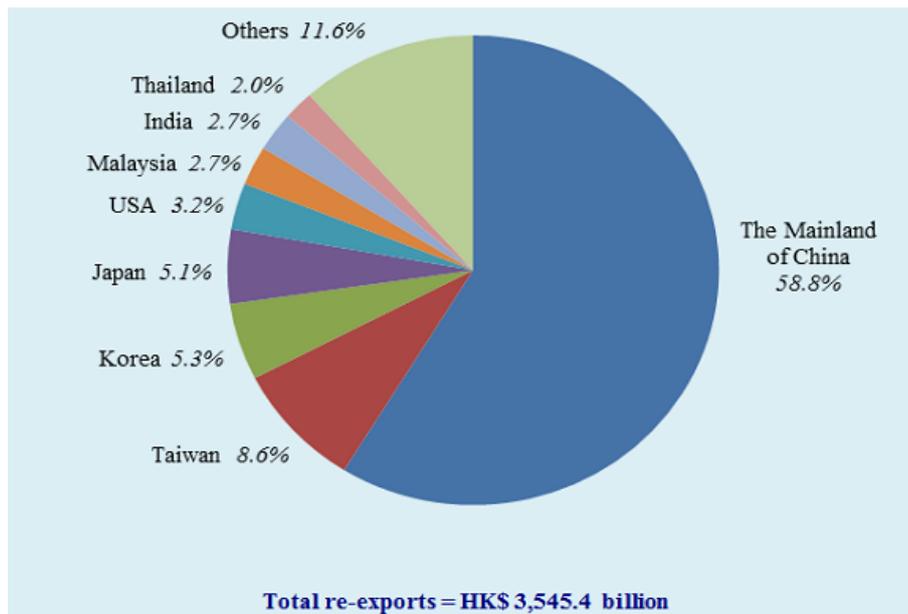
We can see in the figure above shows that in 2008 re-exports represented 48% of Singapore exports, in 2014 it was 47% which would put it in second place after Hong Kong. [5]

Hong Kong and Singapore stand out as trade hub giants and yet surprisingly complement each other rather than compete with each other. Singapore is Hong Kong's biggest trading partner out of the ASEAN countries.



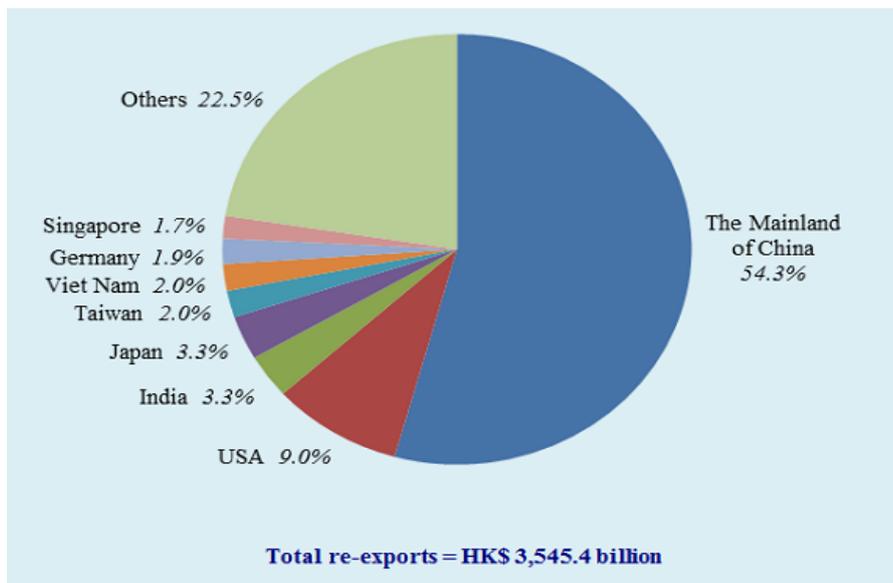
**Figure 4. Hong Kong trade with ASEAN countries 2014**  
*Source: [5]*

In 2014 33 of Singapore re-export were with ASEAN members, 15% with Hong Kong and 13% with China.



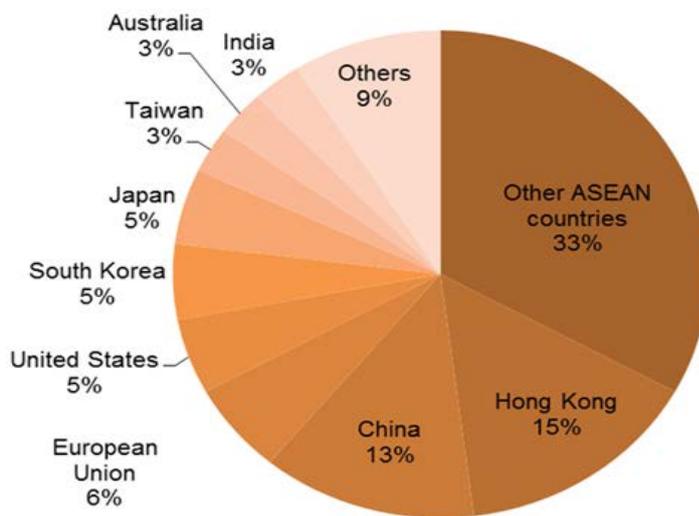
**Figure 5. Hong Kong re-exports 2016 by origin**  
*Source: [6]*

Hong Kong re-exports that originated in is 2085504 HK Million which represents a reduction of 3.6 % compared with previous year, the value of Japan also reduced by 2.7% .The value of Taiwan of South Korea increased by 11.2% and 11.8% respectively.



**Figure 6. Hong Kong re-exports 2016 by destination**  
*Source: [6]*

Figure 6 shows China dominant again (1924906 HK% Million), the second destination is USA which had a contraction of 5.3%, as did Vietnam 6 %, Germany and Japan reduction was 5.1%. India and Taiwan increased by 14.7% and 15.5% respectively. Singapore also increased by 4.4%.



**Figure 7. Singapore re-exports by country, region 2014**  
*Source: [5]*

Even after the creation of the China-ASEAN Free Trade Area, where tariffs were removed, re-exports to Hong Kong continued to increase demonstrating the logistical and infrastructure power that Hong Kong possesses, and its special relationship with the mainland. China is the main destination of Singaporean re-exports to Hong Kong representing 84%. Even after China’s accession to the WTO and even the creation of the China-ASEAN Free Trade Area, Hong Kong has yet to lose its appeal.

Table 1

Hong Kong re-exports of Singaporean origin

HK\$ (million)	2009	2014	% Share in 2014	2009-2014 Compound Annual Growth
Total	22,519	39,691		12%
to China	18,039	33,435	84%	13%
to Singapore	777	2,963	8%	31%
to Macau	1,125	1,405	4%	5%
to Taiwan	375	544	1%	8%
to US	399	242	1%	-10%

Source: [5]

As with Hong Kong and Singapore geographical location, logistics and trade agreements are the main reasons why the Netherlands have high level of re-exports. For the Netherlands we will analyse data from the CBS (Statistics Netherlands) which show that the value of the goods that entered the Netherlands in 2015 was 664 billion euros (of which 158 billion euros were re-exports, 285 billion euros were transit trade and 221 billion euros for domestic market) while the value of goods that left the country was 722 billion euros (of which 185 billion euros were re-exports, 290 billion euros were transit trade and 248 billion euros were exports of domestically produced items). That means that re-exports represent 25.3% of outflows and transit goods represent 40.1%. We notice that the value of re-exports and transit trade has increased to account for cost and profit. “The Netherlands earns money from the re-export of goods, for example, from resale, re-packaging, storage and transport. The value of re-exported goods totaled 230 billion euros in 2015; the Netherlands earned 26 billion euros.

The value added per euro of re-exported goods was 11 euro cents, versus 9 euro cents in 1995. Evidently, the value added per euro of re-exported goods is lower than for domestically manufactured goods. The value added of goods produced in the Netherlands was significantly higher (57 cents per euro of exported goods) in 2015” [11].

In the context of the Netherlands we can examine which re-exports are the most profitable.

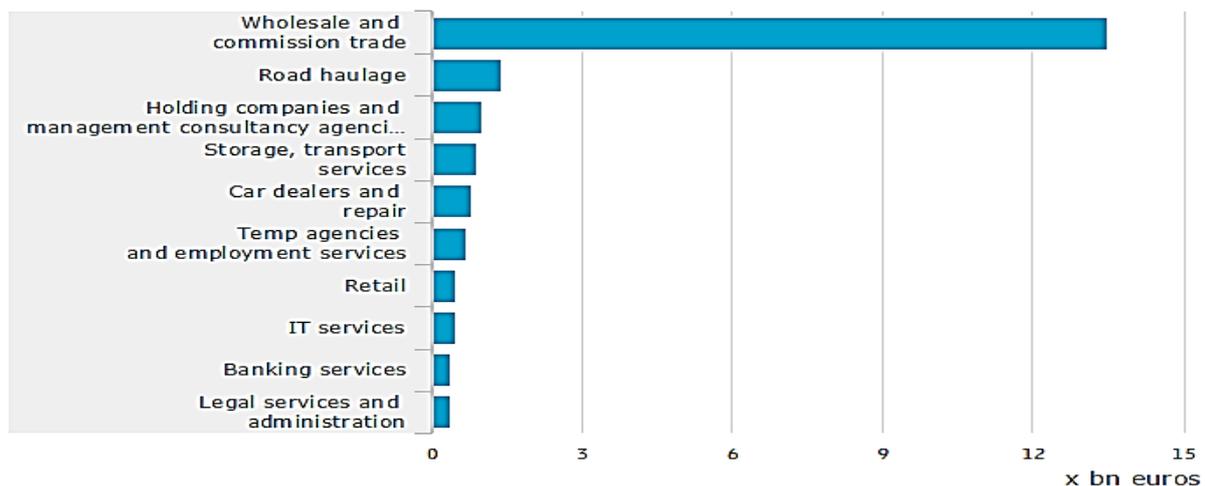


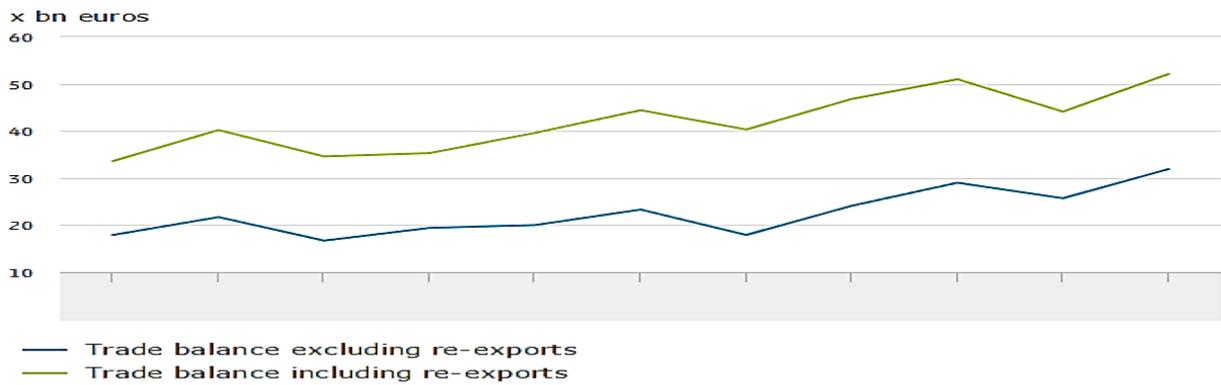
Figure 8. Earnings from re-exports Netherlands 2015

Source: [11]

We can see that wholesale and commission trade represents the biggest part 13.5 billion euro out of the total 26 billion euros, more than half of profits the Netherlands earned from re-exports in 2015.

The contribution of re-exports to the GDP of the Netherlands in 2015 was 3.8%, while the contribution of domestically made goods was almost 17%.

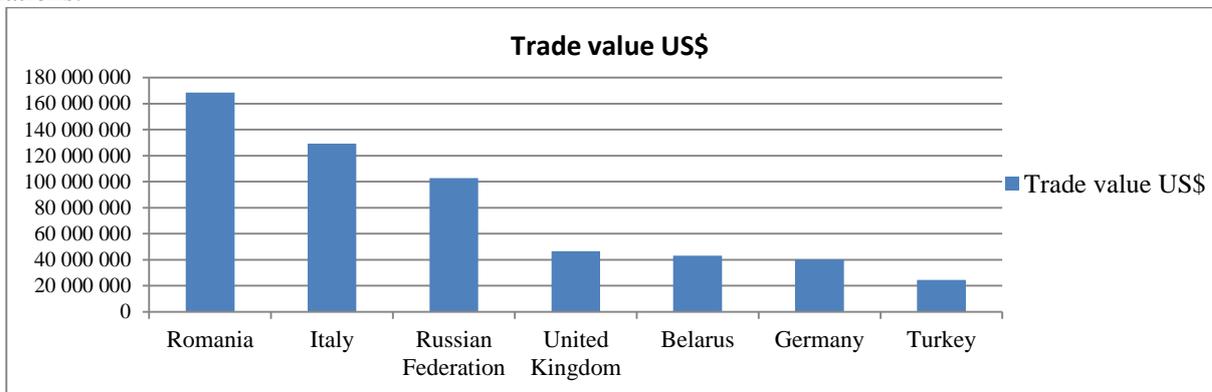
Re-exports have contributed to distort the balance of trade data for the Netherlands, which would be 20 billion euros if re-exports were excluded.



**Figure 9. Trade balance of Netherlands**

*Source: [3]*

The value of Republic of Moldova's re-exports in 2016 was 694406593\$, these are the main destinations:

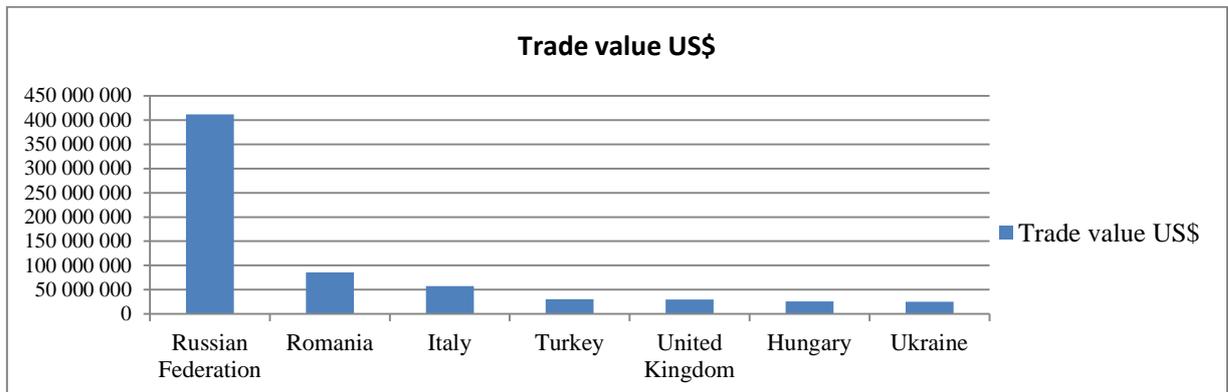


**Figure 10. Re-exports from Republic of Moldova to 7 top destinations**

*Source: UN Comtrade database*

We can see from figure 10 that Republic of Moldova is in a position to take advantage of its geographical location between the EU, the Middle East and being a member of the CSI. The strategic geographical must be used to its fullest

This is different from the situation that was in 2012 when the value of re-exports was higher at 772317488\$. There is a significant difference from 2012 to 2016, in 2012 that main destination of re-exports was Russian Federation at 411314641\$ compared to 102690855\$ in 2016.



**Figure 11. Re-exports from Republic of Moldova to 7 top destinations**

*Source: UN Comtrade database*

When comparing figure 10 to 11 we noticed significant changes. Russian Federation value dropped by 308623786\$, an enormous value, dropping to third place. Re-exports to EU have increased to Romania by 82705675\$, to Italy by 71700822, to Germany by 23362950\$, to the United Kingdom by 16888004\$. The re-exports to EU have offset the slowing down of re-exports to the Russian Federation, and although the total value

of re-exports in 2016 is lower than in 2012 (by 77910895\$) this has led to a more balanced overall balance of re-exports and shows a reorientation to EU market. We still expect the Russian Federation to remain one of the top destinations of re-exports in the future. It is also important to mention that the majority of re-exports to the Russian Federation are direct re-exports that suffer almost no modifications, while re-exports to the EU usually undergo industrial processing creating greater profits and contribution to economy of Republic of Moldova.

Thus from the performed analysis, we can formulate the following **conclusions**:

- Re-exports represent an important part of international trade;
- Countries can extract gains from re-exports;
- Re-exports have smaller profit margin;
- Re-exports have a smaller contribution to GDP than exports;
- Re-exports represent an opportunity for Republic of Moldova;
- Re-exports create economic links between different economies;
- Economic links could be a channel for transmitting external shocks, thus increasing the vulnerability of a country;
- Re-exports contribute to development of logistics and freight transport;
- The structure of re-exports of Republic of Moldova has undergone significant changes;
- Re-exports represent about a third of Republic of Moldova exports;
- Re-exports should with time lead to the development of local production that creates greater value.

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## **HEALTH – POPULATION QUALITY INDICATOR IN THE REPUBLIC OF MOLDOVA**

*PhD student Silvia GODONOAGĂ, ASEM,  
Scientific coordinator Constantin MATEI*

*This paper approaches health from the perspective of evaluating population quality in the Republic of Moldova. Health as a demographic indicators tell us about some qualitative aspects of population both physically and intellectually. From geodemographic point of view, statistics are analysed over time and space, in order to make possible to deduct the causes and consequences of registered changes.*

**Key words:** *health, population quality.*

### **Introduction**

Health – is one of the most important richness of a nation, of an ethnic group, and also of a person individually. Analysing different theoretical information about population quality structure, it could be deduced some categories of demographic factors, which evaluate the qualitative level of a nation. These factors could be: demographic indicators from the categories of health, education and culture. One of the most important groups of

data is from the category of „Health”, for example: birth rate, natural growth rate, fertility rate, life expectancy at birth, death rate (infant mortality rate, perinatal mortality rate, maternal mortality, specific mortality of economically active group of population), population ageing, morbidity etc. In order to evaluate the qualitative level of population from all points of view, including health, it is necessary to realize a progressive analyse for observing the tendency in evolution. In this way, it could be deducted the causes of changes and the tendency of improvement or worsening, in order to realize a strategy for maintaining the current situation or to encourage its improving. Also, the statistics are analysed in territorial aspect for observing the regional differences, deducting some causes of the created situation in different districts. So, it could be made strategies for separated districts depending of the problem, without elaborating strategies at nation level.

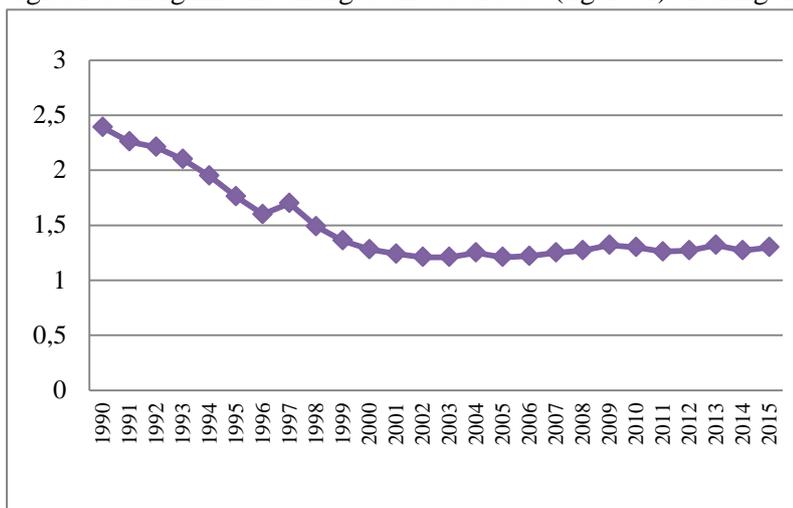
### Research METHODS

In order to realize this research, it was used some methods, for example the historic method, for a progressive analyse of statistics. The progressive research was realized using data base from the National Bureau of Statistics and the National Centre of Health Management. Using data from these institutions, it was made also the second part of the research, the territorial analyse of qualitative demographic indicators of health. The territorial analyse was made using the cartographic method, in order to realize some maps of Republic of Moldova on the theme of population health.

### Results and discussion

The birth is a complex demographic phenomenon, which lies at the base of the health situation analyse in the Republic of Moldova. Though, essentially the birth is a biological event, the birth as demographic phenomenon is determined by some social, economic and cultural factors. The birth frequency in a community represents cultural complex models, where there are involved social institutions, attitudes and values, the society in its entirety. The biological events does not characterize all the population, but only a part of it, namely feminine population of fetal age (conventionally, from 15 to 49 years) [1, p.54]. From the other point of view, the birth rate is an indicator too generalized for evaluating population quality, so it should be analysed other demographic data which determine the birth of a child, and the most relevant is the fertility rate. Between fertility and the birth rate there is a direct link and namely the fertility intensity determines the birth rate. So, the birth rate is determined by a qualitative factor – the general fertility intensity, and two structural factors – the share of fertile women number in the total number of women and the population sex structure.

During 1990-2002 years, the fertility rate in the Republic of Moldova was registering a continue decrease, the 2002 year being the minimum in the Republic of Moldova history – 1,23 children/woman. So, during 12 years the fertility rate is halved. This fact is determined by some factors, the most important being: the economic transition, which involved changes in population dynamics, also the more active implication of the woman in society activity, especially in urban area, the lack of condition for join professional and parent roles, the insufficient motivation by the state administration for children births and, of course, the young people migration. During the 2003-2015 years, the fertility rate in the Republic of Moldova increased, but also registered insignificant changes and decrease (figure 1). During the last 5 years, the fertility rate decreased



**Figure 1. Fertility rate(15-49 years) in the Republic of Moldova (%), 1990-2015**

*Source: elaborated by author after NBS*

slowly, caused by some factors mentioned above, especially the lack of motivational policy for young families for giving birth to children and the young people migration. This dynamic with general tendency of decreasing fertility rate tell us about the worsening qualitative aspects of population in this field, the fertility rate being an indicator which tell us about the reproductive population health, also the lack of politics for young families in order to make possible to give birth to children and to continue the professional activity.

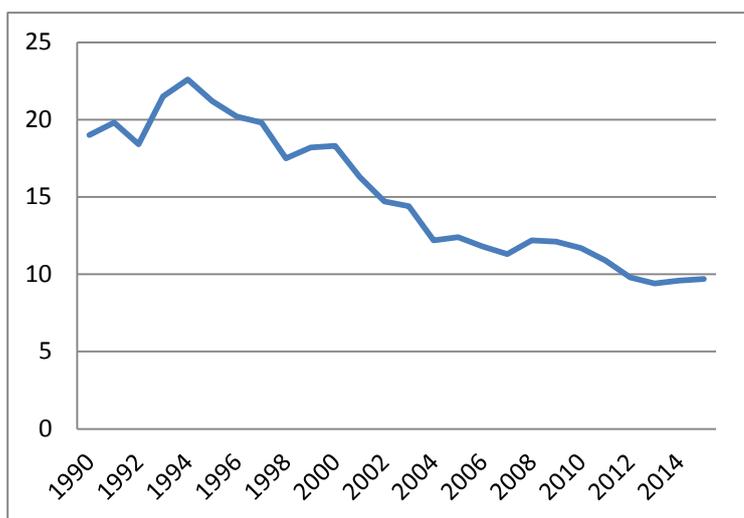
The death rate is the second component of population dynamics which contribute to evaluating population quality of the state. The death rate intensity depends on some demographical and socio-economic factors: age, sex, health, education level, environment conditions, job, professional activity, social environment etc. In this order, the general death rate should be filled up with other

demographic indicators study associated with it: infant mortality rate, maternal mortality, perinatal mortality, the mortality of the economical active ages, the mortality of children up to 5 years, which could put specific problems of the population quality measuring and interpretation.

The infant mortality presents a special importance in the geodemographic analyse due to its high intensity and specific. The new-born death up to 1 year is the most important death by ages. The infant mortality is influenced by a lot of factors and its level express, in a synthesized form, an aggregate of social, economic, cultural, health conditions. Finally, this indicator tells about the civilization welfare and the cultural level of a nation, which represents the population quality.

Analysing the infant mortality rate in progress, it could be observed that the indicator level decreased, fact that represents the improvement of this demographic aspect in the Republic of Moldova. A possible explanation of this situation it could be the realization of some national programs of perinatology, genetics,

alimentation, control of respiratory and acute diarrhoeal diseases, during the last years. These programs contribute directly to decrease the number of children deaths up to 1 year. Also, it is important to point out that during 5 years, after 1990r, this indicator was increasing. The phenomenon was explained by the unfavourable economic situation, also the limited access to medical institutions, poor living conditions etc. After 1994 year this indicator decreased thanks to the medical system improvement, higher accessibility to medical institutions, and higher level of education and informing of parents both in rural and urban areas. So, the fertility rate during a decade fell to half, decreased from 22,6‰ in 1994 year to 12,2‰ in 2004 year. During the 2008 and 2009 years, the indicator slowly increased to 12,2‰ and 12,1‰, the fact that tells about the instability healthcare system in the Republic of Moldova. The phenomenon is influenced especially by the children death in rural areas because of the poorer living conditions, lower level of general and health culture, less accessibility to healthcare and sanitary services. In 2005 year, the infant mortality rate was 9,7‰, with 0,1 percentage higher than the previous year (2014 – 9,6‰).



**Figure 2. The infant mortality rate in the Republic of Moldova, 1990-2015 (‰)**

*Source: elaborated by author after NBS*

There are some differences of the infant mortality rate by sex. The infant mortality rate of girls is lower than boys (table 1). This fact does not be explained nor of specialist in medicine, and they mentioned: "... interest phenomenon to be studied, in the Republic of Moldova conditions" [2, pag.18]. There are observed a change for last years, the boys infant mortality rate are higher than of girls. So, for 2014 and 2015 years there is registered 11,3‰ and 11,2‰ –for boys, 7,9‰ and 8,2‰ - for girls. The causes of these changes remain to be studied by specialists in medicine. Some of infant mortality causes could be the disease appeared in time, before the birth, during the intrauterine life, the consequence of the birth process, a consequence of the new-born contact with the environment and could be numerous diseases of the digestive system, respiratory system, infectious and parasitic diseases, injuries and intoxication, etc.

**Table 1**

**The infant mortality structure by sex, 1990-2015 (‰)**

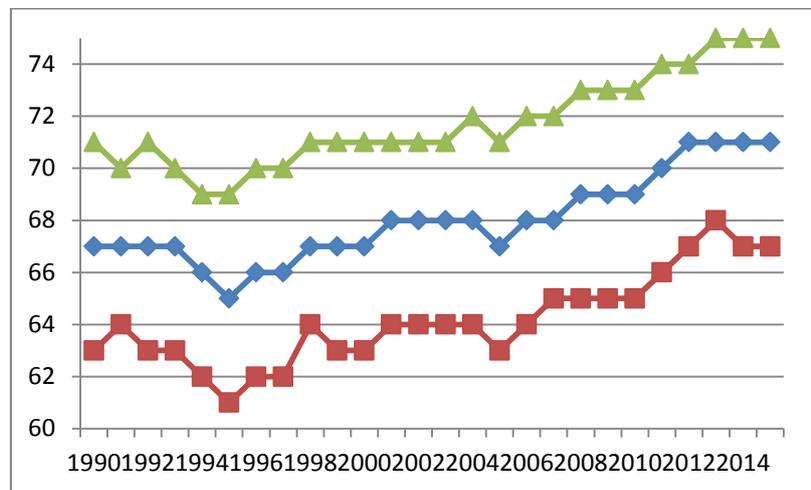
	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015
<b>Both sexes</b>	19,0	21,2	18,3	12,4	11,7	10,9	9,8	9,4	9,6	9,7
<b>Boys</b>	21,7	25,2	21,3	12,7	13,8	13,6	9,6	9,3	11,3	11,2
<b>Girls</b>	16,6	17,6	15,0	12,1	9,5	8,2	10,1	9,6	7,9	8,2

*Sources: NBS*

Another important indicator form the "health" category is the life expectancy at birth. This is the indicator that synthesizes all other health characteristics and evaluates the health situation of the state on the

whole. During 1990-2015 years, in the Republic of Moldova there are observed a tendency of increasing the life expectancy at birth. However, the level of economic development of the country determines lower level of life expectancy at birth compared with the European economical developed countries, where the life expectancy is about 78 to 83 years in 2015. For example in west European countries the indicator is about 80 years. In Switzerland the life expectancy at birth is highest in Europe: 81 years –e, 85 years – women [prb.org, access 20.04.17]. The differences between male and female life expectancy are keeping up relatively constant, with very small changes, about 8 years. One of the explanation of the male supra-mortality is accounted in one of the National Bureau of Statistics publication about population health and the population access to medical institutions in the Republic of Moldova, where it is mentioned that a significant difference of life expectancy at birth between men and women is the attitude towards own health, men visits medical institution less often than women [3, p.10].

The second part of the study is about territorial aspects of the health in the Republic of Moldova. The demographic analyse of the health statistics over space points out the regional situation in the country. The fertility rate shows that the number of born children by a woman is 1,26 children in 2007 and 1,24 in 2015. The lowest rates are registered in Chisinau (0,89 – 2007, 0,87 – 2013). The highest rate is registered in Şoldăneşti district, 1,67 children/ woman in 2007 and 1,79 children/ woman in 2015. It is important to mention that Şoldăneşti district registered the highest rates during the whole analysed period, from 2007 year to 2015 year.



**Figure 4. Life expectancy at birth, in the Republic of Moldova, 1990-2015**

*Source: elaborated by author after NBS*

The Central Region as the region of development registered the highest rate – 2015 – 1,47 children/woman and the lowest rate is registered in the South Region – 2015 – 1,36 children/woman. Other district registered rates from 0,85 to 1,79 children/woman. There are noticed the next districts with the highest rates in the Republic of Moldova, above 1,50 children/woman: Şoldăneşti, Sîngerei, Ungheni, Drochia, Donduşeni, Criuleni and Ştefan-Vodă. The most of mentioned above districts are from the Central Region of development. The lowest rates are registered in Bălţi, Basarabeasca, Chişinău şi Cimişlia, from 0,85 to 1,12 children/woman (figure5).

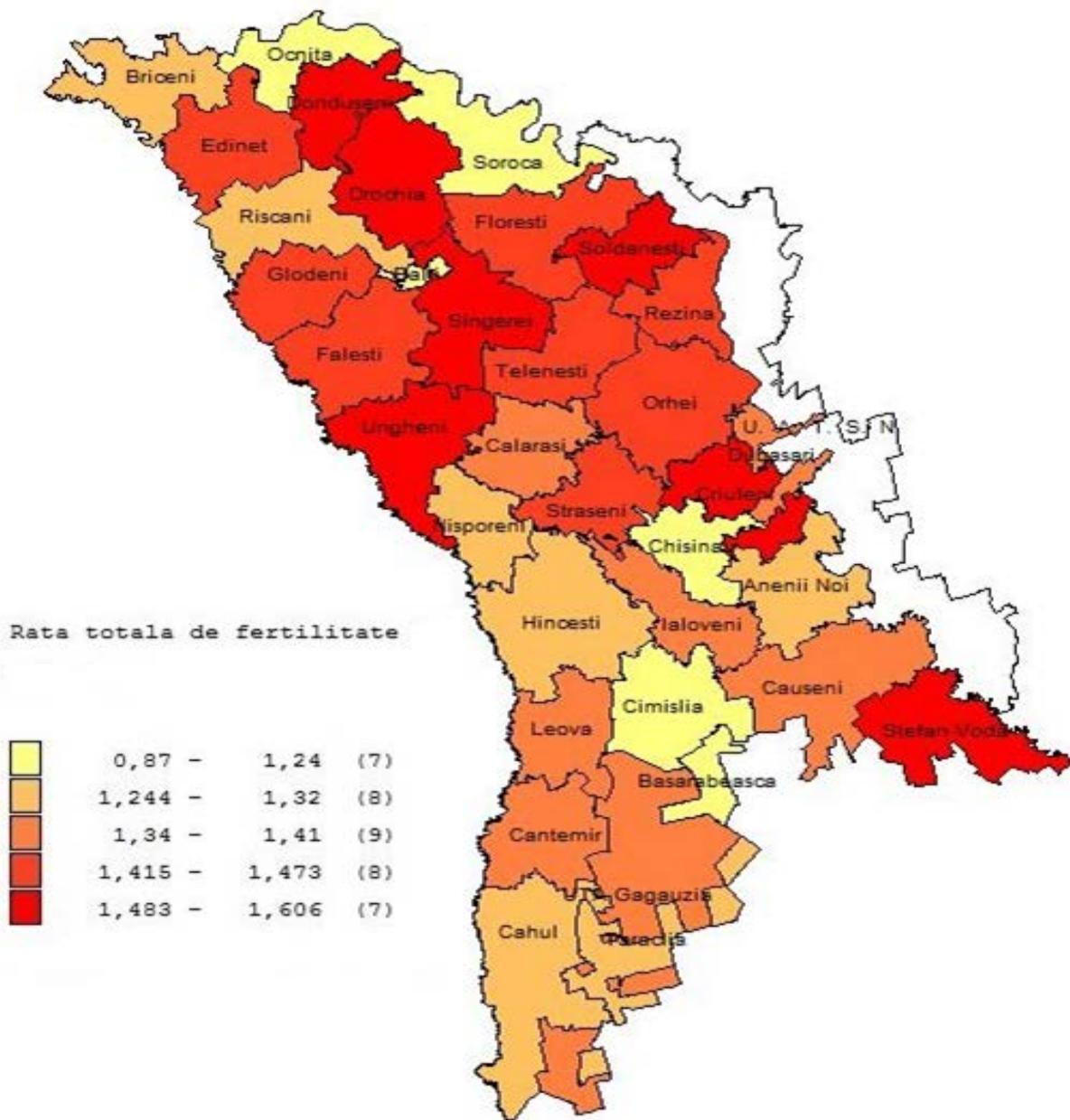
**Table 2**

**Total fertility rate by region (2007-2015)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total	1,26	1,28	1,33	1,31	1,27	1,28	1,24	1,28	1,30
<b>Municipality Chişinău</b>	<b>0,89</b>	<b>0,94</b>	<b>0,95</b>	<b>0,94</b>	<b>0,91</b>	<b>0,91</b>	<b>0,87</b>	<b>0,87</b>	<b>0,85</b>
The north region	1,34	1,36	1,45	1,41	1,35	1,36	1,34	1,40	1,43
The central region	1,47	1,45	1,49	1,47	1,41	1,42	1,40	1,44	1,47
<b>Şoldăneşti</b>	<b>1,67</b>	<b>1,52</b>	<b>1,87</b>	<b>1,74</b>	<b>1,71</b>	<b>1,62</b>	<b>1,54</b>	<b>1,76</b>	<b>1,79</b>
The south region	1,38	1,38	1,38	1,37	1,28	1,30	1,31	1,31	1,36

*Source: NBS*

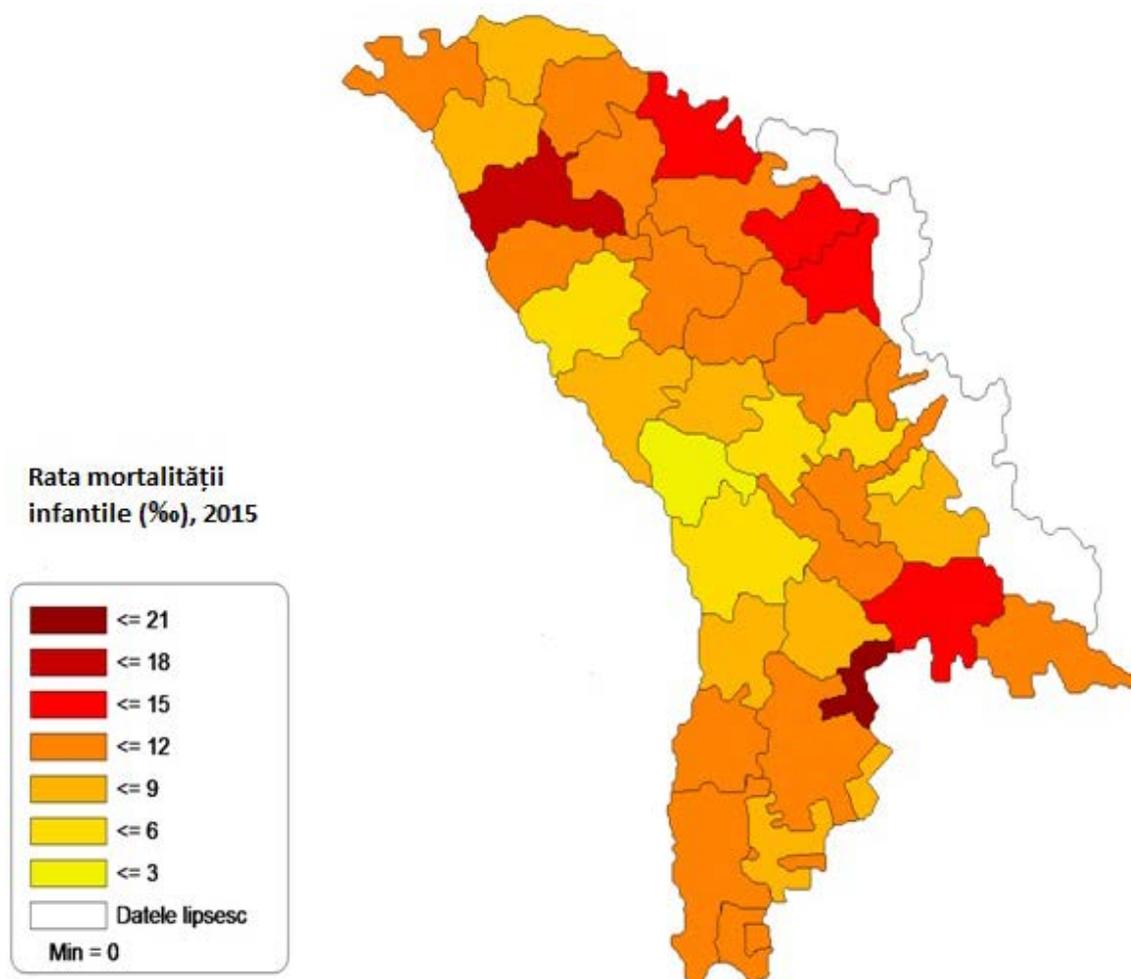
Another health demographic data is the infant mortality rate. The data tells about the socio-economic conditions of a nation and environmental conditions of the territory where they live. Territorially, the infant mortality rate is at the highest level in Râșcani and Basarabeasca districts, of 20,5‰ and 16,8‰. On the other hand there are districts where the infant mortality rate is at the lowest level, as Nisporeni (2,7‰), Criuleni (3,2‰) and Hîncești (4,5‰). It could be observed that the North and South development Regions are more affected by this problem than the Central Development Region. The phenomenon is caused by the lower level of medical assistance in the North and South Development Regions. The healthcare assistance is very important in maintain alive children up to 1 year.



**Figure 5. Map of the Republic of Moldova by total fertility rate, 2015**

*Source: BNS*

Also, the most equipped hospitals with necessary technics in hard and urgent situations is in the capital Chișinău and the proximity of the neighbourhood districts represents an advantage. It is interesting the fact that in Chișinău municipality the infant mortality rate registered a relative high level in 2013 year – 10,6 ‰, but in decreasing for 2014 year – 6,8 ‰. The process of rapid decline tells about the improvement of healthcare assistance, especially for children up to 1 year (figure 6).



**Figure 6. The Republic of Moldova map by infant mortality rate, 2015, ‰**

*Source: The National Centre of Health Management*

### Conclusions

The health statistics in the Republic of Moldova for the last 25 years registered different tendencies: of increasing for some aspects and decreasing for other at the same time. For the last 5 years there are observed some good changes, for example: the birth rate and the life expectancy at birth registered tendency of increasing, the infant mortality rate is increasing. On the other hand, the fertility rate is low and it is the process of decreasing. This fact tells about the worsening of these important aspects of the population quality in the Republic of Moldova. Analysing some health statistics in territorially, it could be observed big differences from a district to another, also, between development regions. The North and South Development regions registered less good rates than the Central Development Region, where the registered rates are better. Also, there are mentioned the same districts in different situations with lower or higher rates. This fact tells about the worse situation for some districts and the necessity to interfere in order to support or renovate the healthcare system functionality, also to inform and enlighten people about the importance of regular visits to doctor and the healthy way of life practice.

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## THE GEODEMOGRAPHICAL FEATURES IN THE RAUT'S HYDROGRAPHIC BASIN

*PhD student Nadejda CIOCAN, ASEM*

*Raut river basin is the largest hydrographic basin located entirely in Moldova. Its inside surface includes approximate 23% of the country, including almost all the districts of Donduseni, Drochia, Floresti, Singerei, Telenesti, Orhei and Balti.*

*The evolution of demographic phenomenon of recent years shows that there have been substantial changes in the Raut basin population. As a result of external migration of the population and reducing the birth rate in the period 2010-2015, the population in Raut river basin was reduced by 9.1 thousand people. The main demographic indicators are observed decreasing mortality and increasing by 0,8‰ to 0,1‰ birth. Such natural balance is negative (-0.7‰) and the population is reduced. But if it keeps decreasing mortality and increasing birth rates, in the future will attest to slow growth in population in this area.*

**Key words:** *Raut, river basin, birth rate, death rate, natural increase, migration.*

### **Introduction**

The progress of any economic or social activities, the society existence in general is in-conceivable, taking abstraction of the human collectivity and the vital geographical space of it. This fact explains and the population knowledge necessity at the hydrographic basins level, that will make available the report between geographic factors and demographic processes. The lack of permanent and relevant statistical information creates uncertainties and slows the realization of some assembly studies in the Raut river basin.

The geo-demographic features studies in the Raut river basin, has as a purpose the establishment of a certain trends and legitimates in the evolution of the demographic processes, both in dynamics and space. Also it follows the analysis' role of the environmental, economical, historical and social factors in the development and the evolution from the territory.

The demographical situation from the Raut river basin gets evolutionary aspect from the XIX century, because till then the human settlements from the basin limits practically didn't exist, the given situation being determined by the presence of the meadows, finesses and forests in in proportion of 60%. But with the fallow of the territories in agricultural purposes, in this space, takes place the growth of the population number. [1, p.25]. In the following periods the demographical situation from the districts of the Raut river basin is similar with that from the country level. The highest growth rhythm of the population number being attested in the '50-'90 of the XX century. In this period the birth rate grew, the death rate reduced, and the number of the immigrants from the former Soviet grew. After '90 followed a period of demographic decline, as a result of the natality reduction, the growth of the mortality and of the external migrations [2, p.12]. Beginning with the XXI century the demographical crisis does not diminish, and the population number from the Raut basin districts continue to decrease. During 2010-2016 period is distinguished a drastic downsizing of the main demographic indicators, and the improvement of the unleashed demographic processes is possible through the effective implementation and the long lasting demographic policies.

### **Materials and Methods**

This study was realized through the consultation of some geographical, historical and statistical bibliographies and analysing and processing a big number of facts. As a statistical base served the geographical dates realized in the limits of this space. Also, it was processed statistic materials from the National Bureau of Statistics. The material is focused on the geo-demographic study of the administrative units from the Raut hydrographic basin in 2010-2016 period.

Concerning the explanation of the relations and the highlighting of the demographical evolution in dynamics in different periods, it was used the historical method. And the processing under the quantitative and qualitative aspect of the facts related to demographic indices is possible through the statistical method. The analyze and synthesis give shape to the processing sources of data from the territory and the establishment of their integrity in the river basin. For the research and the interpretation of the demographical processes in time (2010-2016) and space (Raut basin) it was used the dynamic method. But for the determination of the geodemographic features specific for the river basin or at the administrative units level of it, taking into consideration the general particularities, it was used the deductive method.

### **Results and Discussions**

The passing from a state to another in the numerical evolution of the population depends, on one side of the population effective and of its structure, on the other side, of the natural and migratory movement.

In the population number evolution in the Raut hydrographic basin, during 2010-2016, takes place the reduction of the population effective from 668.9 thousand people in 2010, to 658.5 thousand people in 2016. The decrease of population number with 10.4 thousand residents or 1.5% in a 6 years period is rapid, comparing with the population decreasing rhythm at the country level (0.2%). The acceptance in the future of this kind of demographic decline in Raut basin, will determine the territory depopulation.

*Table 1*

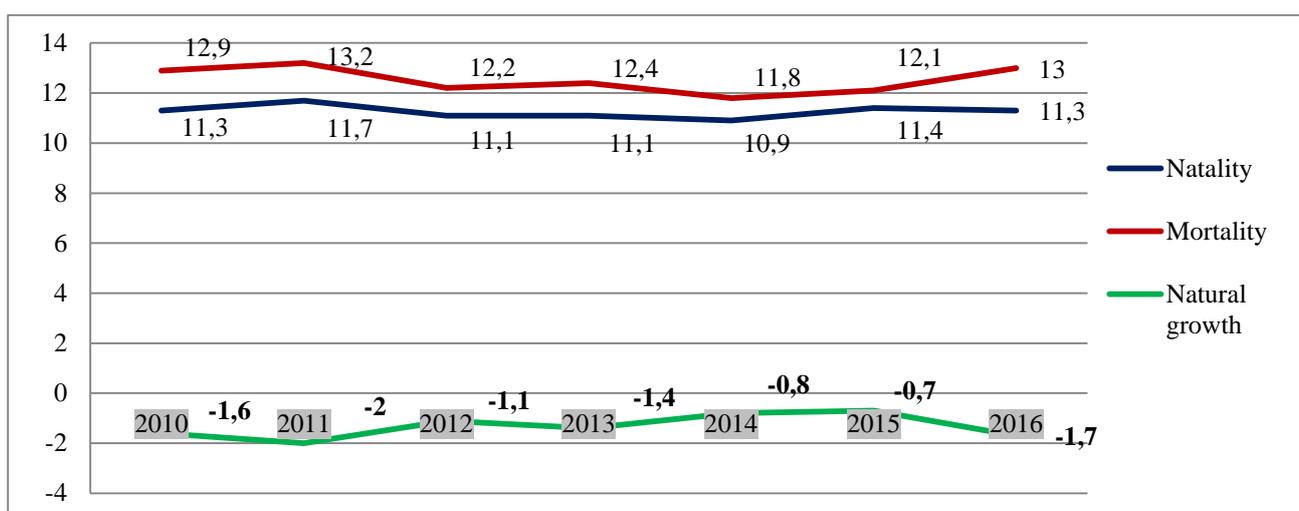
**Population number dynamics in Raut basin, 2010-2016, thous. people**

TAU	2010	2011	2012	2013	2014	2015	2016
Bălți municipality	148,1	148,9	149,2	149,7	149,8	150,2	150,7
Dondușeni	45,6	45	44,8	44,3	43,7	43,3	42,9
Drochia	90,6	90,1	89	88,9	88,5	88	87,7
Florești	90,6	90	89,5	88,9	88,7	88,1	87,6
Sîngerei	93,6	93,4	93,2	93,2	92,6	92,3	92,1
Orhei	125,8	125,8	125,7	125,5	125,4	125,1	124,9
Telenești	74,6	74,1	73,9	73,4	73,1	72,8	72,6
Total	668,9	667,3	665,3	663,9	661,8	659,8	658,5

*Source: elaborated by the author after NSB (National Statistical Bureau)*

Analysing the situation in the territorial profile, the majority of administrative units from the Raut basin limits face with the population decreasing, making exception the Balti municipality, where the population number increased in this period with 1.7% (2.6 thousand people), from 148.1 thousand people to 150.7 thousand people. The increasing of population number in Balti municipality, being determined by the high degree of urbanization and economical attractiveness. The highest rhythm of population effective decreasing is attested in the districts from the superior and middle course of Raut basin. A more obvious decreasing was registered in Dondușeni district – 5.9% (2,7thous.people), Drochia – 3.2%, (2,9thous. people) and in Florești district – 3.3% (3thous. people), the situation being influenced by the big distance from the capital and the main economic center from the region. As a result takes place the abroad migration of the working age people, and in consequence the decreasing of natality. The districts from the inferior course of the river, situated in the neighborhood of the central economical region, have a smaller rhythm of the population number decrease. Thereby in Orhei district the population number decreased with 0,7% (0,9thous.people), in Sângerei – 1,6% (1,5 thous.people), and in Telenești – 2,6% (2 thous.people).

The natural movement is the main component of the population evolution, influenced in the biggest part by the demographic indicators, that reflects some social aspects of population. So we can make different conclusions on population evolution, natural growth, demographic aging or the permanent replacement of some generations with the others.



**Figure 1. The evolution of the main demographic indicators in Raut basin, 2010-2016, %**

The most flexible and important indicator of the natural movement is natality, being influenced by many factors: economic, social, political, cultural and confessional.

The number of the people born in 2010-2016 period, in the administrative units from the Raut river basin is 51859 people, average 8643 people in a year. But the number of people born varies from a year to another. Beginning from 2010 and till 2014, the population birth rate in Raut basin decreased from 11,3‰ to 10,9‰, but from 2014 till 2016 takes place the growth of this till 11,3‰, being higher than the birth rate at the country level (10,9‰).

The majority of districts from the river basin face the decreasing of the birth rate till 2014, and in 2016 the values register an easy growth. Obvious changes are attested in Balti municipality and in Drochia district. In Drochia district in the period of 2010-2016, the birth rate increases with 0,6‰ (from 10,2‰ to 10,9‰), but in the Balti municipality takes place the decreasing of the birth rate with 0,6‰ (from 10,2‰ to 9,6‰). The birth rate in Floresti district has the smallest growth rhythm of the birth rate, in the researched period, of 0,1‰.

Another important demographic indicator is the mortality, representing the negative component of the natural movement. The intensity of the mortality depends of the socio-economical state of the population – age, sex, healthy state, environmental conditions etc.

The number of deceased persons in the studied period is 57739, with 5880 people more than were born. However the mortality rate grew with 0,1‰, from 12,9‰ in 2010 to 13‰ in 2016. Even if some positive changes are obvious in some districts of the Raut basin, the mortality rate values are bigger, comparing with the country mortality rate (11,1‰).

The mortality rate decreasing is attested in the majority of administrative units from the river basin. The most pronounced decrease being in Sângerei district – 0,9‰, Dondușeni and Florești districts with 0,8‰ and in the Bălți municipality with 0,8‰. Exceptions are Orhei and Telenești districts were is highlighted an easy growth of the mortality rate, in this period with 0,2‰ and respectively 0,1‰.

The birth rate and mortality dynamics and evolution determines the changes and the natural growth character of the population. During 2010-2016 the natural growth values in Raut river basin were negative, emphasizing an easy decreasing of only 0,1‰. In Sângerei district and in Balti municipality the natural growth was positive during the researched period. Positive natural growth was registered and in Telenesti district till 2015, but beginning with 2016 the natural growth value is negative. As a result of the high rate mortality values in 2016, in Dondușeni district is attested the smallest natural growth -6,5‰. In Raut basin natural growth is more reduced (-1,7‰) than the country average (-0,2‰). This situation is determined both by the birth rate growth (11,3‰), and the maintenance of the mortality high rate (13‰).

On the future population effective it leaves its mark and the child mortality, that is a basic indicator of the mother and child health, being in the same time a key indicator of the socio-economical and environment state of a human community. However as a basic pylon of their number decreasing is the population level of well-being, and also the development degree of medical and social assistance.

Child's mortality rate in Raut hydrographic basin, during 2010-2012 grows with 1,9‰. The growth of this indicator, being determined by the accelerated growth of child mortality in Dondușeni district, from 12,2‰ to 28,7‰ in 2012. The following period (2013-2015) is characterized through the child mortality rate decrease in the river basin with 1,0‰.

According to the territorial administrative units from the river basin, the highest growth rhythms of child mortality were attested in Dondușeni and Sângerei districts.

**Table 2**

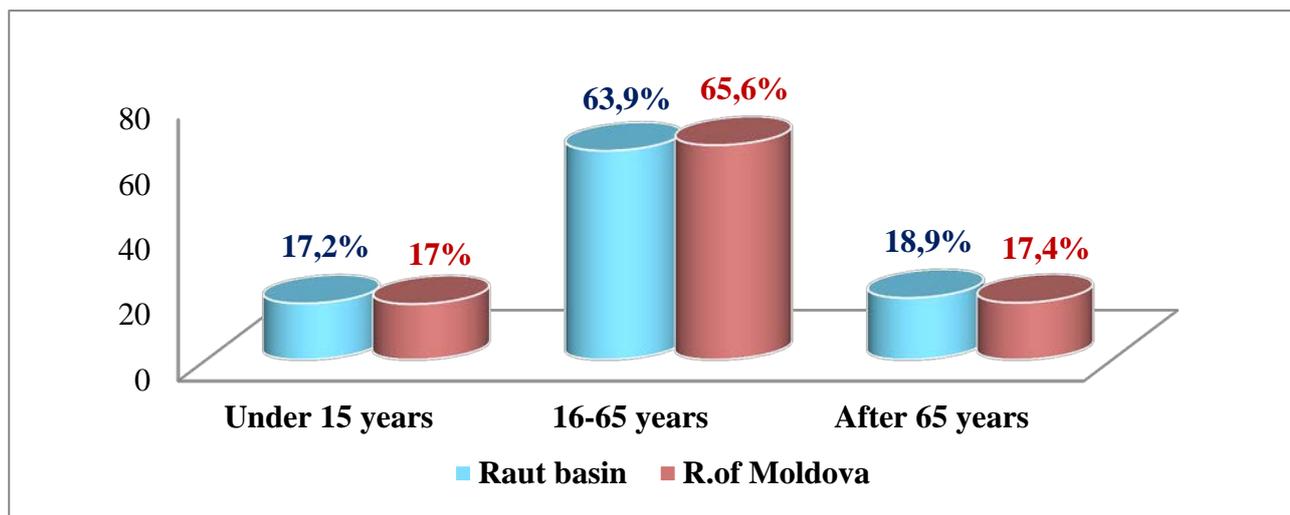
**Child mortality evolution in Raut river basin, 2010-2016, %**

TAU	2010		2011		2012		2013		2014		2015	
	nr.	%										
Bălți Municipality	13	8,6	13	8,3	13	8,6	11	7,3	14	9,5	13	9
Dondușeni	5	12,2	7	16,4	12	28,7	7	16,5	4	9,1	6	13,5
Drochia	5	5,4	7	7,7	10	11,5	4	4,6	9	10,1	15	5,5
Florești	16	16	14	13,4	15	14,9	10	10,2	11	11,4	17	16,7
Sângerei	16	13,4	14	12,2	20	17	14	11,8	13	11,2	20	16,9
Orhei	17	11,4	17	11,2	13	8,4	13	8,5	17	11,3	8	5,1
Telenești	11	11,9	18	20,8	12	13,9	8	9,5	10	12	10	11,2
Total	83	11	90	12,1	95	12,9	67	9,1	78	10,8	89	11,9

*Source: Elaborated by the author after NSB*

Beginning with 2010 year till 2015, in Donduseni district, child mortality rate grows with 1,3‰ or 41 deaths, but in Singerei district with 3,3‰ or 97 deaths. The smallest rhythms of child mortality rate are attested in Drochia, Orhei, Telenești districts and Balti municipality. In Balti municipality the growth rate of child mortality is 0,4‰, but in Drochia is 0,1‰. Telenești district indicates decreasing values of the mortality rate of 0,7‰, from 11,9‰ in 2010 to 11,2‰ in 2015. The more accentuated decrease of child mortality rate from Raut river basin is registered in Orhei district of 6,3 ‰, from 11,4‰ in 2010 to 5,1‰ in 2015.

In 2015 infant mortality rate, in Raut basin registered 11,9 ‰, value much bigger comparing with that of the Republic of Moldova that is 9,6 ‰. This fact is determined not only by the reducing efficiency of the health system, but more by the deaths reasons in the river basin. In consequence, if the situation will continue in this rhythm, in the following years we will observe gradually natural growth decreasing and the population number decrease in some districts.



**Figure 2. The weight structure of the population on the age groups, 2015, %**

The growth between population age groups, determines the capacity of appreciation of the generation replacement and the weight of working age population.

Comparing the population age group structure from the Raut river basin with that from the Republic of Moldova there are not big gaps. Though, based on the statistical data from 2015, we can confirm the bigger weight of the young people, in the Raut basin (17,2%) comparing with the country level (17,0%). But higher values in the river basin are registered and in the old age group, of 18,9%, comparing with Republic of Moldova, whose values are smaller – 17,4%. That denotes in the both cases the high degree of demographic aging. As a result the weight of working population in Raut hydrographic basin (63,9%), is more reduced than od the Republic of Moldova (65,6 %). If in the following years won't be positive changes of the natural growth and migration of the population, both in the Raut basin districts and the other districts from the Republic of Moldova will face the drastic reduction of the working population that will affect the economic situation of the country.

### Conclusions

As a result of the migration and the natality decreasing during 2010-2016 period, the population number decreased with 10,4 thousand people. Infant mortality rate is bigger than that from the country level with 2,3‰, situation influenced by child mortality rate from Donduseni district with 11,9‰. The natality rate decreases till 2014, attesting a growth of 0,4 ‰ in 2016. In 2010-2014 is highlighted the mortality reduction with 0,8‰, and till 2016 the mortality rate value grows with 0,9‰, that can determine in future a slow decrease of population number.

Even if at the country level the population is aging too, in the Raut river basin this indicator is 18,9% with 1,5% more than in Republic of Moldova.

Taking in consideration the researches importance on the population and the severity of the demographic situation from the region, are required some effective measures concerning the demographic processes evolution, first of all to stimulate the natality and to reduce the mortality through adequate socio-economical politics.

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## **THE INTERNATIONAL NORMATIVE FRAMEWORK OF THE ACTS IN THE FIELD OF CUSTOMS CONTROL WITH IMPLICATIONS ON THE ECONOMIC SECURITY OF THE STATE**

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*Customs control becomes a basic institution of the customs law and one of the important functions of the customs authorities. The mission of the customs control is conditioned by its direction towards the defense of constitutional values, and namely human rights and freedoms, as well as the national security problems of the country. At the same time, from the point of view of the international normative acts in the field of customs control, we state that certain purposes are pursued when carrying out the customs control. Here we reiterate the fact that one of the most important purposes of the customs control, set out in the international normative acts, is the protection of national security and economic interests of the country.*

**Key words.** *Customs control, economic security, foreign trade, international regime.*

### **I. Introduction (with indication of the aim of the research)**

At present, the primary subjects of the international reality, and namely the states, always aiming at the development of ascending qualitative economic relations, tend to increase their role in regulating the activities of conducting economic processes, fighting against all forms of crimes of international character, such as corruption and international illicit actions in the economic field, and which bring real threats to the economic security of the state.

Here, we state that these preventive actions can be achieved by setting up certain control activities, in our case customs control. That is why the international community, recognizing the effectiveness of these fighting measures, established a number of rules, primarily at the international level in the field of customs control, and which are designed to enhance the economic security of all signatory states.

Also, the organization of control activities also has a special role for the customs field. Foreign trade at all times played an important role for the economic life of any country. In this case, the objective of the customs bodies is to protect the economic sovereignty of the state, to ensure economic security.

In this context, the aim of this investigation within the limits of an article is to highlight the place and to analyze the contents of the acts in the field of customs control with implications on the economic security of the state.

### **II. Analysis of bibliographic sources in the field of the researched issue**

In this article, the author made an analysis of the issue of the international normative framework of the acts in the field of customs control with implications on the economic security of the state. In this context, the most relevant normative acts of international character were analyzed.

### **III. Methodology of research**

As regards the research methods, we mention that in order to achieve the aim of the investigation several methods were used.

*The method of content analysis of documents* was useful in the research of the normative acts of international character in the field of customs control. Special attention was given to the content analysis of the documents elaborated within UNO, EU.

*The empirical method*, used for the wider analysis of the phenomena occurring at the level of the customs control, actions falling within the scope of international documents and increasing the strengthening the economic security of the state.

*The functional method* includes the analysis, event tracking and correlation between them. For example, the method was used to investigate the emergence of the first acts of international character in the field of customs control with implications on the economic security of the state.

#### **IV. The obtained results**

If cross-border illicit actions can be fought at the national level, an effective solution to this issue at the international level can only be found in the context of international cooperation. Namely the existence of the international normative framework of the acts in the field of customs control with implications on the economic security of the state demonstrates the actuality and magnitude of this issue.

As regards international acts, we mention the International Convention on the Harmonization of Frontier Controls of Goods, signed at Geneva on 21 October 1982 [1], which was approved on behalf of the Community by Council Regulation (EEC) No. 1262/84 of 10 April 1984 and entered into force on 12 September 1987. The Republic of Moldova acceded to this Convention by Law No. 215-XVI of 23.10.2008 [2]. The objective of the Convention is to reduce the requirements for the completion of formalities, number and duration of controls, in particular, through a national and international coordination of control procedures and their implementation modalities [3]. Thus, the accession to the Convention falls within the major priority of our country's foreign trade policy, in particular, in the context of the internationalization of international goods and means of transport, in accordance with the most advanced international practices.

The Convention provides for measures to facilitate international trade and transport by simplifying and harmonizing border formalities, which will ensure the reduction of costs related to external economic transactions.

Due to the fact that many of the goods are transported by road across the customs border, the Convention on the Contract for the International Carriage of Goods by Road, signed in Geneva (CMR) [4] has a special significance. The Republic of Moldova has acceded to this Convention by Parliament Decision No. 1318 of 2 March 1993 [5].

Another international act on customs control is also the Customs Convention on the International Transport of Goods under Cover of T.I.R. Carnets (T.I.R. Convention) to which the Republic of Moldova is a party. This Convention regulates the procedure for the customs control of goods and means of transport enjoying facilities under the Convention.

The evolution registered by the T.I.R. Convention is first of all due to the fact that the negotiations conducted within the international institutions have a character of continuity, which allowed its revision and/or amendment, depending on the requirements imposed by the technical progress, as well as by the need to establish certain conditions to be met by road means of transport and containers in order to reduce and eliminate the customs frauds. The revision and amendments to the T.I.R. Convention were possible due to the „flexibility” shown by the Convention in this regard; those 17 countries which adopted it in 1959, still during the negotiations, providing the possibility to amend it, inserted in the Convention certain provisions (specified in articles 46 and 47 of the T.I.R. Convention of 1959) by which were created the premises and established the conditions to be met in order to be possible to make such amendments.

The Customs Convention on the International Transport of Goods under Cover of T.I.R. Carnets has its origins in the two draft conventions adopted by U.N.E.C.E. out of which one referred to commercial vehicles and the other one to the goods transported by road and which entered into force on 16 June 1949, on a provisional basis, bringing together a reduced number of countries; based on the provisions of these conventions the road means of transport could be imported temporarily under the cover of the “Border Crossing Carnet”. As regards the goods in transit, a solution regarding the sealing of goods to transit the territory of several countries had to be found, on the way to their destination, by which to allow the fulfilment of customs formalities to be applied to goods, at the destination, instead of fulfilling these formalities at the customs.

This issue was solved by using agreed vehicles, which had to be sealed and by using the T.I.R. Carnet, document regarding the transported goods and which equalled the Border Crossing Carnet, requested to the road vehicles [6].

The provisional agreement of 1949 had such a big success so that on the basis of the recommendations of I.R.U., 17 countries signed the T.I.R. Convention in 1959, which was elaborated within the Inland Transport Committee of U.N.E.C.E. and which, by the exemption from the payment of import rights on the road vehicles, ensured for the goods which were transported in agreed vehicles, their exemption from the payment of customs rights, not being subjected to control by the customs authorities.

The following act [7] is the International Convention on Mutual Administrative Assistance for the Prevention, Investigation and Repression of Customs Offenses of 09.06.1977, which refers to the cooperation of customs administrations, because the actions against offences are more effective by cooperation. Also, it allows granting mutual administrative assistance by exchanging information, conducting investigations, exchanging experience, etc., for the purpose of correct application of the legislation in the field, by

preventing, investigating and repressing customs frauds, which harm the economic, commercial, fiscal and social interests of the states concerned.

On the basis of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances [8] of 20 December 1988, the method of controlled delivery of narcotic and psychotropic substances is carried out. The object of this Convention is the promotion of cooperation between the parties, so that they can more effectively combat the various aspects of illicit trafficking in narcotic drugs and psychotropic substances which has an international reach.

We can not overlook the fact that, in the case of the Republic of Moldova, all the acts regulating the notion of customs control, the principles of its realization, the forms of customs control represent the normative framework of the customs control. Customs control must be carried out in strict accordance with the Constitution of the Republic of Moldova, the national legislation and we consider it important, with the bilateral treaties of the Republic of Moldova with other entities (states) of the international community.

Moreover, according to article 1 point (21) of the Customs Code of the Republic of Moldova, customs control is the set of actions taken by the customs authorities in order to apply and observe the laws and regulations that the customs authorities have the duty to apply [9]. On this basis, the customs control as part of the customs activity is carried out in accordance with the international norms and practice. The Republic of Moldova participates in the international cooperation in the field of customs activity [10].

As regards the recent events, it is also necessary to implement the provisions of the Association Agreement between the Republic of Moldova and the European Union. Therefore, a new stage in the evolution of the RM-EU relations was the signing of the Moldova-EU Association Agreement, which is an integral part of the Eastern Partnership policies. In this context, we will highlight that the Republic of Moldova, having benefited from the new opportunities in the RM-EU relation, after several years of negotiations, initialled on 29 November 2013, at the Vilnius Summit, the Association Agreement with the European Union, and on 27 June 2014, at the Brussels Summit, the Agreement was signed and subsequently ratified by the Parliament of the Republic of Moldova on 2 July 2014 [11].

In this context, the “National Action Plan for the Implementation of the Moldova – European Union Association Agreement for 2014-2016” was approved. In this context, the Customs Service is responsible for carrying out certain specialized actions, including customs control. Even in the preamble of the Association Agreement between the European Union and the Republic of Moldova, the logic of the causal interaction between the stages through which the Moldovan-community relations is found having as support the common values and strong links of the Parties, established in the past by the Partnership and Cooperation Agreement, subsequently developed within the framework of the European Neighborhood Policy and the Eastern Partnership. Among the arguments in favour of the Association Agreement, along with others, there is also a desire for cooperation in the customs field.

The Association Agreement provides that the Republic of Moldova and the EU will strengthen their cooperation in the customs sector in order to facilitate legitimate trade by improving the relevant legislation and procedures, administrative capacity and fraud prevention. The legislation and regulations on the customs regime will provide for [12]:

- adopting proportionate, transparent, predictable, non-discriminatory, impartial and uniformly and efficiently applied procedures;
- protecting and facilitating legitimate trade by effective application and compliance with the legislative requirements;
- eliminating unnecessary or discriminatory constraints on economic operators, preventing fraud and providing additional facilities to the economic operators with a high level of compliance;
- applying a Single Administrative Document (SAD) for the purpose of customs declarations;
- making the customs procedures and practices at the border more effective, more transparent and more simple;
- applying modern customs techniques, including risk assessment, post-clearance control and audit methods of companies, in order to simplify and facilitate the entry and release of goods, etc.

In order to make the activity of the Moldovan customs authorities more efficient in detecting the offences that threaten the economic security of the country, the Customs Service, in conjunction with the International Criminal Investigative Training Assistance Program (ICITAP) of the US Department of Justice, in April 2009 completed the implementation of the New Computerized Transit System (NCTS) throughout the Republic of Moldova in accordance with the Action Program on the Implementation of the Preliminary Country Plan of the Republic of Moldova under the US Millennium Challenge Program approved by Government Decision No. 32 of 11.01.2007 [13].

Another set of acts regarding the direct customs control activity refer to the bilateral agreements of the Republic of Moldova, among which:

- The Agreement between the Customs Control Department of the Republic of Moldova and the State Fiscal Committee of the Republic of Uzbekistan on Collaboration in Combating Smuggling and Customs Offenses of 30.03.1995 – by which the parties will take all necessary measures, stipulated in the interstate agreements and laws of both republics, aimed to prevent the introduction, removal or unlawful transit of means of transport, goods, luggages, postings, currency, other means of payment and currency values, in order to avoid prejudicing the economic and other interests of the participating states [14];
- The Protocol between the Department of the Border Guard Troops of the Republic of Moldova, the Customs Department of the Republic of Moldova and the Administration of the State Border Service of Ukraine, the State Customs Service of Ukraine on the organization of the joint control at the “Briceni-Rossosani” road crossing point of 12.01.2004 – regulating the order of organizing and carrying out border control, customs control and other controls over people, means of transport and cargo at the international road crossing point of the “Briceni-Rossosani” Moldovan-Ukrainian state border [15];
- The Protocol between the Customs Service under the Ministry of Finance of the Republic of Moldova and the Federal Customs Service (Russian Federation) on the mutual recognition of certain results of customs control in customs operations in respect of goods and means of transport displaced between the Republic of Moldova and the Russian Federation of 03.10.2013 [16];
- The Protocol between the Border Police Department of the Ministry of Internal Affairs of the Republic of Moldova, the Customs Service under the Ministry of Finance of the Republic of Moldova and the Administration of the State Border Service of Ukraine, the State Tax Service of Ukraine on the organization of joint control at the “Pervomaisc-Cuciurgan” international crossing point on the territory of Ukraine of 04.11.2015 [17] etc.

Also, with the implicit activity of detecting illicit actions that threaten state economic security, including through the application of customs control procedures, the Republic of Moldova concluded cooperation conventions and agreements for fighting trafficking in drugs and psychotropic substances and related crimes, Such as:

- The Agreement of 03.06.1994 between the Government of the Republic of Moldova and the Government of Turkey on fighting international illicit trafficking in drugs, international terrorism and other organized crimes [18];
- The Agreement of 30.03.1995 between the Customs Control Department of the Republic of Moldova and the State Fiscal Committee of the Republic of Uzbekistan on cooperation in fighting trafficking in arms, munitions, explosives, narcotics and psychotropic substances [19];
- The Agreement of 04.06.1997 between the Government of the Republic of Moldova and the Government of the Republic of Hungary on cooperation in fighting terrorism, trafficking in drugs and organized crime [20];
- The Agreement of 29.05.2003 between the Government of the Republic of Moldova and the Government of the Republic of Latvia on cooperation in fighting terrorism, trafficking in drugs, psychotropic substances and their precursors and organized crime [21];
- The Agreement of 10.07.2003 between the Government of the Republic of Moldova and the Government of the State of Israel on cooperation in fighting trafficking in and abuse of drugs, psychotropic substances and other serious crimes [22];
- The Agreement of 07.08.2003 between the Government of the Republic of Moldova and the Government of the Czech Republic on cooperation in fighting organized crime, trafficking in drugs and psychotropic substances, terrorism and other serious crimes;
- The Agreement of 04.06.1999 on the cooperation of the member states of the Commonwealth of Independent States in fighting terrorism;
- The Agreement of 30.11.2000 on the cooperation of the C.I.S member states in fighting trafficking in drugs, psychotropic substances and their precursors (adhered by the Parliament Decision No. 252-XIII of 02.11.94);
- The Criminal Law Convention on Corruption concluded in Strasbourg on 27 January 1999, etc.

## **V. Conclusions**

Summing up those presented in the article, the author thinks that the organization of the control activities have a special role for the customs sphere. In this case, the objective of the customs bodies is to protect the economic sovereignty of the state, to ensure economic security.

However, following the analysis of the specialized literature, which consists in researching the doctrinal and content approaches of the international conventions, we succeeded in carrying out the aim of this article, which was summed up in particular to the thorough analysis of the international normative framework of the acts in the field of customs control, the insertion of international documents mentioned with the issue of the economic security of the state, as well as the formulation of the practical recommendations for increasing the effectiveness of this control.

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- the Republic of Moldova and the Russian Federation of 03.10 .2013 Official Gazette No. 252-257/1666 of 08.11.2013.
17. Protocol between the Border Police Department of the Ministry of Internal Affairs of the Republic of Moldova, the Customs Service under the Ministry of Finance of the Republic of Moldova and the Administration of the State Border Service of Ukraine, the State Tax Service of Ukraine on the organization of joint control at the “Pervomaisc-Cuciurgan” international crossing point on the territory of Ukraine of 04.11.2015. Official Gazette No. 332-339/2394 of 11.12.2015.
  18. Agreement between the Government of the Republic of Moldova and the Government of Turkey on fighting international illicit trafficking in drugs, international terrorism and other organized crimes of 03.06.1994 // “International Treaties”, 1999, volume 23, page 255.
  19. Agreement between the Customs Control Department of the Republic of Moldova and the State Fiscal Committee of the Republic of Uzbekistan on cooperation in fighting trafficking in arms, munitions, explosives, narcotics and psychotropic substances of 30.03.1995 // “International Treaties”, 1999, volume 22, page 454.
  20. Agreement between the Government of the Republic of Moldova and the Government of the Republic of Hungary on cooperation in fighting terrorism, trafficking in drugs and organized crime of 04.06.1997 // “International Treaties”, 1999, volume 22, page 353.
  21. Agreement between the Government of the Republic of Moldova and the Government of the Republic of Latvia on cooperation in fighting terrorism, trafficking in drugs, psychotropic substances and their precursors and organized crime of 29.05.2003 // “International Treaties”, 2005, volume 33.
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## EVOLUTION OF THE CONCEPT OF ECONOMIC CLUSTER

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*As result of globalization and increasing degree of economic openness, businesses are looking for solutions to gain sustainable competitive advantages. In this sense, they see clusters as an engine of economic growth and long term strategies to increase performance. Due to their huge potential, clusters have become an effective tool of state policy as well, used to stimulate the economic development. Accordingly, they have spurred the interest of researchers, economists and policy makers to investigate their role at microeconomic and macroeconomic levels.*

**Key words:** *economic clusters, growth poles, cooperation, competitiveness, Michael Porter's diamond.*

### **Introduction**

In recent years, the concept of clustering is seen as a pillar of economic development based on competitiveness and sustainability. Originating in strategic management literature, the cluster concept has expanded over time, gaining a much wider connotation. Cluster definition is a modern synthesis of extensive processes of observations and research over time. De facto, the cluster concept is not so new, being studied from the beginning of the nineteenth century under another term, but encompassing mostly the same meaning.

*Michael Porter* is considered to be the father of the cluster concept. According to his definition “A cluster is a geographical proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and externalities” [8].

Association in clusters can contribute to strengthen the national economic development through valorization of its competitive and comparative advantages. Also they can become a catalyst for public reform, trade capacity improvement, private-public cooperation and regional sustainable economic development.

*The scope* of this research is to review the evolution of the cluster concept development by analyzing the works of the notorious researchers in the field and clarifying the cluster definition and characteristics.

### **Analysis of literature in the field of the research**

The cluster concept has been studied by scientists belonging to different disciplines, such as economic geography, management and innovation studies, and economic sociology. For this publication a detailed examination of the works of national and international researchers was performed in order to grasp the

essence of the clustering phenomenon. In his famous works “The competitive advantage of nations” and “On Competition”, representing the foundation of the cluster concept, M. Porter describes the close relationship between partnership within the cluster and the competitiveness of enterprises and industrial sectors.

To the developing of the cluster theory a great contribution was brought by A. Marshall, M. Porter, F. Perroux, G. Becattini, P. Krugman. Moreover, studies and reports of international research institutes (World Bank “Clusters for Competitiveness”, OCDE “Cluster policy and smart specialization”) serve an important framework for cluster development policies outlining the key instruments that can be used to initiate a cluster-based analyses and dialogues, and offers case studies on good practices and lessons to learn.

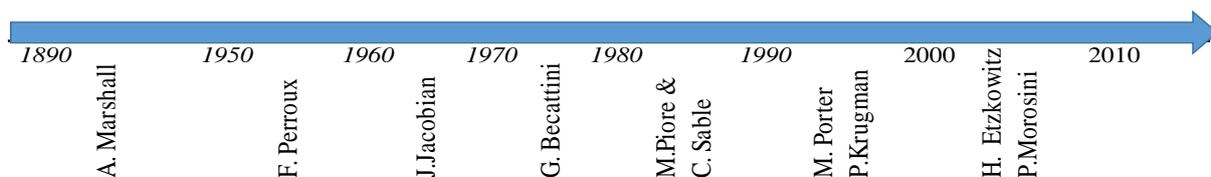
In the works of the national researchers, the problems of identifying and creating clusters have been reflected in the last decade. Certain aspects of cluster activity were addressed in the works of C. Lozovanu, A. Popa, A. Smîc, N. Cusnir. A recent publication of IDIS Viitorul – “Policies for cluster development in the Republic of Moldova” represents an important source of solutions and instruments that government should apply in order to stimulate the creation of clusters in the Republic of Moldova.

### Methodology of the research

A central point in this research is the theoretical direction aiming to examine the concepts regarding the evolution of cluster and delimitate its definition. The analysis approach is applied in defining the concept of economic cluster and the synthesis approach is used to expose the information in a coherent way, summarizing the bibliographical sources. The comparison method is used to highlight the clustering aspects in the view of different researchers and the founders and main disseminators of the cluster concept across time have been identified through historical approach.

### The achieved results

The roots of the cluster concept evolution date from the nineteen century. The concept of cluster has quite a long history, attributing it several names, including “competitiveness pole”, “industrial district”, “industrial agglomeration”.



**Figure 1. Time axis for the cluster concept evolution**

*Source: Authors' elaborations*

*Alfred Marshall*, in the “Principles of Economics”, published in 1920, was the first who described the cluster concept using the term industrial districts. This term defines concentration of specialized industries in particular localities. Analyzing the economic circuit in London, he came to the conclusion that the companies were interconnected by three basic factors, also known as the “Marshallian trinity”, namely: labor force, specialized suppliers and access to knowledge and information. And the industrial districts create involuntary positive externalities:

- Effects on the labor force: the fact that a large number of enterprises are supplied from the same pool of labor force has as consequences on the one hand – the increase of salaries, and on the another - the specialization and the increase of its level of qualification;
- Supplier specialization effects: in order to avoid competition, companies in an agglomeration tend to specialize on a particular segment of the value-added chain and to offer high quality goods at lower prices;
- Technology transfer: Marshall stated that information and knowledge “fly in air” between existing enterprises within the geographical concentration, this representing a key element for continuous innovation.

Therefore, the industrial districts create several advantages. First of all, due to less competition occurring within specific region this contributes to earning higher profits by firms. Also the presence of an unchanging customer base means permanent income and the steady presence of supplier’s network lead to lower costs for the firm’s operations as well. Moreover, the geographic concentration contributes to strengthening personable relations that yield better business in all manners [5].

Also a great contribution to the modern cluster’s concept development had *Francois Perroux*, the main author of growth poles theory, created in the 1950’ies. The process of economic growth is explained by Perroux in the following way: “It is a blunt and indisputable fact that growth is not uniform in different

places but growth has different degrees of intensity in different points, or poles, and then it spreads via channels and its final result for the state economy is different in different regions” [11, p 10].

During the '60s the *Jean Jacobian* reflection on cities, and on what has been called Jacobs externalities, becomes a new point of reference. She challenged the conventional economic theory with the work “*The Economy of Cities*”, proposing a new concept – the urban growth pole. According to this concept, the main role to the human economic development is attributed to cities, not vice-versa. To argue this theory, the author gave as explanation that economic development depends on the discovery and diffusion of new knowledge, and this processes mainly take place in urban areas, because cities provide necessary conditions that stimulates knowledge spreading within and between different industries. These flows are key elements for the development of new products and refinements to production processes and therefore to innovation [3].

In 70's a revolution in the field of economic development around the world was determined by the studies of the *Giacomo Becattini* concerning the notion of the Marshallian industrial district.

According to Becattini, the industrial districts have several characteristics:

- they are networks of firms open to international competition and must base their production on industrial activities.
- the firms must be in competition with each other because otherwise it would lead to creation of monopolies and the district would concentrate the activity in one or a few large companies.
- the industrial district must have an industrial atmosphere, generating a wide range of positive external economies, that refers to spreading of information, innovation and technology and also that affects the labor market, through providing specific and generic training characteristic of the dominant activity in the district.
- in the district the costs are shared by different companies which make cost analysis production of a single firm largely irrelevant: production becomes efficient because it is joint production [11, p.9].

Another model that has influenced company strategies in the 1980s is that described by *M. Piore* and *C. Sabel* through the concept of “flexible specialization” that launched the principles of networking and outsourcing. Competition and instability caused by globalization and the need to avoid a potential crisis urged the actors and institutions to adopt a flexible specialization. It is focused on high competences, personalization, flexibility and efficiency in working practices. In such a way companies are oriented to a decentralized, innovative, multi-product and flexible economic model. This type of specialization offers the opportunity to react and respectively to respond faster to external constrains. This model implies a core, a key enterprise that establishes a wide range of networks with groups of firms or small production units and implies the outsourcing of some activities permanently or temporarily, according to the economic situation on the market or demand factors [11, p10].

The overall development of the cluster concept reached the boom in the '90s. In the paper “Competitive Advantage of the Nation”, Michael Porter has demonstrated that in order to explain the economic success of a country or region it is not enough to resort to the classical theory of production factors, because it depends on the complex interaction of some of the factors, called today the “Porter Diamond”: *demand, enterprise strategy and competition, production factors, supply chains, and horizontal integration* [6]. Michal Porter has performed an extensive research on clusters, continuing with each new work to bring new theories and arguments to support the cluster concept. Therefore, in the “Clusters and the new economics of competition” published in 1998, Porter re-confirms the geographically proximate nature of firms in a cluster and that cluster participants are “interconnected companies and institutions in a particular field”, extending the network of cluster participant and underlying the important role of governmental and other institutions – such as universities, think tanks, vocational training providers, trade associations – that ensure the transfer of knowledge and innovation through “specialized training, education, information, research, and technical support”. In the book “On competition” Porter describes clusters as “critical masses of unusual competitive success”, thereby supporting earlier contentions regarding the competitive advantage to be gained through clustering. Later (2000) in the work “Location, Clusters, and Company Strategy” Porter redefined the cluster concept from the point of view of the type of relations between cluster members “cluster is a geographically proximate group of inter connected companies and associated institutions in a particular field, linked by commonalities and complementarities” specifying that “its boundaries range from a single city or state to a country or even a group of neighboring countries” and also concluded that “proximity in geographic, cultural, and institutional terms allows special access, special relationships, better information, powerful incentives, and other advantages in productivity and productivity growth that are difficult to tap from a distance”.

In the book “The economic performance of regions” (2003), Porter described several types of industries that can implement the opportunity to associate in clusters:

- local enterprises activating at local level that are not in direct competition with industries outside the local area;
- enterprises dependent on resource which are located in close proximity to the resources they need to use in the production processes;
- traded industries – these are not resource dependent, but companies engaged in trade activities (usually trade of services) across regions, mostly to other countries. [9]

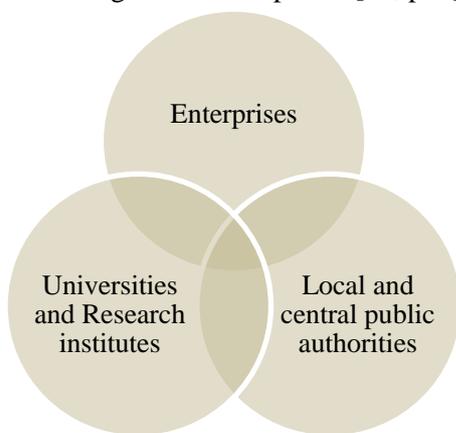
Also here it is important to mention the contribution of *Paul Krugman* (1991), who constructed a theory of economic localization based on increasing return: “Clusters are not seen as fixed flows of goods and services, but rather as dynamic arrangements based on knowledge creation, increasing returns and innovation in a broad sense” [4].

### Cluster definition

The concept of “economic cluster” has a rather long history, attributing it several names, including “competitiveness pole”, “industrial district”, “industrial agglomeration”. Currently, the terms that have been imposed are “cluster” and “pole of competitiveness” (in France and Belgium). Although originally there is none difference between the cluster term (Anglo-Saxon) and pole of competitiveness (French origin), however, they tend to be used differently, fact requiring a conceptual delimitation of these two terms.

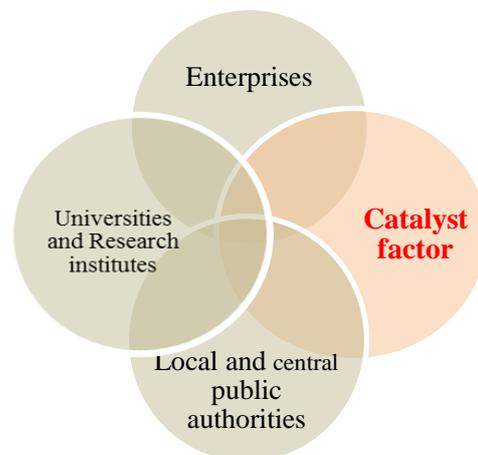
Thus, the term “*cluster*” mainly indicates industrial agglomerations and focuses on the concentration of enterprises in the same or related fields, with the economic effects as they have been identified by Marshall: (on labor, on the specialization of suppliers and on technological transfer and innovation). They may or may not have the complete “triple helix” structure.

While the “*pole of competitiveness*” is an association of enterprises, research and development organizations and training, working in partnership to implement a common development strategy. This strategy is built around innovative projects with the ultimate goal of addressing one or more markets. So, it is considered that the poles of competitiveness have the complete triple helix structure. The “triple helix” model that brings together in a cluster, representative of: *enterprises* – representing the economic side of the cluster; *universities and research institutes* – representing innovative solution providers for the real needs of cluster enterprises; *local, regional public authorities* – with competences in facilitating innovative processes and harmonizing their development [11, p84].



**Figure 2. The “Triple Helix” model**

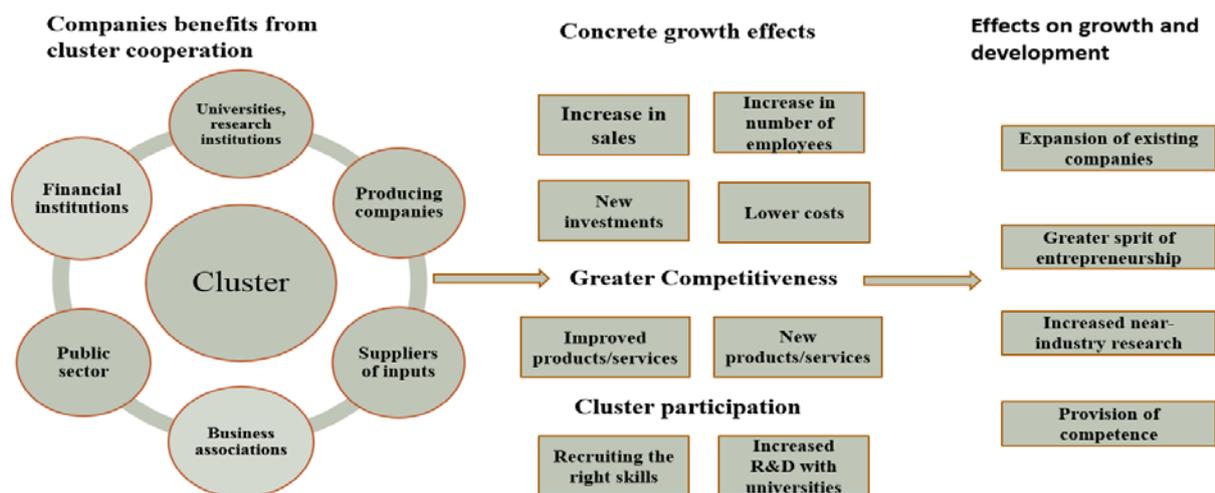
*Source: adapted according to Etzkowitz model*



**Figure 3. The “Four Cloves” model**

*Source: adapted according to www.clustero.eu*

Therefore, a cluster represents first of all the interaction between the public and private sector. This relation is very important because the incentives offered by the state through efficient legislative framework and assistance can stimulate the developing and well-functioning of the clusters. Therefore, the public sector should be a high-profile actor in the initial stages, in guiding the cluster mapping, and in the later stages, stimulating the establishment of public-private partnerships and collaboration in order to eliminate constraints and institutional bottlenecks that inhibit industry and business. The others members of the cluster should involve alongside with the production companies and their inputs and services providers also the research institutions like universities, think-tank centers, business consulting firms, which represent a very important pillar for innovation. Moreover, as each business needs financing and a specific capital, financial institutions should be either a part of an economic cluster. Association in clusters creates a more credible image for creditors that can allocate the necessary funds at preferential interest rates or with grates periods for.



**Figure 4. Cluster factors model and its effects**

*Source: elaborated by the author according to Värmland Cluster Initiative Evaluation Model [12, p.87]*

The association in clusters generates for the companies the opportunity to establish sustainable cooperation networks. Referring to benefits of cluster, we can mention direct economic results for companies like increase of sales, higher investment returns, economy of scale, the development of new product or services. Moreover, these benefits are extended not only to the member companies, but either to the region as a whole. These positive effects are explained by the fact the clusters create a unique ecosystem that facilitates the share of knowledge, innovation, ideas that ultimately lead to the progress of the society and improvement of its role on international arena.

### Conclusion

Michael Porter, who re-established the classical theory of production factors into a new diamond of competitiveness, was the key contributor to the development of the modern cluster concept. Potential intangible effects of clusters within an industry are very important because they stimulate the competition growth, collaboration between companies to produce more innovative ideas and to outline a win-win environment that leads to reaching new levels of performance.

Due to the effects of clusters embedded in the externality of the network, firms grow and contribute to the development of the industry, thus contributing to the growth of economic regions, attractiveness for companies and investments and respectively the degree of international competitiveness.

According to the above mentioned papers, the personal conclusion is that the economic cluster represents a successful solution for economic development since it offers a combination of entrepreneurial dynamism, intense links between companies and institutions which have top-level knowledge, and proactive synergies among the main actors of innovation. The benefits of belonging to clusters are generated as a result of both easy and fast access to research knowledge and results in order to implement them in production and the realization of innovative products, using performing technologies and common development strategies, starting from those of cooperation in production and in the acquisition of technologies and equipment up to the joint use of marketing strategies.

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## **SECTION 4: DISCIPLINES:**

- 521.03. APPLIED ECONOMICS AND MANAGEMENT**
- 521.04. MARKETING AND LOGISTICS**

### **ANALYSIS OF TECHNICAL STANDARDS AND TECHNICAL SPECIFICATIONS WITH DIRECT AND INDIRECT RELIABILITY ON THE CHEMICAL INDUSTRY IN ROMANIA AND THE REPUBLIC OF MOLDOVA**

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*As in Romania, as well as in the Republic of Moldova, the standards check the quality of varnishes and paints by the following tests:*

- ✓ *the color of the coating,*
- ✓ *the appearance of the coating and lacquer,*
- ✓ *the iodometric scale,*
- ✓ *the mechanical impurity content,*
- ✓ *the non-volatile fraction,*
- ✓ *the coating strength,*
- ✓ *the conventional viscosity and light resistance,*
- ✓ *the drying time up to the 3rd degree,*
- ✓ *release,*
- ✓ *shelf life,*
- ✓ *coating gloss,*
- ✓ *shock resistance,*
- ✓ *pH index.*

**Keywords:** *chemical industry, standards, technical specifications, varnishes, paints, eco label, iodometric scale, mechanical impurity content, coating strength, conventional viscosity, light resistance, release, shelf life, coating gloss, pH index, shock resistance.*

With Romania's integration into the European Union, Romanian economic agents have seen the implicit benefits of free movement of goods on the EU market. But it also faces much more rigid competition.

The advantages resulting from the use of lakes and paints are as follows: the removal of technical barriers to trade; sustaining legislation; increasing competitiveness in industry; facilitates trade; ensure economic development; reducing transaction costs; better management quality in organizations.

**Study goal:** *Studying the technical regulations on the territory of Romania and the Republic of Moldova, for verify the quality of lakes and paints.*

**Study objectives:** *To present the role of standards for paints and varnishes, to enumerate the current standards in Romania that verify the quality of paints and varnishes, to enumerate the current standards in the Republic of Moldova according to which they verify the quality of paints and varnishes, to characterize the standards comprising the criteria for offering the labels Eco.*

For products used to repair or restore protection (coatings) against aggressive agents in electrical distribution networks, protection of concrete and masonry surfaces, wood and metal, other than those provided in ST No. 54 – Materials for corrosion protection of metallic structures in the networks electrical distribution and ST 53 – Materials for repairing defects in concrete elements related to the distribution networks, are regulated by the following:

Table 1

Normative references in Romania<sup>1</sup>

SR EN ISO 4618:2007	Paints and varnishes. Terms and definitions
SR EN ISO 12944-1:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 1: General Introduction.
SR EN ISO 12944-2:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 2: Environmental classification.
SR EN ISO 12944-3:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 3: Design and constructive provisions.
SR EN ISO 12944-4:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 4: Surface types and surface preparation.
SR EN ISO 12944-5:2008	Paints and varnishes. Coating protection of steel structures against corrosion Part 5: Paint systems
SR EN ISO 12944-7:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 7: Execution and supervision of painting work
SR EN ISO 1518:2003	Paints and varnishes. Scratch test.
SR EN ISO 2409:2007	Paints and varnishes. Trying at the grid.
SR EN ISO 6860:2006	Paints and varnishes. Bending test (conical chuck).
SR ISO 11503:1997	Paints and varnishes. Determination of moisture resistance (repeated condensation)
SR EN ISO 4618:2007	Paints and varnishes. Terms and definitions
SR EN ISO 12944-1:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 1: General Introduction.
SR EN ISO 12944-2:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 2: Environmental classification.
SR EN ISO 12944-3:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 3: Design and constructive provisions.
SR EN ISO 12944-4:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 4: Surface types and surface preparation.
SR EN ISO 12944-5:2008	Paints and varnishes. Coating protection of steel structures against corrosion Part 5: Paint systems
SR EN ISO 12944-7:2002	Paints and varnishes. Protection by painting systems of steel structures against corrosion. Part 7: Execution and supervision of painting work
SR EN ISO 1518:2003	Paints and varnishes. Scratch test.
SR EN ISO 2409:2007	Paints and varnishes. Trying at the grid.
SR EN ISO 6860:2006	Paints and varnishes. Bending test (conical chuck).
SR ISO 11503:1997	Paints and varnishes. Determination of moisture resistance (repeated condensation)

**Source:** Translated and adapted by the author. Normative references for paints and varnishes. <http://www.edtn.ro/wp-content/uploads/2012/03/ST54-protectii-anticorozive.pdf>. Viewed on 25.04.2017

The technical specifications comprising the eco-label criteria for paints and varnishes used for interiors are presented in the table:

<sup>1</sup> Translated and adapted by the author. Normative references for paints and varnishes. <http://www.edtn.ro/wp-content/uploads/2012/03/ST54-protectii-anticorozive.pdf>. Viewed on 25.04.2017

### Technical specifications for awarding the eco label in Romania<sup>1</sup>

SR EN 13300:2002	Paints and varnishes – Water-borne coating materials and coating systems for interior walls and ceilings – Classification
SR ISO 6504-3:2003 Withdrawn Standard	Paints and varnishes. Determination of hiding power. Part 3: Determination of contrast ratio (opacity) of light – coloured paints at a fixed spreading rate
SR EN ISO 2812-1:1996 Withdrawn Standard	Paints and varnishes. Determination of resistance to liquids. Part 1: General methods
SR EN ISO 2409:2003 Withdrawn Standard	Paints and varnishes – Cross-cut test (ISO 2409:1992)
SR EN ISO 11998:2002 Withdrawn Standard	Paints and varnishes – Determination of wet-scrub resistance and cleanability of coatings (ISO 11998:1998)
SR EN ISO 14001:1997 Withdrawn Standard	Environmental management system. Specification with guidance for use
SR ISO 6504-1:2003 Withdrawn Standard	Paints and varnishes. Determination of hiding power. Part 1: Kubelka – Munk method for white and light – coloured paints

*Source: Translated and adapted by the author. Paints and varnishes. <http://magazin.asro.ro/en/product/63118071>. Viewed on 25.04.2017*

**SR EN 13300:2002** ver.eng. Paints and varnishes – Water-borne coating materials and coating systems for interior walls and ceilings – Classification.

The standard establishes a general system for the classification of paint products and coating systems for the decoration and protection of interior walls and ceilings, including new or old surfaces, whether covered or not. The standard specifies the criteria to be taken into account in assessing the degree to which a coverage system is appropriate for a particular use.<sup>2</sup>

**SR ISO 6504-3:2003** (Withdrawn Standard) Paints and varnishes. Determination of hiding power. Part 3: Determination of contrast ratio (opacity) of light – coloured paints at a fixed spreading rate.

This part of ISO 6504 is one of a series of standards for the sampling and testing of varnishes, paints and related products. It establishes the method of determining the opacity (by contrast ratio) obtained for white or poorly coloured paint films having a tristimulus Y value greater than 25 applied at a spray rate of 20 m<sup>2</sup> / l on a white card And black colour, or on a colourless and transparent polyester film, in this latter case the value of the trichromatic y coordinate is then measured on a conventional white and black glass plate.<sup>3</sup>

**SR EN ISO 2812-1:1996** (Superseded Standard), Paints and varnishes. Determination of resistance to liquids. Part 1: General methods.

The standard refers to the sampling and testing of paints, varnishes and similar products.<sup>4</sup>

**SR EN ISO 11998:2002** ver.eng. (Superseded Standard), Paints and varnishes – Determination of wet-scrub resistance and cleanability of coatings (ISO 11998:1998)

This standard specifies a rapid method for determining wet damping resistance. With regard to the ability to clean the coatings, only the method and not the cleaning agents are specified.<sup>5</sup>

**SR EN ISO 14001:1997** (Superseded Standard), Environmental management system. Specification with guidance for use.

The standard establishes the requirements for certification of an environmental management system designed to support an organization in achieving environmental performance, reducing pollution and protecting the environment.<sup>6</sup>

**SR ISO 6504-1:2003** (Withdrawn Standard), Paints and varnishes. Determination of hiding power. Part 1: Kubelka – Munk method for white and light – coloured paints.

This standard establishes the method used to determine the coating power (the spray rate required to give a 98% contrast ratio) of white or poorly coloured paints. It is limited to paint films with tricom value Y greater than or equal to 70. It does not apply to fluorescent or metallic paints.<sup>7</sup>

<sup>1</sup> Translated and adapted by the author. Paints and varnishes. <http://magazin.asro.ro/en/product/63118071>. Viewed on 25.04.2017

<sup>2</sup> Translated and adapted by the author. SR EN 13300:2002. <http://magazin.asro.ro/en/product/63069884>. Viewed on 25.04.2017

<sup>3</sup> Translated and adapted by the author. SR ISO 6504-3:2003. <http://magazin.asro.ro/en/product/63072070>. Viewed on 25.04.2017

<sup>4</sup> Translated and adapted by the author. SR EN ISO 2812-1:1996. <http://magazin.asro.ro/en/product/63079718>. Viewed on 25.04.2017

<sup>5</sup> Translated and adapted by the author. SR EN ISO 11998:2002. <http://magazin.asro.ro/en/product/63089729>. Viewed on 25.04.2017

<sup>6</sup> Translated and adapted by the author. SR EN ISO 14001:1997. <http://magazin.asro.ro/en/product/63095308>. Viewed on 25.04.2017

<sup>7</sup> Translated and adapted by the author. SR ISO 6504-1:2003. <http://magazin.asro.ro/en/product/63103099>. Viewed on 25.04.2017

To verify the quality of varnishes and paints, the Republic of Moldova uses: visual methods, gravimetric methods, physical methods, physico-mechanical methods, potentiometric methods and titrimetric methods. These methods are made according to the following technical regulations:

**Table 3**

**Standards for the quality of paints and varnishes in the Republic of Moldova<sup>1</sup>**

SM GOST R 52165:2010	Paint materials. Varnishes. General specifications
SM GOST R 52491:2010	Coating materials, used in building. General specifications
SM GOST R 52020:2003	Waterdispersible paint materials. General specifications
SM GOST R 52491:2010	Coating materials, used in building. General specifications
SM GOST R 52020:2003	Waterdispersible paint materials. General specifications
SM GOST R 52020:2003	Waterdispersible paint materials. General specifications
SM 21903-93	Varnishes and paints (including enamels) Resistance to conventional light
GOST 5470-75	Lacquers of PF-283 and GF-166 types. Specifications
GOST 15907-70	Varnishes PF-170 and PF-171. Specifications
GOST 30884-2003	Ready-mixed oil paints. General specifications
GOST 17537-72	Paint materials. Methods for the determination of the conten of volatile and non-volatile matters, hard and film-forming materials
GOST 8784-75	Paint materials. Methods for determination of hiding power
GOST 8420-74	Paint and lacquer materials. Method for determination of relative viscosity
GOST 4976-83	Furniture lacquers“NT-218”, “NT-222”, “ NT-223”,“ NT-243” Specifications
GOST 896-69	Paints and varnishes. Photoelectrical method for determination of gloss of coatings
GOST 4765-73, GOST 10277-90	Pain and lacquer materials. Method of determination impact resistance
GOST 31093-2003	Paints and varnishes for furniture. General specifications

**Source:** *Translated and adapted by the author. Methods for checking the quality of paints and varnishes.* [http://acreditare.md/public/files/domenii\\_de\\_acreditare/Recunoscuta/LI/Anexa\\_2\\_modificat\\_Aschim.pdf](http://acreditare.md/public/files/domenii_de_acreditare/Recunoscuta/LI/Anexa_2_modificat_Aschim.pdf). Viewed on 25.04.2017

**Conclusion:**

Standardization helps to ensure and improve the quality of paints and varnishes. The standards specify the minimum level of their main quality characteristics, the methods of analysis and testing, the modalities of carrying out the qualitative reception of the consignments of goods, the conditions of packing, transport, storage, etc.

As in current standards in Romania, as well as in the current ones in the Republic of Moldova, the standards check the quality of varnishes and paints by the following tests:

- ✓ *the colour of the coating,*
- ✓ *the appearance of the coating,*
- ✓ *the outer appearance of the lacquer,*
- ✓ *the iodometric scale,*
- ✓ *the mechanical impurity content (water),*
- ✓ *the non-volatile fraction,*
- ✓ *the coating strength,*
- ✓ *the conventional viscosity,*
- ✓ *the drying time up to the 3rd degree,*
- ✓ *release,*
- ✓ *shelf life,*
- ✓ *conventional light resistance,*
- ✓ *coating gloss,*
- ✓ *shock resistance and*
- ✓ *pH index.*

<sup>1</sup> Translated and adapted by the author. Methods for checking the quality of paints and varnishes. [http://acreditare.md/public/files/domenii\\_de\\_acreditare/Recunoscuta/LI/Anexa\\_2\\_modificat\\_Aschim.pdf](http://acreditare.md/public/files/domenii_de_acreditare/Recunoscuta/LI/Anexa_2_modificat_Aschim.pdf). Viewed on 25.04.2017

Russian standards have been taken over by the Republic of Moldova to check the quality of paints and varnishes: SM GOST R 52165:2010, SM GOST R 52491:2010, SM GOST R 52020:2003, SM GOST R 52491:2010, SM GOST R 52020:2003, SM GOST R 52020:2003, etc., and Romania has its own but also uses European standards: SR EN ISO 4618:2007, SR EN ISO 12944-1:2002, SR EN ISO 12944-2:2002, SR EN ISO 12944-3:2002, SR EN ISO 12944-4:2002, SR EN ISO 12944-5:2008, SR EN 13300:2002, SR ISO 6504-3:2003, SR EN ISO 2812-1:1996, SR EN ISO 2409:2003, SR EN ISO 11998:2002, SR EN ISO 14001:1997, etc.

To solve the deficiencies that occur in the quality control of paints and varnishes, I have the following **recommendations**:

1. Moldova should adopt European standards to have more free access to the European market,
2. The Republic of Moldova should offer higher value to the standards that come to offer eco-label
3. Romania could have access to the Russian market if local producers would produce parties according to Russian standards.

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## **EDUCATIONAL MARKETING: EVOLUTION AND PARTICULARITIES**

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*Already in 1969 Ph. Kotler suggested that marketing should be extended to non-profit organizations. In the social sector, marketing has grown in several areas individually, such as: health, ecology, culture, and education. A detailed analysis of the literature in this field reveals a relatively low degree of education marketing research, especially in preschool and pre-university education. The educational marketing emerged as a derivative of health marketing in the mid-1980s. The concept of marketing mix applied to educational institutions show important similarities with both social marketing and services marketing which make its definition and application a difficult task for theoreticians and practitioners.*

**Key words:** *education; marketing; educational marketing emergence; educational marketing mix; evolution; particularities.*

**JEL:** M390

### **Introduction**

In its original conception, the marketing notion has evolved in several steps. At the same time, it was developed also in other dimensions. Thus, the concept of marketing has been taken over in such areas as services, agriculture, political, social, etc.

Already in 1969 Ph. Kotler suggested that marketing should be extended to non-profit organizations. In 1971, Ph. Kotler and G. Zaltman introduce the concept of social marketing. As the success of the activities of non-tradable sectors cannot be determined directly through profits made, the role of these new types of marketing is to highlight the most appropriate strategy to guide actions of such organizations towards the customer / beneficiary, as of any economic operator on the market, but in order to promote and support ideas or humanitarian purposes, to produce benefits to society or to provide protection. To achieve their goals, these organizations are forced to attract different financing funds. The experience has shown that to be effective in the competition for funds, grants from the state or community donations and scholarships etc., non-commercial sector entities have to satisfy specific customer requirements [1].

In the social sector, marketing has grown in several areas individually, such as: health, ecology, culture, and education. The education sector has not felt the need to deploy marketing until recently, due to its specific features where always are providers and beneficiaries. However, the emergence of competition from the private sector, specialization of institutions in the „attractive” fields as IT and management, have led to increased competition and encouraged the phenomenon of marketing in this sector.

The objective of this paper is to reveal the emergence, evolution and particularities of the Educational Marketing concept.

### **Literature review**

A detailed analysis of the literature in this field reveals a relatively low degree of education marketing research, especially in preschool and pre-university education. For higher education, both nationally and internationally, the number of research and articles are little higher. Among the international authors who have analysed this issue for higher education are: Phillip Kotler, Karen Fox, Felix Maringa, James Burns, Tom Hayes, Zaltman G., Paul Gibbs, David Kirpal Gregg Schoenfeld, Grady Bruce, Conway Tony, Mackay Stephen, Yorke David, Catalin Glava, Alina Philip, Mihai Paiu; while among authors from Moldova stood out: Viorel Moldovan-Batranac, Grigore Belostecinic, Ecaterina Siscani and Tatiana Repida.

Studying the emergence of the educational marketing, we can conclude that for the first time it was analysed for higher education. Thus, in the mid-1980s, educational marketing emerged as a derivative of health marketing, through the efforts of the American Marketing Association and Academy of Health Marketing professionals, who have sponsored active in the 1980s symposiums and conferences, which led to increasing popularity and desire for marketers to apply their knowledge in hospitals and medical associations. Following these movements, some experts have noted a significant parallel can be drawn between the health sector and higher education. They determined the future challenges and put effort into training colleges and universities to cope with them. Philip Kotler, who previously published with Robert Clarke a successful book on health marketing, published the book *Strategic Marketing for Educational Institutions* with Karen Fox [2, p. 928]. Namely Kotler and Fox were those who in 1985 gave a definition of educational marketing: “analysis, planning, implementation and monitoring of programs to ensure the voluntary exchange of values with target market to achieve institutional goals. Marketing involves the design and management of educational institutions so as to meet the needs and expectations of the target group and the use of effective ways of valuing, communication and distribution of educational products and services to serve, motivate and inform the community [3, p. 6].”

### **Research methodology**

This paper is result of secondary data review and analysis. The data collection was done using the thematic journals, specialized databases of scientific articles, national and international library repository, books and internet. The gathered information was classified towards the objective of this paper: emergence, evolution and particularities of the Educational Marketing. The systematization and analysis of information was done subsequently for the following topics:

- How emerged the educational marketing;
- How evolved the educational marketing;
- Which are the particularities of the educational marketing.

As consequences, were developed the results of the research and drawn the conclusions which reveal the current trends of the educational marketing.

### **Results**

As premises of educational marketing, James Burns and his colleague Tom Hayes, along with other experts in the field, have identified some common trends of the health services and education markets. These include the following [2, pp. 927-928]:

- **Demographic changes** in the 1980s caused a surplus of hospital beds which led to the closings and mergers of hospitals. Similarly, demographic trends showed that the potential number of eighteen year olds entering the higher education market was steadily declining. In particular, the decreased population of Caucasian, middle to upper middle class students was cause for concern;
- **Increased operating costs**, partly fuelled by the cost of acquiring and implementing technology, impacted health care institutions. While newer and better diagnostic devices were entering the market, they were expensive to acquire, maintain and replace. Likewise, the computer age was affecting the costs and delivery mechanisms in higher education;
- **Resistance within the organization itself** was perhaps the greatest challenge to marketing health care. Physicians and health care providers tended to discount marketing as an advertising, and personal selling that degraded the profession. The same perceptions existed in higher education among faculty

and administrators who feared that marketing would impact the nature and integrity of the academy. With time, marketing became an invaluable tool to ensure the survival and ultimate success of many health care institutions.

In 1988, Xavier University sponsored a conference which attracted 135 participants, all sharing a common vision of the future of higher education. This conference later became *the American Marketing Association's Symposium on the Marketing of Higher Education*. At the conference the greatest obstacle to marketing colleges and universities became apparent: a lack of understanding of the field of marketing. Many believed marketing to be a communication tool only. At the time, the practice was common for a new marketing director's first assignment to be the design of a view book to attract the right type and number of students the institution desired. Many marketers of higher education in the late 1980s came from industry where the focus was on a physical product. Many did not understand marketing nontangible services in general, much less marketing higher education specifically. Many came from internal public relations offices that did not understand the complete scope of marketing. This lack of understanding had existed previously in health care, but was addressed and rectified by including marketing courses as part of the curriculum. No similar course of study existed in the higher education field. Nonetheless, the pressures of a demanding environment assured this development also in educational sector [2, p. 928].

Expanding educational marketing from higher education in other educational levels is sporadic with no chronological mention in literature. Nick Foskett [4] in his paper *Marketisation and Education Marketing: The evolution of a discipline and a research field*, suggest that educational marketing emerged in the higher education because at this level of education there is a market as such where institutions operate.

According to Alina Filip, an effective method that can be used to incorporate the defining characteristics of the concept of educational marketing is benchmarking with other areas of marketing. As a result, marketing applied to educational institutions show important similarities with both social marketing and services marketing. A strict classification of the theory of educational marketing in one of the two areas is difficult, especially if it is considered that public and private educational institutions coexist in almost every national environment [5, p. 913]. Thus, the role of educational marketing viewed from the social perspective is that value added that institutions in the industry offers to its beneficiaries. From the services perspective in which it aims to maximize customer satisfaction by offering quality educational services that are intangible, inseparable, variable and perishable, will be applied specific strategies of the marketing mix.

As has been indicated, education is purely a service sector, which is characterized by [6, p. 369]:

<b>INTANGIBLE</b>	<ul style="list-style-type: none"> <li>• Educational services can provide intangible benefits (increasing knowledge, aptitudes, professional experience and skills) with instruments tangible (infrastructure) and intangible (teaching, teacher expertise);</li> <li>• Standardize this service is impossible;</li> </ul>
<b>PERISHABLE</b>	<ul style="list-style-type: none"> <li>• Production and consumption are simultaneous activities, no inventories can be made up;</li> <li>• However, given the technological developments and their introduction in education, this feature becomes less relevant;</li> <li>• Particularly in higher education, computers and the Internet makes it possible to record courses online and access them in convenient to the user time and location;</li> </ul>
<b>INSEPARABLE</b>	<ul style="list-style-type: none"> <li>• It is impossible to separate a service from the provider. There is a need for the service provider to be present when the service is to be performed and consumed;</li> <li>• This limits the scale of operations – The number of providers available would define the number of simultaneous performances possible;</li> <li>• However, and this feature is influenced by the technological developments and the possibility of registration of courses makes it possible to separate consumer on the provider;</li> </ul>
<b>OTHER CHARACTERISTICS</b>	<ul style="list-style-type: none"> <li>• High Fixed cost, Low Variable Cost;</li> <li>• Specialized and need based;</li> <li>• Competition;</li> <li>• Customer limitations;</li> <li>• Heterogeneity;</li> <li>• In addition to this, ownership or its absence characterizes this type of service.</li> </ul>

**Figure 1. Characteristics of educational services**

*Source: Elaborated by author based on the source - Marketing of educational services, Priyanka Balwa [7, pp. 6-12]*

If from the social perspective, the difficulties of interpretation and application of education marketing are not major, then, from the services perspective, the difficulties of interpretation results from the many features:

- So if the word „education” is well known, unknown or variable factor is the finality of this process. Some emphasize that the purpose of the educational process is the set of abilities, skills and competences of a person, other, the ability to insert on the labour market;
- By segment of stakeholders considered, ranges the perspective by which educational marketing is analysed. While some authors consider as beneficiaries of the education system the parents and their children, others consider beneficiaries of the education system both, parents and their children, but also, the teachers, and other public or private institutions. Thus, in 1995, Kotler and Fox considered that the actors of educational institutions can be divided into sixteen groups: current and future students/pupils, faculties, parents of students/pupils, administration and personnel, suppliers, competitors, government agencies, the business community, media, foundations, trustees, accredited organizations, local communities and the general public. In 1998, the list was reviewed by Hewitt and Clayton who defined the educational system stakeholder as „educators and those who they educate, or those who teach in institutions and those who study there” [5, p. 914];
- At the same time, if in the concept of the marketing mix are present classic 4Ps: Product, Price, Placement and Promotion, the extension of the concept educational marketing require the expansion of this approach. Similar to services, educational marketing mix varies from one source to another. Some sources include 5 P (L. Chung-Kai and H. Chia-Hung) P 7 others (J. Ivy [8, p. 4314], P. Kotler [3]): Product, Price, Placement, Promotion, Personnel, Process (teaching) and Physical facilities (Infrastructure) [7, p. 17]:

<b>Educational Product</b>	<ul style="list-style-type: none"> <li>• It represents all courses, seminars, conferences and extracurricular activities;</li> <li>• At the same time, educational product is characterized by a number of technical issues such as: the number of hours,length, format etc. Technical aspects of the product are interdependent with the training program. Thus, it depends on how the courses are made (face to face or remotely), the course finality, training language etc.;</li> </ul>
<b>Price</b>	<ul style="list-style-type: none"> <li>• It represents all costs that customers pay directly or indirectly to benefit from educational product. In this category can be analyzed state spendings for public services, and parents/pupils expenditures for books, uniforms etc. or other payments that can not be monetised, but are appreciated as some barriers needed to be overcome in order to benefit from the service. In this context it may be mentioned barriers such as entrance exams, time to be allocated for studies, meditation etc.;</li> </ul>
<b>Placement</b>	<ul style="list-style-type: none"> <li>• Represents the accessibility to educational services. If the primary sense, accessibility was seen purely in terms of the placement of physical institution in the geographic area, today more and more we hear about this approach as the institution availability by its ability to provide in a easy way the services to the target group. Thus, the availability of hostels in institutions, conducting classes in a given time of the day (morning or on the contrary, evening), offering online courses, represent a new approach to accessibility of educational services;</li> </ul>
<b>Promotion</b>	<ul style="list-style-type: none"> <li>• Are all forms of communication that the educational institution carry out to attract and interact with the target group. Communication between the institution and its customers can be accomplished in several ways: direct communication, flyers, TV promotion, radio, online or newspapers/magazines, sponsorships, scholarships, etc.;</li> </ul>
<b>Personnel</b>	<ul style="list-style-type: none"> <li>• It is one of the basic aspects of a qualitative educational product. Thus, all the marketing efforts of the institution can be successful or unsuccessful depending on the performance of the staff, especially the teaching one. At the same time, the institution staff is forming direct and indirect image of the institution. No wonder most of the parents when choosing preschool or primary institution for their children, are mainly oriented by the educator or teacher. They are core person with wich children interacts, and are in some cases determinants of children's evolution in personal and professional plan.</li> </ul>
<b>Process (teaching)</b>	<ul style="list-style-type: none"> <li>• I is a derivative component of the product and staff, but directly affects the quality of service. At the same time, the quality of the teaching process is interdependent with customers. Thus, no matter how good the product and the staff are, if the customer's perception of the need of education is low, then can not speak about a high quality service. On the other hand, it is given that in some cases, although the staff has a high level of professional training, but do not address to the group appropriate tactics, the quality decreases. Therefore, it is not sufficient for a high quality products and staff, but also the process should be an appropriate one for the group.</li> </ul>
<b>Phisical facilities (Infrastructure)</b>	<ul style="list-style-type: none"> <li>• It is the essence of the service direct sensory unite that allows a student/pupil to determine if the facilities offered by the institution are adequate for the training process. These include physical facilities in which the service is provided, services equipment, etc.: classrooms, cafeteria, library, sport hall, laboratory equipment. They play a crucial role in educational marketing.</li> </ul>

**Figure 2. Peculiarities of Educational Marketing Mix**

*Source: Elaborated by author*

In 2012, a group of professors from Iran, in their paper: *A New Educational Marketing Mix: The 6ps for Private School Marketing in Iran* have described a new educational marketing mix, consists of 6P: Price, Promotion and Product (from traditional mix); and Professors, Parent-teacher Communication, Privileges (new identified in the research). To achieve these ends, they have used as a starting point the traditional educational marketing mix in the format of 7P. Further, through consultation and interviews, they have developed a list of 21 variables with the possibility to influence the decision of school selection. Applying factorial analysis, they reached new educational marketing mix – 6P shown in the table below [8, pp. 4314-4316].

*Table 1*

**New educational marketing mix (6P) and its variable factors**

Components	Accepted factors	Factor loading Cronbach's alpha*
<i>Professor</i>	Academic teacher reputation	0.788
	Teacher's skills	0.624
<i>Parent Teacher Communication (PTC)</i>	Communication with website	0.808
	Interactive voice response	0.780
	Parent Teacher Association	0.601
<i>Product</i>	Training lab	0.825
	Library	0.734
	Legal tuition	0.724
	Computer facilities	0.626
<i>Price</i>	Having instalment tuition	0.832
	Flexible approach of tuition	0.827
	Informing tuition detail	0.655
<i>Promotion</i>	Brochure via email	0.758
	Print brochure	0.713
	Expos	0.681
<i>Privilege</i>	Accepting rate in final examination	0.790
	Accepting rate in universities	0.775
	Using popularity of another institution	0.626

*Note:* Cronbach's alpha test measures the internal consistency of a group of variables, showing how closely related each set of elements within a group. It has variations of values between 0 and 1, 0.7 is considered the lower threshold which shows that a sufficient connection exists.

*Source:* *A New Educational Marketing Mix: The 6ps for Private School Marketing in Iran*, Alipour M. et al [8, p. 4317]

As result of the research, they presented a number of conclusions and suggested several recommendations [8, pp. 4317-4318]:

- **Professor** on the increasing enrolment of private school students has significant effect. This factor has greatest effect on increasing the enrolled students. Therefore, use of specialist teachers and the teachers that have PhD or MA is recommended.
- **Privilege** is effective in increasing student enrolment. This factor includes using popularity of another institution, ratio of university acceptance and ratio of state examination passing. Therefore, holding classes and also getting representative famous institutions and the use of the Institute teachers for the schools a high influence in schools to attract parents. Thus, extra-curricular classes and getting representative famous institutions and using the institution teachers for schools have an important role in attracting parents to the schools. Reputation as an institution that has a positive effect on parents, causing them to enrol their children in school is more encouraging;
- **Product** factor that reduce the intensity of intangibility of services is positively related to increasing enrolled students. Therefore, set up the school library and laboratory of training in order to better teaching for pupils seems necessary;
- **Parents Teachers Communication** has also increased the enrolled students of private schools. Promoting of this communication by increasing the number of PTA per month and via the school website and IVR (Interactive Voice Systems) is suggested. IVR systems can also set up in schools where parents can check educational status of their children for example from their workplace or own home so can have a positive impact on parental satisfaction;

- **Price** that is relevant to the issues of tuition has effect of encouraging parents to register. Therefore, policies such as the instalment tuition and having flexible approach can be effective of increasing registration. Flexible approach means that, for example, fees for distinguished students to be given a discount. The next suggestion is that the spending of tuition and its details to be published on the school website. In this case, the parent's confidence of the school will be more;
- **Promotion** factor that refer to brochures and expo in order to communicate with the target market, on increasing the student's enrolment is effective. Thus we recommend that schools should attempt to provide attractive and vesicular brochure. Also the Schools can send brochures via mail in order to their cost come down. So the brochure sending via email not only makes the information more easily available, but also provides the possibility of viral marketing. And finally is recommended that schools participate in the annual exhibition through it to introduce the school achievements to highlight.

### Conclusions

As can be observed, the educational marketing emerged in the higher education. This was a result of similar premises in the higher education to the health sector. The concept of educational marketing is still developing and expanding in other educational levels. Its definition is difficult to be done due to the similarities of the sector with both: services and social sector. The marketing mix for the educational sector is also expanding and adapting. As it was initial described as a 5P, similar to the services, after was completed with 7P, but also further adapted to a 6P. For a common approach among theoreticians and practitioners more research and definition need to be done.

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## THE VALUE MANAGEMENT OF THE ENTERPRISE – DELIMITATION BETWEEN FINANCIAL AND ACCOUNTING PARADIGM

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*Nowadays, enterprise value represents the synthetic indicator of success and quintessence of enterprise activity.*

*In this article are analysed the value management problems of the company based on two models: the accounting model and financial model. The accounting model implies a traditional treatment of the enterprise's capital and financial results, while the financial model constitutes a new culture of the analysis and is based on the economic profit principles of the company.*

*The main differences between the financial and accounting models through the light of the following parameters: risk, profitability and liquidity are analysed.*

*In the paper are also analysed the components of enterprise value management cycles, namely: strategic planning of investment value, operational planning, value creation, monitoring and management of value leading factors, system of motivation and compensation and system of communications with investors.*

**Key words:** *enterprise value, value-based management, cost of capital, cost of equity, return on capital.*

**JEL:** G32

During the 1990s and the beginning of the 21st century, value-based management (VBM) methods and principles became a widespread management process. Appeared in the American management culture and focused on Wall Street opinion, these ideas are currently widely used by Western European, Canadian, Australian, Japanese companies, and finally they are growing in a particular environment – in countries with Developing capital market – in the practice of companies in a number of countries in Latin America, South Asia, Turkey. Increasing interest in a new approach to managerial teamwork has coincided with the growing wave of global attention to corporate governance. What are the causes of this concern? Why two world waves - value-based management and corporate governance – have become virtually concurrent? Why, in recent years, interest in value-based management and in the young managerial environment of ex-soviet countries has just emerged, which is barely releasing from the grip of administrative levers?

### **Value management concept – managerial innovation**

Value-based management encompasses various branches of management, and each functional branch, in the direction of increasing the value of the company, focuses its attention on the tasks of its narrow domain. The financial component of the management system based on value is impossible to address only from the functional branch of the management. Operating with quantitative assessments of company dynamics, it plays a more important role than simply measuring and tracking the movement of capital and revenue flow. First, new tracking points for capital movement are introduced at the beginning, during the movement and at the end, for an analysis through the light of the investment value of the capital. But the most important is the introduction of a new vision of results, a new culture of analysis.

In solving the concrete operational and the company's key tasks, which will be in the responsibility of the managers, we have to divide and highlight two models of analysis of the company's activity. Each model has its own principles, namely with their help is explained the company's activity, as well as the indicators measuring its results. The first model can be called the accounting model, and it is based on traditional treatment for accounting for the company's capital and the results of its use. Although this model is not reduced to the proper accounting, it is elucidated by a system of principles that form a certain style of analysis for management specialists in the entire management team. The second analytical model can be called the financial model, and is developed in accordance with corporate finance principles.

The differences between the analysis models of the company's activity have principled character. The contemporary company operates in an environment that has at least three dimensions: the first and the basic one – the risk and the uncertainty; the second – the return, which corresponds to the investment risk; the third one – the liquidity, the ability to rapidly transform into cash-flows the products and the results of the activity. It can be said that these three dimensions form the foundation and skeleton of the “analytical wall” of the contemporary company, especially in situations that require the quantitative evaluation of its results. After all three dimensions, the accounting and financial models differ. Differences start right from the bottom, or from the beginning of tracking the company's profit. The company's accounting vision is based on the actual operations performed by the company and excludes from the analysis the alternative

possibilities of the activity and basically ignores the development variants. It is obvious that in this vision of the company's expenses, in a certain period of management, are reflected only those that have been performed. The limitation of this model is that the principle of "effectively executed operations" dominates not only at the stage of collecting and processing information, but also in the logic of analysing the company's activity and taking decisions. The lack of accounting analysis of the company's operations from the point of view of management lies in the fact that there is no provision for the evaluation of alternative possibilities for action.

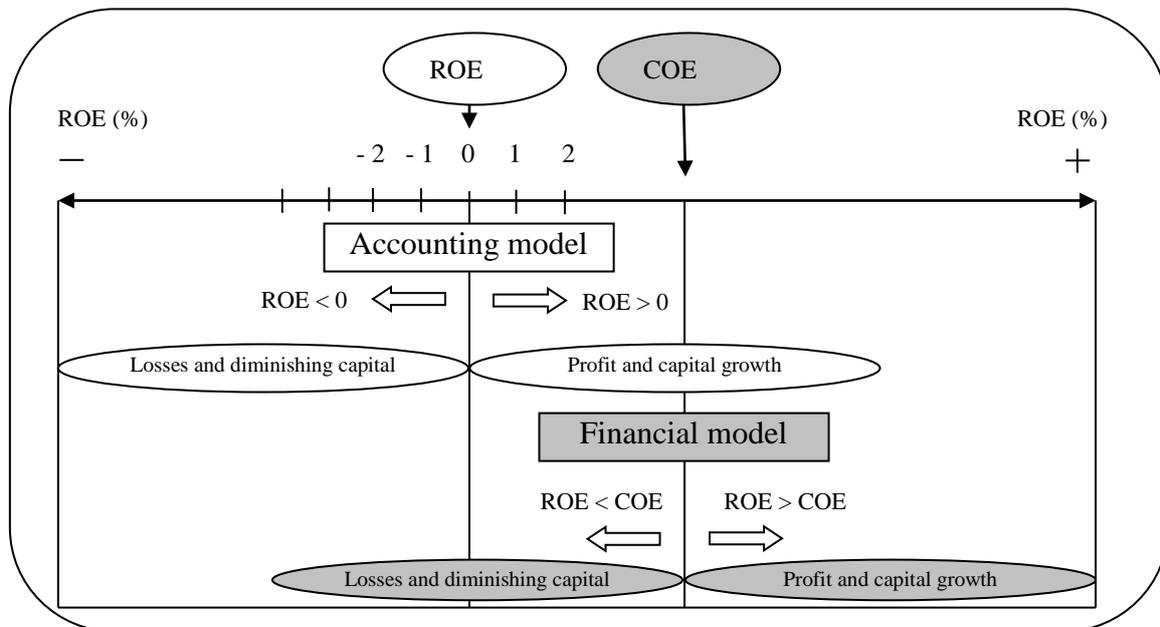
The successful outcome, based on the logic of the accounting model, is when the income exceeds the recorded expenses. It does not express the basic conception of contemporary economic analysis of creating economic profit. The basic principle of the economic profit analysis takes into consideration alternatives of placing capital with a certain risk and with an economic effect that corresponds to the risk, or takes into account the lost investment income. The approach from the economic profit position requires the careful study of the investment risk, the search for similar risk alternatives, the analysis of their results, and therefore the radical re-evaluation of the process of determining and evaluating the benefit. Analysis of the success or failure of the company, conducted according to economic profit criteria, is undoubtedly longer, requires more work, the result can be poly-semantic and therefore less comfortable for the analyst and manager. Respecting the principle of economic profit is the sign of the right choice of the analytical model, which is necessary for the argumentation of the tasks facing the management of the contemporary company.

The second major limitation of the accounting model as an analytical basis for creating the company's capital management system is that this model does not direct the analysis to the uncertainty problem of the expected outcome, which the investor usually faces. Based on the accounting records, it is not possible to receive the return on capital that would give the investor alternative opportunities, because the alternatives under consideration should be of similar risk. The accounting model cannot answer the question, if the company's return on investor risk is comparable; it compensates the risk and is sufficient for the investor. That is, the accounting profit, calculated with the highest accuracy, is not an indicator that the company's investor really has a satisfactory result. Thus, it is not possible to operate with the data on profitability calculated on the basis of accounting standards in the argumentation of key capital decisions (about investments, choice of financing sources, restructuring and merger). How perfect it won't be, no profitability indicator calculated on the basis of financial reports of the company (return on assets (ROA), return on equity (ROE)) or does not take into account the risk, and thus cannot be used as a criterion for financial decisions, but the most important – for strategic decisions.

The analytical tradition created in the accounting approach focuses on the profit indicators calculated as a tool for expressing the result of the company's business for a period of management. However, reflecting liquidity is required to solve management tasks, so the modern financial model operates with free cash-flow (FCF) indicators.

In order to conclude the comparison between two models, it is necessary to take into account two distinctions. The fourth principle of the accounting model implies the nominal treatment of the result expressed in monetary units. There is no investment treatment of the result. Without determining the lost income, this model does not question the size of the expected outcome in the future. Current and forecasted profit and cash-flows are examined unilaterally, without any reduction in earnings, lost due to the impossibility of obtaining the cash-flow at the time and its immediate investment. So, the accounting model, even in the case of consecutive application of the conservatism principle, needed for reporting, will not create the basis for the analytical evaluation of the company's operations.

The key to the company's financial model is the use of economic profit to reason the decisions and analyse the results of the business. Economic return – the ultimate quantitative indicator evaluates whether enough cash-flows are created to ensure a satisfactory level of income for the owner of the company. What is the satisfactory level in this case? First, the criterion of satisfaction must not be sought in the field of the owner's emotions, but in the scope of risk analysis. It will be necessary to study the requirements of the investors – the owners of the companies for their profitability, to evaluate the cost of capital owners introduced and to determine the potential profit rates they expect. From the investor's point of view, the satisfactory level of return is the size of the return on placements in this company, at a lower level than the incentive and the reason to invest in this company. If it approached the satisfactory level of profitability from the manager's point of view, then it is the cost of equity (COE) or the minimum return on investment that the company's management team must provide. The technologies for determining this level are drawn from corporate finance and, at all events, take into account capital market rates.



**Figure 1. The accounting model and the financial analysis model of the company's activity**

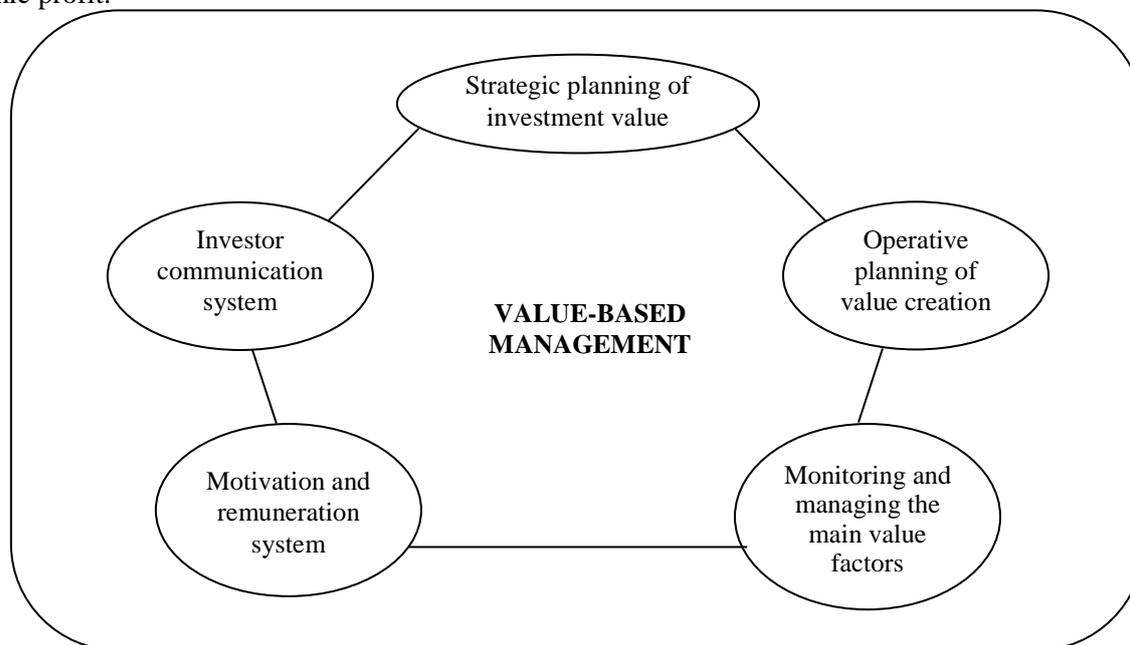
Namely the accounting model has taught managers to apply profitability indicators not only for operational management, but also for strategic decision making, for the quantitative characteristic of the purpose of the company and its subdivisions. But these indicators pose doubts about their usefulness for the financial analysis of prospects and for assessing the company's strategic efficiency. Establishing the purpose and tasks of the management without risk assessment and the investor's demands for profitability cannot primarily satisfy the owner of the company. Driving the assets managed without the risk and income assessment that would correspond to these risks to be obtained for the owner by the management team, it is inconceivable for the current market economy conditions and does not correspond to both the financial management tasks and the strategic management tasks in cases of capital placement, choice of the optimal capital structure, where the manager's decisions must be in line with the company's risks. For this reason, the financial model of the company's activity analysis expresses quantitatively the purpose of its development in terms of the value of the capital of the company's owners, which collects the cash-flows taking into account the satisfactory level of profitability. The principles of analysing the value of the company, the factors that influence its formation and its dynamics – all this meets the modern financial analysis model of the company's activity.

The company value-based management concept is based on sharing the paradigm of the company's analysis, aligning itself with the principles of the financial model, and transforming this model into the foundation for the argumentation of key decisions. In our opinion, here lies the primary cause that allows us to consider value-based management as an innovation in management. Such a change of paradigm takes place in the high business environment of developed countries when companies move to implement this concept. But, what is very important, such a change of paradigm is most needed by the Moldovan business, which is still non-corporative, according to its form of organization, and which at the moment has formal arguments not to follow the course of its actions. The insistent need for assimilation of the new analytical system is dictated, in our opinion, in addition also by the national specificity. The Moldovan business, and with it management, grew on the basis of the planned economy and in the absence of the alternatives of administrative thinking, it is the managerial tradition, according to which, the real decisions are not having the knowledge of sufficient profitability analysis, do not understand the discrepancy of evaluating the decisions made in the basis of accounting tradition, but tend to take a high rhythm and to come out in the future. In this natural tendency the inertia of the analysis that does not correspond to the essence of the competition requirements for the investors' capital must be interrupted.

#### **Components and value-based management cycle**

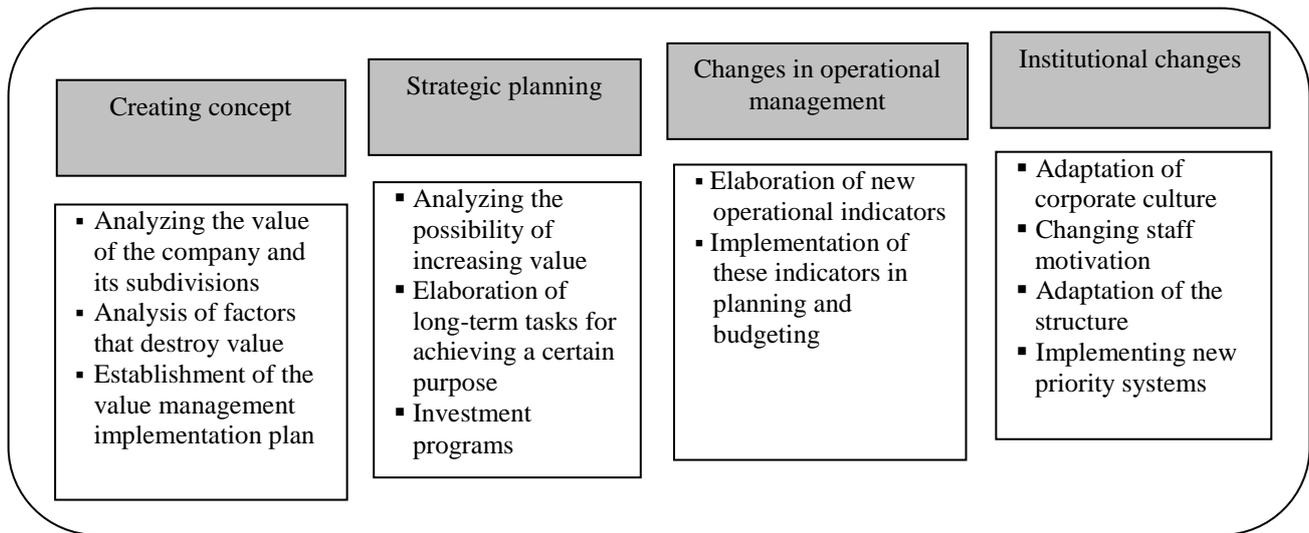
The transition to the financial analytical model leads to focusing attention on the long-term growth burden on the capital value of the company's owners. This problem is resolved if the company generates profit or obtains revenue that is more attractive than alternatives to investing capital with the same investment risk. From a financial model point of view, the company's operations need to generate sufficient cash-flow to solve strategic tasks and to compensate the investment risk. Value-based management is a

process aimed at achieving a stable positive cash-flow that would exceed the income required for investment risk over the forecast horizon. According to the financial model, the prediction horizon is a two-dimensional concept: strategic basis and financial expression. From the point of view of the first dimension – this is the time when the company has key competitive competencies. From the point of view of the second dimension – this is the time when the company has the potential to create positive economic profit. So, value-based management is a conception aimed at turning into reality the potential of the company's owner to obtain economic profit.



**Figure 2. Value-based management components**

This process, in our opinion, includes five components. First of all, it is *strategic planning* with the use of capital investment value to reason the principal decisions about prospective directions for company development. The efficiency of the company's market strategy and the usefulness of the realization become dependent on the increase in the investment value of the capital of its owners. The second component involves the *operative planning of value creation*, i.e. the development and implementation of a set of special indicators that would elucidate the economic profit for the operational monitoring of the company's results in the process of its market strategy. These indicators are dependent on the investment value of the capital of the owners and represent a system of dividing up the tasks of increasing the capital value of the capital and transforming them into direct indicators with a clear address of the company's business activity, characteristics for the given business. New indicators are called upon to outline the trajectory of the capital value movement and the contribution of all the structural units of the company to the movement on the chosen path. The third component, *the monitoring of the main factors of value and their management* is a system of programs for influencing the key factors that condition the investment value. Are examined both, the factors that influence positively the value as well as those that influence it negatively. Such programs are rational to be developed with the marketing strategy plan and must be under the permanent supervision of managers of different levels, depending on the type of factors. The fourth component, *the motivation and remuneration system*, ensures the link between the remuneration system, first of all the management staff, with the chosen economic indicators for the specific level of the management hierarchy. The fifth component, *the investor communication system*, requires special attention of the management team for creating the strategic reports that are published. The experience of implementing value-based management shows that companies are producing extracts, so-called "Reports on Value Management". These chapters of the annual reports reflect a range of additional financial and non-financial information. For example, the annual report may include data such as capital expenditure (sufficient rate of return); risk-management programs and their role in controlling the investment risks of the company; description of the main factors of the company's value and measures taken to positively influence the investment value; the role of the company's marketing policy for the enhancement of key value factors; the dynamics of the increase in the investment value calculated on the basis of that model of value-based management across the company or business segments; data on the remuneration component of top managers that is directly dependent on the increase of investment value.



**Figure 3. The value-based management cycle**

The realization of the whole value-based management measures complex requires the restructuring of many management processes; in this context it is necessary to discuss the value-based management cycle or the organization of the process of transition to this concept. Changes in the analytical tool, which make up the key to management innovation, are the development of the corporate finance model for analysing the company's investment value and designing its changes in line with different strategic development scenarios. This stage determines the visions of the company's prospects, and their in-depth study is the next cycle link, where it is necessary to introduce the necessary changes in the internal accounting and planning procedures that would correspond to the value-based management tasks. As the value-based management experience shows, companies that are successful in implementation are changing their position towards management accounting and switching to the activity based costing system, which makes it possible to highlight the factors of the value of the company at each stage of the value creation chain, and to distribute the expenditures applied in accordance with the contribution of each concrete factor involved in the value creation. This approach gives the opportunity to accurately track the causes of changes in spending, to control consumption and to manage them more efficiently. In addition, the experience of successful companies that following value-based management implementation talks about key changes in the relationship between the centre and subdivisions in the design and use of investment budgets in the company, the achievements in the quality of investment program financing. Institutional restructuring as the final link of the cycle requires changes in several positions. First of all, the in-depth study of contradictions, the analysis of the possibilities of incompatibility of the new conception with the existing corporate traditions. As experience of value-based management implementation shows, failure is often caused by ignoring this diagnosis. Secondly, it will require a certain reorganization of the structure of the company's cash centres, the creation of value capitalization centres, the careful distribution of powers in the field of investment decisions, the development of a system of indicators that would be directly related to objectives of investment value or economic profit for all levels of financial reporting. Without establishing the optimal structure of these levels and without highlighting the "value centres", the staff remuneration programs based on the contribution to the investment value and the economic profit will not be effective.

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## THE SAMPLING OF FINANCIAL AUDIT

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*The opinion of an audit is based on the audit evidence obtained on the audited financial statements and the transactions that led to those statements. Considering the fact that the financial market, time and human resources do not allow exhaustive testing of accounts and classes of transactions, this will allow the auditor to apply sampling procedures.*

*At present, the financial auditor ensures the increase of financial information user's degree of confidence by obtaining evidence that is assessed through the various sampling methods and techniques.*

*The objectives of the article are directed toward the sampling achievement depending on audited field, population and volume.*

**Key word:** *Audit, financial, sample, evaluation, population, volume, methods*

**JEL:** C13, C83, M41, M42

### **Introduction**

In the financial audit, an issue of particular interest is the estimation of the value of the accounting distortions that occur at the level of preparation and presentation of the financial statements. Detection of eventual accounting misstatements is made through the detailed transaction and account balance tests. The detailed tests require verification of the existence of significant differences between the accounting records and the information received on the basis of external confirmations. When a financial audit entity performs a large number of economic and financial transactions, the obtaining confirmations of all transactions is difficult and has direct implications for the mission costs and the required audit fees. As a solution to such a problem, Methodological Norms no. 12 of the internal audit of the public sector comes with the method and sampling techniques of the audited items.

Sampling is one of the methods that make a call to professional reasoning. This method determines the amount of information collected and whether that information provides a firm basis for the conclusions adopted. It is currently unanimously acknowledged that sampling techniques are most effective in collecting audit evidence.

#### **1. Sampling Models**

A sample consists of a number of units that are selected from among those populations that are part of the object of the evaluation and are intended to estimate its characteristics. When selecting the sample, we will rely on a dataset, based on which a conclusion is drawn. The definition of the population must be done with a great care to avoid either the tendency to choose an unjustifiably large population or the tendency to choose an unjustifiably restricted population. It is important for auditors to ensure that the population is [3]:

- a) *appropriate to the objective of the sampling procedure* and include assessments of the direction in which testing takes place.
- b) *complete – criteria-based information, which will provide an analysis and are intended to provide an adequate conclusion.*

The individual elements that make up the population are the sampling units. Often in sampling, the population is diversified, and for efficiency in financial audit, stratifying populations will be used to reduce the variability of elements in each layer and consequently to allow a reduction in the size of the sample without a proportional increase in sampling risk. The population that belongs to only one layer will be called a subpopulation and each layer will be examined separately and each of them will represent a group with similar characteristics (often monetary value) and they will be stacked as follows:

- a) *after the monetary value* – this stratification allows us to be directed to higher value items that may contain a higher error potential over the overvaluation. Having selected specific monetary units in the population, for example the balance of debt accounts, the auditor then examines the particular items, for example the individual balances, containing the respective monetary units.
- b) *according to a specific feature*, indicating a higher risk of error. The results of the procedures applied to a sample of elements belonging to a layer can be projected only on the elements that are part of that layer. In order to reach a conclusion on the entire population, the auditor considers the risk and the materiality threshold in relation to any other state that makes up the entire population.

In the correct determination of the population surveyed, we will resort to a secondary data study that will provide us with information on transactions, accounting documents, money, and demand, etc. When planning the sampling process we will take into account the population and specific activities, namely: [4]

- defining the population (target population);
- selecting the sampling frame;

- choosing the sampling method;
- establishing the modalities for selecting the units of the sample;
- determining the size of the sample;
- the choice of the actual units of the sample.

Sampling involves the size, which means that the auditor considers whether the sampling risk is reduced to a minimum acceptable level, namely:

- is affected by the level of sampling risk that the auditor is willing to accept. The higher the risk that the auditor is willing to accept is the higher the probability is;
- can be determined by the application of a statistical formula or by the exercise of professional reasoning applied objectively to circumstances.

The sampling standard in auditing and other selective testing procedures sets out various factors that influence the size of a sample and, therefore, the sampling risk.

A) When determining the size of the sample for a control test, the auditor considers together the following factors: [4]

- a) *The auditor's declared confidentiality in the accounting and internal control systems.*
- b) *Deviation rate from the (prescribed) test that the auditor can accept (tolerable error).*
- c) *Deviation rate from the prescribed test that the auditor expects to find in the population (expected error).*
- d) *The level of trust the auditor needs.*
- e) Number of sampling units in the population.

B) When determining the size of the sample in a background procedure, the auditor collectively considers the following factors: [4]

- a) *The auditor's assessment of inherent risk.*
- b) *The auditor's assessment of control risk.*
- c) *The use of other substantive procedures for the same financial statement assertion.*
- d) *The level of confidence required by the auditor.*
- e) *The total error the auditor is willing to accept (tolerable error).*
- f) *The amount of error the auditor expects to find in a population.*
- g) *Stratification of the population when appropriate, results are in a decrease in sample size.*
- h) *The number of sampling units in the population has negligible effect on sample size.*

Thus, the application of the sampling technique will take into account the logical approach, involving a succession of rational choices that can ultimately bring convincing evidence in case of inherent arbitrations. The effectiveness of applying a sampling technique is determined by the precise definition of its objectives, the auditor emphasizing what he wants to demonstrate, to prove. The use of samples in the application of audit tests typically involves the following steps:

- 1) scheduling the sample;
- 2) determining the volume of the sample;
- 3) selecting articles;
- 4) examination of articles;
- 5) evaluation of the results.

In assessing the expected finances and objectives, it will analyse the primary information in a critical way so it can choose one of the sampling methods: [5]

- a) Non-statistical sampling:
  - Random sampling
  - rational sampling
- b) statistical sampling:
  - sampling based on monetary unit.

#### A) Non-statistical sampling

*Random sampling* is the sampling technique that implies that each transaction unit has a certain probability of being included in the sample, a probability other than zero, which can be known a priori. Basically, this means that each transaction must have the same chance as all the others in the sample. This leads to the formation of the sample by drawing lots.

The main *random sampling* methods are: [3]

- simple random sampling
- systematic sampling;
- stratified sampling;

- group sampling;
- stage sampling
- multistage zonal sampling;
- multi-phase sampling.

*Rational sampling* is the technique of sampling that involves not knowing the probability of sampling transactions. Selection is, therefore based on professional reasoning, which implies a “reasonable choice”, for example: [4]

- high value transactions;
- high-error transactions where the entity's manager is involved or in which he has disregarded control activities;
- stratified sampling, for example: stratification of 80/20 where the population volume is often set at 20% of total transactions.

B. **Statistical sampling** means the total of selected sample units within the population, which are intended to form a general opinion on the whole population, which will serve as the subject of sampling. It is used: [4]

- in the case of a large population;
- for selecting the sample in a more objective way;
- to form an accurate conclusion about the whole population.

*The advantages* of statistical sampling are to ensure the following conditions:

- the population from which the sample is taken is complete,
- each article in the population has an equal chance to be selected;
- to determine the expected error rate, it may be useful to take a small random sample, etc.

*Monetary sampling* is the analysis of individual monetary units, which are individual items - accounts, fees, lei, etc., from which the population is formed, that involves the selection of only monetary units (lei, euro) rather than documents. The method has been developed to allow for a financial evaluation, where each monetary unit has an equal chance of being selected. Under this method, bills with small amounts have the same chance of being selected as bills with higher amounts.

## 2. Sampling Stages

In accordance with the objective of the audit engagement, the auditor will plan the type of sample, thus addressing the specific audit objectives, population, and identified errors that will provide further assurance on the evidence obtained.

The next step in sampling is to determine the volume of the sample, where it will be taken into account that the volume of the sample is influenced by: [8]

- the maximum acceptable error level (materiality level);
- the level of trust;
- population size;
- assessment of inherent risk and control risk.

According to the inherent risk assessment of the mission, the volume of tests and the number of sample items that will be required to provide sufficient and appropriate audit evidence will be determined. The volume of the sample can be calculated using the following formula: [8]

$$\text{Sampling Volume} = \frac{\text{Population} * \text{Safety Factor}}{\text{Materiality}} \quad (1)$$

where: **safety factor** (SF): The confidence level converted to the confidence factor using the table below.

**Table 1**

### Safety factor

Number of expected errors	Level of confidence	95%	93%	92%	90%	89%	86%	83%	78%	72%	67%	63%
0		3,00	2,66	2,53	2,31	2,21	1,97	1,77	1,51	1,25	1,13	1,00
1		4,75	4,33	4,17	3,89	3,77	3,46	3,46	2,87	2,54	2,31	2,14
2		6,30	5,83	5,65	5,53	5,18	4,83	4,53	4,13	3,73	3,45	3,25
3		7,76	7,24	7,04	6,69	6,52	6,13	5,80	5,35	4,90	4,57	4,34
4		9,16	8,60	8,38	8,00	7,83	7,39	7,03	6,53	6,04	5,68	5,42
5		10,52	9,92	9,68	9,27	9,10	8,63	8,24	7,70	7,17	6,7	6,49

*Source: Internal Audit Book, 2013*

The safety factor is calculated based on the probability of errors in relation to the level of confidence to be achieved, including a materiality level of 1% (error) and 99% that are not errors. The level of confidence is the degree of security the internal auditor has in relation to the results achieved. The confidence level (CL) is the value indirectly dependent on the un-detection risk and is calculated according to the formula: (2)

$$CL = 100 - RN = 100 - \frac{RA}{RI * RC} \quad (2)$$

After determining the volume of the sample, the auditor will have to select a representative sample of the population and the probability that the sample is not representative may be reduced by the way the sample is selected according to the above mentioned models. Based on the sampling model, the number of errors defined at the mission planning stage is determined on the basis of qualitative and quantitative criteria. While determining the number of errors, partial errors may also be determined.

The final stage of the sampling is the *evaluation of the results* where the auditor is meant to examine the errors and investigate their causes in order to provide advice for improvement. For example: The statistical sampling auditor can assess the error rate limits based on two factors: [8]

- c) the most probable error (MPE), which is calculated on the basis of total errors extrapolated to the total population (3);

$$MPE = \frac{errors}{sample} * population \quad (3)$$

- d) the upper error limit (UEL), which is the highest rate of error predicted by the auditor based on the sample result.

The upper limit of error takes into account the degree of accuracy, which depends on the number of identified errors. Due to the errors, the level of uncertainty associated with the error itself increases, which results in a higher error limit.

If errors occur more than they have been taken into account when scheduling the sample, the upper limit of the error will be higher than the materiality level. This requires a careful analysis of the measures to be taken. Thus, the following may occur: [8]

MPE	UEL	Conclusion
MPE < Materiality	UEL < Materiality	Positive opinion about population
MPE > Materiality	UEL > Materiality	There is a need of additional testing in order to see if the UEL can be reduced or not to the level of materiality
MPE > Materiality	UEL > Materiality	Negative opinion

*Source: Internal Audit Book, 2013*

The result of a statistical sample provides reasonable assurance and there is a risk that this result could not be representative for the population (risk of undetectability or beta risk).

### Conclusion

Sampling techniques and methods presume that professional auditor's judgment is applied in collecting audit evidence that is intended to provide assurance in the correctness of transaction management, currency, etc.

The correct choice of one or another sampling method assumes the quality of the results depending on the type of sampling and sample size, since each sampling method has advantages and disadvantages. The auditor who proposes to choose the most appropriate sampling method for a particular subject to be surveyed will need to identify a number of sampling criteria whose importance should be assessed before deciding on the method that is required.

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## YOU ARE WHO YOU BELIVE

*PhD student Diana CIOBANU, ASEM*

*We often notice the lack of courage to ask for something more. It is pleasant to imagine ourselves in a new role, accomplishing what we hesitated to do by now, traveling and opening new horizons. But, we tend to give up before we start because we are afraid of ourselves. The fear that we could not succeed blocks us frequently. We miss self-confidence and prefer to thank ourselves for what we have. When we have a dream, we must start working to fulfil it. We work in this way, we learn, apply, accumulate experience, seek solutions, adapt to new opportunities, but before we get what we want, we must behave as if we already have that.*

**Key words:** *motivation, freedom, future, behaviour, reality, thinking, attitude, evolution.*

**JEL:** Z1

### **Introduction**

A beautiful life is a vertical one. A beautiful life is the one that always grows and rises. A beautiful life has deep roots and is not afraid of any storm. For all these to happen, it is necessary to have a very stable and authentic core. The values and fundamental principles around which we build our life form the axis of life. It is the development of consciousness and self-confidence.

The society has an artificial balance. Every man has an artificial balance that should be maintained through efforts that are often very big. A happy life is built on a natural balance. Man, by nature, should be dynamic, should be in continuous development, and this periodically removes him from the steady state of balance. His capacity to transformation now depends on his ability to find a new balance, to integrate new events, thoughts and new energies into his life. For a safe evolution and efficient transformation, it is necessary to identify our internal balance, to think of ourselves and of our own essence.

### **Research material and method.**

According to the existential formula, the man is what he is doing. He is therefore responsible and condemned to be free. By action, man masters the reality, assumes the situation and goes beyond it. Thus, the freedom has two aspects: on the one hand, through freedom, man assumes his own responsibility and decides on his own life; on the other hand, freedom is a source of concern, as it unveils the man's state of mind after dramatically facing an absurd world [6].

At the beginning, man exists, confronts the world around and only then acquires an essence. Man cannot be pre-defined as he is nobody initially. He is what he thinks of him and what he wants to become. Taking into account that man begins to believe about himself only after he begins to exist, existence in man precedes the essence. Man is a being oriented towards future and understands he is projected in the future. And he will become his own project.

Thus, existentialism considers that individuals are completely free and have to take their personal responsibility for themselves. Respectively, action, liberty and decision are fundamental and the only way to rise above the fundamentally absurd condition of mankind is by exercising personal liberty and choice [8].

Humanistic psychology emphasizes subjective significance as well as positive development in opposition. In line with humanistic approach and compared to the majority of psychologists, according to whom human behaviour can only be understood by an impartial, objective observer, the significance of behaviour is personal and subjective and depends on the moral values and the intentions of each of us. The human being is seen to be good by its innate nature, and social and mental problems are a deviation from this nature. Man tends to maximize his interaction and creativity in order to feel free and conscious of himself and his feelings [1].

Carl Rogers believes that people have a major motivation from the moment they are born: a tendency of upgrading, of developing all the abilities and potential, from strictly biological to the most sophisticated

psychological aspects of the human being. The ultimate goal of personality development is the update of ego – a concept of central importance in Rogers' system. The main aim of human beings is to maintain and develop the ego in order to become a completely functional person. According to this view, people are aware that their spiritual and material ascension depends on them, on their capacity to act for the good of their own and their successors [9].

People have positive impulses to grow and realize their own potential to complete fulfilment. Humanistic researches are phenomenological. This means that for each of us there is no objective world, but there is only our subjective experience of the world or our subjective world that depends on our concept of ego, on our attitudes and values. Humanist perception is based on the fact that people are heading towards the full development of their potential [10].

Beside scientific researches, self-knowledge and self-development became a practical science, accessible to everybody, at the beginning of the 20<sup>th</sup> century. Napoleon Hill was a notorious American author of motivational literature. Hill's researches focused on individual's personal beliefs and their role in achieving the success. As a result, the author defined the "philosophy of fulfilment", mentioned in many of his books, in order to reveal the path towards enrichment and success. Though conceived long time ago, Napoleon Hill's ideas are still fundamental to personal development [3].

Being the most famous professor in the field of personal success, Hill has studied the beliefs and specific actions that help leaders to succeed in different fields. He has discovered several factors and principles for success and has documented this subject extensively. One of the factors of success is self-confidence. It means that we have to self-analyse, see what our important and useful qualities are, and then organize them in a clear action plan, through which we can reach our well-defined main goal.

Success requires confidence in our own ability to do whatever we propose. We also need to cultivate confidence in those with whom we associate, both in our superiors and in subordinates.

A well-defined goal is the starting point of every important achievement and self-confidence is the unseen force that persuades, motivates, and pushes from behind to go forward until the goal is achieved. Without self-confidence, no achievement would go beyond the goal stage.

The main enemy of self-confidence is fear. Fears appear in the early childhood as a reaction to educational activities. The fear of criticism is on the top of the list, because it is perhaps the most widespread. The fear of public speaking is the most common and is caused by the fear of criticism.

In order to gain enough confidence to overcome the obstacles that are separating us from success, we have to thoroughly study and learn what fears are controlling us. Several days of work, reflection and thought would permit us to identify immediately what prevents us from relying on our self-confidence. As soon as those adversaries are discovered, we can easily contract them [2].

Anthony Robbins is one of the leading thinkers in the psychology of motivation and success. He teaches a set of means that helps us to mobilize and to act despite all the fears we have, and the ability to do our best is a true force.

We usually perceive the beliefs as some creeds or doctrines. Basically, a belief is any guiding principle, any dictum, any passion that could give meaning to life. There are countless stimulators available to us. Beliefs are some organized filters, pre-set for the mode of perceiving. When we strongly believe that something is true, it is like giving an order to our brain how it perceives what is happening.

John Stuart Mill once wrote: "The strength of a person who has a faith is equal to the strength of 99 people who have only interests." This is why beliefs open the way to perfection. Beliefs send a direct command to your nervous system. When we think something is true, we even get into the state that that is true. Handled with skill, beliefs can be the most powerful forces to create the good in your life. On the other hand, beliefs that are limiting our actions and thoughts, could be as devastating as productive beliefs are power-giving. Throughout history, religions have enlivened millions of people and have given them the strength to do things they did not believe in. Beliefs help us to release the most precious resources from our depth, creating and directing these resources to support the results we seek to achieve. Beliefs are the compass and the maps that guide us to our goals and give us the feeling of security that we will get there. Without beliefs or the ability to get them, people can be deprived of power. They are like a motorcycle without an engine or without handlebars. With strong guiding beliefs we have the power to proceed to deeds and to create the world we would like to live in. Beliefs help us to see what we want and give us the power to get those things.

So, the author's message is about the importance of being the ones who offer. Let's get the command. Let's get into action. Let us use our knowledge. We will not only do it for ourselves, but for others. The reward for these deeds is greater than we can imagine [7].

Brian Tracy is a successful businessman and one of the world's most motivating professional speakers. He is one of the best thinkers and writers about personal development and personal success. He believes the mind is extraordinarily strong. Thoughts control and determine almost everything that happens to us. We can increase or decrease our pulse, improve or worsen our digestive function, change the chemical composition of blood, help us sleep or stay awake at night. Our own thoughts can make us happy or sad, sometimes even in a moment; can make us attentive and concentrate or distractive and depressed; can make us popular or unpopular, confident or unsure, positive or negative. Thoughts can make us feel strong or weak, heroes or cowards. In the material life, thoughts can make us have successes or failures, be prosperous, respected or ignored. The thoughts and actions we exert influence our whole life. But good news is that all of this is under our control [4].

If we think about success and trust, we will feel strong and competent, and we will have better results in everything we do. But if we think we can make mistakes, we will get poor results no matter how good we are in reality.

Beliefs determine our reality to a large extent. We do not believe what we see, we rather see what we believe. We can have beliefs that could improve our life and make us happy and optimistic, or have others negative about ourselves and our potential, which could be impediments in achieving what we really can. The most damaging beliefs we can have are the beliefs that limit ourselves. They pull us down. Most are not true, being the result of information we accept by default, often from early childhood. Even if it is completely untrue, if we believe we are limited in health, happiness or wealth, this belief will come true. As Richard Bach wrote in his book *Illusions*: "Demonstrate your limits and you will certainly become limited."

When we have positive, optimistic thoughts, full of love and success, we create a powerful magnetic field that attracts the things we are thinking about, as if a magnet is attracting iron particles. This law explains why we should not be concerned about where the good things will come to us. If we keep our mind focused on what we want, and we will refrain from thinking about what we do not want, we will attract all the things we need to reach our goals, exactly when we are ready. Changing our way of thinking will transform our lives [5].

These authors give us ideas and practices that urge us to take our lives in our hands, gain control of what we want to become, learn to control everything we think about, everything we feel, choose what we want to be part of our lives, build the relationships we need. The ability to build our life as we want is very precious.

The reality that develops only in our mind and with the help of our mind is called virtual. We cannot say whether it exists or not. The ability to think and imagine is very useful. Nothing can be created in the absence of confidence. Thoughts are more vivid and creative as we are better connected to objective reality, to the nature and environment we are part of. Imagination and trust are efficient as long as they can improve and extend the objective reality. The creative power of thought is the active side of virtual reality. Healthy attitudes are creative. Negative meditations hinder development. Sometimes a good thought could do much more than a great deed.

We invest much energy in our image that we show to others. We spend significant resources to maintain the masks that bring us short-term benefits instead of trying to change what we want to hide. We learn to wear masks instead of positive thinking and developing, loving and transforming what is to be transformed.

We have to choose to invest the energy in the courage to be authentic, in permanent preoccupation to transform the thoughts, and the thoughts lead us to deeds. Our thoughts shape our destiny. The deeds we can accomplish depend on ourselves, on our inner nature.

Different forms and elements manifest in man, as man is a whole. The body is the visible form of the soul and the mind, powerful elements that create the intellect, the self-consciousness, the ability to think, the senses and the sensations. Trust is the source of all of these; we must learn to be aware of it. We are just what we can realize we are.

### **Conclusion**

We must learn to find ourselves, not to be anymore those lost somewhere in the world. Let us not be disappointed about what is around us. Being self-confident, we would be able to say and to understand that we could be what we want to be. When we no longer wait for others to help, we will transform ourselves much and we will have a different view of the life. We should rely first on ourselves and should take from life what we can take. Self-respect and the sense of accomplishment must depend on the self-consciousness rather than on the opinion of others. Having an initiative, we provide ourselves with access to joy and happiness through what we have within us. It is good to know us and to dream, to gain a meaningful self-control power, to have a vision of what we want from life, but not to forget to live freely, to flow together with life by enjoying every drop of happiness it brings us.

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## **THEORETICAL ASPECTS ON COMPETITIVENESS AND DEFENSE FACTORS ON THE COMPANY COMPETITIVENESS**

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*More and more specialists, including our country, are concerned about the lack of competitiveness. Being a topic that is quite current and widely discussed in the scientific world, and not just in this article, we analyse many points of view of people or institutions with reference to defining the concept of "competitiveness". There are differences in the approach of this concept, determined by the level at which it refers (country, branch, firm itself), to the historical period when the definition was advanced. We also analysed the factors influencing the competitiveness at the firm level, exposed by some native and foreign scholars.*

**Key words:** *competitiveness, competitiveness of the company, factors of influence on the competitiveness of the company, quality of products.*

**JEL:** *L25, M10*

### **Introduction**

Competitiveness, being a complex process, but also an economic category with a multitude of interpretations, has become over the last decades a concept widely debated by economists around the world. At the same time, scientists have not reached a consensus as to the definition of this concept, the factors that determine it, the indicators used to measure it. Yearly multiple surveys are conducted by economists, including at the level of the world, reports are published that aim to compare the business environment and competitiveness in different countries. The concept of competitiveness is used by economists in countless cases, in different contexts, with reference to various levels. However, we consider that studies on this subject are still relatively limited. Thus, taking into account the above mentioned, we have set the objective of this research to highlight the concept of competitiveness, starting from the study of the bibliographic sources, existing on this subject, and emphasizing the factors of influence on the competitiveness of the firm.

### **Analysis of bibliographic sources in the field of researched matter**

In order to achieve the proposed goal, we have studied several bibliographic sources that have the object of defining competitiveness and highlighting the factors of influence on the firm's competitiveness. As a result of the analysis of the specialized literature, we have noticed that competitiveness is defined and treated in the literature (Porter, Krugman and Venables, Martin, Iancu, Belostecinic), in particular from two broad points of view: the competitiveness of nations and the competitiveness of the companies. We have noticed that during the development of the society, several theories and points of view regarding competitiveness have been developed and published. Among these we highlight the theory of Michael Porter, which in his book, *The Competitive Advantage of Nations*, published in 1990, presents the so-called

diamond of competitiveness, another theory present in the literature specific to this subject, is the model of the nine factors launched by To Professor Dong-Sung Cho of Seoul's National University, Stephane Garelli (2004), a theory that appeared in the famous publication of the Institute for Development Management (IMD), the World Economic Yearbook, in 2004, called "Competitiveness Cub" [3].

In this article we only referred tangentially to the mentioned sources, analyzing the stories of other authors who, over time, discussed the subject under discussion. Their views are presented throughout the article.

**The research methodology.** In order to achieve the purpose of the research in question, we have used the scientific methods. Thus, we mention the methods of analysis and synthesis that are found, as example, when we researched the definition of competitiveness, we analysed various points of view of the researchers in the field, after which, with the help of synthesis, we tried to bring the parts together and to express our own Point of view on the analysed phenomenon.

#### **The results obtained.**

##### **1. Definitions of the concept of "competitiveness"**

The term "competitiveness" can be analysed according to the level at which some problem refers: to a country (nation), a branch, an enterprise or a product. There is a close interdependence between levels of competitiveness. On the one hand, the quality of the product / service determines the company's ability to cope with competition. On the other hand, the performance of the enterprise is dependent on the sectorial achievements and international de-competitiveness of the country. It is evident the link of reciprocity in the above mentioned ranges, which we presented in figure 1 in the form of a pyramid, the lavage of which is the competitiveness of the product, and At the top – the competitiveness of the country (the nation).

Competitiveness is a notion that can be used only in a comparative context. Thus, a group of researchers from INCE of the Republic of Moldova affirm and support the country's competitiveness (Of the nation) Competitiveness of the product (service) Dimension, that competitiveness is a relative concept, that is to say when analysing the competitiveness of an economic entity is not made an analysis of it as an individual entity, in comparison With other entities. Competitiveness is a concept that describes the business's ability to compete. [12, p.8]



**Figure 1. Competitiveness levels**

If we refer to the existing definitions, we note that according to the general definition given by M. Porter [9, pp. 12-56], competitiveness is the property of an object to meet the requirements of a piece of goods or a service, which is characterized by the ability to correspond potentially to the specific needs of consumers compared to other similar objects present in this market.

Another definition of the concept we are trying to convince us is that competitiveness is the capacity to sell goods and services at time, place and in the form of good buyers of foreigners at prices equal or lower than those offered by other potential suppliers, earning at least the opportunity cost of resources used [11].

The Encyclopaedic Dictionary defines competitiveness as the ability of some services to deal with competition [2, p. 430]. In our opinion, this brief definition provides a viable point of view for identifying concrete ways to improve competition in a given field. Other definitions, which we consider to be equally simple, are, in our view, presented by Uri [14], which considers that competitiveness could be defined as “the ability to create preconditions for high incomes”, Orłowski, Which states that competitiveness is “the ability to sell” [8]. But, at the same time, we mention that visions of the concept of competitiveness are in the 70s-80s of the last century, when the conceptual one was barely at the beginning.

A more explicit definition is found in Scott and Lodge, who argue, that competitiveness is “the ability of countries to produce, distribute and sell goods and services in the world economy, and to make gains lead to raising the standard of living” [10]

According to the World Bank, competitiveness “aggregate the elements that confer greater opposition to an economic entity than its competitors” [6].

According to the OECD, “Competitiveness is the ability of enterprises, industries, regions, nations or supranational complexes to provide unprofitable production factors and a relatively high level of use on a sustainable basis, as they are exposed to free competition”. [5]

The above definitions give us a picture of the historical evolution of this concept. We observe the imposed changes as we advanced to the third millennium, when the intensity of competitiveness became perceived and discussed not only theoretically but also a practical reality, I would say.

## 2. Factors of Influence on Competitiveness of the Firm

Competitive Competitiveness can also be found in native literature. Thus, we mention the position of Academician Gr. Belostecinic, who considers that "like the competitiveness of the country, the notion of the competitiveness of the enterprise is treated differently and, until today, there is a missing opinion. Content approaches focus on such issues as [1]:

- ✚ Ensuring the efficiency and cost-effectiveness of the enterprise under competitive market conditions,
- ✚ Ability to adapt to external environment conditions,
- ✚ Ability to estimate and use opportunities quickly in competition,
- ✚ Features Economic factors that determine the position of the enterprise within the branch market (the characteristics of the product and the factors that make up the economic conditions of the company's distribution and distribution);
- ✚ Productivity of resource use;
- ✚ The ability to stay sustainable in a market.
- ✚ Romanian University Professor Ștefan Nedelea, in his paper “Competitiveness and Costs” highlights some aspects of competitiveness. The author considers that competitiveness is a dual function concept [7, p.60]: assessing the evolution of the organization on the market and orienting it in different ways (quality, price, cost, reliability, change) of its evolution under competitive conditions. In a competitive environment, any organization needs to know and assure the needs of consumers. The elements that define competitiveness can be categorized as factors generating and triggering competitiveness.
- ✚ The factors generating competitiveness are: demand and supply, product quality, prices, adaptability.
- ✚ The trigger factors of competitiveness include: products, customers, market and prices (characteristic of the external environment); Quality, cost, flexibility, change, organization size (characteristic of the internal environment). The factors that lead to regaining competitiveness are change, quality and flexibility.

There are other classifications of the factors that influence the competitiveness of a firm. Thus, C. Gănescu [4, pp. 41-42] is of the opinion that the competitiveness of a firm is determined by a series of factors, which can be grouped as follows:

- ✚ **Hidden factors:** price (payment facilities, currency conversion distortions); Quality (product accessibility, quality of delivery, postal services), sale, product specificity); Image (advertising, prestige, country of origin, packaging, finishing elements); Relationship (lobby).
- ✚ **Visible factors:** productivity; Information on the competitive environment (consumers, competitors, product, market) and the company's internal environment (market position, material and human resources, strengths and weaknesses); Scale (volume and variety dependent costs); Management (strategies and tactics).

Other scholars [13, pp.162-163] are of the opinion that the competitiveness of any enterprise is assured by a series of interdependent factors that make up a kind of vicious circle:

- ✚ Profitability – the ability to earn money;
- ✚ Investing profits in improving and developing activities;
- ✚ Improving product quality while reducing costs;
- ✚ Expanding markets – due to a favourable price / quality ratio for the consumer;
- ✚ Expanding production capacities and hiring new employees;
- ✚ Adapting existing products to changing customer requirements, designing and launching new products on the market.

To a large extent, regardless of how the factors of influence on the competitiveness of the company are classified, the mentioned scholars operate with some elements that are common, although we observe others, which highlight the own vision of each mentioned author.

### **Conclusions**

The review of the bibliographic sources with reference to the conceptual competitiveness and the factors influencing the competitiveness of the company allowed us to draw some conclusions:

1. The concept of competitiveness has a long history, being debated by the great economists of the world for nearly 250 years. Throughout this period, the importance of the concept has grown, with today's competitiveness being discussed at both country and branch level, as well as at enterprise and product level.
2. The complex concept of competitiveness has, over time, generated a number of definitions, both from scientists and from the most prestigious international institutions. We have found that literature on competitiveness abounds and offers a very varied range of definitions of the term. Definitions for the notion of competitiveness also depend on the level at which they are presented: macroeconomic, microeconomic, branch, economic agent or specific product. In this respect, we can meet the notion of competitiveness at the level of the country (the nation), the competitiveness of the branch, the competitiveness at the level of the enterprise, the competitiveness of the product (the service).
3. Also factors influencing competitiveness at each level are also widely discussed. Here too, we do not find a unanimous opinion, and we find it absolutely normal, because it depends on the time when certain assumptions were made. Analysing the company's level, we highlighted some factors suggested by native scholars or from abroad, considering each of them influencing to a different extent the competitiveness of the firm.

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# ELABORATION OF ANTI-CRISIS PROGRAM FOR AUTO TRANSPORT SECTOR OF THE REPUBLIC OF MOLDOVA

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*Currently the greatest gaps in the field of transport in the Republic of Moldova are unclear strategic and tactical vision on the management of crises and the lack of a National Anti-Crisis Program which could identify the mechanism and modalities for the settlement of the problems of this field and to offer a systematic approach for overcoming the crisis.*

*This Program should derive from the radiography of crises made by the competent authority from this field, environment of experts or international financial institutions. Considering the causality relation, the Anti-crisis program should include both measures for removal of causes of crisis in a sector and its immediate consequences.*

**Key words:** *crisis, anti-crisis management, auto transport, anti-crisis program, market economy, measures.*

## **Introduction**

Promotion of an efficient model of anti-crisis management in the auto transport companies of the Republic of Moldova will permit the corresponding management of the appeared and overcoming crises, with minimum efforts their consequences.

The goal of this article is the elaboration and presentation of draft of the *Anti-crisis program for auto transport sector of the Republic of Moldova for 2018-2019* (hereinafter referred to as – *Program*) which can be taken by the Ministry of Transport and Roads Infrastructure for being examined and further approved.

**Research methodology.** Considering the tendencies of the development of auto transport sector in the Republic of Moldova in conditions of crisis in the proposed Program there were formulated a series of concrete actions for overcoming the consequences of crisis in local auto transport companies, the final objective being the increase competitiveness in the field and the efficiency of the economic activity.

This document reflects the vision of the author and it comprises reforming measures and with stimulating character which can be realized by common efforts and by coordinating actions of all public authorities which are responsible for the auto transport sector of the Republic of Moldova without which the ambitious reforms will fail.

**Achieved results.** The draft program consists of three chapters in which it is assessed the actual situation, the developing potential of auto transport sector and there are identified the main means for reducing the effects of crisis:

### ***I. Introduction***

Currently, the economy of the Republic of Moldova faces the symptoms of an economic crisis. Its profoundness is proven by the retardation of the development of all sectors, including the field of transport, contracting aggregate consumer demand on the background of the reduction of remittances, foreign trade and increase of budget deficit. The economic problems make more difficult the tensions from the society, which are generated by the impairment of the population confidence in the budget financial sustainability and in the actions of the Government.

In the conditions of the amplification of economic and financial distortions registered in the economy of the Republic of Moldova, including in the economies of CIS and EU countries, deterioration of the situation from the auto transport field in the Republic of Moldova was caused both by internal and external factors:

#### ***I. Unfavourable geopolitical situation from the region*** which had as consequences:

- Decrease of exports as the result of the reduction of the demand from the main partners of export of the Republic of Moldova, imposition of embargo by the Russian Federation for some products which have their origin from Moldova, and the reduction of world prices for the agricultural products;
- Decrease of the growth rate of the flow of direct foreign investments in the national economy as the consequence of the apparition of the crisis in the countries of origin and non-attractive business environment from the Republic of Moldova;
- Economic crisis from the region, especially in the economies of CIS countries etc.

#### ***II. Banking-financial crisis of the Republic of Moldova*** which had as consequences: depreciation of the national currency determined by the problems in the banking sector, decrease of exports and foreign remittances from abroad and US dollar fluctuation on the international currency markets:

- Increase of inflation rate which is determined by the devaluation of the national currency, increase of tariffs for the energy, increases of prices for some food productions and non-food productions;
- Reduction of foreign reserves of the country and increase of the state debt etc.

The context in which it is proposed this Program is a very difficult and tensioned one for the Republic of Moldova, because the difficulties of the economy transpose also in the auto transport sector, or the vulnerability of the transport sector is directly proportional with the stagnation of the economy and crisis thoroughness.

All those emphasized prove very clear the presence of some symptoms of profound economic crisis and for tis overcoming it is required to be promoted the set of concrete, real and efficient measures for being undertaken in a short and average term.

In this context, the Government of the Republic of Moldova should realize a series of urgent measures for making stable and relaunch the auto transport sector, the *objectives* proposed through this Program being the following:

1. *Non-admission of further crisis thoroughness;*
2. *Restoration of the sector development on an increasing trajectory;*
3. *Strengthening the premises for the development of a durable auto transport sector and ensuring its economic stability.*

Thus, the Program proposes actions regarding the sanitation of auto transport sector, intensification of the cooperation with EU and CIS countries, implementation of the anti-crisis management model in the auto transport companies, actions which are very important in these conditions of sector development.

Considering the singularity of auto transport sector, this Program offers a series of actions classified by priority fields which represent a continuation of efforts already undertaken by the Government and they follow to be realized during the period of 2018-2019 and they are able to produce a positive impact and to prevent/reduce the crisis effects in the sector.

The actions proposed in the mentioned Program have the goal to reanimate the auto transport companies, so that in 2019 it to be on an ascendant course. At the same time, it should be clear that the Program is just a roadmap in order to create a credible platform for returning back to a stable economic situation in the autochthonous transport sector.

## ***II. Measures to mitigate the crisis***

Economic growth from the last years based preponderantly on remittances and consumption is not acceptable as a model of economic development of the Republic of Moldova and it can be further insured, especially because of the dramatic reduction of remittances and national currency depreciation.

The economic crisis has proven once again that the actual model of economic growth of the Republic of Moldova is not of long-term. Or, the task of the Government of the Republic of Moldova currently is not only to safeguard those sectors and companies which were affected in line by the crisis effects by the creation of some conditions propitious to operation and extension, but also to promote **a model of economic growth, based on investments, competitiveness and promotion of exports.**

The Program measures result from the mentioned above external and internal factors which affect the development of auto transport sector and it is focused on the following priority fields which result from the singularity of the sector:

1. **Elaboration of strategic vision of auto transport sector development**
2. **Harmonization of the national law in the field of auto transport to community acquis:**
  - Approval of special regulations on the transport of some categories of goods, approval and admission procedures for road transport.
3. **Adjusting the national law to the provisions of the Road Transport Code:**
  - modification of provisions from the Road Transporters Code for extending the application term for the condition on the financial capacity of the road transport operators who perform transport operations in the international traffic.
  - negotiation and modification of bilateral agreements on the liberalization of road transports, especially with Italy, Ukraine, Russian Federation etc.
4. **Implementation of integrated information systems:**
  - promoting the use of the intelligent systems of transport and information technology in the management and usage of auto transport.
  - Implementation of informational system “e-Transport Authorization”.
5. **Monitoring the measures for fight against the illicit transports:**
  - adjusting the payment method for the services of bus terminals.

- continuation of control measures for fighting against illicit transport which will permit creation of some favourable conditions for the authorized economic agents and will increase the safety degree for the participants to traffic.
- Increasing the earnings of authorized transport operators, implicitly the collections to the state budget by stopping the illicit activity of transport units involved in the international transport of passengers.
- minimization of expenditures of suburban transport operators related to the process of tickets printing.
- Implementation of the system of classification by comfort categories of the transport units involved in the public transport of persons.

### **III. Program monitoring and assessment**

The process of Program monitoring will be accompanied by the permanent monitoring of the realization of the proposed actions and the achieved results because if necessary to be operated the necessary changes in the policy documents and regulatory framework from this field.

The Program assessment will be realized once at the end of its implementation. The assessment report elaborated by the Ministry of Transport and Roads Infrastructure will contain both the performance analysis of the realization of Program actions about the auto transport of sector the Republic of Moldova.

### **Conclusions**

The applicative and methodological value of the Anti-crisis Program for the sector of auto transport sector of the Republic of Moldova for the period 2018-2019, which is elaborated by the author, consists of:

- Proposal of a clear and comprehensive structure for the Program
- Elaboration of a series of concrete measures for overcoming the crisis consequences
- The draft proposed Program can be used and taken in the activity of the Ministry of Transports and Roads Infrastructure.

Besides that on the macroeconomic level it is proposed to be elaborated and realized the Anti-crisis Program for auto transport sector of the Republic of Moldova, each company of this sector should propose an individual approach on its anti-crisis management and if necessary to implement its main elements.

The development of auto transport sector of the Republic of Moldova faces now numerous threats and we will mention especially the economic incertitude which is an obstacle for the development of the enterprises. Thus, the transport sector meets major problems whose settlement is necessary on both, the macro and microeconomic level.

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## **HIGH PERFORMANCE LEADERSHIP AND IMPORTANCE OF TEAMWORK IN AN ORGANIZATION**

*PhD student Masadeh ADEEB, ASEM*

*This article analyses the current concepts of leadership and teamwork in an organization. In the conditions of fast-changing environment, both leadership and teamwork should be highly effective and accomplish the company's goals. To achieve that, it is important to understand the notion and advantages of the leadership and teamwork.*

*Based on the researched theories and the conducted study regarding the practical aspects of the leadership and teamwork at some companies working in Moldova, the article suggests a number of conclusions and recommendations.*

**Key words:** *leadership, high performance leadership, effective leadership, team, cohesion, leadership styles, team types, human potential.*

### **Introduction**

One of the key tasks of the modern companies is, undoubtedly, the development of highly effective leadership and teamwork. In the conditions of the fast-changing world and business environment, the

leadership solutions and teams' relations become especially relevant. Their popularity is also determined by an increased competitiveness, globalization, cultural diversity, informational technologies, and human factors. These factors develop the understanding of managers and employees in an organization regarding the notion, importance, and trends of the leadership and teamwork. The ongoing research and vast literature on management and leadership (see bibliography) lay solid theoretical grounds for making effective leadership decisions and improving the teamwork. Along with this, the literature reflects the different debates on the subject of leadership and teamwork among the scholars, managers, leaders and employees engaged in business.

There is a range of positions and points of view regarding the leadership and teamwork. Those discussions prove the complex nature of analyzed concepts. It is known that the studies in this area mainly concern the individual traits of a leader, situational (situation-based) and functional (behavior-based) theories [6, p. 489-490].

The attempt to clarify the issues regarding the leadership and teams in the complex and diverse situations influences the emergence of new challenges that a leader and his team face. One of such challenges is the achievement of high performance. A number of theories and concepts exists to explain these new challenges and to suggest viable solutions.

Relying on the key theory approaches, we shall examine the concepts that deepen our understanding of the leadership and teams in the changing world, in particular, in the context of their performance. What determines the high performance of leadership and teamwork? This is the main question of this article.

### **Theory and methodology aspects of the study**

Below we shall analyze the theoretical research of famous scholars (see bibliography) that serve as a solid methodological background for the high performance leadership and team cohesion in business organization.

The experience of successful companies, described in that research, derives from the mixture of current theories and art of leadership. Undoubtedly, it could serve as an example and the basis for conclusions and recommendations for different companies, including those operating in the Republic of Moldova. Besides that, the leadership practice in successful companies is already recognized as a part of scholarship and art of effective management.

### **Basic theories**

The scholars Michael H. Mescon, Michael Albert, and Franklin Khedouri define the leadership as "the ability to influence individual and groups to work toward attaining organizational objective" [6, p. 489]. This definition became widely known in academia. Along with seeing the leadership as the ability to influence, there exists another notion, suggested by P. Daft. According to him, "leadership is an influence relationship among leaders and followers who intend real changes and outcomes that reflect their shared purposes." [2, p. 20]. This synergic approach towards the leadership leads to a high performance of a leader and his team in the conditions of constant changes in internal and external environment of an organization.

Performance is understood as a degree of accomplishment of common tasks of a team or an organization. Relationship between the goals and outcomes lead to the need of setting the performance-based goals. To a larger degree, this is influenced by the ability of a leader to enable and develop the full individual potential.

To achieve that, in his relationship with the team members, a leader follows their motivation as well as focuses their attention on the personal rewards and self-actualization. The latter, according to A. Maslow's hierarchy of needs, is placed at the top of human needs. Besides, the effective leaders focus their attention on material (financial) incentives, moral encouragements, and value creation. These motivation and incentive options for the team members influence the development and fulfillment of their human and individual potential. The latter includes creativity, creative thinking, and critical assessment of changes. These elements of human potential could positively influence the performance of a leader and his followers (team) if they apply their knowledge and skills together with the ethical factors of individual potential.

According to scholars Travin V.I. and Dyatlov V [7, p.10], the potential includes:

- communication potential: the ability to cooperate and interact;
- qualification potential: professional knowledge and skills;
- intellectual potential: intellectual and cognitive abilities;
- creative potential: abilities to creative thinking;
- ethic potential: values and motivation;
- psychophysical potential.

We should emphasize that those leaders, who are able to create conditions that influence the fulfillment of individual potential, – succeed in building up the high performance teams.

In this context, the research of the world-famous scholar Covy St. is relevant. He develops the leadership concept by distinguishing the relationship between mental, emotional, spiritual and physical potential

(intelligences) [4]. They reflect the “eighth habit of a leader” that helps a leader to build up a cohesive effective team. The members’ relationships multiply the collective outcome by synergy effect.

To this regard, it is appropriate to compare two social formations: a team and a group (see table 1).

*Table 1*

**Differences between Teams and Groups [3, p. 643]**

<b>Group</b>	<b>Team</b>
A strong leader is appointed	The role of a leader is passed on from one team member to others
Individual responsibility	Individual and team responsibility (everyone is responsible to everyone)
Strictly follows the organization’s goals	Specific vision of goals
The outcome is individual work products	The outcome is collective work products
Performance assessment is mainly based on the influence on business (for example, on financial indicators)	Performance assessment is based directly on assessment of the collective work
The process includes necessary and sufficient meetings	The process includes time-unlimited meeting discussions that solve all the issues
Every group member has his own social circles, take independent decisions, and carries out particular work tasks	Team is interdependent: it has common social networks, goes through joint decision making and working tasks

The team performance is influenced by different team characteristics such as team size, its personnel, team type, and the stages of team building. For example, according to some scholars [2, 3, 6], the number of participants in a team varies from two to twelve people. In particular, R. Daft believes that the ideal membership number is seven people [2, p. 287]. The considerably higher number of participants could lead to communication problems – the issue that is addressed by formation of sub-teams.

What types of teams could have a synergy effect through fostering of relationship between the team members, their support, complementarity, and cohesion? The most widespread teams are functional teams. They are part of management hierarchy and consist of managers or employees from different functional departments of a company. For example, the team members could come from sales department, financial department, human resources department, marketing department etc. In a management structure, they carry out specific tasks in accordance with the functional division and job specification. Cross-functional teams and their subcategories (matrix, project) as well as self-managing and self-learning teams correspond to innovation-based companies [2, 3]. The tasks, solved by these teams, concern the introduction of new equipment and technologies, entrance to new markets, introduction of new products, and changes of management structure. Such teams are time- and project- based and receive a budget, defined by the innovation project. They have specific starting and ending dates, and after the completion of a project, the team is dissolved or reorganized for the implementation of a different innovation in a company. These teams are distinguished by the open and intense communication, well-developed direct connections and follow-ups as well as by high engagement of team members into the decision making process. The teams are self-managing if their members independently do the following: allocate resources, take decision on accepting new members to a team or exclude the members, who fail to adopt, evaluate the performances and quality of work, and establish the sanctions and rewards. As a rule, depending on a situation – for instance, the introduction of innovations – the person, who is better prepared, most knowledgeable and skilled in a specific issue, could take the lead and become a leader. Therefore, the self-managing teams have the leadership that is changing (passed on from one team member to the other).

In the current conditions of constant changes, it is namely the leadership – “eighth habit of a leader” – that forges the relationship in a team. This relationship is based on the leaders’ trainings and development of corporate culture of trust and cohesion, which determine the performance and success of a team and of an organization as a whole. An important role in the teams’ good results and success plays the leadership style chosen by a leader and whether it matches to the behavior of members in a team.

This task is especially urgent in the project-based teams during the introduction of innovations. To avoid disbalance between the leader’s style and members’ behavior, it is suggested to follow the approach of a famous expert Adizes Ichak. According to it, the ideal leader does not exist and so there is no ideal style of a leader. Based on the key management functions, the scholar believes that any team or organization needs four members who play four roles: producer, administrator, entrepreneur, and integrator [1].

**Practical aspects of the study.** Proceeding from the theory of leadership and teamwork described in the research of many established scholars, we also analyzed their practical aspects in a number of companies operating in the Republic of Moldova. They included Ltd (SRL): Polimobil, Lingotex, Interior Pro, Risvah, Palex Service, Aptolent Plus, Autocurat, Sigmatur-Com, Ditex, Cart-nord. A sample among managers and employees included 127 people. On each management level, the number of interviewed was not less than 10% out of total number. To conduct the study, methods of observation and interviews were used, and the questionnaire for interviews was developed. The interview was focused on the issues of cognitive leadership in order to reveal whether the employees understand the notions of leadership potential and teamwork.

In pursuing these aims, the model “The 360 Degree Leader” by John Maxwell was used [5, pp. 11-35]. It allowed us to collect the data on the respondents’ evaluation of the employees’ and mid-level leaders’ attitude towards the leadership, and to define the factors that could break the stereotypes (myths) or eliminate biased opinions.

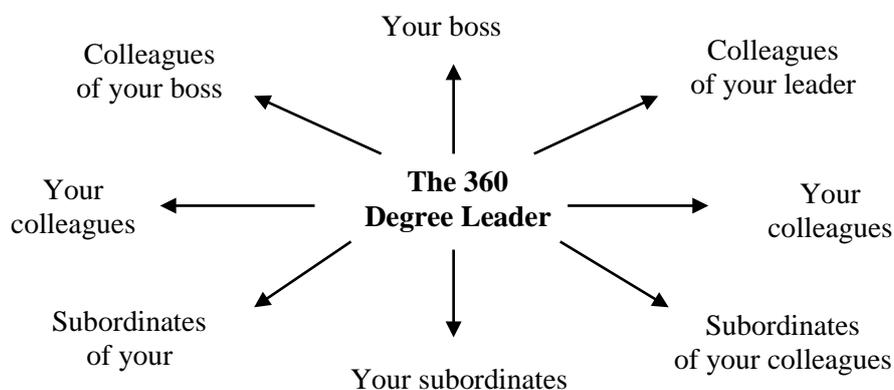
Below, the interview findings among the mid-level managers and employees from the studied companies are presented. This group of respondents was 63,7% of total number. During the study, they shared their understanding on the issue of leadership and team cooperation. To that end, the employees received the statements that reflected the exiting biases, stereotypes or myths regarding the leader or team characteristics. Based on how the respondent shares or rejects (overcomes) any given myth (misconception), it is possible to see the employee’s propensity towards leadership and teamwork. In particular, John Maxwell’s statement regarding the *Position Myth*: “I can’t lead if I’m not at the top”, was positively accepted or shared by more than 88,7% of respondents. Accordingly, it was rejected by 11,3%. It follows that, for now, there is only a small part of employees who rightly link their possible leadership and teamwork with the personal choice, and not only with the taken position. The rejection of the *Position Myth*, therefore, consists in the fact that the top position does not make an individual a leader.

Almost the same proportion of employees – 85,8% and 14, 2% of those who shared and rejected, accordingly, the second myth. It is called the *Destination Myth*: “When I get to the top, then I’ll learn to lead”. The rejection of this myth concerns, after Maxwell, the fact that the art of leadership is mastered in action. To become an efficient leader, one should learn all life-long [5, p. 10]. At the same time, 79,0% of respondents link the chance to influence other people in an organization only with the top level of management. This is called the *Influence Myth*: “If I were on the top, then people would follow me”. The myth was rejected by 21% of employees who rightly believe that the leadership trait to influence is not related to a position, rather, it should be earned. In other words, the position does not create a leader, the leader creates the position.

One more stereotypes is linked to the *Potential Myth*: “I can’t reach my potential if I’m not the top leader”. More than 83,6% of respondents believe that they are not able to fulfill their potential unless they get to the top of corporate ladder. 16,4% of employees reject this myth, thereby linking their motivation to the leadership and teamwork with the climbing to the top of their professional activity, and not just simply with the top of corporate pyramid.

While analyzing the leadership and team characteristics among the mid-level employees at the studied companies, in accordance with Maxwell concept [5], it is possible to conclude the following. It is important to shape the leadership behavior of employees and to link it with the clear understanding of the leadership notion as influence.

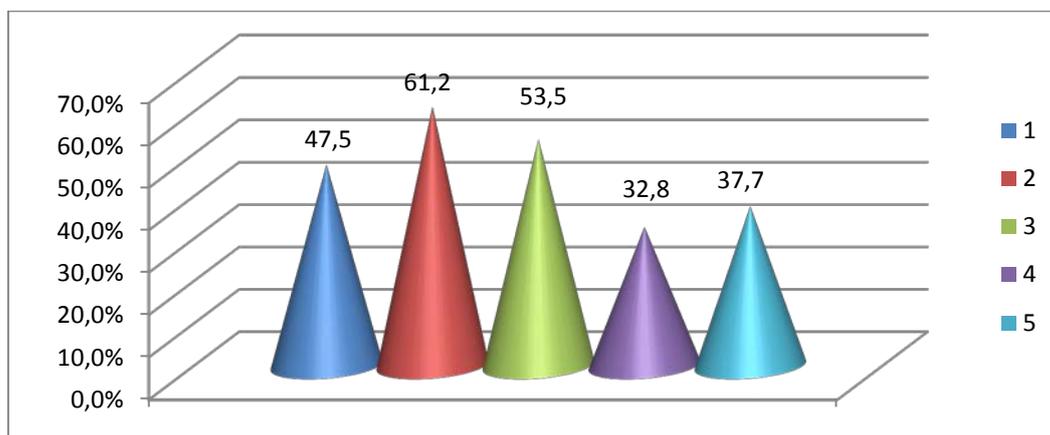
The 360 Degree Leaders influence people on all corporate levels (see picture 1).



**Figure 1. The 360 Degree Leader: influence in all directions [5, p.8]**

During the study conducted at the companies, we defined the following leadership traits of managers and employees that foster team potential (their evaluation in the general sample is given in figure 2):

1. Establishment of team relationships based on the individual and position powers (power balance);
2. Independence during decision making in accordance with job description (delegation);
3. Application of optimum scale of permissible variations during control (possibility to learn from the own experience, learn lessons, self-control);
4. Prompt gaining of relevant information regarding the work of related departments for cross-functional problem solving (transparency);
5. Engagement in discussions, decision making, and adoption of strategies (of a department and an organization).



**Figure 2. Respondents' satisfaction of leadership and teamwork (as % of a total respondents' number, general sample)**

To develop leadership and team competences of managers and employees at the studied companies, it is important to conduct staff trainings and organizational development. The programs should create opportunities in organizations to exercise individual powers (expert, personal example, charismatic leadership). The data on respondents' satisfaction of leadership and teamwork is the following: only 47,5% expressed their satisfaction of power balance process; 61,2% expressed their satisfaction with delegation; 53,5% are satisfied with the self-control and opportunity to learn from the own experience, and finally, 32,8% and 37,7% are satisfied with the accessibility and transparency during the cross-functional problem solving and engagement in the discussion of organizational strategies and decisions, respectively.

#### **Conclusions and recommendations**

- The study showed that the successful development of business organizations is related to the presence of a leader with a team. The leadership must be effective and must accomplish the set-up goals. The team outcome is synergic and is seen after the shared influence of team members that fosters their joint efforts.
- The system-synergy approach to the leadership and his team is especially important in the conditions of constant changes in internal and external environment of an organization. Together with this, the implementation of such approach requires the ability of a leader to enable and develop the full individual potential. In this context, the research of a recognized scholar, Covy St. is of special importance. Covy develops the leadership concept and emphasizes the interaction of mental, emotional, spiritual and physical intelligences.
- The team performance depends on the different team characteristics and processes, such as team's size, personnel, type, and the stages of teambuilding. The number of team members varies between two and twelve, although the best team size that facilitates its performance is seven members. There are functional, cross-functional, and self-managing teams. They are considered to be the most flexible and innovation-friendly for the companies.
- Functional teams prevail on a number of companies operating in Moldova (studied in this article). They are vertical and correspond to the functional work division and specialization, thereby limiting the synergy. In the conditions of fast changing market circumstances and processes, it is important for business organizations to introduce innovations in technologies, products, and design. To successfully implement the innovations, the companies should use more often the self-managing teams. Deve-

lopment of leadership and teambuilding should come together with the on-going staff trainings, seminars, and personal self-development. To that end, it is important to exercise professional coaching. In addition to that, the studied companies should improve the team functioning and leadership based on the development of delegation, self-control, and staff engagement in the discussions on general organizational strategies and goals.

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### **THE PROCESS OF DEVELOPING THE CONCEPT OF POSITIONING**

*PhD student Liubov ARICOVA, ASEM*

*The article considers theoretical aspects of positioning determination and reveals the nature of product positioning in the market. The method of the process of developing the concept of positioning using a number of steps is substantiated. These steps are applicable to products and services in the domestic and international markets. The positioning of the products forms the basis on which the marketing strategy is built.*

**Key words:** *positioning, market, consumer, product, segmentation, conception.*

An important step in the selection of the direction of company's activity marker orientation consists in the determination of the product's position on certain market segments. The position of the product – this is the opinion, above all, of a certain group of consumers of the target market – segments with respect to the most important properties of the product. Jack Trout points out that the positioning is the “operation on the minds of potential customers” [7, p.55]. It should be noted that he was the first person who introduced this term in marketing terminology.

First of all, we consider the theoretical aspects of the positioning concept. We can emphasize three main approaches to the interpretation of the term “positioning”: the positioning as a strategy, the positioning as a concept, and the positioning a set of activities.

**Positioning as strategy:** Jean-Jacques Lebel determines the positioning strategy as the “elaboration of the company's project and message about it” [5, p.32]. This should allow the company to attract the attention of the target audience. Philip Kotler notes that the positioning is a strategy, and defines it as the action on the formation of the company's offer and its image, aimed at to win the recognition of the target group of consumers [2, p.123].

#### **Positioning as a set of activities**

According to Jacques Landrevi, Julien Levy and Denis Lindon, the positioning is the policy of company's influence on the customer's perception of its offers [4, p.5].

Tim Ambler considers that the positioning is a set of tools which held at the creation of the brand's image, and this image shall differ more advantageous as possible from the rival's brand [1, p.21].

**Positioning as conception:** Jack Trout notes that it is important to build the positioning on a strong conception; this will allow emphasizing the company through the rivals [6, p. 256]. David Krevens determines that the conception of positioning as statement of the essence of the company's offer indicating the ability of the organization to satisfy the needs and preferences of the consummators [3, p.45]. The conception of the company's positioning shall proceed from the reasons why the consumers will prefer to deal with it, and not with its rivals, and to transmit these reasons on the target audience.

In other words, the *concept of the positioning* is a statement of the essence of the company's offer, taking into account the needs of the target segment, the expectations of other public groups and the benefit considerations for the company.

The authors of the book "Merkator" [4, p.89] mark that when choosing the statement of the concept is necessary to consider three points.

1. The shape of the positioning should be simple, clear and understandable
2. The theses in which the company expresses its positioning should be attractive, original and credible.
3. As an important positioning characteristics it should be stated its effectiveness and duration of impact, which is only possible when it is possible only with an allowance of segment's potential to which it is directed.

*According to the author, we can draw the following conclusion: the positioning is quite complex concept that is not limited to the process of developing the concept and choice of positioning strategy, but it should also include a set of measures that will ensure the product a competitive advantage from the point of view of the targeted consumers.*

The main factors that determine the position of the goods on the market are price, quality, design, discount, before and after-sales service, product and company image, etc.

Positioning includes a set of marketing items, by which people are taught that the product is designed specifically for them. This may be a variety of positioning methods:

- the method based on the realization of certain advantages of the product and satisfaction of specific needs;
- the method based on the positioning through a particular category of consumers who already bought the goods or by comparing the product with competitors' products;
- the method of goods positioning on a particular segment of the market through the organization of efficient advertising and sale promotion.

The development of new product conception of positioning in the minds of the buyers or repositioning of an existing product on the market comprises a number of steps. Various authors define this process in different ways, even the number of steps varies.

For example, J. Graham. Huley identifies three positioning phase [7, p.65].

These steps are applied to goods and services in domestic and international markets, on new and existing goods.

In his turn, Khrutsky V.E. divides this process into 7 steps [8, p.10]:

*Step 1: to determine the appropriate set of competitive products*

At the company or the business unit level, such analysis helps define how the company in whole or the business unit is positioned relative to their competitors. At the level of product category analysis examines the perception of buyers of goods types which they can be considered substitutes, satisfying the same basic requirements. To evaluate the position of the new product on the market, the marketer has to get an idea of the buyer's perception of a new product with respect to possible interchangeable goods on various attributes defining it, which corresponds to steps 3 and 4, the positioning process.

*Step 2: to determine defining attributes*

The positioning can be based on a number of attributes, which include the desired characteristics or gains.

The question is how a marketer can find out what product parameters are defining attributes. This task typically requires some market research. According to the results of such studies are based perceptual maps that depicted the investigational product with the help of the most important parameters in the eyes of consumers.

Assessing the market position of various products, consumers are doing it from the point of view of its benefits, advantages. Therefore, any company should seek out reserves providing additional benefits and welfare to its customers, whether it concerns the higher quality of goods and services or providing them at cheaper prices.

Analysis of potential sources of provision of greater value to customers can be carried out with the help of so-called value chain. The value chain includes all activities of the company (chain links), aimed at creating value for the customer. In the classical model of the organization of these activities are included the development, production, marketing, sales and support of its products. These activities are grouped into five main types (input logistics –ensuring the manufacturing operations with all necessary; manufacturing operation – the release of the finished products; input logistics – handling of finished products; marketing, including marketing, and services) and four support activities (company's infrastructure – provision of good administration, finance, planning, human resource management, technological developments, procurements

involving the acquisition of all necessary for the conduct of the main activity). The supporting types of activities are related to the conduct of main activities. Its mission is to verify the costs and output parameters of each of the nine types of activity and finding ways to improve them. By comparison of these data with those of competitors are identified the ways of winning competitive advantages. For each chain link there is a question: "Do we create value for the customer by the most efficient method in terms of cost?"

And so every activity should be analyzed from the point of view of the provision of goods to the consumer, and determination in what costs this will come.

This brings us to Step 3.

*Step 3: collect information concerning the consumer's perception of the competitive goods*

Having defined the set of competing goods, the marketer needs to find out which attributes are crucial for the analysed target market and product category. Also, he must figure out how various products in a set of competitive products are assessed by the customers on these attributes. Usually, this market knowledge is collected primarily through qualitative research, such as interviews with focus groups, conducted in order to identify the defining attributes. This is followed by a quantitative analysis, such as consumer survey regarding their perception, to collect information about how competing products are evaluated on individual attributes. This is followed by a quantitative analysis, such as consumer survey regarding their perception for the purpose of collection of information about how competing products are assessed on individual attributes.

*Step 4: to analyse the current position of the products in the competitive set.*

Whether positioning process is directed to new product, not yet introduced to the market, or repositioning of product that already exists, it is important to provide a clear understanding of the positioning of products which have been identified as belonging to the competitive set (see. step 1). A useful tool for the achievement of this goal is a positioning grid, also called perceptual map.

As the parameters in the elaboration of the positioning maps, you can choose different pairs of characteristics describing the investigational product. Often these couples are chosen according to the result of the consumer's survey, for example, according to the following pair of characteristics: the level of sweetness and quality of packaging.

But not all products or trademarks exist in the minds of most consumers. Many, if not all the trademarks are memorized poorly or are not remembered at all by consumers. For example, over the past 10 years it has been presented more than 200 new non-alcoholic beverages, most of which buyers did not notice or did not remember [7, p.56]. Therefore, the first step in the conquest of the trademark with a distinctive position is the creation of brand information. For the achievement of this goal, the trade mark must be strongly associated with one or more ideas on buying decisions. The distinctive position is most easily achieved by creating a close relationship between the trademark and a limited number of attributes. The determination of attributes, on which the positioning of the products will be based, is the basic result – process of the positioning.

*Step 5: to determine buyers' the most preferred combination of attributes*

There are several methods by which the analysts can determine the consumer's preferences and include them in the positioning analysis. For example, the respondents who participated in the survey may be asked to invent a perfect product which has an ideal combination of attributes (from the buyer's point of view). Then, the respondents are asked to rate their perfect product and the existing products according to a number of attributes.

Another method of assessing consumer's preferences and compromises between them, a statistical method called joint analysis. The customers are asked about their preferences for various real or hypothetical products, each of which has attributes which are systematically changed. By analysing the resulting data, a marketer can find out which of several attributes are more important than others. Then, these results can be used during the conduct of positioning analysis.

*Step 6: to examine the correspondence of possible positions of the consumers' needs and the attractiveness of the segment*

An important criterion in the determination of the market segments is the difference in the benefits that are looking for different buyers. Due to the fact that the differences between the ideal points of buyers reflect the differences in the benefits that they are looking for, the analysis of market positioning can simultaneously identify specific market segments, as well as the perceived position of different trademarks. When the ideal points of buyers are grouped into two or more locations on the map of commercial space, the analyst can consider each group a separate market segment. For analytical purposes, each group is represented by a circle, which contains most of the ideal points for this segment; the size of the circle reflects the relative share of buyers within a particular segment.

*Step 7: to draw up a report about positioning or the value of the offer for the administration developing the marketing strategy.*

The final decision on how to position a new trademark or reposition the existing one, it should be defined both by the analysis of the target markets and the results of the analysis of market positioning. The selected position should comply with the preferences of a particular market segment and take into account the current position of competing trademarks.

Provided that there is no real distinction between the products as in the case of so-called products of “me too” or differential outputs for the user, it is difficult to achieve success. Furthermore, some ethical problems may arise. When it is determined the desired product positioning, it is good to fix it, so those who are responsible for development and implementing the marketing strategy to have a clear understanding of what is planned in relation to the product and how it will be positioned in relation to the other products from the competitive set. For this purpose, usually two approaches are used. According to the classical approach, it is written a report about the positioning. A newer approach, which takes a growing number of companies, includes the drawing up of the value proposition in respect of the goods.

It is important that the positioning report or value proposition to be outlined the benefits that consumers receive the goods, rather than the characteristics or attributes of the product itself or inexplicit or doubtful and banal statements about the high quality and excellent service. Under the benefit, we mean almost measurable results which the consumer will receive from the use of this product in comparison with the others.

Therefore, the positioning report or value proposition in the literal sense is the basis on which the marketing strategy is built.

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### **ROLE AND ASSESSMENT OF COMPANY'S MARKETING POTENTIAL**

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*In the article there is examined the methodological and practical assessment issues of the economic and marketing potentials. An important component of the marketing is the information for planning. A particular attention should be paid to assessment of company's marketing potential, which ensures the company's competitive ability.*

**Key words:** *marketing, marketing potential, potential, marketing management, economic potential.*

The present day, the effectiveness of entrepreneurial activity is determined by the level of efficiency of using the company's potential, and especially the marketing potential of the company, as modern entrepreneurship conditions determine the understanding of consumer's needs and ensure the high quality of products and services as a prerequisite for success in the competitive battle.

But despite the importance and immediacy of the issue, there are still many different approaches to interpreting the concept of marketing potential, its place in the potential of the company, as well as its components or factors that shape them. Therefore, on the basis of different approaches to the definition, a variety of approaches to the assessment of company's marketing potential also formed, one of which currently does not allow assessing fully and objectively the marketing potential of the company, which causes the topicality of the research in this direction.

The researches in the field of marketing potential are being carried out by both domestic and foreign scientists. These scientific researches have already created a certain theoretical basis on methods for the assessment of marketing potential. The approaches to modelling the concept of "potential" can be observed in many works. It is important to distinguish the concepts of "economic potential", "company's business activity", "assets and resources of the development". It should be noted that these categories are hierarchically dependent on each other and are related logically, reflecting various aspects and driving factors of company's development.

At present, the role of marketing in the company's efficiency has increased sharply. The essence and role of marketing is examined from different positions. In modern theory there are proposed about 200 definitions of the concept of "marketing", each of which covers one side or the other or makes an attempt at a complex characteristic. It is viewed as a management process through which the resources of the entire company are used to meet the needs of selected customer groups in order to achieve the goals of both parties. In other words, the marketing is a market-oriented principle of company's management that "consists in searching for solutions based on modern tools aimed at satisfying the needs of consumers and gaining advantages in comparison with competitors through special market events". Also marketing is considered as one of the types of human activity, in particular marketing as an activity carried out in order to achieve the most effective exchanges to meet specific needs and requirements. On the one hand, such activities are aimed at market study, identification of real needs, tastes and preferences of specific consumers, determination of the targeting of output products and ensuring the organization of its production. On the other hand, this activity includes a targeted impact on the market in order to form needs and consumer's preferences to ensure the effective sale of the manufactured goods [7; p. 11].

In order to improve the marketing activities of the company, their market orientation, receiving opportunities to attract additional investment, it is necessary to assess the marketing potential, as well as to manage them in a purposefully and timely manner. Under the strategy of managing the marketing potential of a company it should be understood a fundamentally new approach to the technology of long-term balanced coordination of the economic entity's activity, which is based on marketing tools that make it possible to form a model of its functioning [2,3].

The management of the company's marketing potential can be defined as the process of modelling the company's marketing opportunities for various periods of functioning with the determination of its global goal and the specific tasks arising from it, as well as determining how this goal and tasks are implemented, based on the respective opportunities of the company. It is based, on the one hand, on the goals and objectives set during the development of the strategy, and on the other hand, on forecasts for various areas of development. The marketing potential, as an integrated system, unites all the main components for an effective activity in the market [3]. Ignoring one or another constituent element will lead to loss of efficiency of the whole system as a whole.

The notion of "marketing potential" arose much later, as a necessary element of the company's marketing activities, caused by an increased competition battle. The marketing potential is an integral part of the enterprise's potential. In a broad sense, the marketing potential is the combined ability of (company's) marketing system to ensure the constant competitiveness of a company, the economic and social conjuncture of its goods or services in the market thanks to planning and conducting effective marketing events in the field of demand research, commodity, price, communication and sales policy, as well as in the organization of strategic planning and control over the behaviour of goods, competitors and consumers in the market [1, 4, p. 189]. Its essence lies in the maximum possibility of the company to use all good practices in the field of marketing. The operative numerical evaluation of such potential will allow revealing the latent reserves in development of the companies, and, consequently, to increase the return from more justified application of advanced economic tools.

For the study of the marketing potential, such general scientific methods as system and complex methods are successfully applied. The system analysis offers the opportunity to examine any market situations as an object for study with a large range of internal and external cause-and-effect relationships. A complex approach allows us to examine the market situation, treating it as an object having different manifestations.

The potential of the company is most often disclosed through a combination of characteristics: real opportunities, volume of resources and reserves. In the most general formulation, the elements of the company's potential can be considered all resources that are in some way related to the functioning and development of the company. The choice of the most important of the huge number of them is a very complex problem, as evidenced by the many opinions about the composition of the production potential. The main difficulty of the analysis of the composition of company's potential is that all its elements function simultaneously and collectively. Consequently, the regularities of the potential's development can be disclosed not as a separate regularity of the development of its components, but only as a combination of them. The essence of optimization of the company's potential consists in analysing the effectiveness of the resources used, of the competitiveness, and strategy.

So, for example, in a number of works the potential is treated as a set of resources, which develops a resource approach to the analysis of the potential. However, leading this concept to a set of resources is possible only with significant limitations on the potential's model, which can be expressed in the form of functional and resource types of potential. However, the use of exact functional dependencies of the influence of factors on the level of economic potential is very difficult when a generalized concept and a systemic representation of the category of economic potential and sub-potentials reflecting individual functional directions of the company's activity are formed. E.S. Rolbina identifies two types of marketing potential assessment: objective and subjective. The basis for an objective assessment of marketing potential, in her opinion, is the dynamics of indicators of financial and economic activity that directly depend on the effectiveness of marketing activities: sales volume, market share, profit, liquidity rates, capital structure indicators, profitability rates, business activity rates, investment criteria [8]. In the author's opinion, one cannot fully agree with this approach, since financial indicators are characterizing the financial potential of the company, whereas the list of indicators directly related to market activity in this author is clearly insufficient. In order to obtain a subjective assessment of the marketing potential, it is necessary to conduct a survey of the staff and of outside audiences of the company to obtain scores for the following parameters: the efficiency of the product policy, the rate of assortment renewal, the correspondence of prices to the level of product quality, the correspondence of prices to the competitor's price level, the coverage of market segments, the territorial coverage of the market, the effectiveness of marketing communications, the remuneration of labour.

The subjectivity of the method of expert assessments is refuted by many authors, so here rather the question is about the possibility of a quantitative and qualitative assessment, and not about subjective and objective criteria. In the author's opinion, the method of expert assessment is fairly objective and there are cases when no other method will allow obtaining a complex assessment, in particular, if the investigated value consists of a number of components whose logical adaptability is possible, but the difference in units does not allow their addition. The operational assessment of marketing potential will allow revealing hidden reserves in the development of the management system and increasing the return from more justified use of advanced economic tools. The author suggests using the indicator of customer's satisfaction as the determining level of development of marketing potential.

Traditionally, it is considered that you can assess the level of satisfaction with the help of customers' feedbacks about the quality of products, assessments of the frequency of readdressing of the consumer to place an order, tracking the repeated addressing by new consumers on the recommendation of regular consumers of the company's products, determining the number of complaints from the consumer in terms of quality, completeness and delivery times. However in the opinion of O. Iu. Gordashnikova, specifically in relation to the problem of assessing marketing potential, it is necessary to measure the level of relationships with key consumers, applying the rating of the main criteria, depending on the characteristics of the product and the classification of consumers. In particular, such indicators as the share of the company in the business of the client (consumer), the purchased assortment, the frequency of contacts, the sales volume, etc. are applied [6].

The following indicators are also subject to evaluation:

- share of products surrendered from the first presentation;
- share of products for which no claims have been received, in the total number of goods surrendered;
- share of products for which non-compliances were received from the customer, which are not issued in the form of complaints, but are recognized by the company, in the total number of products surrendered.

To the system of assessment it is also added the satisfaction indicators used to measure the marketing potential indicators of satisfaction with the working conditions of the company's personnel. Although the

methodological provisions of O. Iu. Gordashnikova are not brought to the level of specific recommendations, in this case the satisfaction index can act as the resulting marker of all marketing activities and marketing opportunities of the company.

One of the components of the marketing potential is the market potential. When assessing the company's potential, a special attention is paid to determination of the market capacity. The market capacity and its trends are important factors that manufacturers should be taken into account when entering the relevant market. There is no point in entering the studied market, if its capacity is low or becomes such any time soon. Establishing the capacity of the commodity market, there are taken into account the main trends in the development of the national economy and the possibility of implementing the corresponding investment projects in them [7; p.10].

The degree of effectiveness of marketing potential can be assessed by means of marketing audit and verification, evaluation of its effectiveness on the basis of studying the problems of company marketing conduct by the relevant services, etc. In addition, there are many methods for studying the factors of organizational order, allowing you to assess indirectly certain aspects of the effectiveness of the company's marketing potential. Such an analysis can be implemented with the use of strategic control tools, which are based on the use of marketing audit methods. In the implementation of an advanced marketing audit, the specialists have the tasks aimed at the mutual linking of production, accounting, financial, personnel, sales and post-implementation processes and their optimization in terms of the company's sustainable competitiveness. However, in practice, more often are solved the particularistic problems. Most often the objects of marketing audit become all components of the marketing mix. The purpose of marketing audit is to identify problems and new opportunities in those areas of business where a company can achieve a long-term economic success, as well as the formation of marketing goals and strategies for their achievement.

In addition, there are many methods for studying the factors of organizational order, which allow assessing indirectly the particular aspects of the effectiveness of the company's marketing potential. In this regard, the question arises about the choose of a more effective tool for assessing the marketing potential at a company that will allow to quickly determine the internal opportunities (pros and cons) of marketing activities, to assess the quality of the document flow between units and the marketing service, to discover hidden reserves of the company's development in order to improve the efficiency of its commercial activity.

Therefore, an actual and important research task is to study the marketing potential, as the understanding of its essence, the main elements and the level of their development determine future directions for improving the marketing activities of the company. Based on this, we can say that the main goal of the development of the company's marketing potential, taking into account the resources and capabilities of the company and the consumer market, is the formation of the market for potential consumers of the company's goods and ensuring the reproduction of demand for these goods for a long time through the development of competitive edges. So, the marketing potential is an opportunity that can be determined in the near future. When assessing the marketing potential, it is necessary to take into account the analysis and market opportunities that also determine the marketing potential, the different influence of environmental factors on the marketing resources of the company.

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# ANALYSIS OF THE DIMENSIONS OF NATIONAL CULTURE IN THE REPUBLIC OF MOLDOVA ACCORDING TO FON'S TROMPENAARS AND HAMPDEN-TURNER'S MODEL

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*“Culture is the way in which a group of people solves problems and reconciles dilemmas”  
(Fons Trompenaars & Charles Hampden-Turner)*

*The process of globalization broadens the borders and makes the world more interactive. We are happy to deal with a great variety of people from all over the globe. To understand better the different thinking, feeling and acting of representatives of different cultures and countries we should consider the results obtained by researchers and practitioners. This article presents a research on cultural differences described in the works of researchers Fons Trompenaars and Charles Hampden-Turner and we tried to reveal their variation in the Republic of Moldova.*

**Key words:** *cultural dimensions, national culture, Fons' Trompenaars*

**JEL:** D23

## **Introduction**

Evaluating the differences of national cultures is a very broad, complex and important subject. The best way to understand the different ways of thinking, feeling and the behaviour of people in different cultures and countries is to take into account the results obtained by world renowned researchers and practitioners.

We would like to mention authors and the cultural dimensions models they proposed:

- Geert Hofstede: power distance, individualism/collectivism, masculinity/femininity, avoiding uncertainty, long-term orientation, indulgence/constraint, monumentalism/self-effacement;
- Florence Kluckhohn and Fred Strodtbeck: human nature orientation, environmental orientation, temporal orientation, activity orientation, orientation in human relations;
- Edward T. Hall: monochronism/polychronism, space (proxemics, territoriality, contrast) rich cultural context/poor cultural context;
- The GLOBE project, coordinated by Robert House: power distance, institutional collectivism, in-group collectivism, gender egalitarianism, assertiveness, avoiding uncertainty, future orientation, performance orientation and human orientation;
- Shalom Schwartz: hierarchy/egalitarianism, integration-autonomy and domination harmony.

**The main goal of the research** is to evaluate the cultural dimensions according the Trompenaars and Hampden-Turner' model and trying to establish the variables of these cultural dimensions in our society.

According to them different cultures are different from each other due to the specificity of given solutions to various problems met daily by members of the societies or collective entities. They have established tree categories of problems “those which arise from our relationships with other people; those which come from the passage of time; and those which relate to the environment” [2]. This approach is also available at both, individual and organizational level.

It was a challenge because there are not very many researches on cultural dimensions of the Republic of Moldova. The thing that became more interesting from our point of view is that the Republic of Moldova was not surveyed by Trompenaars and the answers to the dilemmas in his tests seem rather intriguing for trying to establish the variables of cultural dimensions in our society.

Cultural dimensions identified and developed by Fons Tompenaars and Charles Hampden-Turner are:

- Universalism versus Particularism;
- Individualism versus Communitarianism;
- Neutral versus Emotional;
- Specific versus Diffuse;
- Achievement versus Ascription;
- Sequential versus Synchronous time;
- Internal direction versus External direction.

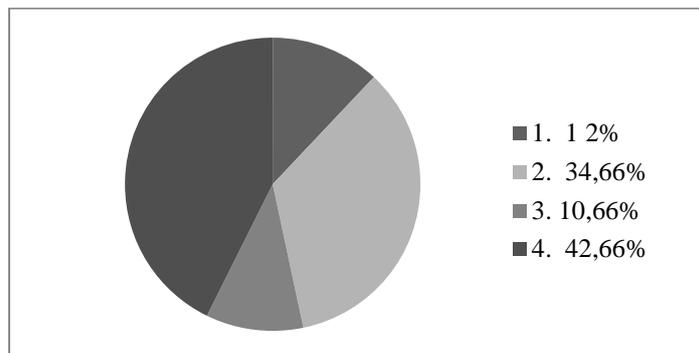
For establishing the variation of cultural dimensions in the Republic of Moldova according to the model of Fons Trompenaars and Charles Hampden-Turner a questionnaire was drafted in which seven dilemma situations for each dimension were proposed with the condition to choose one of four variants of

answer. The questionnaire was distributed to 150 first year students (17-21 years), enrolled at the Academy of Economic Studies of Moldova. The purpose of choosing this target segment of respondents was to evaluate the cultural dimensions of young people and how adult life, studies and work experience could influence the variation of dimensions.

After processing the information from the questionnaires we have received the results described in this article.

**I. Universalism versus particularism (rules versus relationships)**

This dimension is about the difference between the cultures in which it is considered that the ideas and techniques can be applied in any conditions without modification and those in which it is considered that the circumstances dictate the way in which ideas and techniques must be applied.



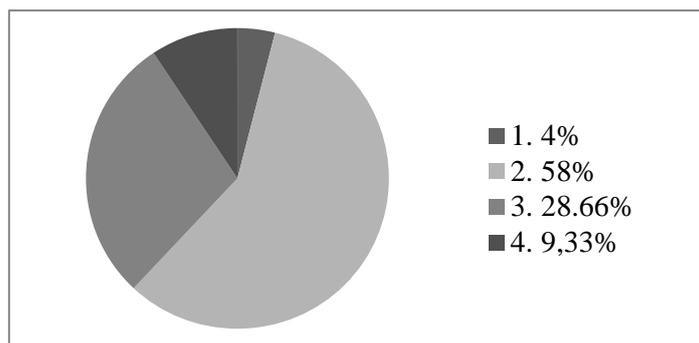
**Figure 1. Universalism vs Particularism**

- 1) is a full universalist answer;
- 2) is a full particularist answer;
- 3) is a particularist answer doubled by an universal orientation;
- 4) is a universalist answer but recognizing the importance of particular relationships [2].

After analysing the diagram we can say that there is a tendency of universalism in the Moldavian society, that means that rules and regulations can be applied to different situations but social relations and other people opinion is also important.

**II. Communitarianism versus individualism (the group versus the individual)**

In individualist cultures people consider themselves independent persons, while in the collectivist people are defined as members of a group.



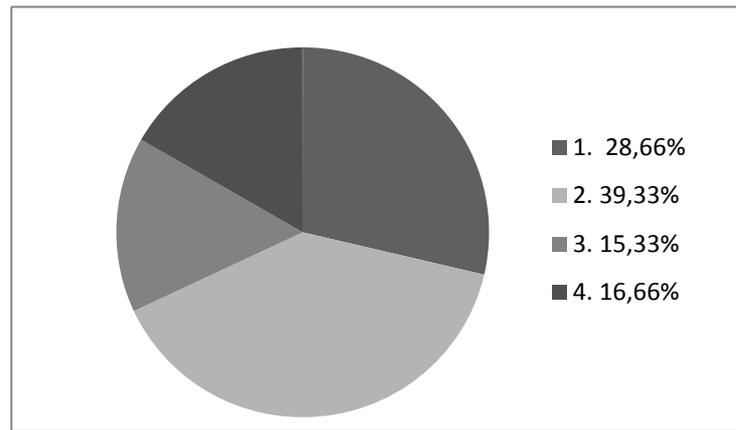
**Figure 2. Communitarianism vs Individualism**

- 1) is a radical individualist answer;
- 2) affirms competitive individualism, but reconciles it with communitarian cooperation;
- 3) asserts the pre-eminence of the group, but also allows the existence of competing individuals;
- 4) is a radical communitarian answer [2, pp. 65-66]

The conclusion after processing the results for this dimension is that the responsibility is of the individuals who also take advantage of cooperation with others.

**III. Neutral versus Emotional (the range of feelings expressed).**

A neutral culture is the one where people hide their feelings, while an affective culture is characterized by the fact that emotions are natural and open.



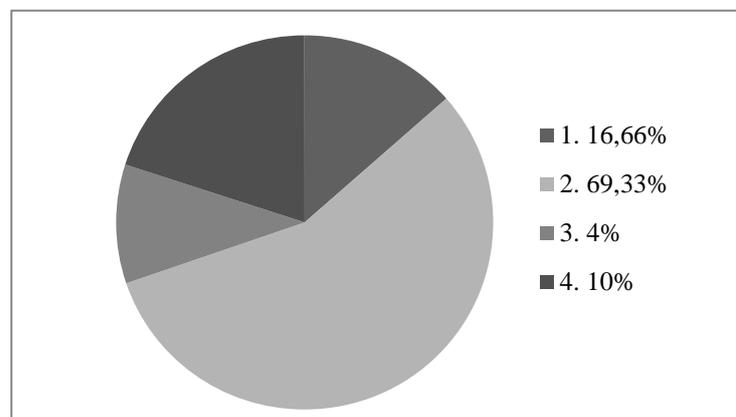
**Figure 3. Neutral vs Emotional**

- 1) is a radical option for neutral orientation;
- 2) starts from the neutral point of view, but acknowledges the importance of emotions for a good future relationship;
- 3) represents an affective orientation, aimed at bringing under control of future affective interactions;
- 4) is a radical option for the affective orientation. [2, pp. 77-78].

The results show that Moldova is a neutral society in which importance is set on clear objectives where logic dictates but also the emotions are important for good relations. Emotions are controlled and expressed when it is needed.

#### **IV. Diffuse versus Specific (the range of involvement)**

Specific relationship is seen as one very impersonal based only on contracts and agreements. Diffuse refers to relationships on a human level. The diffuse culture prefers a more human relationship and values this over impersonal, logical relationships often seen in specific cultures.



**Figure 4. Diffuse vs Specific**

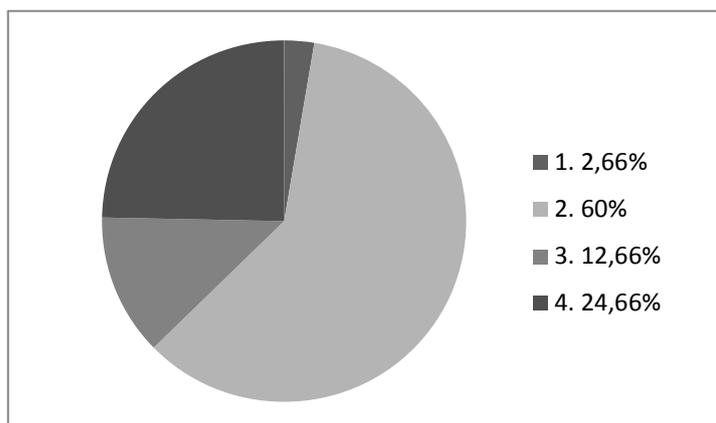
- 1) is an option for diffuse orientation;
- 2) is a compromise between the two, based on a diffuse point of departure;
- 3) is a compromise between the two, based on a specific point of departure;
- 4) is an option for specific orientation. [2, pp. 99-100]

Here there is a situation of compromise between diffuse versus specific way of implication but having the starting diffuse point that means that the relationships require an element of trust which places friendship on a greater level than a business.

#### **V. Achievement versus Ascription (how status is accorded)**

In cultures with the achievement dimension the status is gained, individuals are treated equally, so that they can be evaluated according to their merit. The cultures in which the superior levels have full

decision-making authority and establish the social-professional status of individuals according to criteria like age, political affiliation, membership to a clan, etc. these are cultures with status assigned and describe the **ascription**.



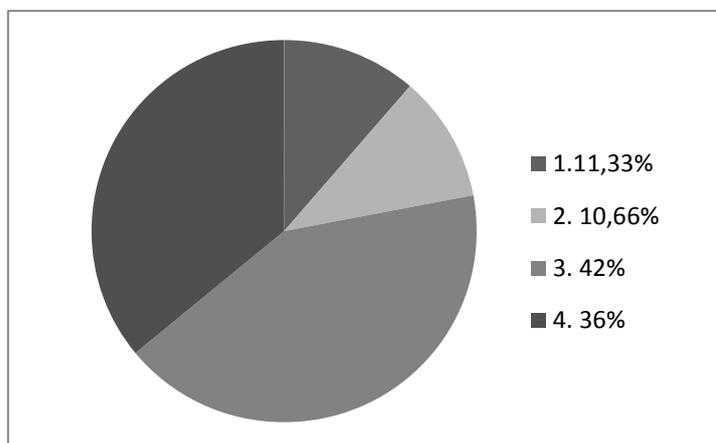
**Figure 5. Achievement vs Ascription**

- 1) is a radical option for ascribed status;
- 2) represents the belief that socially ascribed status will lead to achievement and success;
- 3) represents the belief that achieved status will lead to social ascription;
- 4) is a radical option for achieved status [2, pp. 117-118]

Most Moldovans value ascription. Professional titles, age, degrees and caste level are indicators of status and will help them in growing. Friendship is more important than expertise.

#### **VI. Sequential versus Synchronous time**

This dimension focuses on time and how a culture relates to it. People in sequential cultures try to do a single task in a given period; they are punctual and strictly follow work plans. In synchronous cultures people tend to do more things in a given period of time, the dates of meetings may be changed at the last minute and plans are generally subordinate to interpersonal relationship.



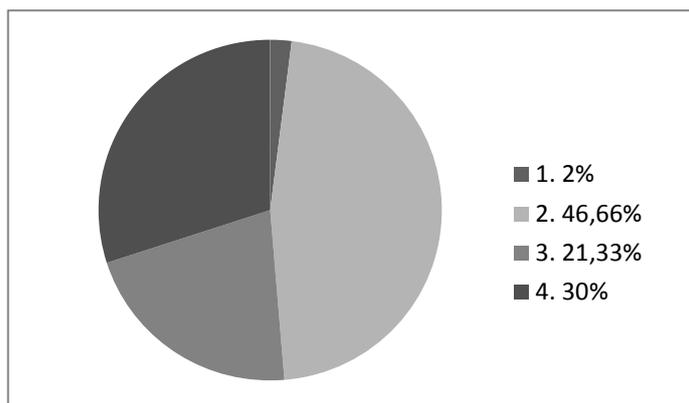
**Figure 6. Sequential vs Synchronous time**

- 1) is a radical option for sequential orientation;
- 2) represents an option for sequential orientation, but connects it to synchronic managed processes;
- 3) represents an option for synchronous orientation, but connects it to high-speed sequential managed processes;
- 4) is a radical option for synchronous orientation [2, pp. 137-138].

Moldovans time dimension is synchronous that allows many things to happen simultaneously. Time is flexible /intangible and time commitments are desirable rather than absolute. Plans are easily changed. Promptness and punctuality depends on the type of relationship.

## VII. Internal direction versus External direction

In external-oriented cultures individuals consider that they control the environment, while internal-oriented cultures individuals believe the environment is the dominant factor.



**Figure 7. Internal direction vs External direction**

- 1) is a radical option for an outer-directed strategy/orientation;
- 2) represents an option for outer-directed orientation, but connects it to inner-directed strategy;
- 3) is a radical option for an internal-directed strategy/orientation;
- 4) represents an option for internal-directed orientation, but connects it to an outer-directed strategy [2, pp. 152-153].

The diagram shows that Moldovans generally live in an externalist with internal elements society and generally accommodate behaviour to the situation.

### Conclusions

The conclusions that must be derived from these data are that Moldavian young people tested proved to be rather Universalists but also with particularistic tendencies.

Specific competitive individualism with collective cooperation is specific in the society, as well as the group importance allowing the existence of competitive individuals.

The individuals in Moldavian society have a neutral orientation with taking into consideration the personal relations importance for growing.

Analysing specific versus diffuse dimension we can see a compromise of both with the diffuse starting point.

In Moldova people are convinced that the ascribed status helps them in their personal and professional life.

Republic of Moldova is a synchronous-time country. People consider the past, present, and future as linked periods so they can have several activities in the same time.

Both, internal direction versus external direction, represent a compromise for the individuals in Moldova.

Of course, Trompenaars, F. & Hampden-Turner model of cultural dimensions structure is by no means the only one formulated by the researchers, but we considered it is a relevant one to make the cultural profile of the Republic of Moldova society.

We consider that the study presented in the article will be useful for managers of the enterprise dealing with foreign firms or enterprises willing to have business with Moldovan partners or, to take into consideration the particular characteristics of people in Moldova, to take successful decisions for all parties of the business.

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## DEVELOPMENT AND TRENDS OF THE COMPETITIVE ENVIRONMENT IN THE MARKET OF AIR TRANSPORT SERVICES IN THE REPUBLIC OF MOLDOVA

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*During 15-20 years the air transport has become a more accessible way to travel. The policies of markets liberalization within the European Community have resulted to increasing competitiveness in the market of air transport services in the European Union. As a result of this competition, the land transport had to reconsider development strategies by modifying and improving services.*

*Thus, the beneficiary of this competition, between the various means of transport, is still the ultimate consumer – the passenger. The competition is one of the major factors which contribute directly and effectively to improve the quality and reduce the prices.*

**Key words:** *civil aviation industry, air transport, airlines competition, trends, competitive strategies.*

The civil aviation industry in the Republic of Moldova is relatively young, dynamic and flexible. The development of this sector has essentially contributed to place the air transport on first place according to the criteria of safety, speed, number of passengers, etc. Aviation is one of the few areas that are in constant evolution and this denotes the positive trends of development.

National air carrier activity knows an important evolution driven by economic growth, involvement of Moldova in the international exchange of goods and of course in international tourism.

**The main goal** of the present research is to show the importance and value of air transport for the economy of our country.

### ***1. The role of the European air transport market in the global context***

The globalization of the airline industry, accompanied by liberalization of the air transport sector in Europe and in some parts of Asia, has encouraged a new force in a relatively stable industry. This dynamic has led to the emergence of a lot of low cost competitors, to the fundamental restructuring of the existing airlines and the airline industry consolidation. The consolidation was represented first by a wave of mergers and acquisitions and then by creating global competitive alliances (Star Alliance, Sky Team, Oneworld). These two phenomena are interrelated, intra-industrial consolidation survivors formed global alliances which have demonstrated the effectiveness in most of the time.

The demand for global air transport is concentrated in three main regions: North America, Europe and Japan (along with countries heavily industrialized in Southeast Asia), which, together, comprise 75 percent of international air traffic. Concerning the inland airline transport, USA represents the biggest market share with over 55%, followed by the members of the E.U with 25 % of the global domestic demand.

In 2015, according to the International Air Transport Association (IATA Annual Review 2016) and the International Civil Aviation Organization, ICAO, airlines throughout the world have transported 3.5 billion people-an annual growth of 6.8% and 51 million m. cof cargo – recording an increase of 1.2%. This was possible due to the efforts of the 10 million people working in this branch of the economy that have managed a fleet of 26,000 aircrafts with an average of 100 thousand flights per day into a global network of 51 thousand routes [6].

In 2016 the European countries recorded a market share of approx. 26.4% of total passenger traffic carried by air.

European airlines are expected to generate a net profit of 5.6 billion dollars by the end of 2017 that is lower than 7.5 billion recorded in 2016. However, airline operators expect to achieve a net profit margin of 2.9% and \$5.65 profit per carried passenger. It is a significant gap between the performance of carriers in the region and the performance of those North Americans with an average profit of 19.58 USD/passenger. Transport capacity is expected to increase by 4.3%, compared to an increase in demand estimated at only 4%.

European region is subject to intense competition and the growth is hampered by high cost, tax regulations and high charges. Also the terrorist threats remain a real risk, but despite of this thing passengers' confidence is starting to return after the tragic incidents of recent times.

The average annual growth of the world economy during the period 2004-2023 was estimated by Airbus at 2.9% for industrialized countries, and at over 4% for developing countries. In this context, both Boeing and Airbus believe that traffic measured in R.P.K. – Revenue Passenger Kilometers will record an annual average increase of 5.3% [5].

The geographical configuration of the European market represents an advantage compared to the US market. It started from the existence of a “European corridor” that extends from London to Rome, which includes such metropolis as Paris, Brussels or Frankfurt, concentrating approximately 50% of the main

European cities, on only 20% of the territory of the old continent. More than that, half of the European capitals are concentrated within a polygon representing less than 10% of European territory, 20% of the population and more than 25% of gross domestic product. All the airlines that have operations in this corridor are privileged.

## 2. Development of air transport services market in the Republic of Moldova

At the moment, the civil aviation branch in the Republic of Moldova comprises 13 companies having the air operator Certificate: public company “Air Moldova”. “Aerotranscargo” LLC, mixed enterprise “TeraAvia”, mixed enterprise “Classica Air”, “Tandem Aero” LLC, mixed enterprise “Valan International Cargo”, “AIM AIR” LLC, “Megaviation” LLC, “Oscar Jet” JSC, “Pecotox” LLC, “Air Stroc” LLC, “Fly One” LLC, “Fly Pro” LLC and 3 companies holding the authorization of air operator providing air operations: mixed enterprise “Valan International Cargo”, “Pecotox” LLC, public enterprise “Moldaeroservice”.

Certified airlines run regular flights (3 companies), charter flights and air work operations.

During the year 2016, national and foreign airlines transported 2 206 266 passengers in total, representing a decrease of 0.9% compared to the year 2015 (2 226 441 passengers).

The allocation of the share of passenger transport between domestic and foreign airlines that have regular flights to/from the Republic of Moldova is 51.1 and 48.9%

From 13 certified airlines 3 offer regular passenger transport to/from the Chisinau International Airport:

- Public Airline “Air Moldova”
- Airline “Fly One” LLC and
- Airline “Tandem Aero” LLC.

Also, during the year 2016 a total amount of 2130,1 tons of cargo and 644.2 tons of mail were transported. Compared to the year 2015 shipments of goods recorded a decrease of 4.5% or with 100.8 tons less and shipments of mail have registered a decrease of 2.5% or with 16.7 tons less.

Analyzing the evolution of main economic indicators characterizing the air transport it is clear that they had a tendency to decrease [2].

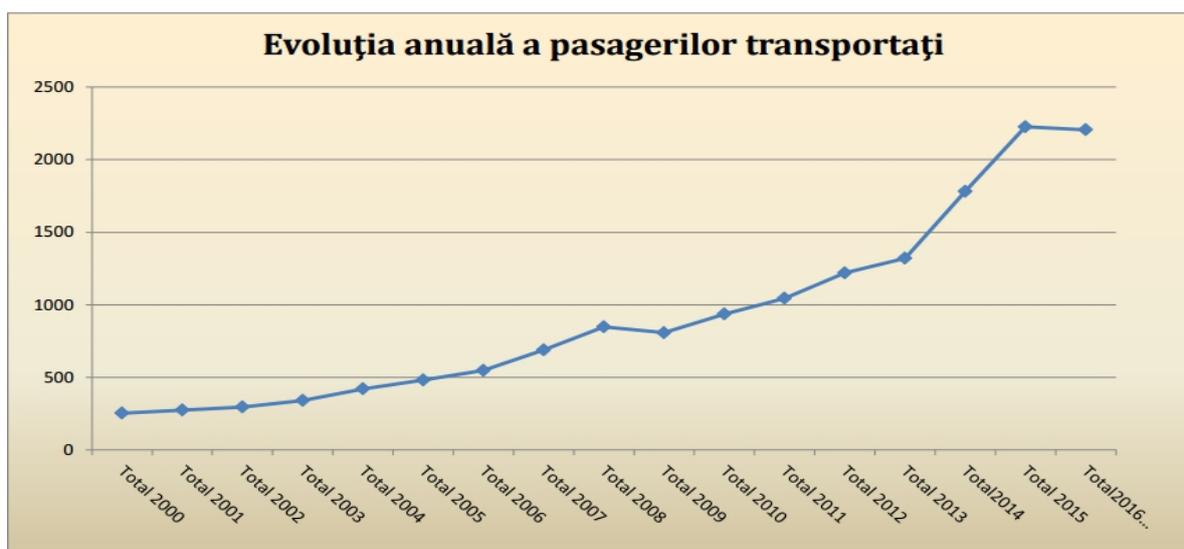
Over the past 6 years, aviation had the following evolution:

**Table 1**

**Evolution of the main indicators of the national air transport**

Indicator	2011	2012	2013	2014	2015	2016
Aircraft takeoffs	15 022	16 113	16 858	19 756	22 468	22 033
Carriage of passengers	1 046 086	1 220 506	1 321 236	1 781 166	2 226 441	2 206 266
Carriage of goods	2068,5	2022,4	2309,75	2243,1	2230,9	2130,1
Transport of mail	597,7	743,0	642,1	680,4	660,9	644,2

All the indicators have suffered small decreases in the last reporting year.



**Figure 1. Annual evolution of passengers transported from the Republic of Moldova**

### ***3. Trends in the global competitive environment and competitive strategies adopted by airlines in the Republic of Moldova.***

A recent study performed by the media company SeeNews attests a spectacular growth of the air traffic in 2016, throughout the south-eastern region of Europe. According to the study, the increase is due to the strong expansion of low-cost airlines, notably in Bulgaria and Romania [4].

Moldova is the only country with one low cost airline. Bulgaria is the country that has the market with the strongest growth in the region, closely followed by Romania. Moreover, the two countries are the only ones in which national air carrier operator lost the first position at the expense of some low cost competitors.

The annual increase in the number of passengers is 25.4% in Bulgaria, 21.6% in Romania and 14.8% in Macedonia. The increase is more spectacular as it is much higher than that recorded by Hungary (12.9%), with the strongest market growth in Central Europe.

The study shows that Moldova has recorded one of the lowest increases in the region of only 1.1%.

Romania, as the market of offering air transport services has become quite accessible for low cost airlines. The low cost flight operators found good time to expand their business in Romania. As consequence the number of passengers carried by Blue Air, Ryanair and Wizz Air has increased by nearly 40% in the first half of the 2016 compared to the same period of the previous year.

The low cost carriers have had a strategy of rapid expansion in Romania. They set up new bases at airports, increased the number of external routes and began to carry out domestic flights. At the same time, problems with terrorism in other countries brought more tourists in Romania. That means that flight operators have not only carried many Romanians abroad but, in the same time, they brought more foreigners to Romania.

It means that new routes launched from and to Romania have managed to generate the expected traffic. Wizz Air launched six new routes this year. Wizz Air is currently the largest airline in Romania, managing to exceed the number of passengers carried even by the public operator TAROM. Recently Wizz Air has announced the wish to reach a record number of 6 million passengers transported in Romania by the end of the year. The second largest low-cost carrier Blue Air, still not exceeding TAROM by the number of passengers, but having larger number of airplanes than the public company

Also, Blue Air was first attacking the TAROM's monopoly on domestic flights. The podium of the low-cost airlines from this country is completed by Ryanair. The Irish company recently entered the Romanian market and to catch those from Blue Air and Wizz Air it began to implement an aggressive expansion strategy based on cheap flights and increasingly various destinations.

Airlines reduced ticket prices due to cheap kerosene. Recent statistics carried by GoEurope show that Romania has the cheapest domestic flights in Europe, only 7 euro per one hundred kilometers. Companies have also special offers also on external flights. Cheapest tickets, combined with the effects of economic growth have made the demand for internal and external flights to grow. In the same time, the INS indicates that in the first seven months of the year 5.7 million foreigners came to the country, almost 13% more than previous year. Most of them continue to visit Romania for business or for cheaper medical treatments. Also, the number of overseas tourists scared by terrorist threats in other countries increased. Of course, the purpose of the visit for airlines is irrelevant as long as the number of passengers increases.

### ***4. Conclusions on market development of air transport services in the Republic of Moldova***

The increase in air traffic is mainly determined by economic growth but also on the development of international trade and the lowering of the prices of the tickets. While global economic growth continues to support the increasing demand for air transport, the high level of the prices charged by traditional airlines causes a limitation of it [3].

If until recent time, passenger air transport could be divided into two broad categories: companies operating air liner flights and charter flights whose consumer segments were never strictly delineated. The entry of low-cost companies introduced the new element that initially led to a diversification of target segments.

Low cost companies showed their effectiveness fully in this regard, traditional companies seeking currently to rethink and adjust the cost structure so that it becomes more efficient and, consequently, they could provide the same quality services at a lower rate.

Increasing importance of reduced prices as an incentive for demand is the main feature that will influence future developments in the air transport industry, which is highlighted by the success of low cost airlines.

Another determining factor for success is the expansion of the global network of destinations, the network served by companies which carry out regular transport services.

Low cost companies showed their effectiveness fully in this regard, traditional companies seeking currently to rethink and adjust cost structure so that it becomes more efficient and, consequently, that they could provide the same quality services at a lower rate.

There is just one low cost airline, Wizz Air, on the market of the Republic of Moldova. It recently opened an operational center at Chişinău international airport, this being the lowest presence of low cost companies in South Eastern Europe, reveals the study made by SeeNews.

On the market of the Republic of Moldova the category of consumers of air transport services in the majority are young people aged between 25 and 35 years old who prefer to be transported from Bucharest or Iaşi purchasing airline tickets at low-cost flights. This option is offered by local travel agencies which thus place the touristic package at a quite attractive price level. Also the airlines operating in Chisinau offers are attractive to consumers from the eastern region of Romania despite the fact that the Iaşi international airport is in continuous development and airline operators present in Romania shall continually expand the flights from the capital of the Republic of Moldova. So part of the passengers arrive in Chisinau to fly on the routes operated by Russian airlines to cities of Russia (Moscow, St. Petersburg, Krasnodar) or by the European (Istanbul, Frankfurt and others).

Another important moment, which will further boost the market value of air transport services in the Republic of Moldova is the liberalisation of airspace that will contribute to the improvement of services offered to consumers through more attractive prices and new experiences of travelling by air promised by new airlines, that regularly demonstrate the interest in Chisinau, as a flight destination.

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## THE IMPACT OF THE ICT SECTOR ON ECONOMIC GROWTH IN THE REPUBLIC OF MOLDOVA

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*This study focuses on the impact of the information and communication technology sector on the economic evolution of the Republic of Moldova. The purpose of this study is to identify the importance of the ICT sector for economic growth in the Republic of Moldova.*

**Key words:** *Information technology, information society, economic growth.*

Under the modern conditions of society development, the information takes an economic nature and is recognized as the main resource in the day-to-day activity of the people with the ultimate goal of obtaining a financial advantage or economic effect as a result of some right actions taken at a given moment.

The beginning of the 21st century is characterized by the increased computerization of all processes of human activity, information being considered as an economic resource alongside other important resources such as labour, raw material, capital. The information, by its characteristics, differs from the traditional aspect of the economic resource, because the information is practically unlimited. However, limits can be imposed only by the time and cognitive ability of people.

The processing of data and information involves the process that adds value to this information. The extremely high speed with which today's information is transmitted offers an advantage to its owner.

Some companies have the type of activity directly connected to the provision of information, their processing being done according to well established criteria. In this case, information is certainly the main resource of the activity of the modern company. But, the information holds this value in the informational environment, which is created directly by the Information and Communication Technology (ICT) sector. Hence, this demonstrates the importance of this sector and its sustainable development.

According to the OECD-2007 definition, the Information and Communication Technology Sector means an economic sector consisting of four industries: information technology, electronic communications, ICT production and the trade of ICT equipment.<sup>1</sup>

The information environment creates more and more favourable conditions for processing, presenting and transmitting information in a more convenient way, thus facilitating peoples' activity. Every day, new technologies and innovations are developed to improve the lives and activities of people, as a rule the purpose of these technologies is to increase labour productivity and ultimately to increase economic growth. Sure, new technologies bring about the need for qualified staff in the field, in this way creating new jobs. As a result of the development of the information and communication technologies sector, economic activity is refinancing, the level of life is increased, foreign investments are attracting in the country.

Capitalizing information is an important aspect of today's economic activity. However, some company do not give importance to information systems or do not capitalize on their full potential.

### **Definition of the Information Society Concept**

Information Society represents a new stage of human civilization, a new way of life of superior quality involving intensive use of information in all spheres of human existence and activity, with a major economic and social impact. The evolution of contemporary society has led to a continuous increase in the volume and diversity of information processed and which widely use information and communication technologies (ICT), which has led to the concept of an information society.<sup>2</sup>

According to wikipedia.org, an information society is the society where the creation and use of information is the most important type of activity, information is recognized as the main resource, information technologies and communication are basic technologies, and the information environment, together with the social and the ecological aspects - an environment of human existence.<sup>3</sup>

Other authors define the information society as follows: the society "in which most of the workforce consists of those who operate with information and for which information is the most important element".<sup>4</sup>

The development of the information society is a complex process involving the broad implementation of information and communication technologies, being a trend of globalization.

In the Republic of Moldova, the building of the information society is considered a necessary condition for the sustainable development of the country and integration into the world economy. It has to be recognized that the Republic of Moldova (RM) today lags behind in this area, although in recent years, the rate of computerization is steadily rising.

The RM Government has recognized the communications and information technology as a priority area for the country's future, a catalyst for economic and social development. In 2012, was accepted the National Development Strategy – Moldova 2020, which underpins the development of qualitative economic growth as a means to reduce poverty, contributing to the building of a prosperous state with a high level of citizenship.<sup>5</sup>

The communications and information technology sector is a complex one, consisting of four industries, of which the information technology industry is the top of the value chain, and the other three (communications, production and sales of equipment) are support for the top industry. The information technology industry has the greatest growth potential, creates the highest added value, and continuously contributes to the transformation and efficiency of the economy and society.

The domain of communication and information technology has the potential to become one of the most dynamic and productive sectors of the Moldovan economy. The degree of computerization of the society is directly proportional to the level of penetration of the Internet services and the percentage share of the presence of the computing technique in private households.

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<sup>1</sup> Strategia de creștere a competitivității industriei tehnologiei informației, MTIC, 2013 - [http://particip.gov.md/public/documente/141/ro\\_901\\_Strategiadecrestere1.pdf](http://particip.gov.md/public/documente/141/ro_901_Strategiadecrestere1.pdf)

<sup>2</sup> Societatea informațională – premise a dezvoltării durabile într-o economie competitivă - [http://oeconomica.upm.ro/O\\_4/21-34.pdf](http://oeconomica.upm.ro/O_4/21-34.pdf)

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Considering the specific characteristics of the country, it will be carried out an analysis of the development of the information society and the impact of this field on the economic growth.

### **Indicators of the development of the information society**

The process of computerization of society can be measured by a variety of indicators. As the field analysed penetrates into all spheres of human life, there are a number of indicators that correspond to each country's development direction. Thus, the following indices that characterize the development of the information society are identified:<sup>1</sup>

- 1) Networked Readiness Index (NRI);
  - 2) ICT Development Index TIC (IDI);
  - 3) E-Governance Development Index (E-GRI);
  - 4) Digital Opportunities Index (DOI);
- and other.

The analysis of the first indicator – the Network Readiness Index (NRI), is enough to make a global conclusion on the development of the information society in Moldova.

The NRI Index is a global indicator of information and communication technologies, it is regarded as the most authoritative and comprehensive assessment of its impact on the competitiveness and well-being of nations. The NRI Index structure comprises four sub-indexes: environment, readiness, usage and impact on socio-economic indicators. Then, the methodology for setting up comparative rankings is used, which allows to identify the level of development of the information society in different countries.

According to the data presented on the official website of the Ministry of Information Technology and Communications (MITC) – <http://www.mtic.gov.md>, the dynamics of the Network Readiness Index (NRI) is a positive one. Therefore, today, Moldova is in the 68th place out of 143 countries, compared to 2010-2011, when Moldova ranked 97th out of 138 countries in global ranking on the level of network readiness index (NRI).

Analysing the data of ANRCETI<sup>2</sup>, during the period 2011-2015, the number of subscribers evolved from 355.1 thousand to 534.4 thousand, which means a penetration of Internet services from 10.0% to 15.0% of the total population. There is also a steady increase in the number of users of access services to mobile and mobile Internet. The number of subscribers to mobile Internet access services registered an increase of 4.9% in the period 2011-2015, so 173.6 thousand subscribers. Mobile telephony as a component part of the ICT sector also recorded an increase of 17.3% in 2015 compared to 2011, with the mobile penetration rate of 121.6%.

According to the ICT Development Index, the Republic of Moldova is ranked 66th with an index value of 5.81. According to MITC<sup>3</sup> data, the degree of endowment of households with computers and the degree of their use is 67% in 2014, averaging 4.5% per year.

Analysing the data presented above it can be stated that the Republic of Moldova is in a continuous process of growth and development of the information and communication technologies sector.

In recent decades, the field of information and communication technology has advanced significantly in the Republic of Moldova with the aim of increasing productivity and impact on economic development. The economic growth is due to the efficient use of the resources made available.

Currently, the Republic of Moldova is registering good growth rates, but the positive dynamics is generated by external factors such as: foreign investments, grants for ICT development, export of services, etc.

### **The impact of the ICT sector on economic growth**

In a period of slow growth, many developing countries are looking for solutions and policies that stimulate growth and create new jobs. Information and communication technology is not only one of the fastest growing industries, but it is also an important factor for innovation and development.

More and more, ICT becomes essential for economic growth by facilitating "virtual mobility", ICT provides the necessary means to realize many of the activities that have so far required physical transport.<sup>4</sup>

The number of mobile subscriptions exceeds the total number of the population of the Republic of Moldova (121.6%), and the access of the population to the Internet is over 66%. In this new information-based environment, the country's economic growth depends on the state's ability to mobilize new techno-

<sup>1</sup> Достижения и приложения современной информатики, математики и физики: материалы III Всероссийской научно-практической заочной конференции (г. Нефтекамск, 16 ноября 2016 г.). – Уфа: РИЦ БашГУ, 2016. – 155 с. – [https://nfbgu.ru/upload/files/pdf/konferenc/2016/Sbornik\\_Konfa\\_2016%20ММИИБ.PDF](https://nfbgu.ru/upload/files/pdf/konferenc/2016/Sbornik_Konfa_2016%20ММИИБ.PDF)

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<sup>3</sup> <http://www.mtic.gov.md>

<sup>4</sup> The Impact of ICT on Economic Growth - <http://econwpa.repec.org/eps/dev/papers/0501/0501008.pdf>

logies and implement sustainable strategies. Therefore, five economic growth effects of the ICT sector have been identified:

1) Direct job creation.

The ICT sector is, and is expected to remain, one of the largest employers. Human capital is the most important asset of the ICT industry. In the Republic of Moldova there is a shortage of qualified specialists in the field, even if the number of graduates is quite high. One of the main objectives of the Strategy of increasing the competitiveness of the ICT industry to be reached by 2022 is to increase the number of specialists employed in the ICT industry from 7600 to 21500.

2) Contribution to GDP growth.

Findings from various countries confirm the positive effect of ICT on growth. For example, a 10% increase in broadband penetration is associated with a 1.4% increase in GDP growth in emerging markets. The doubling of mobile data use caused by the increase in 3G connections boosts GDP per capita growth rate by 0.5% globally. The Internet accounts for 3.4% of overall GDP in some economies. However, in the Republic of Moldova approx. 3% of GDP is mobile, and the Internet approx. 1%.

The share of the ICT sector contribution in the country's Gross Domestic Product (GDP) is 7.1%, with a market value of about 8 billion MDL annually. According to data provided by the National Bank of Moldova, the volume of exports of ICT services has increased by 10% in the last 5 years, from 159.5 million USD to 176.12 million USD in 2015.<sup>1</sup>

3) Emergence of new services and industries.

Numerous public services have become available online and through mobile phones. The transition to cloud computing is one of the key trends for modernization. The government of Moldova is one of the first countries in Eastern Europe and Central Asia to shift its government IT infrastructure into the cloud, launch mobile, and e-services for citizens and businesses.<sup>2</sup>

4) Workforce transformation.

The ICT field greatly changed the work process and significantly cut costs through online payment systems, and get access to information and solutions. Tasks can be performed remotely by skilled workers. ICT has also contributed to the rise of entrepreneurship, making it much easier for self-starters to access best practices, legal and regulatory information, and marketing and investment resources.

5) Business innovation.

In OECD countries, more than 95% of businesses have an online presence. The Internet provides them with new ways of reaching out to customers and competing for market share. Over the past few years, there has been an increase in the number of web page owners in the Republic of Moldova. According to the SE's "Mold Data" annual report for the year 2015, the enterprise serves 11951 customers receiving domain registration and maintenance services, of which 6508 legal entities and 5443 individuals.<sup>3</sup>

The process of building the information society in the Republic of Moldova contributes to the sustainable development of the country on social and economic level. An important success of our country in the field of ICT have the strategies and projects implemented since 2005 and so far, having the effect of increasing the NRI index, thus raising the level of development of the ICT sector in the Republic of Moldova worldwide.

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## **IMPACT OF CREATIVE INDUSTRIES DEVELOPMENT ON EMPLOYMENT STRUCTURE IN UNITED KINGDOM**

*PhD student Mariana DAMASCHIN, ASEM*

*In this paper we have analysed the structure of employment in the creative industries in the UK. It was evaluated the following indices: the number and share of employees in the nine creative industries sectors; the concentration of jobs occupied in the creative industries by region; the share of employees with higher education; employment in creative and total economy by gender, by ethnic minorities etc.*

*The results of the research were presented in the table and diagrams. At the end of the research were formulated the corresponding conclusions.*

**Key words:** *Creative industries, United Kingdom, work force, employment in the Creative Industries.*

The creative economy is an important part of global trade. The global market for creative goods and services that were traded in 2012 constitute USD 547 billion.

In United Kingdom, for example, creative economy drives the digital economy and is an engine of economic growth, generating over 5% of UK GVA (GBR 81,4bn in 2014; GBR 87bn in 2015). Thus, every hour, entrepreneurs in creative industries earn 9.9 million pounds. They play a key role in shaping the reputation and international influence of the United Kingdom.

All this, gives the opportunity, as in the next few years, to pursue how the United Kingdom strengthens and grows its position, as a true world centre for the creative industry, in a centre of the global digital economy.

This is also confirmed by the fact that in the UK the number of jobs in the creative industry increased by 3.2% in 2015 compared to 2014, reaching up to 1.9 million jobs (from 31,5 million active people aged 16-64). This represented an increase of 19.5% compared to 2011.

The following table shows the areas of creative industries (CI) in the United Kingdom, and the number of people employed during 2011-2015.

*Table 1*

**Employment in Creative Industries in the United Kingdom, 2011-2015**

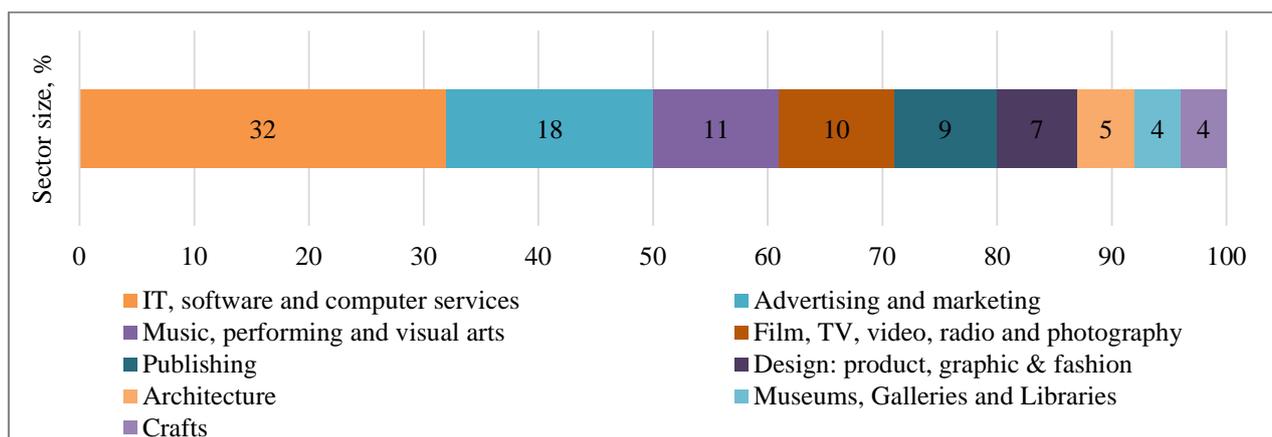
Creative Industries Group	Year (Thousand people)					Change, %	
	2011	2012	2013	2014	2015	2015/ 2014	2015/ 2011
1	2	3	4	5	6	7	8
Advertising and marketing	148	144	155	167	182	+9.6	+23.0
Architecture	94	89	94	101	90	-11.2	-4.5
Crafts	9	7	8	8	7	-15.5	-26.1
Design: product, graphic & fashion	102	117	124	136	132	-2.9	+29.6
Film, TV, video, radio and photography	211	240	232	228	231	+1.6	+9.9
IT, software and computer services	483	558	574	607	640	+5.5	+32.5
Publishing	211	223	198	193	200	+3.7	-5.0
Museums, Galleries and Libraries	91	86	85	84	97	+14.6	+6.4
Music, performing and visual arts	213	227	244	284	286	+0.7	+34.2
<b>Total</b>	<b>1,562</b>	<b>1,691</b>	<b>1,713</b>	<b>1,808</b>	<b>1,866</b>	<b>+3.2</b>	<b>+19.5</b>

*Source: Creative Industries: 2016 Focus on:*

<https://www.gov.uk/government/publications/creative-industries-2016-focus-on/key-findings>

Analysing the data in Table 1, we notice that the most developed branch of the creative economy is the sector of IT, software and computer services, accounting for about 32% of the total creative industries, and the least popular branch are crafts and museums, galleries and bookstores - 4% each. The share of the other branches is represented in the figure 1.

According to the latest data provided by the Department of Culture, Media and Sport (DCMS), in 2016 the creative economy in the UK has an estimated 2.9 million jobs or 9% of all jobs in the United Kingdom, including jobs in creative industries and creative jobs in non-creative organizations (e.g. design or marketing teams within producers).

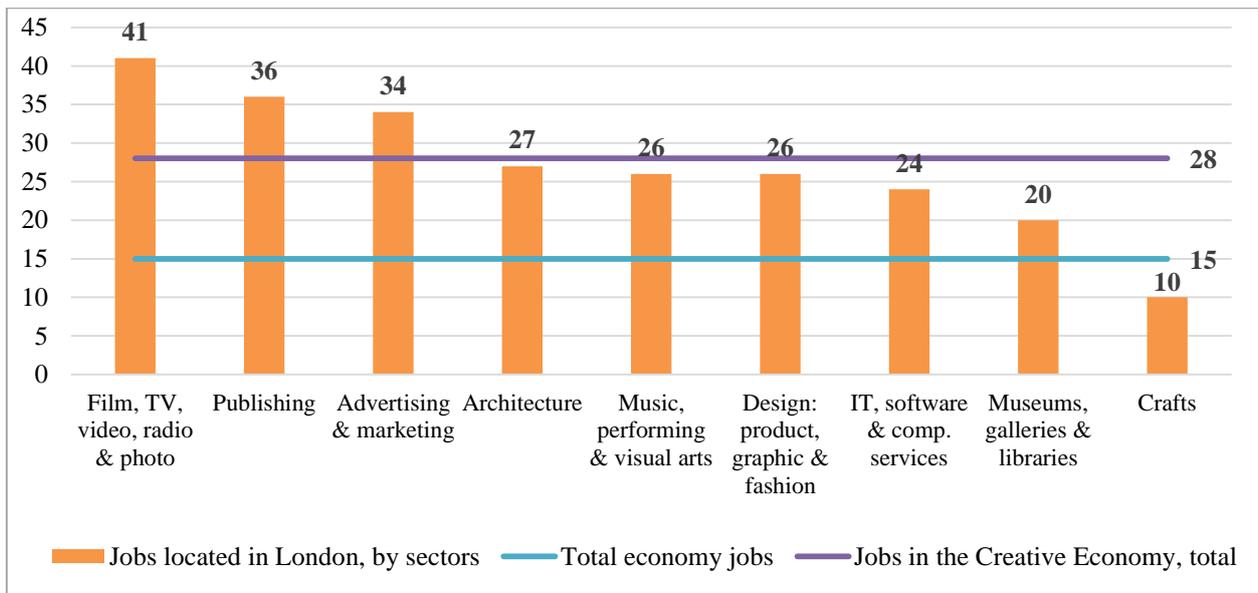


**Figure 1. The share of creative industries in the creative economy of the UK**

Despite the fact that the number of jobs in the creative industries increased by almost 20% in the last 5 years, this trend is not proportional for the United Kingdom.

In UK, the Creative Economy is concentrated in London and around London, with a concentration of creative jobs 2.5 times higher than the country average.

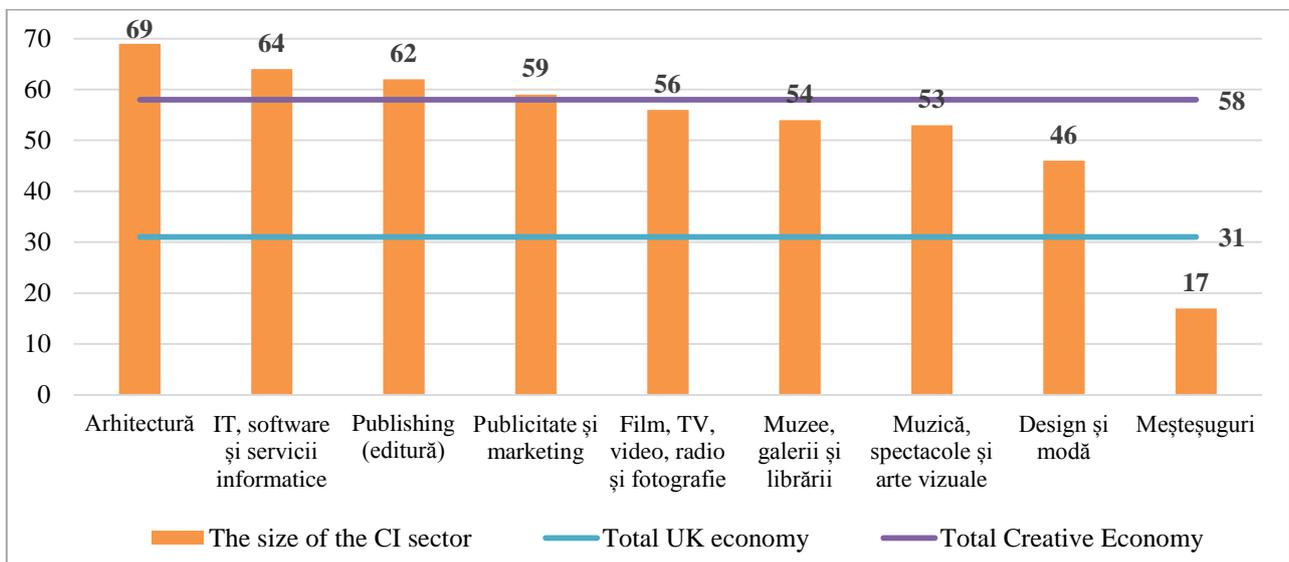
This is the greatest concentration of jobs in the creative economy in UK, meaning that almost a third (30.8%) of creative industries have their headquarters in London. Therefore, we still have to study the intensity of the creative industries located in London. This situation is presented in figure 2.



**Figure 2. Share of employees in creative industries who are hired in London, %**

Following Figure 2, we conclude that over 40% of workers are engaged in the Film, TV, video, radio and photography industry in London, the least popular field being crafts, where only 10% of employees work in London. By comparison, in the general economy, 15% of the UK population is employed in London.

Another important aspect in researching the current situation of creative industries in the United Kingdom is the analysis of the presence of bachelor studies of people engaged in creative industries in relation to the total economy. Figure 3 shows the share of employees with higher education in the creative and total industries.

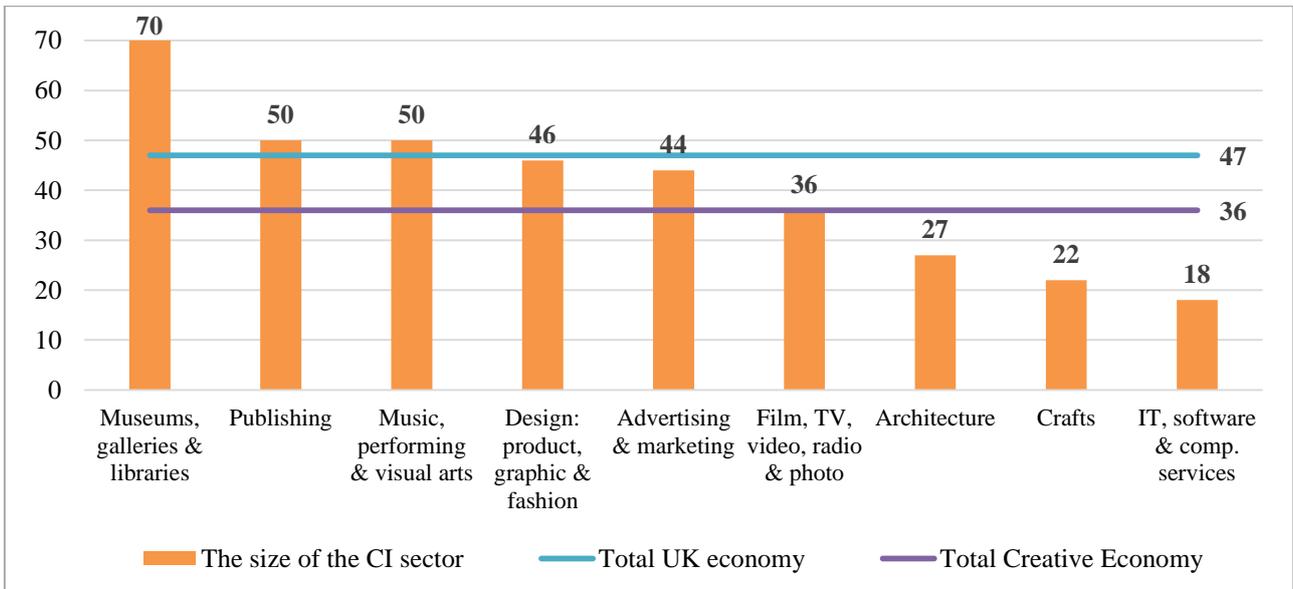


**Figure 3. Share of employees with higher education in the creative and total economy, %**

Over half (59,9%) of all workers in the Creative Economy hold a degree, compared to 32,7% in the wider UK economy. In 2015, 9% of graduates were employed in the Creative Industry. Between 2014 and 2015, there was an increase of 2.2% (24,000 jobs) in the number of jobs in Creative Industries held by people with a degree.

More than half of all creative employees hold a degree, compared to 31% in the UK total economy.

Another important point is the study of employability in the creative economy by gender. The share of women in different sectors of the creative industries is shown below, in Figure 4.



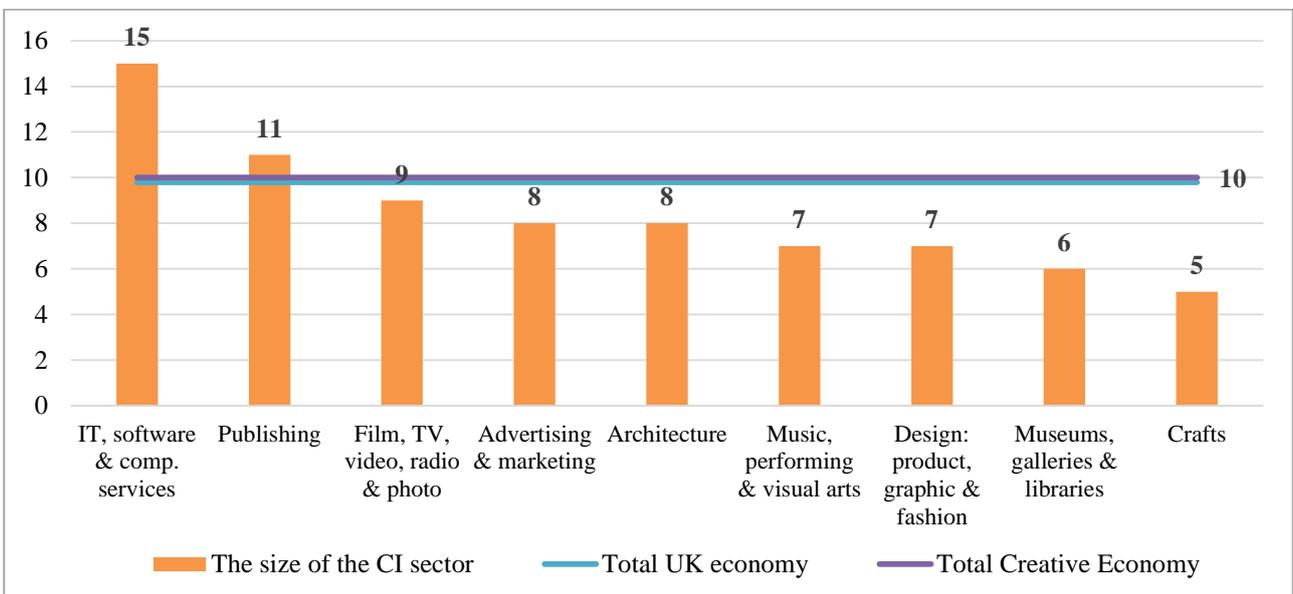
**Figure 4. Employment in creative industries and total economy by gender, %**

Thus, following the data in Figure 4, we can claim that women are employed in a smaller proportion both in the general economy (47%) and in the creative economy. In 2015:

- 37,2% of jobs in creative industries were occupied by women;
- 36,1% of jobs in the creative economy were occupied by women.
- 47,1% of the total jobs in the UK were occupied by women.

In IT, software and IT services sector, which is the most developed and popular field, women account for only 18% of the workforce.

The image of employees in the creative industries of the United Kingdom can also be studied from the perspective of the employee's ethnicity. The share of employees of BAME (BAME - black, Asians and minority ethnics) group can be seen in Figure 5.



**Figure 5. Share of BAME in the Creative Industries of the United Kingdom**

In 2015, ethnic minorities filled 11.4% of jobs in the creative industries. The number of these employees grew by 7% between 2014 and 2015 compared to “white” employees, the number of which increased by 2.8% over the same period. Moreover, the number of ethnic minority employees in the UK's creative industries has increased by 43.9% since 2011, but the “white” share – by 17.9%.

In 2015, 91.8% of jobs in the creative economy were occupied by more advantageous socio-economic groups, compared with 66.0% of jobs in the UK total economy.

**Conclusions:**

1. Creative industries are the most dynamic sectors of the UK economy and are generating annual increasing amounts to the state budget;
2. Creative industries are predominantly located in economic centres (almost a third);
3. The most developed branch of the creative economy is the IT sector, and the least popular branches are crafts and museums, galleries and bookstores;
4. Taking into account the rapid evolution of the creative industries, it is anticipated that the same phenomenon of economic development can be repeated in the Republic of Moldova, so. Chisinau might become a new European economic center.

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## SECTION 5: DISCIPLINES:

- **523.01. CYBERNETICS AND ECONOMIC INFORMATICS**
- **523.02. ECONOMIC STATISTICS**
- **122.02. INFORMATION SYSTEMS**

### DEVELOPMENT OF ARCHITECTURE OF THE INFORMATION SYSTEM OF THE TAX SERVICE OF MOLDOVA

*PhD student Vitalie COCEBAN, ASEM*

*A computerization of tax administration procedures and management of taxpayers' activity in relation with tax obligations will be designed as an integrated case management solution based on e-transactions where the relation between taxpayers and tax inspectors will be transparent, effective and protected. The new system will have the requirements of unification and centralization of IT modules through the adaptation of fiscal administration procedures in the context of international openness and standardization of the common processes of the members of the European community.*

**1. Introduction.** The TAX information system (IS) in operation in the Republic of Moldova is a set of specific IT platforms and solutions, oriented on the multitude of organizational activities and procedures in the field of tax administration. This “in-house” and “out-hose” infrastructure requires a complex scientifically grounded modernization of the ways of efficient development of the Moldovan TAX system.

The object of the research are the aspects related to the methodology, principles, architectural solutions for creation of the integrated IT system of the State Tax Service (STS) through the efficient development of the system, including unification of platforms and solutions, centralization of data and services, integration into the e-government platform from Moldova.

**2. Goal.** The goal of the work is to define the methodological aspects of development of the TAX Information System and to formulate the principles of development of the TAX Information System.

**3. Research methods** to be applied. The development of the architectural solution of the integrated TAX system of the Republic of Moldova will be based on a set of rules and principles of the business processes of the STS. It will also take into account the adaptation of the IT tool infrastructure to the evolution of tax processes over time.



**Figure 1. Schematic representation of the product development process**

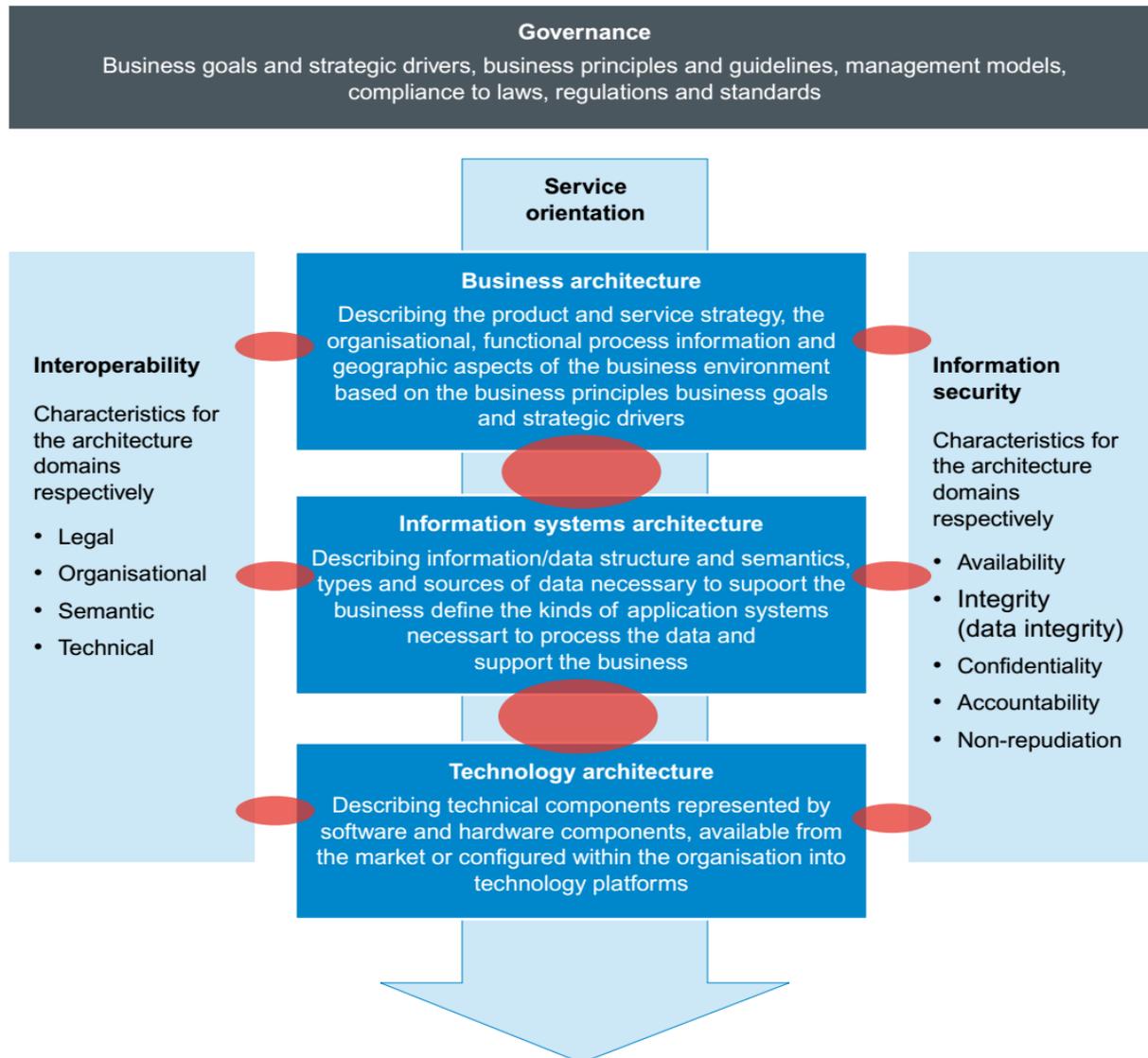
According to Figure 1, the IS development process involves a consecutive number of steps, from the initial identification of the requirements to the actual implementation of the final product. In the paper we will refer to steps 2 and 3.

To achieve the set goals we will define the architecture environment, its limits and the level of detail required using the Open Group standards. TOGAF provides a holistic approach to corporate architecture that defines the term “corporate” as “a group of organizations that have a common set of objectives.” In this case, the term “corporate” refers to the SFS, meaning the entire organization with all its public, informational and technological services, tax administration methodology and labour and technical infrastructure, and other specific areas within the organization.

**4. Meta Model of ICT Architecture.** The architecture meta model takes a perspective of the entire organization and focuses on the context and dependencies of the architectural elements. Typically, applying the meta model is delineated by how the organization is structured; Starting from this definition, the necessary levels of iterative detail can be analyzed, moving towards a holistic ICT architecture. We will approach the pattern in two directions - from top to bottom and from bottom to top. Top-down analysis starts from the perspective of the entire organization, its general direction, goals and strategies, etc. The bottom-up approach involves the analysis of particular components, namely technical constructions, IT tools, electronic

services, procedures and processes, databases, etc. Finally, we will look at how they are combined to ensure the entire organization's activity.

The architecture of meta model integrates seven domains (Figure 2) – a field of governance (dark grey), three architectural areas (dark blue) and three areas describing three of the most important areas of architecture (light blue). The red markings in the chart represent the dependencies between the areas where it is important to draw attention to the details. Incorporating service-oriented features in the meta-model emphasizes the importance of component modelling to support the organization's vision. These features outline the importance of reuse and the ability to replace one component with another without stopping services.



**Figure 2. Meta SFS Architecture Model according to TOGAF**

Starting from the fact that STS wishes to provide citizens more effective and efficient tax services, including electronic services, it is important that STS have well-established service management capabilities (Figure 3). This requirement is highlighted in the Meta Architectural Domain Model using the Organizational Services Orientation (SOE) concept. A holistic approach is essential and must be applied from the highest levels of management to the bottom, throughout the organization. The degree of interoperability and low adaptability are considerable for many of the current STS infrastructure components.

Replacing or modifying these components often takes too long and is inappropriate. Where possible, architectural solutions should use open standards that underpin the concept of service orientation. In the STS meta model, Service Oriented Infrastructure (SOI) is an idealized implementation of components that provide low-load tax delivery services based on SOA principles. Following this service-oriented approach, interoperability and adaptability are already included in the ICT Architecture.

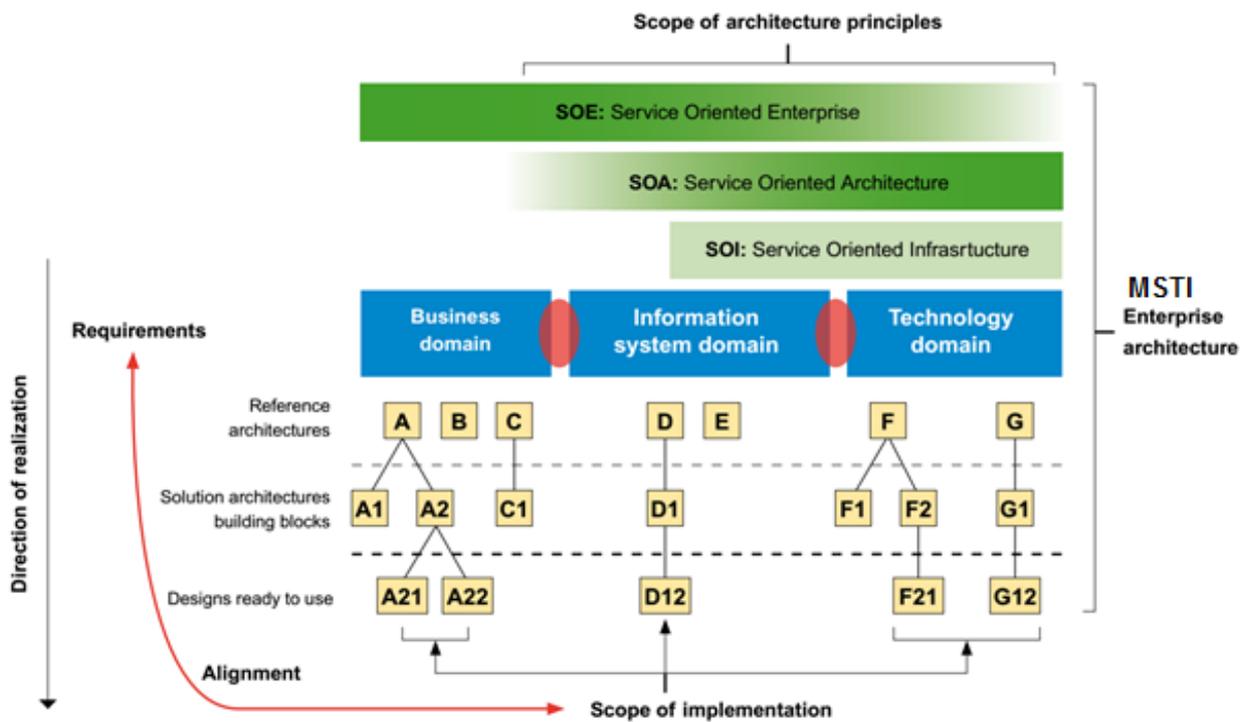


Figure 3. Meta Model of SFS Architecture Domains

**5. Governance and resource coordination.** In the meta-architecture model, governance is relatively simple and covers issues related to management monitoring and control at different organizational levels. The general purpose of government is to coordinate resources within the organization so that they work together to meet pre-established goals; Government provides guidance and leads the organization to achieve its goals.

This can be achieved by:

- developing and monitoring short and long term objectives;
- developing and monitoring compliance with principles and guidelines;
- Providing management modes;
- compliance with laws and regulations;
- respecting and encouraging the use of standards to reach the appropriate levels of interoperability;
- promoting processes that involve changing staff thinking to implement service orientation.

These management tasks will create the right conditions to develop service orientation within STS.

**6. Business, applied and technological architectures.** The architecture model covers three architectural areas based on TOGAF: business, information systems (including data and software architectures) and technologies.

**7. Business Architecture.** The business architecture is the fundamental part, and will be the first area tackled in the realization of the architectural project. Activities within the Business Architecture domain begin with the implementation of the mapping process between the needs and requirements expressed by SFS, internal users and management. This mapping exercise will help generate business models and will reveal all data and information that is internally changed at each step of the business process or externally (outside the scope of the model). This is the task of documenting all SFS business processes.

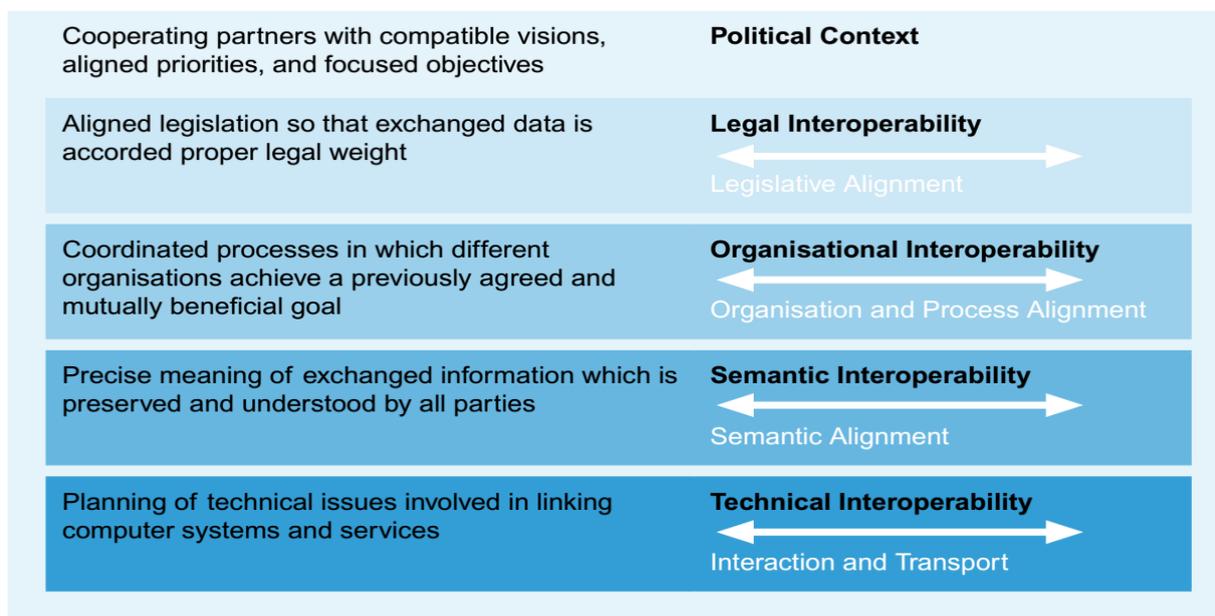
**8. Information Systems Architecture.** The Information Systems Architecture identifies and defines the software and data management requirements in according with the business architecture of the organization. The information systems architecture will show how information, knowledge, software e-services, etc. are all associated and interconnected with each other.

**9. Data Architecture.** The data architecture defines the major types and sources of data needed to provide business support; the data must be complete, consistent and stable. It is important to define the application components in the architecture of the information systems that hold the core data of the organization (the data without which the organizations will not be able to operate) and which components will hold / manage this data. The main aspects of data architecture are data management, data migration and data governance.

**10. Platform architecture.** An organization must define the main types of systems that require data processing and support business. Developing a platform architecture does not consist of system design, but takes a larger perspective: what types of systems are relevant to the organization, and what these applications should be able to do to manage data and To present information to employees and other IT / application systems in the organization. Software modules are grouped together logically by their capabilities to manage different objects within the data architecture and to support business functions in business architecture. Their applications and features are defined without any reference to specific technologies.

**11. Technological architecture.** The technology architecture maps the components of the application platform (defined in platform architecture) and the set of technological, software and hardware components that are available on the market or can be developed or configured in an organization on a technology platform.

**12. Interoperability.** Interoperability is the main element of integrating the solution into the e-government infrastructure of the Republic of Moldova. The development of platforms and technology fields, with attention to interoperability, will help SFS be effective and efficient. Interoperability must be ensured according to the levels defined by Government of Moldova (GoM).



**Figure 4. Four levels of interoperability as defined in the GoM**

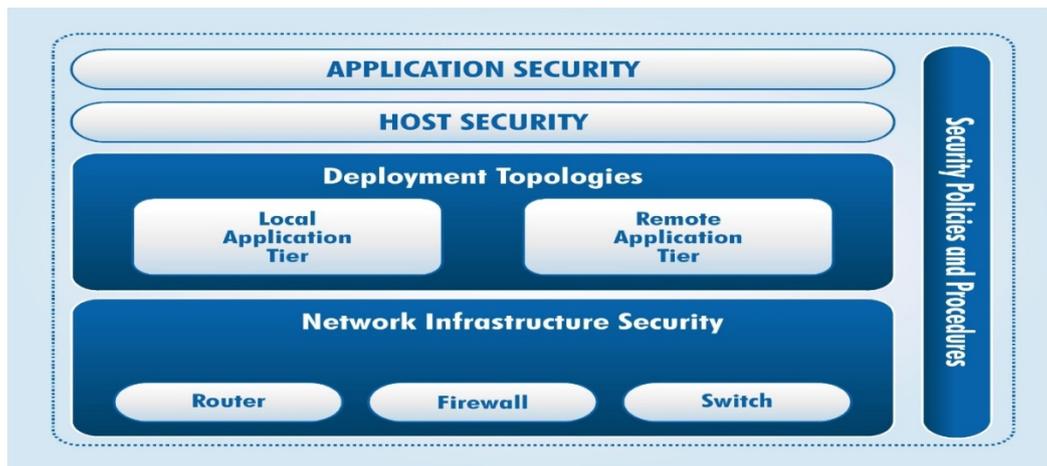
**13. Service Orientation.** The goal of including SOA in the meta-model of corporate architecture is to ensure that service features (derived from SOA principles) are fully embedded in business, information and technology architectures; The architectures of organizations will be developed from a high level of understanding.

**14. Security of Information.** A key role of the meta-architecture model is to incorporate the information security features within the organization, the IT systems and the technological architectures; this approach will help to increase the prominence of these issues and lead to a deeper understanding of the security aspects of the architecture. Information security is included in the architecture meta model to ensure that information security aspects are fully embedded in business, information systems and technology architectures; These architectures of the organization will be developed taking into account information security issues.

This particular approach to the meta-model does not mean that architectural security is not taken into account; for each case, the field of information security covers the following:

- Availability;
- Data integrity;
- Confidentiality;
- Responsibility;
- Non-repudiation.

These information security features are largely derived from legal requirements, interoperability and the need for personal integrity. In order to ensure these features, it is necessary to review the policies and procedures of the STS, including the infrastructure on which SI will be implemented. It is important to consider the following issues before implementing the STS security architecture.



**Figure 7. Security Architecture**

**Identifying STS policies and procedures.** The security policy sets out what rights STS apps have and what users can do within them. More importantly, security policy sets up actions that applications and users are not authorized to do.

**Components of the network infrastructure.** Ensures that the architecture of the STS is understood and is adapted to the future model. It also takes into account the basic network security requirements for filtering rules, port restrictions, protocols supported, etc.

**Communication of STS limitations.** Communicate and record any network and application-level security limitations as well as security tasks grouped by these components. This minimizes the possibility of avoiding security controls, especially when a team within the ITD assumes that another will have the responsibility to implement a specific control. It will draw attention to the security controls that STS applications rely on at the network level. Changes to the network configuration will be considered.

**Analysis of the implementation methodology of STS topologies.** The topology of implementing STS and the existence of remote access applications are important issues that need to be incorporated into the security architecture. In the case of remote access applications, STS will ensure secure communication between servers to address threats of data interception and ensure their confidentiality and integrity.

**Identification.** Consider the flow used for identification in STS systems and set those access accounts that will be used for network authentication in cases where the integrated system and tax applications connect to services.

**Security of messaging.** When implementing SI, secure messaging will be used as there may be vulnerabilities that can be exploited during transportation and information security is not affected. Secure messaging becomes a secure method for processing secure information across all systems. When secure messages are used, the authentication data and information confirming the recipient's destination are contained in each message using the WS-Security protocol to protect messages. This option gives us more flexibility in terms of authentication. STS can use any type of authentication, generally freight-independent, as long as both the customer and the service accept the method.

**15. Conclusions.** Establishing the Information Systems Architecture is an important case study for the future information system based on the theoretical and scientific support of research, which must obligatorily identify the general principles of the creation of computer applications and systems, the methodology and the architectural components. The Architecture of the System will be the basis for developing the functional and non-functional technical requirements to the IT system. It is clearly clear that centralization and unification of applications is just as important as the focus on electronic information services. And, using the system approach theory and the theoretical bases of advanced programming and comparative analysis, we can develop a modern information system in the field of tax administration in the Republic of Moldova.

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# EXPERIMENTAL STUDY ON APPLICABILITY OF WALD AND SAVAGE DECISION-MAKING MODELS

*PhD student Lilian GOLBAN, ASEM*

*In business, the decision-making process almost always takes place in conditions of uncertainty. In decision-making under uncertainty, the decision-maker has no information regarding the occurrence of any states of nature. In such cases, the decision maker's comportment is based on his attitude toward to the unknown. In this article are described two decision models for the situations when the decision-maker has an infinite number of alternatives and the number of states of nature is finite. The obtained mathematical models represent a vision of expanding the classic possibilities of economic optimization processes for the continuous cases. This paper presents the analysis of an experimental study, the results of which reflect the effectiveness of the new proposed algorithms.*

**Key words:** decision criteria, decision-maker, function of regrets, states of nature, uncertainty.

**JEL:** C02, C61.

## 1. Introduction

Mostly, the decision-making process assumes that the decision-maker faces a decision-making situation in which he has to choose a single option from a set of options. The uncertainty is associated with situations where decisions are taken in conditions with minimum information about the occurrence of uncontrollable factors. These situations occur, as a rule, when the likelihood of uncontrollable factors is unknown and there are no means to determine them. Based on the linear models, the mathematical models and algorithms proposed in this research are used to solve the experimental study, which characterizes much of the production activity.

## 2. Decision-making models

In classical game theory, for each pair  $(u, \omega) \in U \times \Omega$ , a certain utility function  $r(u, \omega)$  corresponds to the decision-maker. It is admitted that the set of decision variants  $U$  is convex and compact in Euclidean space and contains an infinity set of elements, and  $\Omega$  – a finite set of states of nature. Economically speaking, the indicator  $r(u, \omega)$  may represent the cost or the income of an economic system.

It is considered a situation, described quantitatively in the form:

$$r(u, \omega) = \sum_{j=1}^n C_j(\omega) \cdot u_j \quad (1)$$

$$\begin{cases} \sum_{j=1}^n a_{ij} \cdot u_j \leq b_i, & i = \overline{1, m} \\ \underline{u}_j \leq u_j \leq \overline{u}_j, & j = \overline{1, n} \end{cases} \quad (2)$$

$$\quad (3)$$

where:  $r(u, \omega)$  – the utility expressed in monetary units for the pair  $(u, \omega)$ ;

(2)-(3) – the system of restrictions.

This paper considers the following decision-making models:

- The pessimistic criterion, also known as Wald's model [1];
- The regret criterion or the Savage criterion [1].

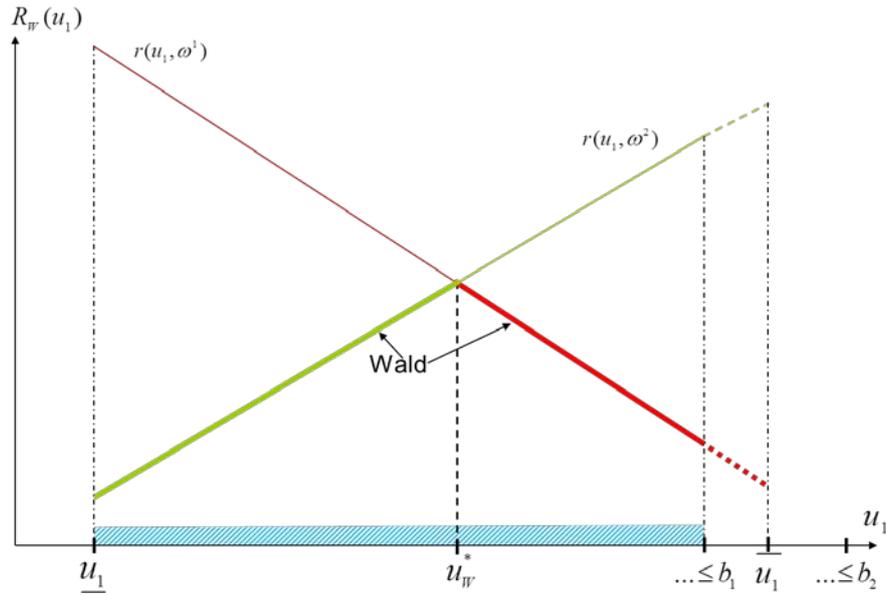
### 2.1. The pessimistic criterion

According to this criterion, the purpose of the decision maker is to identify the offer that would give it the maximum utility for the worst conditions. According to this model, the optimal decision determines the maximal utility  $R_W(u^*)$  as follows:

$$R_W(u^*) = \max_{u \in D} R_W(u) = \max_{u \in D} \min_{\omega \in \Omega} r(u, \omega), \quad (4)$$

where  $D$  is the domain determined by restriction (2)-(3)

For illustration, it is assumed that  $n = 1$  and the set of "states of nature" includes two elements:  $\omega \in \{\omega_1, \omega_2\}$  (Figure 1):



**Figure 1. Graphical interpretation of function Wald  $R_W(u)$  for two states of nature,  $u_W^*$  – optimal solution.**

Further, will be considered that the set that has a finite number of elements:  $\omega \in \Omega = \{\omega_1, \omega_2, \dots, \omega_N\}$ . The problem of maximizing the objective function is formulated as follows:

$$R_W(u) = \min_{\omega} r(u; \omega) \rightarrow \max_u \quad (5)$$

with restrictions:

$$\sum_{j=1}^n a_{ij} \cdot u_j \leq b_i, i = \overline{1, m}; \quad \underline{u}_j \leq u_j \leq \overline{u}_j, j = \overline{1, n}.$$

$$\text{Defining the functions: } \Psi_i(u) = \sum_{j=1}^n a_{ij} \cdot u_j - b_i, i = \overline{1, m}, \quad (6)$$

and the set  $U = \{u = (u_1, \dots, u_j, \dots, u_n): \underline{u}_j \leq u_j \leq \overline{u}_j, j = \overline{1, n}\}$ .

Applying the method of the generalized gradient [2, 3], will be described an algorithm to solve the problem of maximizing the Wald's function on domain  $U$ .

For each  $k = 0, 1, \dots$ , there is generated a set of points  $u^0, u^1, \dots, u^k, u^{k+1}, \dots \in U$ . Initial point  $u^0$  is given and is chosen by the decision maker from  $U$ .

Having the approximation of  $u^k$ , the next point  $u^{k+1}$  is determined as:

$$u^{k+1} = P_U(u^k + h_k \cdot \eta^k). \quad (7)$$

Here:

$$k = 0, 1, 2, \dots;$$

$$\eta^k = \left\{ \begin{array}{l} \text{grad } R_W(u^k) = (C_1(\omega^k), \dots, C_j(\omega^k), \dots, C_n(\omega^k))^T, \text{ if } \Psi_i(u) \leq 0 \forall i = 1, 2, \dots, m \\ - (a_{i_k 1}, \dots, a_{i_k j}, \dots, a_{i_k n})^T, \text{ if } \Psi_{i_k}(u^k) > 0. \end{array} \right\}; \quad (8)$$

$\text{grad } R_W(u^k)$  - represents the generalized gradient of function  $R_W(u)$  for  $u = u^k$ ,

where:  $\omega^k \in \Omega: R_W(u^k) = r(u^k, \omega^k) = \min_{\omega \in \Omega} r(u^k, \omega)$  and

$$i_k \in \{1, 2, \dots, m\}: \Psi_{i_k}(u^k) = \max_{1 \leq i \leq m} \Psi_i(u^k).$$

## 2.2. The regret criterion

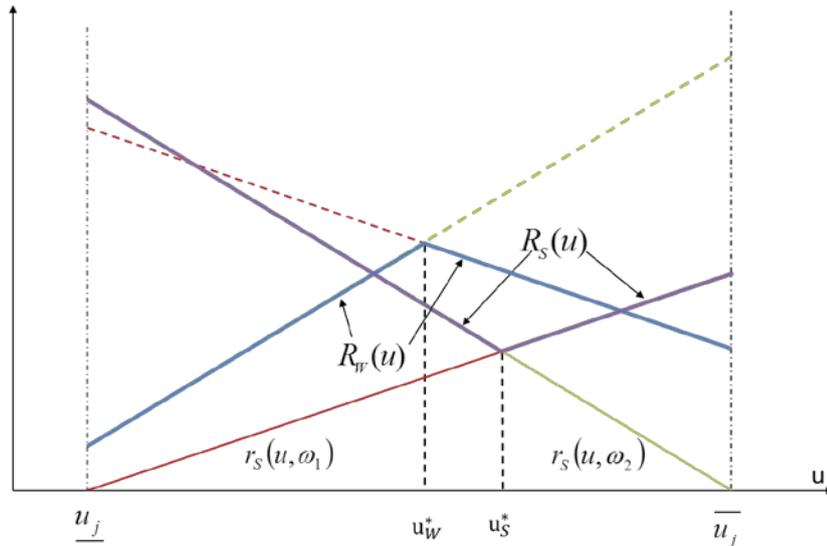
According to Savage [4, 5], the regret is defined as the evaluation of loss by the decider if he does not select the best alternative and occurs the realization of a state of nature. Therefore, if, for a given state of nature the guaranteed income is represented by the function (1), which would be obtained

for the state  $u^*(\omega) : r(u^*(\omega), \omega) = \max_u r(u, \omega)$ , the new function obtains the following aspect:  
 $r_s(u, \omega) = r(u^*(\omega), \omega) - r(u, \omega) \geq 0$ , where  $r(u^*(\omega), \omega) - r(u, \omega)$  represents the value of the regret, and  $u^*(\omega)$  - the optimal decision for the state  $\omega$ . In particular circumstances, for some two states of nature the obtained functions have the following aspect:

$$r_s(u, \omega_1) = r(u^*(\omega_1), \omega_1) - r(u, \omega_1), \quad (9)$$

$$r_s(u, \omega_2) = r(u^*(\omega_2), \omega_2) - r(u, \omega_2). \quad (10)$$

Depending on the chosen criterion, the optimal solution will be different for both models. Figure 2 represents, graphically, how the decision is taken for the case there are analyzed only two states of nature:  $\omega_1$  and  $\omega_2$ :



**Figure 2. Graphical interpretation of functions Wald and Savage and their optimal solutions  $u_W^*$ ,  $u_S^*$**

The problem of maximizing the objective function (named as function Savage) is:

$$R_S(u) = \max_{\omega \in \Omega} [r_s(u, \omega)] \rightarrow \min \quad (11)$$

Firstly, the Simplex method is applied to solve  $N$  problems of the following type:

$$R_i(u) = r(u; \omega_i) = \sum_{j=1}^n C_j(\omega_i) \cdot u_j \rightarrow \max \quad (12)$$

for  $i = \overline{1, N}$  with restriction (2)–(3).

Is assumed that  $(u^i)^*$  - optimal solution for problem with number  $i$ .

Is considered that  $R_i^* = R_i((u^i)^*)$ .

Is defined:  $r_s(u, \omega_i) = R_i^* - r(u, \omega_i)$  - the value of the regret when the decision  $u \in U$  is applied, but not the decision  $(u^i)^*$ . It can be demonstrated that the functions  $r_s(u, \omega_i)$  and  $R_S(u)$  are convex [2].

So, the next goal is to solve the problem:

$$R_S(u) = \max_{1 \leq i \leq N} [r_s(u, \omega_i)] \rightarrow \min_{u \in U} \quad (13)$$

In order to achieve this, will be considered the following algorithm.

As in the previous case with Wald's criterion, there is generated a set of points  $u^0, u^1, \dots, u^k, u^{k+1}, \dots \in U$ , considering that the point  $u^0$  is known. Having the approximation of  $u^k$ , the next approximation  $u^{k+1}$  is calculated as follows:

$$u^{k+1} = P_U(u^k - h_k \cdot \eta^k) \quad (14)$$

Here:

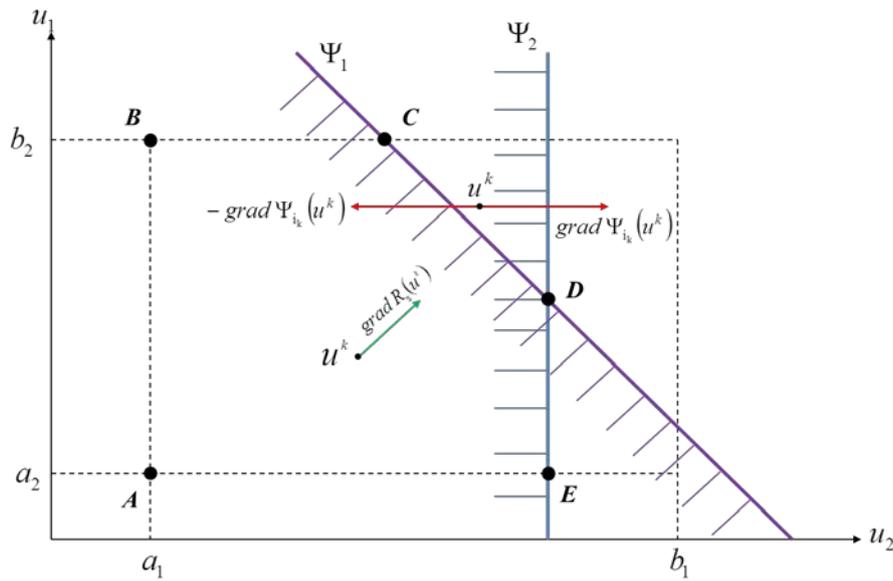
$k = 0, 1, 2, \dots;$

$$\eta^k = \left\{ \begin{array}{l} \text{grad} R_S(u^k) = - (C_1(\omega^k), \dots, C_j(\omega^k), \dots, C_n(\omega^k))^T, \text{ if } \Psi_i(u^k) \leq 0 \forall i = 1, 2, \dots, m, \\ \text{where } \omega^k \in \Omega : r_S(u^k, \omega^k) = \max_{1 \leq i \leq N} r_S(u^k, \omega_i) \\ (a_{i_k 1}, \dots, a_{i_k j}, \dots, a_{i_k n})^T, \text{ if } \Psi_{i_k}(u^k) > 0. \end{array} \right. \quad (15)$$

In order to converge to solution, the series  $h_k$  must satisfy the following constraints:

$$h_k > 0, h_k \rightarrow 0, \sum_{k=0}^{\infty} h_k = \infty.$$

If  $\Psi_i(u^k) \leq 0$ , the approximation of  $u^{k+1}$  is determined applying the generalized gradient of function  $R_S(u)$ , calculated for point  $u = u^k$ . Otherwise, if  $\Psi_{i_k}(u^k) > 0$ , the approximation of  $u^{k+1}$  is determined applying the generalized gradient of function  $\Psi_{i_k}$ , which is most exceeded in the point  $u = u^k$  (Figure 3).



**Figure 3. Graphical representation for estimation of “generalized gradients”**

### 3. Experimental study on optimization of the decision-making process for production activity

There is considered the following problem:

The set of uncontrollable factors consists of two states:  $\omega \in \{\omega_1, \omega_2\}$ ,  $N = 2$ .

For  $n = 2$  and  $m = 3$ , are considered the functions  $r(u; \omega_N)$  as follows:

$$r(u; \omega_1) = 3u_1 + 9u_2 \rightarrow \max;$$

$$r(u; \omega_2) = 6u_1 + 4u_2 \rightarrow \max.$$

The domain  $U$  is defined on the following intervals:  $\underline{u} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}; \bar{u} = \begin{pmatrix} 90 \\ 120 \end{pmatrix}$ .

The restriction system (2)-(3) is:

$$\left\{ \begin{array}{l} 3u_1 + 1u_2 \leq 240 \\ 5,7u_1 + 5u_2 \leq 360 \\ 7u_1 + 4u_2 \leq 420. \\ 0 \leq u_1 \leq 90 \\ 0 \leq u_2 \leq 120 \end{array} \right.$$

To solve the problem using the algorithms described above for the Wald and Savage criteria, a software has been developed that performs all the required calculations. Solving the proposed case study, considering that  $k_{\max} = 100000$  iterations, the determined optimal variants are included in Figure 4 and Table 1, namely:

- for Wald criterion:  $u_W^* = \begin{pmatrix} 41,37815 \\ 24,82751 \end{pmatrix}$ .

According to the algorithm, optimal values of  $R_W(u_W^*)$  vary between:  $r(u_W^*, \omega_1) \approx 347,58203$ ,  $r_W(u_W^*, \omega_2) \approx 347,57891$ . The criterion suggests that the decision-maker is cautious and examines the alternatives in order to choose that offer which has the maximal utility in the most unfavorable conditions, no matter what condition that is going to happen. Table 2 shows the values of the functions  $r(u; \omega_1)$  and  $r(u; \omega_2)$  for the Wald criterion and other variants from the domain  $U$ .

- for Savage criterion:  $u_S^* = \begin{pmatrix} 8,953871 \\ 61,792112 \end{pmatrix}$ .

The value of the regret is calculated as being  $r_S(u_S^*, \omega_1) = r_S(u_S^*, \omega_2) \cong 65,00937$ .

For  $u_S^*$ , the goal functions are evaluated at:  $r(u; \omega_1) \approx 582,99062$  and  $r(u; \omega_2) \approx 300,89167$ . It should be noted that, although purpose functions have different values, the regret for each of them is the same. The decision-maker, who chooses to apply the Savage criterion, is more prone to risk than the one who prefers the prudence criterion of Wald. In this case, even if the chances of achieving the two states of nature are not known, the decision-maker will most likely prefer to choose the strategy  $\omega_1$  for the economic system in which he operates. In Table 3 are included the calculated estimates of purpose functions and regret functions for other alternatives from the domain  $U$ .

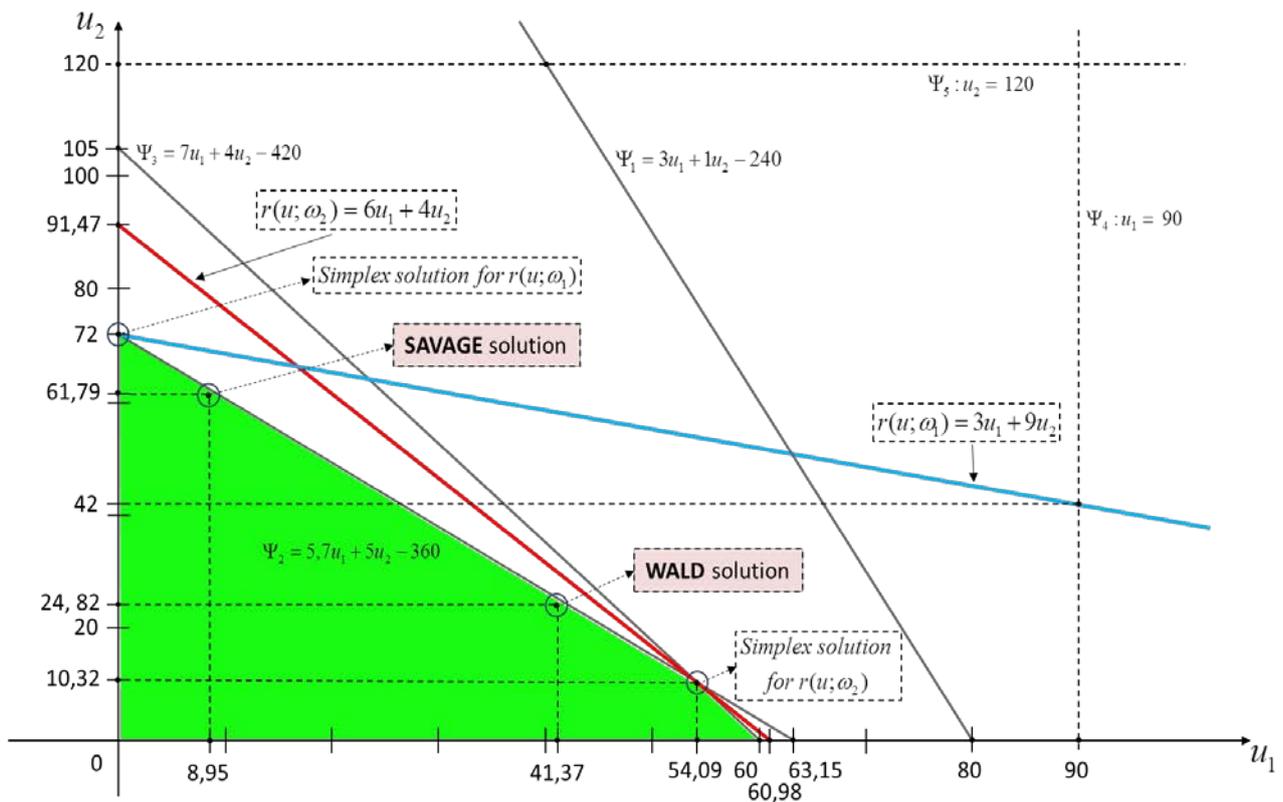


Figure 4. The graphical representation of optimal variants according to the Wald and Savage criteria

Table 1

Optimal decision variants for the Wald and Savage models

	Simplex solution for $r(u; \omega_1)$		SAVAGE solution		WALD solution		Simplex solution for $r(u; \omega_2)$	
	$u_1$	$u_2$	$u_1$	$u_2$	$u_1$	$u_2$	$u_1$	$u_2$
		0	72	8,95387	61,79211	41,37815	24,82751	54,09836
$r_S(u_S^*, \omega_1)$			65,00937					
$r(u; \omega_1)$	648		582,99062		347,58203		255,24590	
$r_S(u_S^*, \omega_2)$			65,00937					
$r(u; \omega_1)$	288		300,89167		347,57891		365,90163	

Source: elaborated by author of publication on the base of Figure 4

Table 2

Comparative values of functions according to Wald criterion

	Simplex solution for $r(u; \omega_1)$		SAVAGE solution		WALD solution		Simplex solution for $r(u; \omega_2)$	
	$u_1$	$u_2$	$u_1$	$u_2$	$u_1$	$u_2$	$u_1$	$u_2$
		0	72	8,95387	61,79211	41,37815	24,82751	54,09836
$r(u; \omega_1)$	648		582,99062		347,58203		255,24590	
$r(u; \omega_1)$	288		300,89167		347,57891		365,90163	

Source: elaborated by author of publication on the base of Figure 4

Table 3

Comparative values of functions according to Savage criterion

	Simplex solution for $r(u; \omega_1)$		SAVAGE solution		WALD solution		Simplex solution for $r(u; \omega_2)$	
	$u_1$	$u_2$	$u_1$	$u_2$	$u_1$	$u_2$	$u_1$	$u_2$
		0	72	8,95387	61,79211	41,37815	24,82751	54,09836
$r_S(u_S^*, \omega_1)$	0		65,00937		300,41796		392,75409	
$r(u; \omega_1)$	648		582,99062		347,58203		255,24590	
$r_S(u_S^*, \omega_2)$	77,90163		65,00937		18,32272		0	
$r(u; \omega_1)$	288		300,89167		347,57891		365,90163	

Source: elaborated by author of publication on the base of Figure 4

4. Conclusions

This article describes the theoretical and practical aspects of the importance of decision-making process under uncertainty. Due to this, two of the most important decisional criteria were analysed: Wald and Savage. The proposed algorithms for conditions where the decision maker has an infinite number of alternatives can provide effective and real-time solutions to various practical situations that relate to substantiating and making decisions that are described in the terms of linear models. The case study presented highlights the particularities of each model and the obtained results confirm their effectiveness and accuracy, aspects absolutely necessary for decision-makers within an economic system, but that do not have sufficient relevant information on the manifestation of uncontrollable factors.

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## SOME APPROACHES IN EXPLAINING INFLATION USING DATA FROM MOLDOVA

*PhD candidate Vitalie MOTELICA, ASEM*

*This article explores some of the approaches in explaining inflation. Over the long-term horizon, inflation is caused by the increase of the money supply, in other words by the monetary policy. Over the short-term horizon, the causes of inflation are analyzed in order to understand the nature of the shock, whether it is permanent or temporary. Over the short-term inflation can be caused by excess demand, as well as, by some supply shocks. An accurate identification of the link between aggregate demand and inflation would provide valuable input for policy makers in their attempt to ensure macroeconomic balance and welfare. However, this estimation is a continuous challenge given several factors including the different structure of economies, the degree of price liberalization and the quality of available statistical data. At the same time, for the developing countries, the estimation of the aforementioned relationship is hampered by the significant and rapid changes in the structure of the economies and in their legislative framework. In this study, the impact of the aggregate demand deviation from equilibrium on the dynamics of core inflation in Moldova was estimated.*

**Key words:** *inflation, money supply, Phillips curve, output gap, exchange rate*

**JEL:** C10, E31, E52, E58

### 1. Introduction

Among the issues, which generate a high concern for most of the people and which at the same time signals, that there is something wrong with the way the economy works is inflation. This phenomenon is intensively discussed in different environments, whether it is a small chat on the street, an intense debate in the lecture rooms or a policy meeting involving high-level officials deciding on macro-stabilization policies, showing that inflation has an impact on everyone. Even though the issue is present in media and in everyday lives of the people, there are differences in how people understand inflation and there are might be also some inconsistencies in the way inflation related subjects are tackled. This article intends to go through some approaches in analyzing inflation and it will illustrate their applications for data from Moldova.

When speaking about the factors that are responsible for inflation it is important to distinguish between time horizons one refers to. Over the long-term horizon, inflation is caused by the increase of the money supply, in other words by the monetary policy. As M. Friedman was stating “Inflation is always and everywhere a monetary phenomenon”. According to this approach, inflation will appear when the growth of money will exceed the growth of output given the assumption of a constant velocity of money.

Over the short-term horizon the causes of inflation are analyzed in order to understand the nature of the shock, whether it is permanent or temporary. This will enable decision makers to decide whether it is worth taking actions to prevent an inflationary spiral or whether the shock will fade off.

This study examined the results of Hume, Phillips, Solow, Friedman and other economists in investigating some approaches in explaining inflation. At the same time, it was tried to identify the impact of the deviation of economic activity from equilibrium values on prices in Moldova. For this purpose, statistical data on inflation, unemployment, population consumption and GDP were processed to estimate the relationship between them using the least squares estimation approach, also taking into account the strong influence of exchange rate volatility on prices.

### 2. Approaches in explaining inflation over history

Over the history many economists highlighted that the cause of inflation is attributable to the increase in the amount of money. The earliest statements of quantitative theory can be attributed to Jean Bodin from

the middle of the 16th century when he quoted the monetary theory of price inflation in Western Europe<sup>1</sup>. In 1961, John Locke stated that the price level is always proportionate to the amount of money. Similarly, David Hume<sup>2</sup> mentioned that prices are always proportional to the amount of money. According to him, the amount of money does not affect the real variables; instead increase of money will result in higher prices. However, he admitted that in times of transition, from the old balance to the new balance, the amount of money can affect the real variables due to lags in the adjustment process<sup>3</sup>. As Hume mentioned, the real effects of increasing money are temporary and dissipate once salaries and prices are fully adjusted to the new stock of money. David Hume and Richard Cantillon were the first to apply two crucial distinctions for quantitative theory, the difference between steady-state equilibrium in the long-term horizon and short-term adjustment to equilibrium. The second distinction was the long-term neutrality of money and short-term non-neutrality of money.

Later on, according to Friedman's monetarist visions<sup>4</sup>, inflation is always and everywhere a monetary phenomenon in the sense that it can be produced only by a faster increase in money than an increase in output. There is a less accurate but persistent relationship between the increase in the amount of money and the rate of increase in nominal income. This relationship is more difficult to identify because it usually takes time for the change in monetary growth to affect revenue. At the same time, the respective time range may vary. The rate of today's monetary growth is not very correlated with the rate of today's revenue growth. Today's revenue growth depends on what has happened with the amount of money in the past, and what is happening today with the amount of money will affect revenue in the future. According to the author, the time range varies from 6 to 9 months and depends on the region. Changing nominal income usually first translates into changes in production and less in prices. Subsequently, the effect on prices only occurs after 6-9 months after the effect on production. Thus, the delay between changing the increase in money and changing the inflation rate varies from 12 to 18 months, which makes inflation control a difficult and time-consuming task once it is left to start. Inflation can not be stopped overnight. The general inflation theory advocated by many economists is given by the quantitative theory of money. According to it, inflation will appear when the growth of money will exceed the growth of output given the assumption of a constant velocity of money.

As it was stated earlier, over the short-term horizon the causes of inflation are analyzed in order to understand the nature of the shock, whether it is permanent or temporary. This will enable decision makers to decide whether it is worth taking actions to prevent an inflationary spiral or whether the shock will fade off. Over the short term, inflation may be caused by cyclical factors which mean the increase of the demand above the equilibrium levels which put pressure on the limited supply in the short run causing prices to increase, as well as due to some supply side shocks.

In this sense, the relationship between the level of economic activity and the dynamics of prices was a topic of major interest for economists in many countries. A.W.Phillips<sup>5</sup> succeeded in obtaining some conclusive results on this phenomenon in the 1950s. It started from the assumption that in case of a high demand for labor and a lower level of unemployment, employers are expected to offer higher wage increases to attract workers from other businesses and other industries. However, Phillips also identified some other factors that contributed to price increases and to the weakening of this relationship. According to his results, in the years when there is a pronounced rise in import prices as well as in the immediate aftermath of these years, the relationship between inflation and unemployment is distorted. In addition to import prices, the author also identified other causes that resulted in the fact that some periods are outside of the above-mentioned relationship, such as the rapid growth of employers federations in the 1980s that have limited the power of trade unions. The result of the discontinuation of works in the 1912 coal mines, methodological changes in the wage inflation structure, the increase in the food prices were other relevant causes of inflation identified by Phillips in the sample he investigated.

The results of his study motivated many economists to focus their efforts on identifying the link between economic activity and prices for different regions of the world. Thus, R. Solow and P. Samuelson<sup>6</sup> have attempted to provide an instrument for US policymakers by trying to identify the amount of inflation that is needed to boost economic activity and reduce unemployment. However, they have encountered

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<sup>1</sup> Thomas M. Humphrey, Of Hume, Thornton, The Quantity Theory, and The Phillips Curve, Federal Reserve Bank of Richmond

<sup>2</sup> Hume, David, Essays, Moral, Political, and Literary, Library of Economics and Liberty

<sup>3</sup> Thomas M. Humphrey, Of Hume, Thornton, The Quantity Theory, and The Phillips Curve, Federal Reserve Bank of Richmond

<sup>4</sup> Milton Friedman, 1970, The Counter Revolution in Monetary Policy IEA Occasional Paper nr. 33

<sup>5</sup> A.W.Phillips, 1958, "The relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1891-1957"

<sup>6</sup> P.A.Samuelson, R.M. Solow, 1960, Analytical Aspects of Anti-Inflation Policy, The American Economic Review

several impediments in establishing a robust relationship that they have attempted to overcome by eliminating certain observations.

### 3. Data and methodology

Estimating the relationship between economic activity and inflation is a continuous challenge for economists in different countries. There are many approaches and techniques used to answer the question of how overheating or cooling of economic activity influences prices. At the same time, the achievement of consistent and uniform results for several regions is hampered by the different structure of the analyzed economies, the degree of price liberalization, the lack of sufficient historical data or problems related to their quality. Within the relationship between prices and economic activity there is a multitude of supply-side shocks that alter the above-mentioned link.

The CPI data since 1995 and the main subcomponents of CPI with different frequencies provided by the National Bureau of Statistics (NBS) were used in the study. Data on GDP and population consumption were also obtained from the NBS since 1995 with annual and quarterly frequency. The data on the annual unemployment rate starting with 2000 was obtained from the NBS. Data on monthly MDL/USD exchange rate was obtained from the National Bank of Moldova (NBM). Quarterly data on core inflation and GDP were seasonally adjusted, expressed in logarithms, after which the transformations were made according to the specifications.

First, it was attempted to graphically represent, similarly to other studies, Phillips curve for data in the Republic of Moldova to investigate whether there really is an inversely proportional relationship between inflation and the unemployment rate or a directly proportional relationship between inflation and economic growth. Later on, it was tried to estimate the relationship between aggregate demand and inflation for a more recent period.

As a rule the following equation is used to estimate Phillips curve<sup>1</sup>

$$\pi_t = \beta E_{t-1}\{\pi_t\} + \lambda Y_t^c \quad (1)$$

Where  $\pi_t$  represents inflation, E is the symbol of inflation expectations, and  $Y_t$  is the indicator showing the phase of the economic cycle or the deviation of aggregate demand from equilibrium.

In the case of traditional Phillips curve, current inflation is determined by the economic cycle and the inflation expectations set in previous periods.

In the early 1980s, J. Taylor and G. Calvo laid the foundations for the new Phillips curve, which differs from the traditional curve of price formation. Thus, the new Phillips curve is based on the hypothesis that economic agents operate in a monopolistic competition, maximizing their profit in price-restraining circumstances with restrictions. These restrictions relate to the frequency of price adjustments that economic agents can afford.

$$\pi_t = \beta E_{t+1}\{\pi_t\} + \lambda Y_t^c \quad (2)$$

The new Phillips curve stipulates that current inflation is driven by economic cycles and inflation expectations.

The Hybrid Phillips Curve is based on the hypothesis that not all companies in an economy are creating rational expectations, and for some of them, inflation expectations are based on inflation in previous periods.

$$\pi_t = \beta E_{t+1}\{\pi_t\} + (1 - \beta)\{\pi_t\} + \lambda Y_t^c \quad (3)$$

Given the lack of reliable and timely data on the inflationary expectations of the population in the Republic of Moldova, this study attempted to estimate the traditional Phillips curve in which current inflation is driven by the economic cycle and inflation expectations expressed by inflation from the previous periods. At the same time, taking into account the correlation between inflation and the exchange rate, the MDL / USD exchange rate according to the relationship below was added to the estimation.

$$\pi_t = \alpha_1 + \alpha_2 \pi_{t-1} + \alpha_3 Y_t^c + \alpha_4 * X_t \quad (4)$$

Where:

$\pi_t$  – core inflation of the current period

$\pi_{t-1}$  – core inflation from the previous period

$Y_t^c$  – GDP deviation or population consumption deviation from equilibrium values

$X_t$  – MDL / USD exchange rate variation

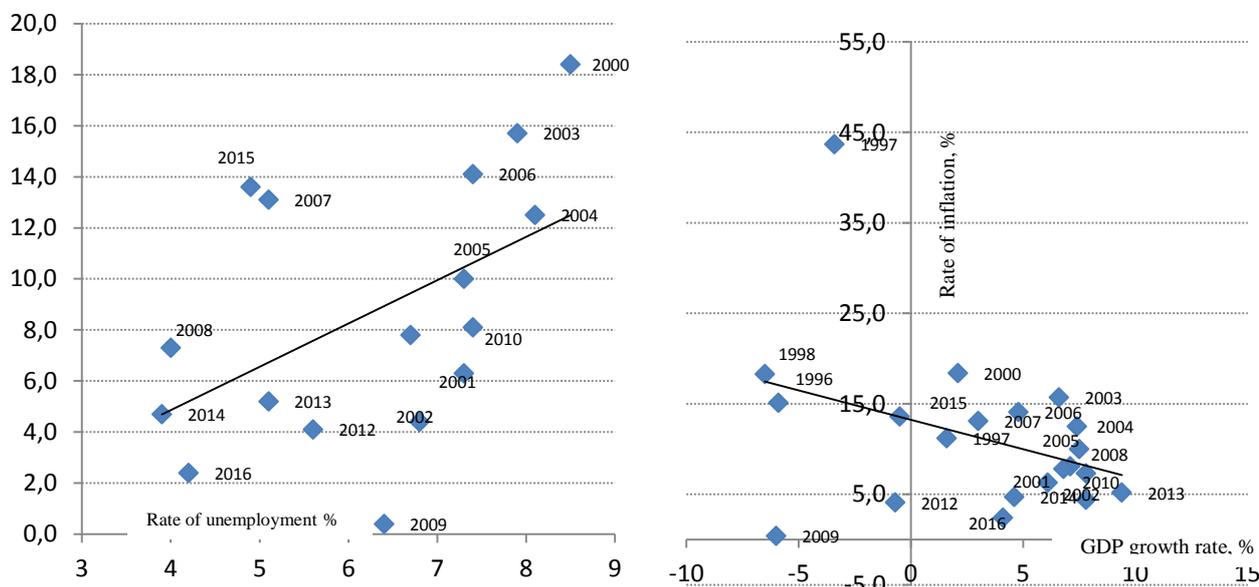
<sup>1</sup> A. Melihovs, A. Zasova, 2007, Estimation of Phillips Curve for Latvia, Bank of Latvia

This estimation was performed using the ordinary least square method, which is a technique typically applied to regression models with multiple variables. The least squares method is a statistical technique used to estimate the structural parameters of the model by minimizing the amount of deviations of current observations from the estimated values of the model. It is one of the most used methods in estimating relationships in econometric models and produces efficient, linear and unbiased estimates<sup>1</sup>.

#### 4. Results for inflation in Moldova

##### *The lack of a strong link between inflation, unemployment and GDP*

In an attempt to identify a relationship between the unemployment rate and inflation, and the rate of GDP growth and inflation, these variables were plotted in the figure below. A preliminary analysis of this indicates the lack of a negative relationship between the unemployment rate and the inflation rate similar to that of Phillips for UK data. On the contrary, the curve bounded by the annual data included in the 2000-2016 sample denotes an upward trajectory suggesting low unemployment rates associated with low inflation rates and high unemployment rates associated with high inflation rates. Even when using data on GDP growth rates, the results were not better. Thus, in the 1995-2016 samples, high GDP growth rates are more associated with lower inflation rates so that the curve has a downward trajectory. As a result, the annual data on inflation, unemployment, GDP growth for the Republic of Moldova do not allow the conclusion that the overheating of the economy, the surplus of demand, and the greater involvement of the employed population in the production process is associated with a higher inflation.



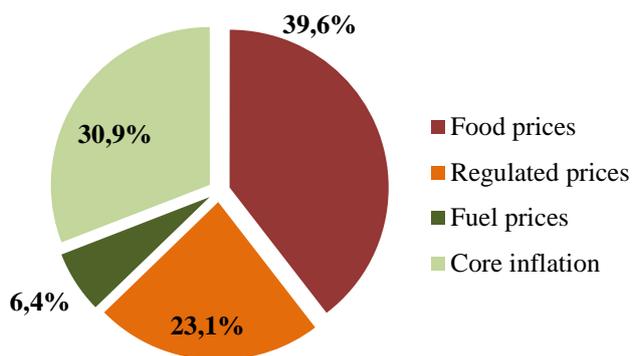
**Figure 1. Relation between unemployment, GDP and inflation**

However, the above figure is not necessarily a proof that the excess of demand in the Republic of Moldova has no impact on prices. The reason for this can be attributed to the indicators used for both inflation and quantification of aggregate demand. The impact of overheating of the economy on prices may be distorted by the contribution made by some supply-side factors to prices as well as by certain structural changes such as the change in the monetary policy regime. The structure of the economy, the degree of price liberalization, the nature of macroeconomic shocks is different in the Republic of Moldova compared to the economies of developed countries where Phillips curve could be tested. Moreover, even in countries where the link between inflation and unemployment / GDP has been confirmed, observations affected by supply-side factors have been properly addressed. To this end, in order to obtain some results for the Moldovan data, it is necessary to identify the inflation indicator that theoretically should fluctuate more significantly due to the demand pressures and less to be the result of the supply shocks. At the same time, it is also necessary to consider the period in which the estimation is to be made taking into account the structural changes in the economy. Thus, since the objective of ensuring and maintaining price stability was adopted in 2006 and the implementation of the inflation targeting regime started in 2010, ideally the estimation sample should be set according to these two moments. Therefore, the study considered the 2008-2016 period to obtain a relevant number of observations. Also in this respect, quarterly data were considered instead of annual ones.

<sup>1</sup> A. Koutsoyiannis, 1997, Theory of Econometrics: An Introductory Exposition of Econometric Methods A. Koutsoyiannis

### CPI structure issues

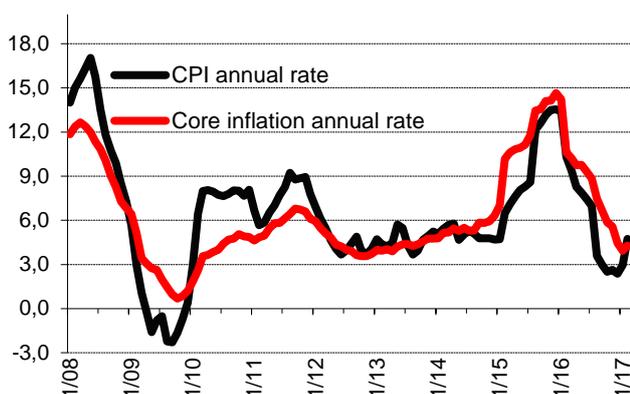
In this context, the Consumer Price Index reflects a rise in prices due to both aggregate demand and supply shocks. In order to ensure the fundamental objective of maintaining price stability, central banks typically take into account the evolution of the Consumer Price Index as it is known to the public, is based on spending of the population and is disseminated quite operative.



**Figure 2. CPI structure 2017**

However, this index does not provide a clear delimitation of the price increase due to aggregate demand. Thus, some price increases can be driven by sector-specific shocks. They have transitory effects on the overall price level. In this way, food prices may increase due to unfavorable agro-meteorological conditions that have led to a modest harvest or fuel prices may

increase with the change in excise duties assigned to them. The direct effect of these changes is temporary and is not part of the general trend of price increases. A solution to alleviate this problem is the exclusion of certain components from the total index. For example, food and energy prices are affected by supply-side shocks that could be caused by weather conditions and by the decline in oil supply as a result of, for example, some conflicts in the Middle East<sup>1</sup>. Thus, by excluding these components from the total index, an index that more efficiently reflects inflationary trends in the economy is obtained.



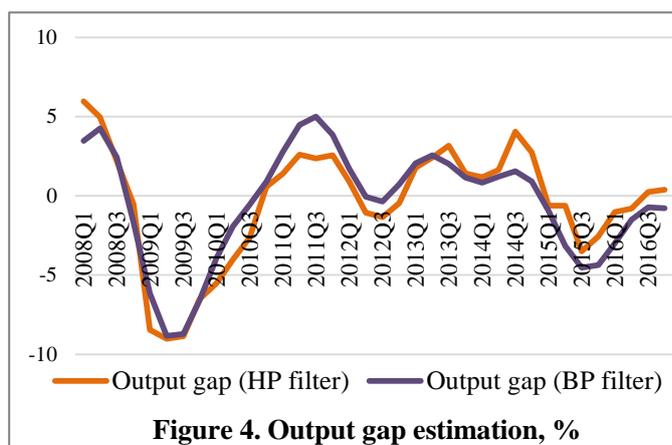
**Figure 3. The dynamics of CPI and core inflation in 2008-2017, %**

Core inflation can be calculated by excluding certain components of the CPI which are considered to have volatile behavior, are determined by central or local governments or are subject to frequent supply shocks. In other words, the excluded items are believed to be beyond the control of the monetary policy. The structure of the CPI in 2017 after applying this methodology is presented in figure no. 2. According to it, core inflation represents 30.9 % of the CPI.

Core inflation has experienced less volatile dynamics compared to CPI inflation (Figure 3) and thus could more effectively reflect aggregate demand pressures. Therefore, core inflation was used to identify the relationship between inflation and aggregate demand.

### Aggregate demand estimation

In order to measure the economic cycle and to identify aggregate demand pressures, both GDP and household consumption data was used. To estimate the growth trend of these variables and the deviation from the growth trend that is able to generate pro-inflationary or disinflationary pressures, the Band Pass<sup>2</sup> filter in favor of the Hondrick Preskot<sup>3</sup> filter was taken into account given that the latter generates more volatile data (Figure 4).



**Figure 4. Output gap estimation, %**

<sup>1</sup> I. Partachi, V.Motelica, 2015, Methods Of Measuring Core Inflation In Inflation Targeting Countries, Journal of Applied Quantitative Methods, Vol.10, nr. 1

<sup>2</sup> M. Baxter, R. G. King, 1999, Measuring Business Cycles: Approximate Band Pass Filters for Economic Time Series, University of Virginia

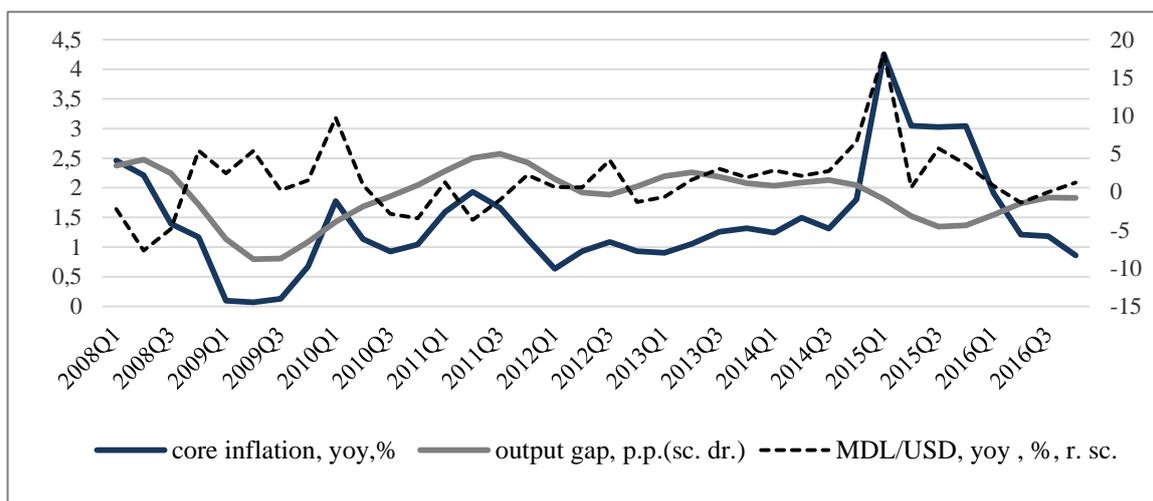
<sup>3</sup> Lambda =1600

The deviation of demand from the equilibrium values was positive in the course of 2008. Later on, following the global economic crisis, in 2009 a recession of the economy was attested. The GDP deviation has returned to positive territory in the second half of 2010 and continued to record positive values in the beginning of 2012. Over the next two years both output gap was higher than equilibrium values. In 2015, due to the economic crisis in the region, embargoes and modest agricultural production, aggregate demand returned to negative territory. In the second half of 2016, in the context of a high performance of the agricultural sector after the drought of the previous year, the output gap has returned to the positive territory, but still showed modest values.

***The relationship between the quarterly core inflation and the output gap***

To see the existence of a link between the potential demand and inflation deviation, the graph in figure no. 5 should be analyzed. At a first glance, in 2008 and 2009 a common path can be observed between the output gap and core inflation. The core inflation recorded a significant deceleration at the end of 2008 and continued in 2009 as a result of a negative demand gap associated with the economic crisis of that period. The recovery of economic activity in 2010 and 2011 resulted in significant values for core inflation. However, in the years 2012-2016, it is more difficult to see the relationship between these two variables as the exchange rate volatility increases. Thus, the deviation of demand does not explain all the variation in core inflation. The correlation between output gap and core inflation in the whole analyzed sample is positive but not so strong (correlation coefficient 0.3).

This fact is also revealed by the statistically insignificant coefficients in the estimation of the relationship between the respective variables by the least squares method (Table 1).



**Figure 5. Inflation, output gap and exchange rate**

As several economists have noted, various factors that may distort the outcomes of its estimation may arise in the relationship between aggregate demand and inflation. Given the small and open nature of the Moldovan economy, the large number of imported goods in the CPI structure, one of the factors that could undermine the relationship between demand and prices is the exchange rate. That is why in the estimation of Phillips curve for Moldova it will be considered an additional variable – the exchange rate MDL/USD. The variables used in the estimation are shown in the Figure no. 5. As it can be seen, in times when the variation in core inflation can not be explained by the deviation of demand, this can usually be attributed to fluctuations in the exchange rate. Therefore, as a result of the estimation of the relation in which the explained variable is the core inflation variation and the explanatory variables are the persistence of the core inflation, the change in the MDL exchange rate against the US dollar and the deviation of the aggregate demand from the equilibrium values based on quarterly data from 2008 to 2016 the results in table no. 2 were obtained.

According to the results, approximately 70 per cent of the core inflation is explained by its values in the previous period highlighting its persistence. The exchange rate dynamics explains approx. 11 percent in core inflation, and the demand gap is accountable for about 6 percent of the core inflation dynamics. This model explains approx. 80 percent of core inflation variation. At the same time, all explanatory variables are statistically significant at a confidence level of 99 percent. In this way, it can be stated that the aggregate demand gap has some impact on the prices included in core inflation, which could be tested statistically.

Model estimates for core inflation model	
	coeff.
<b>const.</b>	0.415**
<b>dl_core(-1)</b>	0.682***
<b>I_output_gap</b>	0.01
R-squared	0.535
Adjusted R-squared	0.506
DW	1.7
Note: ***, ** și * represents significance at the 1,5 și 10 % level	

*Source: Author's estimates*

Model estimates for core inflation model	
	coeff.
<b>const.</b>	0.209
<b>dl_core(-1)</b>	0.725***
<b>dl_mdln_usd</b>	0.105***
<b>I_output_gap</b>	0.055***
R-squared	0.78
Adjusted R-squared	0.76
DW	1.6
Note: ***, ** și * represents significance at the 1,5 și 10 % level	

*Source: Author's estimates*

Where: dl\_core(-1) – quarterly dynamics of seasonally adjusted core inflation from the previous period  
 I\_output\_gap – output gap estimated using the BP filter  
 dl\_mdln\_usd – quarterly change in MDL/USD rate

## 5. Conclusions

Over the long-term horizon, inflation is caused by the increase of the money supply, in other words by the monetary policy. Over the short-term horizon the causes of inflation are analyzed in order to understand the nature of the shock, whether it is permanent or temporary. This will enable decision makers to decide whether it is worth taking actions to prevent an inflationary spiral or whether the shock will fade off.

This study examined the results of Hume, Phillips, Solow, Friedman and other economists in investigating some approaches in explaining inflation. At the same time, it was tried to identify the impact of the deviation of economic activity from equilibrium values on prices in Moldova.

Given that the central bank's goal is to maintain a low and stable inflation rate, economists are making a significant effort in modelling inflation and trying to identify the effect of the excess demand on prices. Based on the results obtained in this field, the study attempted to identify the relationship between economic growth above potential and inflation, the so-called Phillips curve, for the data in the Republic of Moldova.

A preliminary investigation between the annual data on economic activity, unemployment and inflation in Moldova has not been able to provide strong evidence. In other words, a negative relationship between inflation and unemployment and positive relations between inflation and economic growth has not been achieved. This could have been due to factors such as the quality of statistical data, the different structure of the economy, the degree of price liberalization, the impact of supply shocks that offset the impact of demand, as well as structural breaks such as changing the policy regime. Thus, in order to correct some of these constraints in the study, core inflation was used instead of total inflation in an attempt to have a price indicator less sensitive to supply shocks and to central and local authority decisions. Besides this, the effect of the exchange rate on the core inflation was taken into account. Finally, it was possible to obtain a model for core inflation in which the variable representing the excess demand was statistically significant. Thus, a positive relationship between the excess demand and the core inflation was obtained.

The results of this study confirm the fact that an increase in economic activity beyond potential is able to exert an inflationary effect on prices in the Republic of Moldova. However, the impact is more difficult to identify due to the significant role of supply-side factors in the inflationary process.

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## **MONETARY POLICY TARGETS THE GENERAL PRICE LEVEL**

*PhD candidate, Simion MIJA, ASEM*

*In the long run, a central bank can only contribute to increasing the growth potential of the economy by maintaining an environment of stable prices. It cannot contribute to economic growth by expanding the money supply or by keeping short-term interest rates at a level inconsistent with price stability. It can only influence the general level of prices. Ultimately, inflation is a monetary phenomenon. According to various empirical research results, prolonged periods of high inflation are typically associated with high monetary growth. While other factors, such as variations in aggregate demand, technological changes or commodity price shocks, can influence price developments over shorter horizons, over time their effects can be offset by a change in monetary policy.*

**Key words:** *Monetary policy, price, stability, inflation, central bank*

A consensus among central banks and academia has been created over time that price stability is good and it shall be ensured by monetary policy.

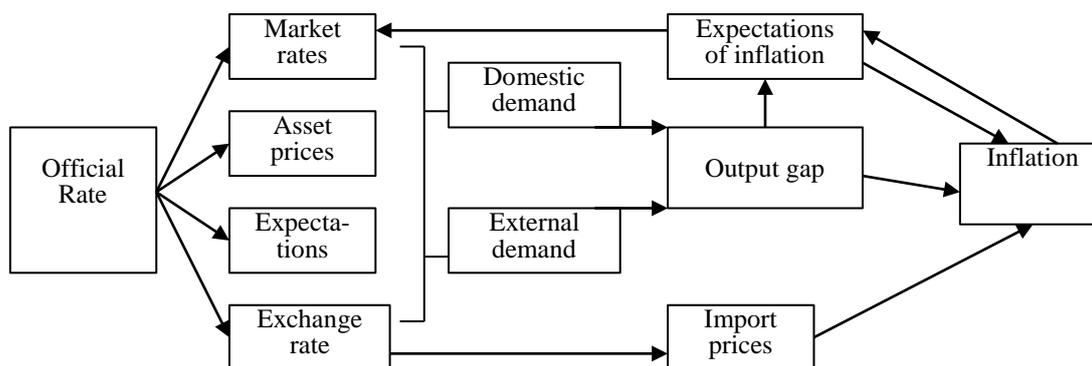
Price stability can be defined as a situation where the price increase is small and stable enough, so that it does not significantly influence the society's economic decisions. Thus, price stability and keeping inflation at a relatively low level is the most important objective of a central bank, since it leads to maintaining over time the value and rate of erosion of the purchasing power of money and contributes to a relatively stable macro-economic framework allowing economic development and providing a sustained level of economic growth.

This consensus is valid for both advanced and emerging economies. Although in the latter case, the central bank may face **a more difficult task that is to respond to real and nominal shocks**, as financial markets are insufficiently mature and operate with less diverse tools. Such shocks may be generated both by the changes in capital flows, by changes in food prices, fuel prices, etc. due to domestic and foreign supply or demand shocks, causes of which are wholly or largely outside of the monetary policy's competence and are not under the direct control of the monetary authorities. For example international prices of food, fuels, weather conditions, fluctuations in exchange rates of currencies of major trading partners, international economic and financial shocks, etc. These limitations to the effectiveness of monetary policy increase the need to implement a coherent policy mix in order to maintain price stability.

**Price stability** in an economy means that the general price level in an economy does not change much over time. In other words, prices neither go up or down; there is no significant degree of inflation or deflation. The term monetary policy refers to the decisions that a government makes concerning interest rates and the supply of money in an economy. The role of monetary policy is to keep prices stable. In Moldova, the National Bank, according to the Law on the National Bank of Moldova no.548-XIII of July 21, 1995, and based on the Medium-term monetary policy strategy of the NBM, sets the monetary policy.

The general goal of monetary policy is to maintain the price stability. In order to ensure and maintain price stability over the medium term, the National Bank's aim will be to keep inflation (measured by Consumer Price Index) at the level of 5.0 per cent annually with a possible deviation of  $\pm 1.5$  percentage points, considered to be optimal for growth and development of Moldova's economy over the medium term.

In order to achieve the objective of ensuring the stability of the general price level, it should be taken into account that the notion of stability of the general level of prices does not mean that all prices are stable or fixed. On a pragmatic level, the focus is on maintaining stability in the average level of prices, aiming ultimately to their relative stability and not the absolute one. Monetary policy in essence, through its instruments, cannot influence the price development of an individual product or service in part, which means that in the CPI basket there may be products or groups of products or services whose individual increases or decreases in prices may evolve differently, and in some cases may exceed the variation range of the inflation target. In response, through the management of its instruments, the central bank tends to dampen the average volatility of prices and their effects on other products and services and maintains the growth rate of the general price index in target. The transmission mechanism of monetary policy, consist in ability of monetary policy instruments (open market operations, standing facilities, required reserves, foreign exchange interventions, etc.) to influence money market conditions (interest rates, excess liquidity, exchange rate, etc.). That affect the demand for goods and services in society (by influencing the lending, saving, consumption or investment processes), which in turn exert influence on the prices of all goods and services, and which underlies the mechanism of monetary policy's influence on the increase of average general price level in an economy. The once of general form of transmission mechanism is illustrated in figure 1.

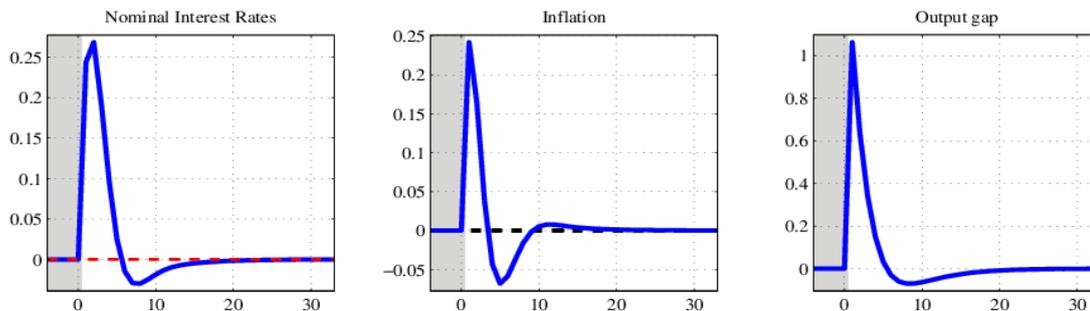


**Figure 1. The transmission mechanism**

*Source: Revista Română de Statistică Trim IV/2013- Supliment, p. 149*

The transmission of impulses generated by monetary policy instruments to inflation is propagated through complex chains of cause and effect, which represent the decisions of the economic agents and households with regard to monetary policy measures. This leads to the extension of the effects of monetary policy on the economy. The complexity of this mechanism varies both geographically and temporally, each economy having its own specific mode of propagation of monetary impulses, which change over time. This is caused, in particular, by structural and behavioural changes in the economy. The complexity of the transmission mechanism is affected by the persistence of a plurality of shocks, which occur simultaneously and which are unexpected and unforeseeable events causing fluctuations in the economy. Thus, the objective of the monetary policy in this case is to stabilize the system by absorbing in a greater or lesser extend the effects of exogenous disturbance thereof.

Without the support of other economic policies, monetary policy may have difficulties in ensuring sustainable price stability. In other words, it is possible that price stability is achieved at the expense of other macroeconomic balances, which ultimately may prove to be an auto reversible process. If macroeconomic policies applied are not intended or fail to dampen economic fluctuations and to ensure the smooth adjustment of macroeconomic imbalances, the risk of “forced landing” is increasing.

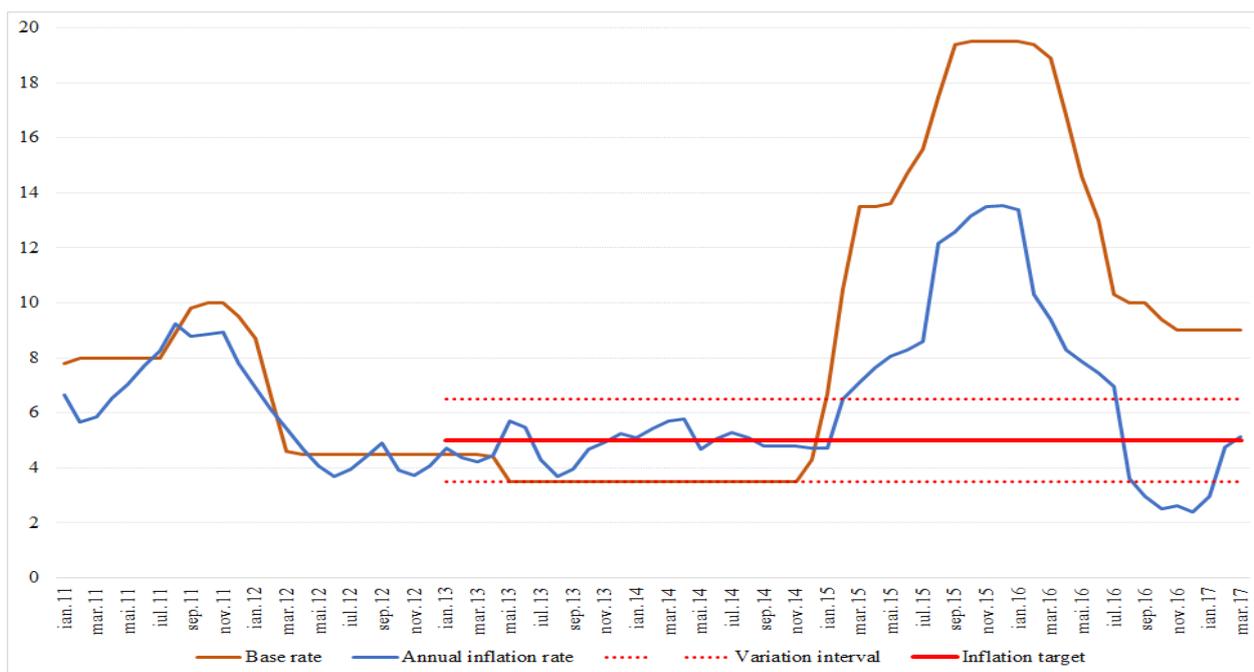


**Figure 2. Response of macroeconomic indicators to the demand impulse**

*Source: The Economic Research Guardian – Vol. 5(1)2015 p. 43*

This means that the likelihood that the authorities will suddenly react increases, by imposing policies that cause the rapid return of macroeconomic indicators to equilibrium. Therefore, adopting a monetary policy rule needs the support of other macroeconomic policies, in particular should be accompanied by a fiscal rule, which should be prudent and countercyclical. Such promotion of discipline at the level of macroeconomic policies allows the stabilization of existing economic fluctuations. Since 2013, in order to achieve and maintain price stability, the NBM has implemented the direct inflation targeting regime, calculated based on the consumer price index published monthly by the National Bureau of Statistics and fixed at 5.0 percent annually with a possible deviation of  $\pm 1.5$  points percentage. To achieve this objective and to ensure a better efficiency of monetary policy shocks, the NBM has implemented the inflation targeting regime and, also in line with the inflation target, implemented a managed floating regime of the exchange rate without having a default target of the exchange rate of the MDL. The inflation target is considered optimal for growth and sustainable economic development of the Republic of Moldova in the medium term and is the benchmark that guides monetary policy regarding the increase in the general price level. The general price level is used in the communication to the public, aimed at anchoring inflation expectations at the level of the inflation target. The results of the NBM in this sense are distinguishable. Since January 2012 to January 2015, the annual rate of inflation continued to hover close to the target as stipulated in the Medium-term monetary policy strategy. Starting with February the annual rate of inflation, exceeding the upper limit of the inflation target stipulated in the Medium-term monetary policy strategy.

The annual average rate of inflation in the first quarter was 6.1 per cent, by 1.3 percentage points higher than at the end of 2014. This increase generated by the depreciation of the national currency at the end of the previous year and the beginning of this year had a pronounced impact on core inflation, it increasing up to the value of 10.6 per cent in March.



**Figure 3. Annual inflation and base rate evolution**

*Source: Author calculation*

In order to anchor the inflation expectation and to stop the depreciation of the currency, NBM increased the base rate significantly (figure 3), after that in absence of inflationary pressure, the NBM reduced the base rate.

One more important thing is that, according to the data of the National Bureau of Statistics of the Republic of Moldova, the annual inflation rate in March 2017 was 5.1 per cent; which does not exclude that price changes of some goods and services in annual terms have exceeded on average the target range of variation. For example, exceeded the upper limit of the range of variation: fresh grapes – annual growth of 8.9 per cent, exotic fruits – annual growth of 7.4 per cent. At the same time, these increases were mitigated by the decrease in prices of eggs – by 9.9 per cent, fresh vegetables – by 3.1 per cent and milk and dairy products – by 1.0 per cent.

However, the weighted average of these developments of prices of goods and services included in the CPI basket are within the target range.

### **Conclusion**

The objective of price stability refers to the general level of prices in the economy. It implies avoiding both prolonged inflation and deflation. Price stability contributes to achieving high levels of economic activity and employment by:

- improving the transparency of the price mechanism. Under price stability people can recognize changes in relative prices (i.e. prices between different goods), without being confused by changes in the overall price level. This allows them to make well-informed consumption and investment decisions and to allocate resources more efficiently;
- reducing inflation risk premium in interest rates (i.e. compensation creditors ask for the risks associated with holding nominal assets). This reduces real interest rates and increases incentives to invest;
- avoiding unproductive activities to hedge against the negative impact of inflation or deflation;
- reducing distortions of inflation or deflation, which can exacerbate the distortionary impact on economic behaviour of tax and social security systems;
- preventing an arbitrary redistribution of wealth and income as a result of unexpected inflation or deflation;
- and contributing to financial stability and maintaining sustainable economy growth.

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## **THE REPUBLIC OF MOLDOVA AND ROMANIA, THROUGH OF THE MAIN STRUCTURAL INDICATORS ON SOCIAL COHESION**

*PhD student Vasilica-Lăcrămioara CIOMÂRTAN, ASEM*

*A direct impact on the individual’s quality of life is given by the elements of social cohesion of society. Conceptual boundaries related to social cohesion, among which the most important are inclusion/social exclusion, social capital and quality of life, underlie the grounding directions for action aimed at alleviating the existing disparities generated by the emergence and development of social cleavages. Social cohesion indicators are therefore the basis for the establishment of regional and national policies, the institutions responsible for their official collection and dissemination are the national statistical offices / institutes, as well as some international institutions such as Eurostat, which disseminate through interactive databases, structural indicators on European Union policy.*

**Key words:** *Social cohesion, the rates of early leavers from education and training of population 18-24 years, Children aged (0-17) and People aged (18-59) living in jobless households, long term unemployment rate, inequality of income distribution, at-risk-of-poverty rate before social transfers.*

**JEL:** C10, C23, E24, I32, N34

## Introduction

Main macroeconomic indicators of structural policy of the European Union with regard to social cohesion, disseminated by Eurostat and analysed in the present work, the dynamic for a period of 6 years, for the two countries are: the rates of early leavers from education and training of population 18-24 years, children aged 0-17 living in jobless households: share of persons aged 0-17 who are living in households where no-one is working, people aged 18-59 living in jobless households: share of persons aged 18-59 who are living in households where no-one works, long term unemployment rate, inequality of income distribution (income quintile share ratio), at-risk-of-poverty rate before social transfers.

## Methodology

The assessment of the main structural indicators on social cohesion required the use of certain data bases for the period of time 2010-2015, taken over from Eurostat (<http://ec.europa.eu/eurostat/data/database>), but also separate consultation of official websites of the National Institute of Statistics Romania (Tempo-online [www.insse.ro](http://www.insse.ro)) and the National Bureau of Statistics of the Republic of Moldova (Statistical databank [www.statistica.md](http://www.statistica.md)).

Early school-leavers is defined as the percentage of the population aged 18-24 with at most lower secondary education and who were not in further education or training during the last four weeks preceding the survey – Labour force survey.

Children aged 0-17 living in jobless households: share of children aged 0-17 who are living in households where no-one is working – This indicator is the number of children aged 0 to 17 living in households with no persons in employment, relative to the total number of children aged 0 to 17. Persons in employment are those aged 15 years and more who during the reference week (of the LFS) did any work for pay or profit for at least one hour, or were not working but had jobs from which they were temporarily absent. Similarly, it was also considered for people aged 18-59 who are living in households where no-one works.

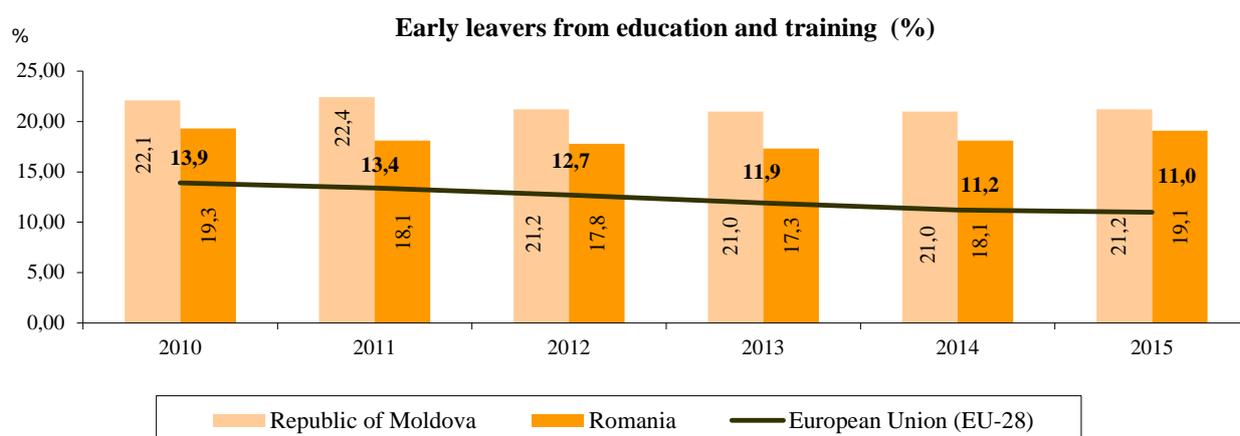
The long-term unemployed are persons who have been unemployed for 12 months or more. These indicators are normally compiled from a labour force survey.

Inequality of income distribution is calculated as the ratio of total income received by the 20% of the population with the highest income (top quintile) and total income received by the 20% of the population with the lowest income (lowest quintile).

At-risk of poverty rate before social transfers represents the share of persons with an equivalised income below the threshold of risk of poverty, which is set at 60% of national median equivalised income, before social transfers.

## Results

The rate of early leavers from education and training of population 18-24 years recorded in the Republic of Moldova, a decreasing trend in the period 2010-2015, from 22.1% in 2010 to 21.2% in 2015, but with much higher values than those registered in Romania, the largest difference for 4.3 percentage points being reported in the year 2011, the minimum gap between the two countries in terms of this indicator being in 2015 (-2.3 p.p.).

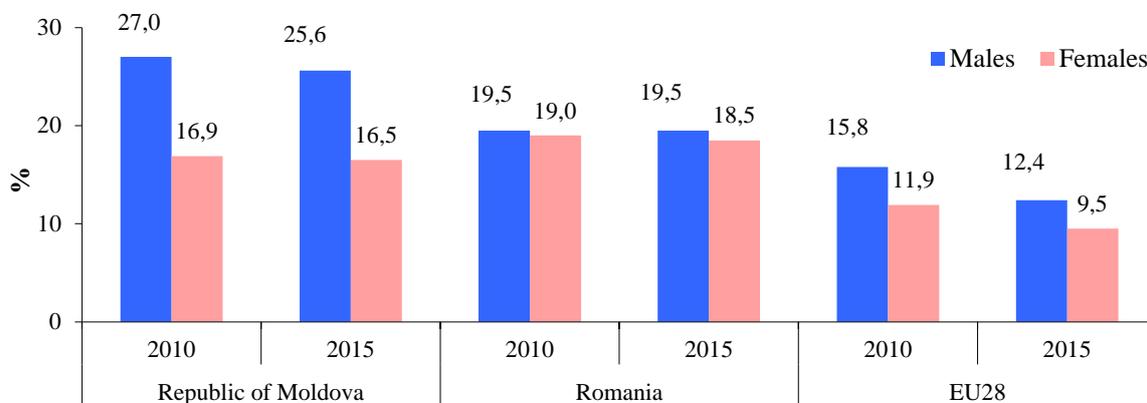


**Figure 1. The rate of early leavers from education and training of population 18-24 years, for the Republic of Moldova, Romania and EU, 2010-2015(%)**

Both, in Romania and in the Republic of Moldova, the percentage of population aged 18-24 years who left the early education system was superior to indicators at EU level, where a clear trend has been decrea-

sing, from 13.9% in 2010 to 11.0% in 2015. Analysed by sexes are found much higher rates of male persons, the major differences being noted in the Republic of Moldova, where the rates of early leavers from education and training for male individuals are more than 25%, and exceeds 9.1 percentage points the rates recorded for female persons (2015), while in Romania the rates for male persons maintain to 19.5% with only 1 percentage point higher than the female persons.

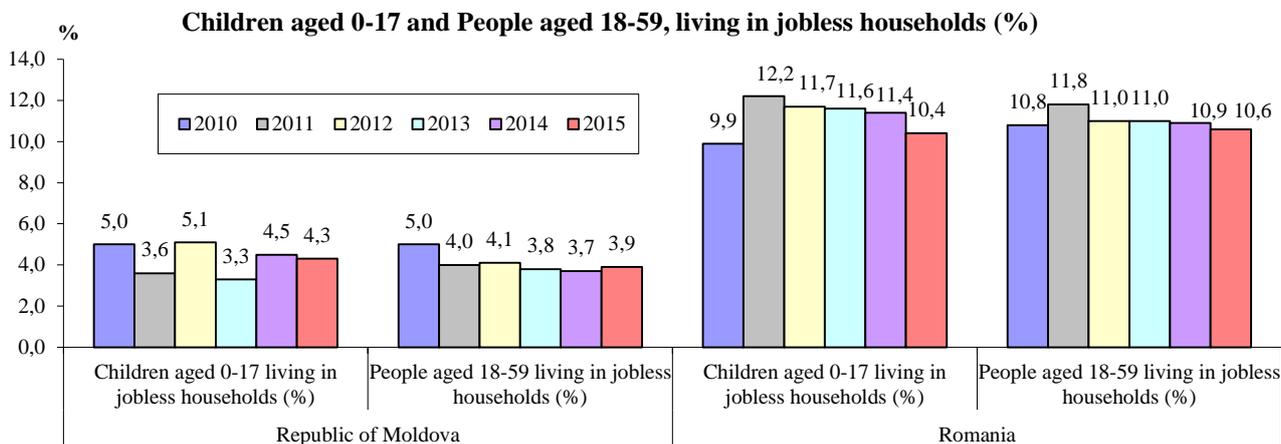
**Early leavers from education and training, by sex, 2010 and 2015 (%)**



**Figure 2. The rate of early leavers from education and training of population 18-24 years by sex, for the Republic of Moldova, Romania and EU, 2010 and 2015 (%)**

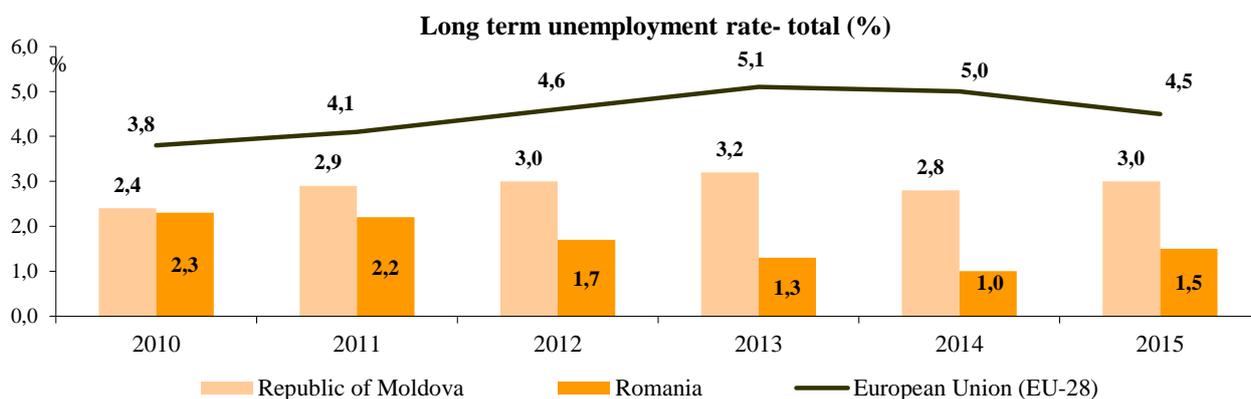
The share of children aged 0-17 years living in jobless households in the Republic of Moldova in the period fluctuates, from 5.0% in 2010 to 4.3% in 2015, the situation being better than that of Romania, where their share was 9.9% in 2010 and 10.4% in 2015. Compared to the values of this indicator at European Union level, we must note that the percentage of children aged 0-17 years living in jobless households is smaller both in Moldova and Romania.

The comparative approach of the share of persons aged 18-59 years living in jobless households in the Republic of Moldova and Romania, is similar to the previously analysed indicator, a clear trend of decreasing for both the Republic of Moldova (from 5.0% in 2010 to 3.9% in 2015), and Romania (from 10.8% in 2010 to 10.6% in 2015).



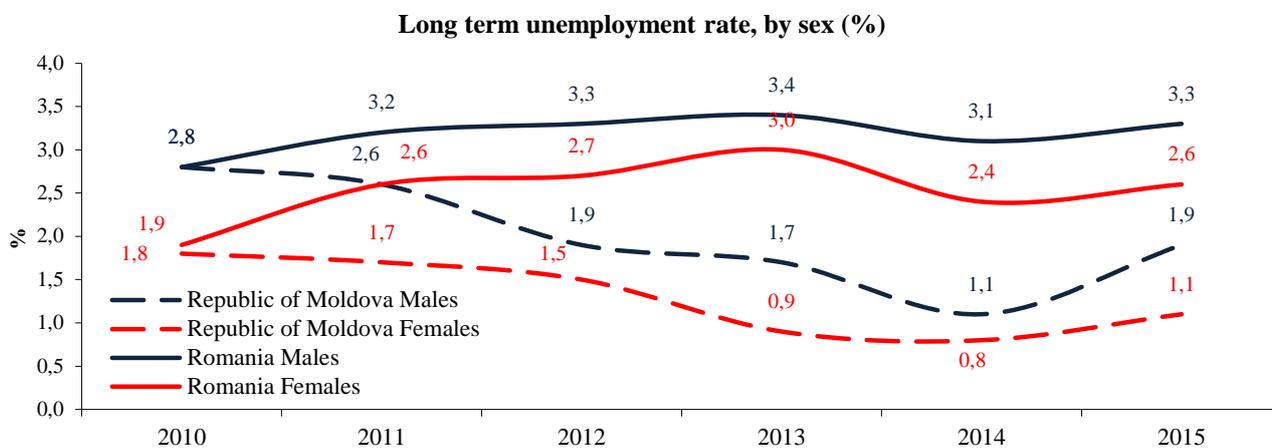
**Figure 3. The evolution of the share of children aged 0-17 years and persons aged 18-59 years living in jobless households in Republic of Moldova and Romania (%)**

Analysis of long-term unemployment rate for the period 2010-2015, emphasizes a better situation in the Republic of Moldova versus Romania. From a gap of only 0.1 percentage points in 2010, the long-term unemployment rate in 2015 get to 1.5%, i.e. half the rate recorded in Romania, the largest difference in percentage points by registering in 2013 (1.9 pp). At EU level, the long-term unemployment rate in the period 2010-2015, recorded higher values than those of the two countries. Whether at the level of the European Union and Romania there is a clear trend of increase for the period 2010-2013, the situation of the Republic of Moldova is seen through this indicator in a trend of steadily declining.



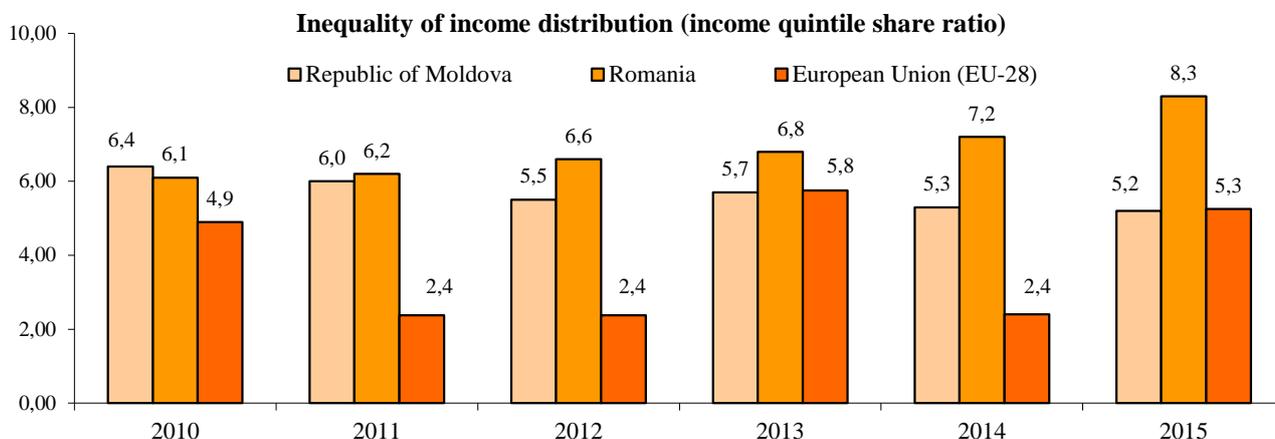
**Figure 4. Long-term unemployment rate for the period 2010-2015, Republic of Moldova, Romania and EU (%)**

By sex, the long-term unemployment rates for male persons are superior to those of the female sex, both in Moldova (with 0.8 percentage points in 2015) and in Romania (with 0.7 percentage points in 2015), at the level of the European Union registering the equality of rates for the two sexes (4.5%).



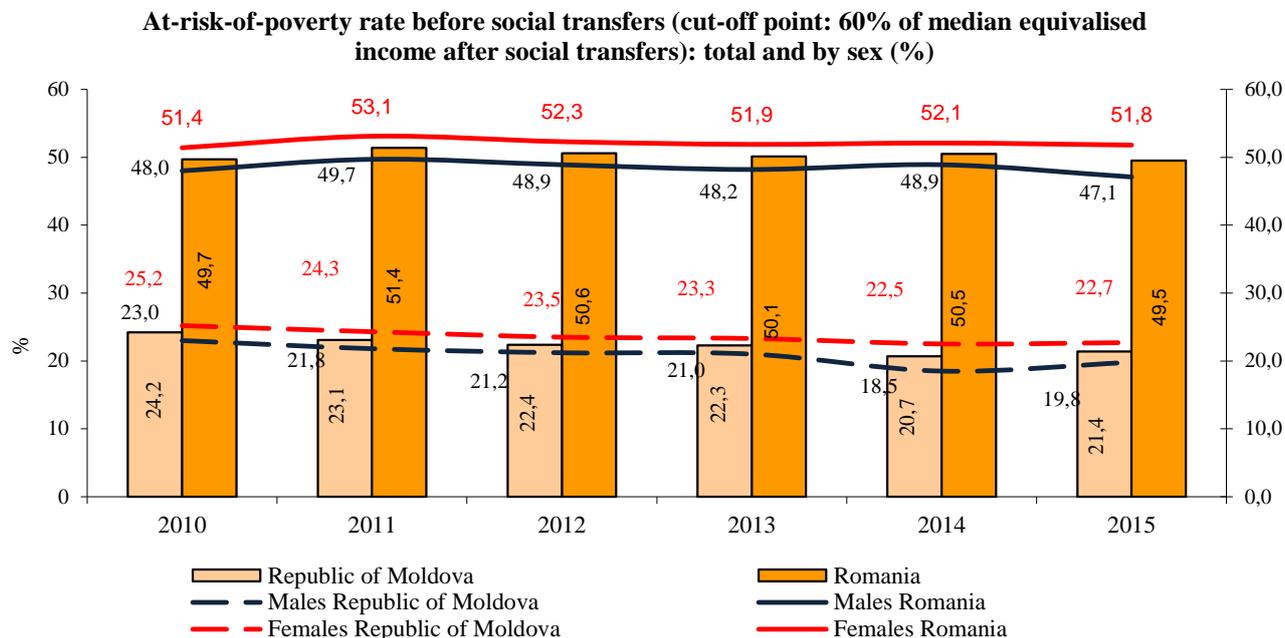
**Figure 5. The long-term unemployment rates, by sex, Republic of Moldova, Romania and EU, 2010-2015 (%)**

Inequality of income distribution, calculated as the ratio of total income received by the 20% of the population with the highest income (top quintile) and total income received by the 20% of the population with the lowest income (lowest quintile), registered in the Republic of Moldova a decrease from 6.4 in 2010 to 5.2 in 2015, totally opposite to the situation of Romania where this inequality of distribution of income has grown from 6.1 to 2010 at 8.3 in 2015. At EU level, this ratio increases from 4.9 in 2010 at 5.3 in 2015.



**Figure 6. Inequality of income distribution (income quintile share ratio), the Republic of Moldova, Romania and EU, 2010-2015**

At-risk of poverty rate before social transfers represents the share of persons with an equivalised income below the threshold of risk of poverty, which is set at 60% of national median equivalised income, before social transfers. The period of 2010-2015 was marked by a continuing decline in the rate of poverty before social transfers for the Republic of Moldova, from 24.2% in 2010 to 21.4% in 2015. Romania records higher rates than Moldova, throughout the period, fluctuating from 55.2% in 2010 to 53.8% in 2015. This indicator for European Union is between 49% and 50%, in 2015 at-risk of poverty rate before social transfers being 49.5%.



**Figure 7. At-risk-of-poverty rate before social transfers, total and by sex, the Republic of Moldova, Romania and EU, 2010-2015 (%)**

### Conclusions

In terms of the 6 structural indicators on social cohesion, we can conclude that the Republic of Moldova has a favourable position for Romania in terms of 4 indicators, having a more favourable situation only in terms of the long-term unemployment rate and the early school leaving rate.

Compared to the situation registered at the level of the European Union, both Romania and the Republic of Moldova record higher values for most of the indicators presented, the shares of children aged 0-17 years and persons aged 18-59 years living in jobless households, as well as the long-term unemployment rates being higher at EU level.

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## THE INTERFERENCE OF DOMESTIC AND INTERNATIONAL FOOD PRICES IN THE REPUBLIC OF MOLDOVA ECONOMY

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*The idea of this research paper is related with the fact that a large part of Moldovan foodstuffs is imported and thus prices from the countries of import origin influence domestic food prices. Although it is easy to use in analysis and calculations global indices such as the index calculated and published by the FAO (United Nations Food and Agriculture Organization), most of those does not correlate with the consumer food price index for the Republic of Moldova. This can be explained by the fact that many of the stock quotations included in those indices are not relevant for the Moldovan economy. So, this research paper start with a detailed analysis of the structure of food imports from the countries of origin, then that information is used to construct some complex indices that are significantly more correlated with the consumer food prices index for the Republic of Moldova. Several indicators have been included in the*

research, such as consumer food prices index, producer food price index, FAO index, share of food imports by country. Also several methods of combining these indices have been used in the calculations for getting the best correlations. The results are then used in an econometric model reliable for forecasting.

**Key words:** consumer food prices index, producer food price index, FAO index, share of food imports by country

## 1. Introduction

Over the years, the Republic of Moldova has been considered an agrarian country. During the USSR, in addition to domestic needs, the agricultural production from the SSRMs supplied the deficit of agricultural products in other Soviet countries. Since 1992, when the independence of the Republic of Moldova was proclaimed, began the peasants' land repartition process. So, it was the beginning of a long period when many farmers did not cultivate land because of lack of experience or resources. Gradually, domestic agricultural production declined significantly, while being replaced by imported agricultural production and foodstuff. Imported food has gained the Moldovan market by quality and lower prices, given that in some cases the prices were well below the cost of production of agricultural stuff in Moldova. From table no.1 can be deducted that for a long period the domestic production of eggs, meat, milk, vegetables and beans and potatoes is not sufficient to cover domestic consumption, even if we assume that the domestic production of these agriculture products is not exported.

**Table 1**

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Eggs	112.7	101.6	100.0	100.3	98.8	95.4	102.2	98.0	98.8
Meat	67.8	84.5	67.8	86.7	86.0	86.1	81.5	69.8	65.4
Milk	97.5	95.0	97.1	95.0	94.1	92.0	84.7	86.8	90.3
Grapes	102.4	106.8	102.6	104.3	104.6	102.8	103.9	103.7	106.4
Fruits	195.8	227.0	222.2	213.9	207.7	237.7	245.2	264.2	205.0
Vegetables and beans	103.5	84.8	110.1	98.6	104.2	100.5	93.3	102.4	94.7
Potatoes	91.7	67.0	93.4	89.4	100.4	116.2	66.6	89.8	95.8
Sunflower	145.0	65.5	178.0	121.4	156.6	195.9	143.8	326.3	237.4
Leguminous crops	123.6	93.8	94.9	82.9	121.6	95.8	76.2	123.5	101.0
Cereals	99.2	70.6	143.4	105.0	117.8	115.6	60.8	150.3	189.0

**Source:** NBS – Balance of Food Resources 2006-2014

In addition to domestic agricultural production, people consume sea products, citrus, olive oil and other foodstuff that are not produced in the Republic of Moldova. The increase in food imports was also favored by the diversification of food consumption in Moldova. Nowadays it is natural to find typical Italian, French or Japanese merchandise on the store shelves in the Republic of Moldova, and in the cold season of the year it is perfectly normal to find many fresh fruits and vegetables, etc.

Given that about 43.8<sup>1</sup> percent of the Moldovan population's income is directed towards food consumption, the quantification of the external impact on the evolution of domestic food prices is a necessity in the process of monitoring and analyzing the evolution of inflation. Therefore, the insignificant correlation between the consumer food price index in the Republic of Moldova and the indices of reflection of the world food price evolution calculated by the international organizations represent an impediment to the macro-economic analyzes and forecasts.

Therefore, a first step in this paper was the detailed analysis of the countries of origin of food imports. Thus, from the analysis of Foreign Trade by Indicators, Sections and Chapters according to the commodity nomenclature and years presented by the National Bureau of Statistics, it is evidenced that during the period 2000-2014, the countries from which food products were mainly imported are Ukraine, Russian Federation, Romania, Turkey, Belarus, Bulgaria, Lithuania, Greece, Italy, France, the Netherlands, Poland and Hungary.

A second step was to choose the indicators relevant to the construction of an index. At this stage, the issue was more strongly debated which indicator would be more appropriate: consumer food price index or producer food price index. To ensure that all pervasive information was used, both indicators, including in a combined form, were analyzed in the research. The results were relatively satisfactory and were subsequently used in an econometric model to obtain forecasts when needed.

<sup>1</sup> NBS, Average monthly consumption per person by destination, 2014

## 2. The indices of world food prices calculated by international organizations and their correlation with the food price indices in the Republic of Moldova

The idea of computing a global index of food price developments is not recent, and given the global food concern, it is logical that several international organizations calculate an index that reflects the evolution in question. The most popular variants are FAO food price index and IMF food price index. In the following, these indicators will be presented:

1. *The FAO Food Price Index* – is calculated by the United Nations Food and Agriculture Organization and is a measure of the monthly change in international prices of a basket of food. It consists of the average of the price indices for five groups (meat, dairy, cereals, oils, sugar) weighted by the average export quotas for each of the groups for the years 2002-2004.

The FAO Foods Index was introduced in 1996 as a public good to help monitor developments in global agricultural markets. The only major change was in 2009 when the base period was updated in 2002-2004. During the significant price rises in 2008, the FAO index gained importance as an indicator of potential food security issues for developing countries. Since then, except for 2009 and 2010, agricultural product prices have remained at relatively high levels compared to pre-2008 prices.

In November 2013, a series of revisions were introduced to the calculation of the FAO index, including the change in commodity quotations included in the calculation, and the time series was reversed until 1961. Under the new approach, the index includes the following 23 commodities (73 Quotes):

- ✓ Grain: wheat (10 quotes – monitored and reported by the IGC), maize (1) and rice (16);
- ✓ Dairy: butter (2), whole milk powder (2), skimmed milk powder (2) and cheese (1);
- ✓ Meat: poultry meat (13), pork (6), cattle (7) and sheep meat (1);
- ✓ Sugar: (1);
- ✓ Oils: soybean oil, sunflower oil, rapeseed oil, peanut oil, cottonseed oil, copra oil, palm kernel oil, palm oil, flax seed oil and castor oil;

The general form of the Laspeyres index used to construct the FAO food price index is as follows:

$$FFPI_{\tau} = LI_{\tau} = \sum_{i=1}^n s_{i0} \left[ \frac{P_{i\tau}}{P_{i0}} \right]$$

Where,  $\tau = 1990.1 \dots 2013.9 \dots$ , and  $s_{i0}$  is the world export quota of the goods and the total export value of all 23 agricultural products included in the index, calculated as an average over the years which are included in the calculation base;  $P_{i\tau}$  is the quote for commodity  $i$  at time  $\tau$ ; and  $P_{i0}$  is the three-year average of the product price quotes  $i$  calculated in the base year period.

2. *IMF food price index* – this index is calculated and published by the International Monetary Fund as well at a monthly frequency as a subgroup for the global commodity price index. The index is calculated based on 2005 year (average 2005 = 100). First, indices of individual commodity prices in US dollars and SDR terms are calculated, the price series being adjusted to the 2005 exchange rate. The group index is the weighted average of the individual commodity price indices, with the respective commodity weight derived from their values relative to the world trade value reported in the UN trade database. The food price index compiled by the IMF includes partial indices for the following commodities: cereals, vegetable oils, meat, seafood, banana, and oranges.

Also, periodically, other international organizations analyze the evolution of food prices at international level, making relevant forecasts. From one institution to another, the calculated indices differ by the method of calculation, the included foodstuffs and their weights.

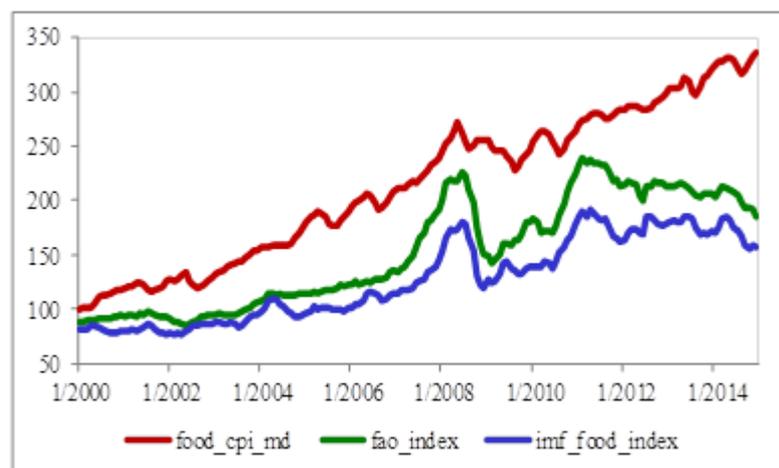


Figure 1. Evolution of international food prices reflection indices

Source: NBS, FAO, IMF

As mentioned above, an important issue is the irrelevance of the indices reflecting the evolution of global food prices, as they do not correlate with the domestic food prices. From chart no. 1 is visually attested the absence of a significant correlation in certain time periods (especially at the end of the time series), and from the calculations we obtain the following correlations (Table 2):

Table 2

Correlations between the food price evolution indices

	FOOD_CPI_MD	DL_FOOD_CPI_MD
FOOD_CPI_MD	1.00	-0.05
FAO_INDEX	0.93	-0.04
IMF_FOOD_INDEX	0.94	-0.09
DL_FOOD_CPI_MD	-0.05	1.00
DL_FAO_INDEX	-0.11	0.07
DL_IMF_FOOD_INDEX	-0.05	0.09

Source: EViews calculations

We note that the correlations between the indices are perfectly significant on the gross series, but they have no relevance in for the analysis, because of the index form. But on the first-order differences in the time series (monthly growth rate) of the indices we note that there is practically no correlation. So, the monthly changes in domestic food prices cannot be explained by the monthly changes in the evolution of global aggregates of food price developments.

### 3. The index of imported food prices in the Republic of Moldova – the idea, the calculation methodology and the results

As explained above, there is no correlation between the growth rates of the consumer price indices of food prices in the Republic of Moldova and the indices of global price evolution of food prices calculated by the international organizations. Therefore, analyzing the situation, we propose a following methodology for calculating an index that would be relevant for the Moldovan economy. From the data of the National Bureau of Statistics we deduced the weight of the imported food volume from 14 countries (the most significant ones). For each of these countries the time series on consumer food price indices and producer food price indices were identified. While it is more logical to use the last indicator, given that there are a lot of intermediaries in the food import process, we have decided that the consumer price index for food could better capture the prices with which is being operated in the import process. The share of food imports that is not covered by the analyzed countries (for 2014 – 14.0 percent) will be attributed to the time series on the FAO food price index, thus ensuring that we do not exclude globally developments that in a particular could affect food prices in the Republic of Moldova.

In order to identify the best correlation, it is proposed to calculate 3 indices:

$$1. IFRI_1_n = \sum I_{t*} * w_t (100 - \sum w_t) * Y$$

where:  $n$  – period,  $t$  – country of origin  
 $I$  – consumer food price index  
 $w$  – the share of food imports  
 $Y$  – monthly increase of the FAO index

$$2. IFRI_2_n = \sum X_{t*} * w_t + (100 - \sum w_t) * Y$$

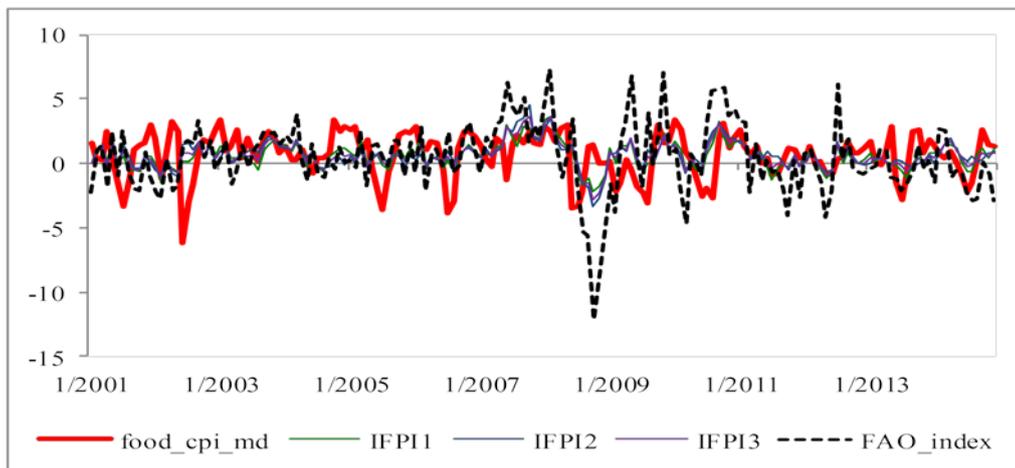
where:  $n$  – period,  $t$  – country of origin  
 $X$  – producer food price index  
 $w$  – the share of food imports  
 $Y$  – monthly increase of the FAO index

3.  $IFRI_3 = 0.5 * IFPI_1 + 0.5 * IFPI_2$  – the third index is the average of the first two indices calculated, thus ensuring that both consumer food prices and producer food prices will be included in the calculation.

Given that the calculated indices are in the form of order I differences, by extrapolation we construct indices (that is, we assign the value of 100 to the first value in the data string, and then multiply the following values).

#### 4. Analysis of the correlation between the constructed imported food price index and the consumer food price index in the Republic of Moldova

Initially, we will visualize the chart no.2 that shows the results of the calculations of the indices mentioned in the previous chapter, the first order differences for the calculated indices, the consumer food price index for the Republic of Moldova and the FAO food price index. Apparently, the trends of the calculated indices are much closer to the trend of the consumer food price index in the Republic of Moldova. At the same time, fluctuations are more flat, compared to those presented by the FAO food price index.



**Figure 2. The first-order differences of the analyzed indicators**

*Source: author based on the results obtained with EViews*

In this case, the correlations (Table 3) are shown that the best correlation in the first order difference is between the index of consumer food prices in RM and the index calculated on the basis of the consumer food price indices from the countries of import origins (0.4). At the same time, for the index computed on the basis of the producer food price indices, we observe a similar correlation with that of the FAO food price index (0.07), from which is concluded that the quotations or the cost of production do not fully incorporate the fluctuations related to the import process of food products. Already, for the 3rd index, the correlation is an average of the previous two indices and is also not the best option.

**Table 3**

#### Correlations between consumer food price index and calculated indices

	<b>DL_FOOD_CPI_MD</b>
<b>DL_FOOD_CPI_MD</b>	1.00
<b>DL_IFPI1</b>	0.40
<b>DL_IFPI2</b>	0.07
<b>DL_IFPI3</b>	0.24
<b>DL_FAO_INDEX</b>	0.07

*Source: author – EViews calculations*

#### 5. Econometric model construction for forecasting

With the best correlated constructed import food price index, we try to construct a Least Square Model that incorporate a cointegration term, by including necessary lag variables (1,2,12 – according to correlogram) and the precipitation variable, due to the fact that consumer food prices in Republic of Moldova are highly dependent on weather conditions. Also, due to the presence of at least one cointegration term according to the Johansen Cointegration test we add the error correction term in the Least Squares model in order to improve the long term regression. The result obtain in EViews are presented below.

## Model – EViews results

Dependent Variable: DIFF1\_FOOD\_CPI\_MD

Method: Least Squares

Date: 11/16/16 Time: 13:17

Sample (adjusted): 2002M01 2016M09

Included observations: 177 after adjustments

DIFF1\_FOOD\_CPI\_MD=C(1)+C(2)\*DIFF1\_FOOD\_CPI\_MD(-1) +C(3)

\*DIFF1\_FOOD\_CPI\_MD(-2) + C(4)\*DIFF1\_FOOD\_CPI\_MD(-12) + C(5)

\*(0.5\* DIFF1\_IFPI\_XR +0.5\*DIFF1\_IFPI\_XR(-1))+C(6)\*PRECIP + C(7)\*

-0.0590277334537\*( FOOD\_CPI\_MD(-1) - 1.68406628391\*IFPI\_XR(-1)

+ 59.7069331731 ) + 2.83513659347 - 0.0316813057064\*PRECIP)

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.882529	0.346546	-2.546639	0.0118
C(2)	0.446074	0.070514	6.326067	0.0000
C(3)	-0.213118	0.064283	-3.315307	0.0011
C(4)	0.355764	0.059211	6.008432	0.0000
C(5)	0.171374	0.051963	3.297983	0.0012
C(6)	0.010130	0.004526	2.238048	0.0265
C(7)	0.413591	0.099130	4.172211	0.0000
R-squared	0.515511	Mean dependent var		0.637409
Adjusted R-squared	0.498411	S.D. dependent var		1.722040
S.E. of regression	1.219599	Akaike info criterion		3.273666
Sum squared resid	252.8617	Schwarz criterion		3.399277
Log likelihood	-282.7195	Hannan-Quinn criter.		3.324609
F-statistic	30.14753	Durbin-Watson stat		2.023220
Prob(F-statistic)	0.000000			

C(7) – cointegration term: VECM (0 1) food\_cpi\_md ifpi\_xr (endogenous variables) precip (exogenous variable)

*Source: author – EViews calculations*

## 6. Conclusions

Keeping the necessary tools for conducting a macroeconomic analysis and then forecasting is essential in achieving satisfactory performance. Although there are many indicators calculated by the competent organizations, sometimes they are not relevant to a particular economy, where the need for calculating indicators that are relevant only for a given situation (economy) is needed. The present paper is an attempt to calculate an index that explains the external influences on the evolution of consumer food prices in the Republic of Moldova. The idea of index construction is based on the structure of food imports by country of origin, so the index obtained is called the index of imported food prices. The results obtained are satisfactory given that, at the level of order I differences, the correlations between the existing operating time series are significantly exceeded. The newly obtained index can be used in calculations, analyzes and forecasts, and its further development or development of the subject will be welcomed.

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## PROSPECTS FOR THE DEVELOPMENT OF PROTECTION AGAINST CYBERTHREATS BUILT ON THE BASIS OF INTELLECTUAL DATA ANALYSIS\*

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*This article discusses the prospects for the development of neural network technologies in cyber security, their regulatory and legal regulation. An example of the use of neural network technologies in biometric data protection is given.*

**Key words:** *neural networks, cyberthreats, cyberattacks, neural network technologies.*

Cybersecurity in the modern world is seen as a strategic problem of the state. It covers industries such as Economies of countries, interaction of international software developers and specialized equipment manufacturers. Modern technical condition in the field of developments in the field of protection of cybersecurity in Russia lags far behind foreign competitors. This is due to the fact that cybersecurity as a separate science has appeared relatively recently. This concerns not only our country. For example, in China recognize the problem of full dependence on the use of mobile devices based on the Android operating system. According to the statistics of 2012, the share of devices on this operating system was 86.4%. The Android system is based on the so-called “open” code. From the economic point of view, the use of this system is beneficial. Many electronics manufacturers use open source code in their designs. But this means that these systems are completely under the control of special services of different countries.

In order to develop import substitution, including in our country, it is necessary to allocate huge funds to stimulate developments in the field of software development, licensing and certification, and others.

Concerning Russia, on January 15, 2013, President of the Russian Federation Vladimir Vladimirovich Putin signed the Decree “On the Establishment of a State System for Detecting, Preventing and Eliminating the Consequences of Computer Attacks on Information Resources of the Russian Federation”. This shows that in our country, cyber security as a priority at the state level exists only four years. In this document, on one page was described: who is entrusted with the authority to create this state system, there were prescribed the main tasks of the state system (of which there are only four points) and what powers the agency, which is entrusted with the implementation of this Decree, has. The decree was signed in January 2013, however, the concept itself was developed only by the end of 2014 (“Extract from the Concept of the State System for Detection, Prevention and Elimination of the Consequences of Computer Attacks on Information Resources of the Russian Federation” (approved by the President of the Russian Federation on 12.12.2014 N K 1274)). This concept implies the creation of a whole series of normative legal acts that will regulate various spheres. For example, the procedure for the exchange of information between the subjects of the System in which computer incidents may arise is not clear, as well as the exchange of information between government authorities and international organizations on computer incidents. The procedure for implementing the activities of the objects of the System is also not specified. The procedure for certification of information protection tools is also interesting. Means developed to ensure the security of public institutions should be able to collect and send information about attacks and incidents. This function is interesting. Since most state systems are closed, that is, they do not have access to the Internet. The procedure for certification of such means of information protection has not yet been approved. Consequently, the developers of specialized software are in limbo. They have access only to the market of commercial means not used in public institutions. And this market in Russia is zero. Most commercial firms do not purchase any software other than antivirus software. Therefore, there is no possibility to enter the Russian market with software of a new model. Also, as well as government agencies to implement the Presidential Decree, since such funds simply do not yet exist.

An interesting issue is the certification of information security tools in which technologies such as cryptography, steganography (which is still not regulated in Russia), and neural network technologies are applied.

If any methods for certification have been developed in the field of cryptography, then there are no regulatory documents for the application of neural network technologies. However, the use of neural network

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technologies, at present, in the development of specialized software for the protection of information is gaining popularity.

To ensure security policy and cyber security, a password authentication system is used. This technique has a number of drawbacks: the password may be used by an attacker for unauthorized access to information; password recovery often requires a call to the technical support service, and this is difficult if the user is territorially in another building or even the city, since confirming the authenticity remotely is not the most successful way out. As requirements to information security increase, new methods of information protection appear. For example, the methods of biometric identification and verification have been widely used. The check in this case is based on the unique characteristics of the user: the shape and imprint of the palm, the shape of the blood vessels of the palm, fingerprints, the iris of the eye, and others. These methods significantly increase information security. However, with the development of neural network technologies, they are also undergoing modification and complication.

For example, identification by drawing the iris of the eye is now being actively studied by many researchers. However, the developed methods are very difficult to implement and require a lot of resources. The use of neural networks in this field allows the creature to simplify the process of the mathematical apparatus and the implementation code without loss of firmness.

Even if we develop expert systems based on neural network technologies, there are many questions on their application and implementation. There are no regulatory legal acts, there are no methods for certification of such funds in Russia.

Summing up, we can say that the use of systems to protect against cyberthreats in Russia is a distant future. One can only hope that in the future, the signed normative-legal acts managed to develop the use of neural network technologies, to protect against cyberthreats.

## **SECTION 6: DISCIPLINES:**

- **552.01. CONSTITUTIONAL LAW**
- **552.03. FINANCIAL LAW (BANKING, TAX, CUSTOMS)**
- **553.01. CIVIL LAW**
- **553.04. FAMILY LAW**
- **554.01. CRIMINAL LAW AND CRIMINAL EXECUTION**

### **IDEA OF JUSTICE AS A LEGAL CATEGORY IN ASPECT OF COMMUNITY'S EVOLUTION**

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*In the present article, theoretical studies of the idea of justice, as a legal category in respect of the aspect of the society's evolution are carried out, there have been reflected the changes of the concept of justice in it. The author concluded that the end of an era does not lead to the negation of the interpretation of the concept of justice, but completes, while keeping the previous performance.*

**Key words:** *justice, law, evolution, idea, society, state.*

#### **Introduction**

The system of relationships in society is determined with the help of a legal science, one of the fundamental categories of which is the idea of justice. Scientists, who have worked in different historical periods, referring to this idea, treat its essence differently. The evolution of legal thought introduces changes in the theoretical notions of justice.

Today the representation of justice, as a multilateral category, that includes aspects of moral, ethical, political and legal perceptions, that define it as one of the most important factors in organizing of the social life of the modern state, is practically undeniable.

#### **Statement of basic materials**

The notion "justice" – is one of the hardest-to-determine. The complicity lies in the fact that the notice of justice embraces both an abstract moral idea and a real attitude that plays a huge role in people management, determining what is "good" and what is bad." The abstract idea was born in the spiritual religious and moral sphere and is realized in it, but at the same time, casts its light on the everyday material of society's life, where it becomes a factor of the society integration, without which it is impossible to ensure its survival.

The word "justice" means impartiality in judgments, actions, recognition by somebody of someone's rightness, dignity; retribution due on legal and honest grounds; concordance of human relations, actions to the generally accepted moral and legal norms. Justice can be presented as a concept of "due, connected with the historically changing visions of the inalienable human rights" [1, 764]. It includes the requirement of a correspondence between the real significance of various individuals (social groups) and their social position, between their rights and duties, deed and retribution, labor and reward, crime and punishment. The discrepancy in these relations is assessed as injustice.

In social consciousness, the notice of justice is associated with the recognition of the incontestability of customary rules; justice is simply following the public order.

At the initial stage of the formation of the human community, "justice was viewed as the fundamental social norm of life activity of the first forms and entities of cohabitation of people (community tribes)" [2, 1255]. An individuum, living in a tribe, in very rare cases can counter himself with the collective. In case of inobservance of traditions, interdiction and customs, he may be shut off from a society, and thus – doomed to death. "Participation in the affairs of the tribe, the coincidence of the interests of the individual and the collective afford an opportunitie to the individual to survive in the conditions of stern reality. In addition, the notice of justice in its original meaning was formed with the demand of cruel punishment for inpropriety" [3, 12].

On the notion of justice as the basis of law, pondered Plato, Aristotle, Socrates, Epicurus and other representatives of the scientific community of antiquity. According to Plato, justice is “the highest virtue that establishes harmony between all other virtues” [4, 284]. In other words, justice, in the understanding of Plato, integrates such divine blessings as intelligence, a healthy state of mind, courage and underlies the goals of the legislator, his striving for harmony.

Aristotle, continuing the Plato’s concept, believes that justice is a certain measure of equality. The formal structural analysis of the category of justice (according to Aristotle) differentiated it into a dividing, or distributive (politics) and corrective (economy and law). Aristotle considers justice to be a virtue in which the lawful and uniform is brought together.

The study and generalization of the views of Plato and his pupil Aristotle, the arguments of Socrates and Xenophon of Athens allow us to assert that even in ancient times philosophers distinguished the essential characteristics of the category of justice:

- justice as a groundwork of morality in a society, which aspire to set the ideals of right and wrong in a proper manner;
- just society must ensure equality of opportunity for insiders;
- the existence of private property among citizens does not mean that the state is unjust, but only in the case of the appearance of this private property on legal grounds;
- the priority of the interests of the middle class contributes toward stability in the state, which is important for all its citizens;
- equality in the requirements that everyone makes to other members of society.

Many ideas of Greek philosophers are reflected in the philosophical and social and legal concepts of Ancient Rome, whose right is developed under the influence of judicial precedents, creating which lawyers often precede from the principle of equalitarian justice. “It was in Rome that the concept of justice was translated from the language of philosophical reasoning into the exact language of lawyer-speak” [5, 60]. It is appropriately, that the words “justice” and “law” in ancient Roman language denote “jus” (right) and “justitia” (justice). Cicero proclaimed that justice “gives everyone what everyone deserves,” and all people conform to this unified natural-legal principle. However, this does not mean that the development of Roman law is based on the principle of justice.

The evolution of society introduces characteristics into the understanding of justice, which are common to the epoch of Middle Ages in such a way that religious and ethical criteria come to the fore. “God was represented as the natural source of law, having a very capacious moral, but at the same time, legal content” [6, 154]. Then justice is perceived as a virtue, which consists in rewarding everyone who belongs to it, is treated as equalization in relation to another person within the limits of one social group, while differences in the functions and, accordingly, in the social position of people are the results of God’s purposeful activity. The bearer of justice is the man himself, created as a prototype of God. Influenced by the Christianity, in the understanding of justice are included such concepts as the individual value, humanism, the notion of sin, virtue and personified God as the source of justice. They lead to attempts, first, to reconcile the higher injustice (for example, the tyrant’s power, the death of the innocent, etc.) with divine justice, and secondly, to reconsider the moral component of justice.

The ideas of ancient scientists are corrected with the appearance of new moral ideals, subjective value judgments of the next generation of authors, with the development of science in society, the position of the productive forces.

German philosophers K. Marx and F. Engels note that people’s appeal to the justice is always accompanied by criticism of social relations that do not satisfy them (for example, in the conditions of changing of socio-economic formations). Such a phenomenon predetermines that certain social relations become obsolete, inhibit social life, and new social relations arise in the mode of production. In other words, *socium* is particularly sensitive to injustice, when old economic relations clearly hamper the development of productive forces. Hence, society has a task: to reveal the elements of the “new organization of production and exchange” (declare them just) and by combating the old, “decaying economic form of the movement” (declared unfair) and to introduce the “new” into the life.

In the era of modern times, with the development of capitalist relations, the problem of justice as a “quality” of the person goes to the background. The basis for regulating social relations is a now legal norm that is why the achievement of justice is associated with the implementation of statutory rules. The idea of distributive justice of Aristotle, which was reflected in the theoretical and practical plans, becomes relevant again. It is man that is the source of law and justice, the equality of people is proclaimed as a necessary condition of justice. The justice is putting forward as a requirement to the legal relations of people, to the procedure for the application of legal norms, but not to the subjects taking part in public relations of various

types. Subject to the individualization of enforcement with the participation of agents in it and taking into account the specifics of a particular situation, the application of legal norms is perceived as fair.

So, in the course of the evolution of human thought, there is a persistent tendency towards legal formalization of justice.

However, there are cases of ignoring justice as such in the right. So, from the point of view of the ethical positivism of the times of the USSR, the right is “a set of rules of conduct expressing the will of the ruling class, established in the legislative order, as well as the customs and rules of the hostel sanctioned by the state power, the application of which is provided by the coercive power of the state for the purposes of protection, reinforcement and development of social relations and order, profitable and acceptable to the ruling class” [7, 84]. In this case, justice is understood as the “expressed will of the ruling class,” which changes the very essence of the phenomenon of justice.

The most important for the modern understanding of justice is the contradiction between the idea of equality and the idea of merit and dignity, which implies the recognition of social equality and the proportionality of retribution. “The principles of” equal freedom “,” fair equality of opportunity “(positions and power should be open to all in conditions of fair equality of opportunity) and” the differences “are considered to be the main ones” [8, 30].

Justice as a complex concept includes the psycho-emotional coloring of various civilizations, peoples, public associations and groups. It is for this reason that each of us puts our meaning in the notion of justice. A set of theoretical representations defines justice as a subjective category. So, the Russian scientist SS. Alekseev believes that justice, representing on the basis of its social and moral phenomenon in society, acquires the importance of the legal principle insofar as it is embodied in the regulatory legal method of regulation.

### **Conclusions**

The concept of justice in the law has been improved for a long time, there are a lot of different points of view on this topic, but the main factor is that the essence of justice consists in harmonizing the interests of all subjects of the society and is a genuine basis and guarantee of the implementation of legal regulations. Right without significant reliance on justice leads the state to destruction. Therefore, the optimal state structure is based on the primacy of the natural-legal theory of law, embracing the notion of justice.

Thus, the change of time epochs and sociopolitical formations does not lead to a complete replacement or denial of the previously existing concept of justice in routine, everyday, common to humanity interpretation. However, it is supplemented by new essential features, while preserving the whole previous conception of justice.

Nowadays, justice is a politico-legal, moral phenomenon that, together with truth, ensures the satisfaction of the whole set of human needs, is the basis of legal regulation and contributes to the progress of the whole society.

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## **PARTICULAR APPROACHES RELATING TO CONSTITUTIONAL AND INTERNATIONAL GUARANTEES OF THE FUNDAMENTAL HUMAN RIGHTS PROTECTION**

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*The constitutional state involves the effective recognition and protection of rights, directing the action of the whole institutional mechanism, in the direction of ensuring the normal state of the noted state.*

*Rights, – as structural elements – express the condition of normality of a constitutional state, and any injury of them, no matter how small, prejudice seriously, the entire system.*

*Violation of the rights which form the core of the constitutional state has consequences that affect the vital centre of the whole system, from a triple point of view: legal, for we are in the face of the breach of legal rules; political, because we are in the face of behaviours that are incompatible with the requirements of democracy and the moral, as we find ourselves in the face of ignoring the values that define the project's moral rights. In the constitutional state, as the state focused on rights, they are recognized and guaranteed by the Constitution, much more, the guarantee of rights is the very *raison d'être* of the organisation legal and political.*

**Key words:** *constitutional guarantees, international guarantees, protection of rights and fundamental freedoms, the control of constitutionality of normative acts.*

## **Introduction**

Human rights and freedoms are important in the whole complex of issues and goals that concern society at present. Only by respecting the fundamental rights and freedoms of each person, even the most contemporary issues, can find efficient and sustainable settlement.

Fundamental rights are ensured by practical actions and effective legal procedures. In this context arises the problem of the guarantees of fundamental rights, which entails the establishment of mechanisms that would ensure the possibility of control over the main state powers, and a more effective tool in this regard than the Constitution would hardly be individualized at this stage of the consecration of liberal democracy.

It is well known that, a constitution has, an important function of integrating, beside the regulatory function, and tend to create a state of solidarity between individuals who give themselves the fundamental law; by identifying and raising certain values to the rank of legal supreme norms, common to all of the individuals that make up the human community, the constitution enshrines the defining features of that community and establishes true line of demarcation both in value and social plan. That's why nothing creates a stronger bond between members of human communities, than guarantees that give them a constitution in the pursuit and protection of fundamental rights and freedoms of the individuals that form these communities.

The purpose of this research is to outline the content of the constitutional and international guarantees, suitable in the legal system of the Republic of Moldova, regarding the protection and realization of fundamental human rights.

## **The methodology of the research**

In order to achieve a detailed research of the subject, there have been used different research methods: analysis, synthesis, comparison, deductive method and the systemic method.

Also, for the elaboration of this study there have been consulted a big number of legislative acts, monographs, scientific papers and articles in specialist magazines that reflect both the views of researchers from our country and from abroad. Respectively, there have been consulted views of such authors: I. Deleanu, who classifies the human rights protection's guarantees in fund and jurisdictional guarantees, D. Micu, who considers that the mechanisms of protection of human rights fall into two categories: domestic guarantees and international guarantees, S. Drăghici, who identifies the issue of protection and guarantee of rights with constitutional value of human, A. Gabureac, who appreciates the Constitution as the main guarantee of the protection of human rights in a state of law, etc.

## **The results obtained**

The concept of human rights has a dual legal nature, domestic and international, contributing to shaping civil society in the transition from the majority principle to the principle of protecting individual and minority, strengthening the rule of law.

21-st century makes us witness to a spectacular dynamic of the social and international relations. We live in a world of great transformations which shows both positive and negative aspects.

Individual, the same as the state is obliged to participate actively in these transformations in order to achieve an adjustment corresponding to the progress of society. The law and lawyers are among those who can contribute positively and achieve a harmony between the finality of the legal norms and the development of society, thought, culture and civilization. The state's functions in democratic societies have acquired new valences, paying increased attention to the social function, which contributes to the development of the whole society.

The establishment of the rule of law the Republic of Moldova through the adoption of the Constitution in 1994, the accession and ratification of a considerable number of international acts that represent the quintessence of the normative framework in the field of human rights, reflects the concern and desire of the

state and of the Moldovan people to participate actively in the transformations that are felt at the global level, through the representatives empowered by law to act nationally or internationally.

In the context of the realities in which we live, the Republic of Moldova embarked on the path of reforms that are meant to ensure the progress of democratic ideas and the respect of fundamental rights. Becoming a member of the Council of Europe in 1995 and adhering to the European Convention for the protection of the Rights and Fundamental Freedoms in 1997 (ECHR), the Republic of Moldova continued to promote democracy and the rule of law despite political slippages, which were recorded during the last few years, actually characteristic to all states in transition.

Since the (ECHR) Convention is regarded as an international instrument, essential for defending the values of a genuine democratic society, it appears, as has been noted in the literature [10, p.56], as the expression of a genuine constitutional order, which exists beyond any differences between national systems of law of the contracting states.

The ECHR has a legal nature of positive law, and from this point of view, the mechanism of international protection of human rights has the same legal nature with the guarantees given to the protection of fundamental rights as citizens by the Constitution, as a legal, fundamental act or as a set of fundamental provisions of its own positive law. The essential consequence of the legal, positive nature of domestic and international provisions, as Romanian researcher Doina Micu noted, [12, p.229] lies in the existence of a legal system of national and international guarantees. The political character is expressed by the rules of structuring, organizing and conducting the specific activity of the internal and international organs that ensures the protection of human rights (the Constitutional Court, at the domestic level, and the European Court of Human Rights at the external level), organs established according to some political and legal criteria, whose activity is completed with the taking of decisions by which the competent organ, by examining the merits of the case pronounces either with regard to the constitutionality, or in connection with compatibility or compliance of national laws to the norms of international law. The legal nature of the internal and international guarantees system consists in the existence of some constitutional provisions or of the ECHR, along with the procedural that ensures the protection of fundamental rights and freedoms of citizens.

We should mention that in the legal doctrine of Ukraine, some authors [16, p.75] have pointed out that one of the distinct functions of the Constitution is the function of the protection of human rights and it's hardly questioned the existence of such a function, especially in a democratic society, whereas the main purpose of a Constitution is to guarantee the freedom and security of the human being in all its aspects.

However, we cannot mention V. Zaporozhan's statement, who mentioned in one of his papers that, "the existence of a human right doesn't depend on recognition or its guarantee of the national or international systems of law, the origin of human rights is natural" [14, p.443]. Only in society, human needs clear delineation of his prerogatives, in order not to overlap with the prerogatives of the other people that wishes to live together. Thus, the purpose pursued by human for the exercise of its rights is the coexistence with other people in the society.

As regards, the term of the warranty, in the Russian literature [15, p.165] it was pointed out that the guarantee involves a system of preconditions, conditions and means of the social-economic, political and spiritual, which creates equal opportunities for people in order to achieve their fundamental rights and freedoms.

More specifically, the young researchers from Moldova, have appreciated that [8, p.367] the Constitution provides for the protection of human rights and freedoms mainly through: the consecration of the most important values, such as the rule of law, democracy, human dignity, his rights and freedoms, etc. (e. g., art. 1 of the Constitution of the Republic of Moldova); the recognition of the supremacy of international human rights law and its application, the direct activity of public authorities of the state; the express consecration of the most important rights, freedoms and fundamental duties of human, revealing, thus, the paramount importance of these institutions in the life of the state and society; establishment of prohibitions to restrict, limit or suppress the rights and freedoms of man and of the citizen; the establishment of the express of obligations and duties for the state in matters of insurance, compliance and protection of human rights and freedoms, etc.

In our opinion, the analysis of Moldovan Constitution's provisions, follows the consecration of three categories of guarantees for the protection of human rights, called internal guarantees:

- The regulation of fundamental rights and freedoms in the Constitution, as the fundamental norms of the positive law. Factor which represents a measure for the protection of the individual in its relations with public authorities, with the state;
- The control of constitutionality of laws – art.135 al.1.a) of the Constitution;
- Establishment of legal provisions expressly that creates in the Moldovan system a mechanism for special protection of human rights through:

- International guarantees, are of two kinds:
  - a) with universal character, i.e. imposed through the United Nations in which there are two types of monitoring mechanisms of human rights: extra conventional mechanisms monitoring the implementation of human rights created pursuant to the Charter of the UN (human rights Council) and the conventional mechanisms for monitoring the implementation of human rights, created on the basis of the international treaties on human rights;
  - b) with regional character, governed by the ECHR and is achieved by the mechanism of human rights protection in the European Court of Human Rights, in which, after the entry into force of the Protocol no.11 has created the possibility of referral by any interested person, consecrating thus the right to appeal the individual [13, p.9].

#### **Domestic guarantees**

*The regulation of the rights and liberties* in the basic law constitutes a guarantee of completion of a special protection, both through the system of constitutional guarantees, and by the fact that the “totality” of fundamental rights and freedoms are regulated in the Constitution. This reality registers Republic of Moldova among the countries with a liberal tradition, capable to provide its own citizens a government pre-occupied with the actual situation of individuals, those governed.

The Romanian doctrine [4, p.19] mentions that fundamental rights, the core around which revolve all the subjective rights, justifies its status of a distinct category compared to the other subjective rights, by the economic, social and political importance. True stars, around which revolve as satellites, all other subjective rights, as prof. Tudor Drăganu, noted [6, p.152], the fundamental rights become the foundation of the legal assembly of citizens’ rights, “the main support column of the edifice of constitutional of any country”, concludes, the constitutionalist I. Deleanu [5, p.81]. In the consideration of this position, particularly important in the framework of subjective rights, the fundamental rights are enshrined in the Constitutions of the states, being vested with special, legal guarantees. In the same sense, enshrined as human rights, fundamental rights find their consecration in the most important international instruments in the field.

For these reasons, we hold that the fundamental human rights appear to be subjective rights, essential for the life, liberty and dignity of human beings, indispensable for the free development of the personality, rights established and guaranteed by domestic and international legislation.

*The control of constitutionality of laws* is a component part of the mechanism of legal administration of the rule of law, outlines prof. T. Drăganu [6, p.241], together with the judicial control of the legality of administrative acts and the organization of an independent justice. According to the article.135 al.1.a) of the Constitution of RM, the control of constitutionality of laws and decisions of Parliament, decrees of the President of the Republic of Moldova, Government decisions and orders, as well as the international treaties to which Moldova is a party shall be carried out by the Constitutional Court. [1]

Over several years, the Constitutional Court established a constant justice in terms of the application of art. 135 par. (1) of the Constitution, in the form of control, being limited only by the *a posteriori* control of the laws already in force. But in 2014, the situation has changed, with the adoption of Decision no. 9 from 14.02.2014 by which it was decided that, “the control of constitutionality of laws includes the laws passed by Parliament, both after and prior publication in the Official Gazette of the Republic of Moldova, at the request of the President of the Republic of Moldova and of the other subjects with the right of referral”. [9] The Constitutional Court, relying on the regulations of the fundamental Law, in its capacity as guarantor of the supremacy of the Constitution, has decided that only it is in the measure to establish the framework in which they exercise the function of control of constitutionality of the acts established in its jurisdiction under article 135 of the Constitution. Therefore, the Court decided that the constitutionality of laws before promulgation integrates, indissolubly, a legal mechanism likely to contribute to the protection of the preventive and effective rights and fundamental freedoms.

*Special constitutional guarantees* that suppose the consecration of distinct ways of conceiving the international regulations relating to the human fundamental rights and freedoms were created by art.4 and 8 of the Constitution of the Republic of Moldova. Our country, by the Constitution adopted in 1994 and through the acquisition of membership of the Council of Europe has made the first steps of integration in the European process of regulatory effective human rights two decades ago. This process is in full progress in the present, and the reception of the ECHR and the integration into the European structures knows the effect of the cultural relativism specific for Moldovan people, which it combines with the universalism of human rights standards in the Convention.

In the literature [12, p.241] it was mentioned that, there are three parallel paths of concrete implementation, the actual rules of international human rights in domestic law:

- The direct application of international norms to which Republic of Moldova is a party, by fulfilling the letter of the obligations assumed by the article.8 of the Constitution;
- Priority application of human rights norms contained in international treaties to which Moldova is a party, in the case of the conflict of laws (art.4 of.2 of the Constitution);
- The application of the provisions of the fundamental law of our country in accordance with international standards contained in the documents and international treaties relating to human rights to which Moldova is a party (art.4 of.1 of the Constitution).

Direct application or attribution of direct effect to international norms, default to those contained in the ECHR, is the legislative solution, to which numerous states parties to the Convention have appealed, including the Republic of Moldova. The incorporation of the Convention into domestic law requires the transposition into legislation, internal obligations and commitments as a party to the ECHR. Fulfilling the letter of the commitments made means honouring international obligations and of the international commitments freely assumed by the expression of consent.

The direct effect attributed to the international rules implies, involves (at least theoretically) the existence of the commitment of the state to achieve consistency and compatibility of domestic legislation with the ECHR. Achieving legislation harmony requires the fundamental law of the state to regulate subjective rights which are similar to those contained in the European Convention and have the same legal nature. It is also the default assumption by the state of certain obligations related to the rights attributed to individuals, in such a way as to make a real and effective exercise of the fundamental rights. The incorporation of the ECHR in the Moldovan justice system makes possible the implementation of the provisions of them and the carrying out of the international control by the European Court of Human Rights. Regarding this aspect, however, there arises the question if after this incorporation the rules provided in the Convention lose their international character, becoming an integral part of domestic law.

In our opinion the answer will be a negative one, because, as I mentioned, the article.4 of the Constitution establishes the obligation of interpretation and application of constitutional provisions in the field of human rights in accordance with international treaties to which Moldova is a party.

Therefore, it is recognised the existence of two distinct categories of rules: constitutional and international, pursuant to, and depending on the content of which interpretation and application must be carried out. More than that, al.2 of art.4 of the Constitution granted in case of a conflict of laws between international rules and the internal priority of international norms. So, we can appreciate that in the conception of the legislator continues to exist two distinct categories of rules.

The answer to our question can be configured if the issue's addressing is made from another perspective. According to the article 20 of the Law on International treaties of the Republic of Moldova "the provisions of international treaties which, by the manner of the wording, are likely to apply in the relations of law without the adoption of special acts, are enforceable and directly applicable in the legal system and the judicial system of the Republic of Moldova" [11]. These legal provisions assign the direct effect of international rules, which thus can be applied by the organs of the state without resorting to other procedures (such as the *exequatur*) from the act of ratification made by the Parliament. In other words, the direct application of international treaties, including human rights takes place in the RM by the effect of the law.

In the Romanian specialized literature, it was pointed out [12, p.244] that, international law that promotes, protects and guarantees human rights is applied alternative and complementary to the national legislation of each state-contracting party to international treaties.

Subsidiarity and complementary being the rule, we appreciate that the provision of art.4 of.2 of the Constitution of the Republic of Moldova is the exception, stating that the international rules has a priority application only in the case of a conflict of laws.

The pursued objective of a state related to the conclusion of international treaties in the field of human rights, ECHR, by default, is the realization of the laws' harmony, as a concrete way of integration into the universal system of values of their own democracy – between which human rights constitute one of the fundamental dimensions.

Under the presented arguments, we conclude that there does not occur a transformation, a change of the legal nature of international rules. They continue to wear this character, giving them at the same time, the effect of direct application in national law of Moldova.

Another special constitutional guarantee, created by the express provision of the law, is, as I mentioned, the absolute legal prohibition provided by art.142 al.2 of the Constitution relating to the revision of the supreme law which could have the effect of suppressing rights and fundamental freedoms or their guarantees. The interdiction regulated in this constitutional text covers all the topics of law that may initiate

the revision of the fundamental law. It has an absolute and certain object: the rights, fundamental freedoms and the guarantees thereof.

The provisions of art.142 al.2 of the Constitution of the RM are in total accordance with the letter and spirit of the ECHR which contains the minimum standards in the field of human rights, as well as with the provision of art.17 of the Convention which contains, in turn, the prohibition of “destruction of the rights or freedoms recognized by this Convention, or limitations to those rights and freedoms, than those provided by this Convention” [2].

However, in the doctrine it has been noted [3] that the current wording of art.142 al.2 of the Constitution of RM, which is incidentally found, the same in the Romanian Constitution, isn't quite successful, proposing the following wording to which we adhere, and we: “No revision can be made if it results from the suppression of fundamental rights and freedoms, achieving their essential core or serious violation of their constitutional guarantees “.

The current wording prohibits only the suppression of rights, not gutting them by the restriction of their essential core (while remaining at the discretion of the Constitutional Court to determine in what consists this “essential core”). A provision in this sense we find in the article. 19, par. (2) of the German Basic Law, a worthy example that can be followed by us.

Concluding on the analysed, we find that:

- Constitutional guarantees represent the conditions and circumstances set out in the Constitution of the RM regarding the realization of the rights and fundamental freedoms, provided by the state, as well as the mechanisms of a legal nature that ensures equal possibilities of persons in order to achieve the values that define human existence.
- International guarantees of the protection of fundamental human rights are manifested by the existence of international mechanisms, judicial or non-judicial monitoring of how states comply with human rights, which have as their purpose the protection of human rights and that can be triggered directly by the individual.
- The task or the fundamental objective that guarantees the internal, imposed by constitutional provisions and international guarantees is granting all people equal possibilities for the realization, protection and defence of their rights and freedoms, as well as ensuring favourable conditions for the passage from the sphere of possibilities of the constitutional in the sphere of the realities of the objective.
- The effectiveness of these guarantees depends on the level of development of the general principles of law, the country's economic situation, the degree of development of democratic institutions, the realities of the political system, the quality and the effectiveness of the mechanisms of realization of legal norms, as well as the legal culture of the population.

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## **INTEREST DOCTRINE OF MOLDOVA ON THE RIGHT TO CITIZENSHIP**

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*The right to nationality is a fundamental human right, which emphasizes the other rights of citizenship that make a part of the constitutional law. Citizenship appeared with the first human settlements, and its development was influenced by several factors: socio-economic development of society, recognition of democratic values, but especially was and is being influenced by the rights and the freedoms granted and guaranteed by each state to its citizens. The legal nature of the citizenship has caused and continues to cause discussions (sometimes controversial) in the scientific literature which underlines the need to rethink its legal nature. The legal nature is dynamic and is influenced by the development and democratization of society.*

The right to nationality is enshrined in the Universal Declaration of Human Rights, art. 15, according to which every individual is entitled to citizenship, this right cannot be denied and where the individual wishes to change its nationality, he has full freedom to do so, without anyone’s constraints.<sup>1</sup> It is considered that this particular statement was the basis for defining contemporary citizenship, according to which citizens actively participate in the political life of the state, the citizen has a whole set of rights and freedoms, and the state in turn is equipped with a series of reciprocal obligations towards the citizens hence human rights form the foundation of the legal status of citizens and also define the limits of the power of the state.

The right to citizenship in Moldova is enshrined in the Constitution (art. 17)<sup>2</sup> which states that Moldovan citizenship can be acquired, retained or lost only by the conditions set by the organic law. The country’s Basic Law stipulates that no one shall be deprived of citizenship arbitrarily.<sup>3</sup>

Historically, the institution of citizenship as a legal category emerged in Moldova along with Moldova’s sovereignty declaration on 23rd June 1990, which by art. 8 established republican citizenship in the new sovereign state. In a short while on 4<sup>th</sup> July, 1991 was adopted the Nationality Law of the country, by which was established the legal framework relating to the citizenship of the Republic of Moldova. After a period of nine years, on 2<sup>nd</sup> June 2000, a new law was adopted (no. 1024-XIV) due to the ratification by the Republic of Moldova of the European Convention on Nationality of 6 November 1997 in Strasbourg. In these circumstances the country citizenship law should be harmonized with the Convention ratified.

The citizenship of the Republic of Moldova, as a legal institution, encompasses the set of legal norms, regulating the way of acquiring the citizenship or of losing it. These rules are contained in the Moldovan Nationality Law no. 1024-XIV.

Citizenship is a legal requirement of belonging to the individual to a state, a status confirmed by the citizen’s individual rights and obligations that flows from the rights granted and guaranteed by the Constitution. The citizenship entitles individuals living in Moldova, to manifest politically: to elect or be elected in the representative bodies of power or government, occupying high positions of leadership in the state, etc. Having said that, the right to citizenship provides to the individual a legal and political relationship to a

<sup>1</sup> Universal Declaration of Human Rights adopted by the UN General Assembly on 10.09.1948 <http://legislatie.resurse-pentru-democratie.org/legea/declaratia-universala-a-drepturilor-omului.php>

<sup>2</sup> The Constitution of 29.07.1994. Official Gazette no. 1 of 12.08.1994.

<sup>3</sup> The Constitution of 29.07.1994. Official Gazette no. 1 of 12.08.1994

particular state, in this case, the Moldovan state. The relationship is expressed not through a unilateral relation, but through a mutual one (correlative) between state and individual. Therefore, sides are interconnected, the citizen is bound to the state, and the state is bound to the citizen.

According to the above, we opine that the internal link that exists between the state and individual underlies fundamental rights and freedoms of citizens, and duties (obligations) to their state, called *citizenship*.

Being an old concept, appeared with the first sedentary human communities, citizenship, although of an obvious political nature, involves two issues in its own right – which one exercises – who and under what conditions it can benefit from citizenship, this being a matter not only of a purely legal nature but also of a formal nature, and a matter which concerns the non-political competences of the citizens deriving from the social resources they manage and access.<sup>1</sup>

We consider that citizenship is a fundamental right of personality that not only determines a person's belonging to a state but also the fact that this person enjoys all the rights and obligations enshrined in the Constitution.

Given the fact that the right to citizenship is one that confirms the legal status of the person and his connection with a state, it makes it one of the most important pillars of democracy. Therefore, the research of the institution of citizenship becomes more current and is present in the scientific researches in Moldova, such as: V. Popa, A. Arseni, Gh. Ciocârlan L. Suholitco, V. Ivanov., I. Guceac A. Fig T. meat, Gh. Costache V. Catană Babără V. et.

Defining citizenship is one of the main concerns which are faced by researchers in our country, this is because when there is a clear, uniform and universally accepted definition, it is easier to appreciate and explore the concept investigated. Moldovan researcher V. Popa among the first addressed the concept of citizenship in his "Public Law", so in his opinion, citizenship is "a permanent political and legal connection, unlimited in time and space between individuals and the state, a connection belonging to the Moldovan state, and is expressed by all mutual rights and obligations that the state guarantees".<sup>2</sup> The meaning of this definition is supported by the researcher V. Ivanov, who in turn recognizes that "citizenship is a political and legal connection unlimited in time and space, between man and the state, according to which man has plenitude of rights and freedoms proclaimed and guaranteed by the Constitution, laws of the State that meet its obligations and enjoy the defence and protection of the state both within and abroad".<sup>3</sup>

We find, then, that according to both researchers, citizenship is a permanent political and legal connection between the state and the person providing reciprocal rights and obligations, proclaimed by the Constitution and other laws.<sup>4</sup> Both definitions of citizenship made by the authors V. Popa V. Ivanov derive from the law and render the meaning of the institution of citizenship in Moldova. However V. Ivanov emphasises the definition as follows: citizen enjoys state protection both inside and outside.

A comprehensive analysis of the theme of citizenship rights is found in the work of A. Arsenal L. Suholitco "Citizenship – a new vision and European regulation". First, the authors make a presentation of the history of the institution of citizenship in Moldova, comment on changes in legislation which had been once ratified the European Convention on Nationality, which led to the adoption of a new Law on Citizenship no. 1024-XIV on 2<sup>nd</sup> June, 2000.

According to researchers A. Arsenal L. Suholitco, "Citizenship is the quality of the individual expressing political and legal permanent connection unlimited in time and space between the individual and the State, assigned full reciprocal rights and obligations established by the Constitution and laws".<sup>5</sup> Seen therefore that the definition presented in this paper does not differ radically from that which they had identified Popa and V.V. Ivanov. We believe that this work is remarkable in that it is a first study on citizenship in our country in light of new regulations on the right to citizenship. Since the definition and legal nature of citizenship, the authors present a detailed study of the history of legal regulation of citizenship in our country. We learn that citizenship as a legal institution of Moldova was founded by Moldovan Sovereignty Declaration of 23<sup>rd</sup> June 1990, in art. 8 states that Moldova establishes republican citizenship. The authors consider that the Nationality Law of the Republic of Moldova no. 596-XII dated 4<sup>th</sup> July, 1991 was a good law for that time and focused more on Article 2 Moldovan citizenship, a situation quite normal for those historic times when was established that the people who lived in the Republic Moldova obtain citizenship of the young state. According to the authors, paragraph 4 of Art. 2: "Other persons who, by adopting the Decla-

<sup>1</sup> Barbalet, J. M. citizenship. Bucharest, 1998. 122 pp. ISBN 973-9246-43-5

<sup>2</sup> Popa V. Public Law. Chisinau, 1998. 286 p.

<sup>3</sup> Arseni A., Suholitco L. easier - a new vision and European regulations. Chisinau: Litera, 2002. p. 9 ISBN 9975-74-391-9

<sup>4</sup> Arseni A., Suholitco L. Citizenship - a new vision and European regulation. Chisinau: Litera, 2002. 136 pp. ISBN 9975-74-391-9

<sup>5</sup> Arseni A., Suholitco L. Citizenship - a new vision and European regulation. Chisinau: Litera, 2002. p. 8 ISBN 9975-74-391-9

ration of Sovereignty of the Republic of Moldova, including its adoption on 23<sup>rd</sup> June, 1990 had permanent residence in Moldova and permanent job or another legal source of existence. These people will decide themselves on citizenship for a year” [Article 2], was very important, because the wording of the law has taken into account Universal Declaration of Human Rights which states that everyone has the right citizenship and no one can be deprived of this right arbitrarily.

We find, therefore, that the authors A. Arsenal L. Suholitco address the whole range of issues on citizenship in Moldova, which is a very precious study on the Moldovan legal doctrine which is quite modest in this chapter. This material provides clarity, for example, when authors analyse and describe how the acquisition or loss of citizenship of the Republic of Moldova; acquisition procedure or of loss; multiple citizenship etc., first explain the theoretical and conceptual issues, review the views of renowned scientists, which is characterized by regulation subject itself Moldova and if not contrary to international conventions and treaties to which Moldova is a party. In conclusion this work is unique in the country to accumulate all the information on the right to citizenship, but we want to mention that in the time that has elapsed since the advent editorial they have received changes in this segment internationally; on the other hand many young researchers in our country have carried out the research in the field concerned, coming to complete these steps, some of which will be characterized later.

The citizenship has its beginnings with the advent of statehood and has led some authors to consider citizenship as a constituent part of the state. This idea is widely discussed in the literature of the West. To pronounce on this I. Guceac Moldovan scientist in his “Elementary course in constitutional law”. So then, the author believes that “the organisation and the power of the state can only be achieved in relation to the population, but citizenship cannot be regarded only as a component of the state, because it is also a legal relationship between the individual and the state which involves rights and obligations.<sup>1</sup> This idea is imparted and A. Arseni in his “Constitutional Law and Political Institutions: Elementary treaty”. In the opinion of A. Arseni, the constituent elements of the state: 1. Nation (size of the state population); 2. Territory (physical size of the state); 3. State power (political-legal size).<sup>2</sup> The concept of A. Arseni, it is widespread in the West and emerges from the very wording of the nationality law of Moldovan.

Moldovan Researcher Teodor Cîrnaț, Doctor in Law, in his work “Constitutional Law” [8] addresses the double meaning of citizenship: a) human capacity and b) legal institution. The author believes that citizenship as a legal institution “is an ensemble of legal norms regulating social relations centered around the need to ensure completeness rights and obligations under the Constitution and laws of those persons who through their feelings and their interests are closely related to our state”. It should be mentioned that the author’s opinion coincides with that of other scholars and researchers as follows: citizenship is a legal institution which is a set of legal rules conferring citizenship that is a legal requirement that is created by certain legal rules.

The second sense of nationality T. Carnat approaches the “citizenship as a quality of individuals expressing permanent political and legal connection unlimited in time and space between the individual and the State”<sup>3</sup>, only assigned to a citizen who possesses the fullness of reciprocal rights and obligations established by the Constitution and other laws. The author points out that the legal bond between a person and the state does not necessarily indicate the individual’s ethnic origin, referring to the European Convention on Nationality.<sup>4</sup> Believes the disclosure of the author on that citizenship does not necessarily indicate and ethnicity of the individual is very important, it comes to combat the notion that citizenship can be a constituent part of the state, while the constituent state is the people (nation), different in content with the term citizenship.

In his work, characterized T. Carnat modes for the acquisition and loss of nationality. By law, the loss of citizenship may be: the surrender; by withdrawal; international agreements to which Moldova is a party. Withdrawal can only be accomplished when the nationality was acquired fraudulently or citizen was enrolled in a foreign army; rarely, a person may be deprived of nationality if committed very serious crimes and serious damages to the state. Interest honorary citizenship topics addressed by the author. Although our country is not granted honorary citizenship (law provides), reflections of the author on the subject of interest. We believe that the institution of citizenship is an evolving concept and continuous development and Moldova’s aspirations to comply with the EU could boost future changes in the institution of citizenship rights. According to the author, honorary citizenship of a state is granted to foreigners who are citizens of another state, for outstanding service

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<sup>1</sup> Guceac I. Elementary course in constitutional law. Chisinau, 2004 p.15

<sup>2</sup> Guceac I. Elementary course in constitutional law. Chisinau, 2004. p.337

<sup>3</sup> Cîrnaț T. Constitutional Law. Receipts, 2004. p. 118 ISBN 9975-937-16-0

<sup>4</sup> The Constitution of 29.07.1994. Official Gazette no. 1 of 12.08.1994.

to the country and the whole nation. Honorary citizenship is an honorific title is granted by Parliament on the Government's proposal. Since it is an honorary title does not influence in any way the person proposed for honorary citizenship and it is not considered to have dual citizenship [8].

For definitions of citizenship of authors V. Popa, V. Ivanov, A. Arseni previously identified, and the legal definition of citizenship rights derive political component ("permanent political and legal connection"), or the component resulting policy even the very constitutional rules, according to which Moldovan citizens can participate in exercise sovereignty directly by referendum or indirectly through representative bodies.<sup>1</sup> So the political aspect of citizenship rights appears as a relationship between state and individual policy involving both the full participation of the individual in the state and loyalty to this state. This idea is supported by the right doctor Igor Bantuș study entitled "Citizenship of the Republic of Moldova, political and legal permanent liaison between the citizen and the state". In this sense, the author quoted believes that "a person's membership in a particular state does not express a unilateral relation, but a mutual one between the two entities. This relationship has a political foundation resulting from the law of the State, representing the sovereign power of the people, to provide and protect the quality of its citizens. However, this link has a legal basis, resulting in enshrining in the Constitution and other laws governing citizenship relations".<sup>2</sup>

The idea of the concept of citizenship is political component addressed by Dr. Z. Lupașcu study entitled "Citizenship and civil rights" so that, according to the author, "citizenship provides to the individual a special legal status, which consists of a set of rights and responsibilities conferred by the state of its citizens. The legal status of citizens as subjects of law, determine the conditions of belonging to a political community".<sup>3</sup> From the author's comments we conclude the following: the relationship between individual and state power is manifested in all mutual rights and obligations circumscribed legal status of citizen of person. Citizenship gives individuals a link juridical term policy with the state or situation gives a special status to foreign citizens and stateless persons. That is why the author Z. Lupașcu considers that political rights, which are the basic components of citizenship have some distinctive features, different from other human rights such as the right to vote and to be elected, to participate head of state, to hold public office not be deprived of citizenship etc. However, ignoring the fact that they are all basic human rights, this is done only priority rights of citizens and is closely linked to individual belonging to a particular state. In conclusion, the researcher argues that "the legal status of citizen is a legal-political phenomenon multi-aspectual and consolidation, without which it is impossible to fully regulate the legal status of personality in different areas of public life. Legal status of citizens expressing citizen vocation plane internal legal realities of each country, for all rights and freedoms".<sup>4</sup>

Some specification we remade in his study "Citizenship, an attribute of statehood" L. Zaporojan as follows: "Citizenship is an essential quality of the individual, acquired from the state, unlimited in time and space based on political loyalty to the person whereby it becomes owner of all the rights, freedoms and fundamental duties, gaining state protection and legislation".<sup>5</sup> We note that the wording of the definition differs from those discussed above. According to the author quoted indispensability quality of citizenship is based on the principle impossibility of deprivation of citizenship is acquired by birth. In its definition, the author highlights the obligation of political loyalty to the state of the person and treats this theme through the phenomenon of multiple nationalities, a phenomenon which now extends more and more. Such legislation democratic countries allow multiple citizenships and the Law on Citizenship through art. 24 regulate multiple citizenships.

It is true that in the current period is a tendency of many people to hold citizenship of several states. This phenomenon is in continuous expansion raises some issues to resolve with regard to basic obligations, such as, for example, the obligation to defend the homeland. In this sense, the author proposes the delineation of multiple citizenships that person has to be declared as one primary, the other remains to be complementary. If we consider the definition formulated by L. Zaporojan draw the conclusion acquired by the state and citizens protection legislation, which is unlimited in time and space, which means that states protect their citizens and their rights without taking into account the sovereignty of states. This idea of the author we can comment as follows: citizenship is the main condition for the state to intervene as a protector

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<sup>1</sup> The Constitution of 29.07.1994. Official Gazette no. 1 of 12.08.1994, art. 2

<sup>2</sup> Bantuș I. Moldovan citizens - the permanent political and legal relationship between citizen and state. In: Academy of Public Administration, 15 years of public service modernization in Moldova. Vol. 1: scientific and practical materials International Conference 21 May 2008. Moldovan: APA, 2008. pp. 221-222 ISBN 978-9975-9960-4-4, p. 222

<sup>3</sup> Lupașcu Z. Marian O. citizenship and civil rights. Law and Life, 2014, no. 7, p.11

<sup>4</sup> Lupascu Z., Marian O. Citizenship and Citizenship Rights. Law and Life, 2014, no. 7, p.14

<sup>5</sup> Zaporojan L. Citizenship, an attribute of statehood. National Law Review, 2009, no. 2, p. 67

of person. I mean, the only legal basis authorizing the State to require the other to perform a prescribed rule or other private international law on persons is the bond of nationality.

Multiple citizenship is enshrined in the European Convention on Nationality of 6 June 1997. "Multiple nationalities or multiple citizenships, is a status in which a person is regarded as a citizen under the laws of several states. Dual citizenship is the most common form of multiple citizenship, because nothing in international law does not prevent someone possess citizenship in two countries".<sup>1</sup>

The thesis of Dr. V. Catană analyses issues on measures to limit citizenship rights for people with multiple people, such as limiting the civil service employment to people with dual nationality. This limitation occurs in a number of countries, makes no exception Moldovan legislation. For example, art. 78, paragraph 2, of the Constitution states that: "may be elected President of the Republic of Moldova citizens eligible to vote who is 40 years old, has been living in Moldova not less than 10 years and knows the state language"<sup>2</sup>; laws governing the central and local public administration (Election Code of the Republic of Moldova, the Law on Status of Members of Parliament, Law on Government, the Law on the Constitutional Court, the Law on the Supreme Court of Justice, etc.) – all concern usually only Moldovans and not contain provision for people with two or more citizenships.

Author V. Catană disagrees with these limitations and considers that if the law recognizes multiple citizenship, then it implies recognition of the plurality of loyalties. And state action concerning multiple nationality must proceed from the fact that this is a problem in which the rights and interests of priority action against state authorities. Moldovan authorities should study the question of multiple nationalities as an element of mobility of the population of Moldova in the citizens' benefit. Given that Moldova cannot ensure standards comparable to aspiring citizens, multiple / dual citizenship should not be treated as the expense of Moldovan statehood and those having two or more nationalities should not be regarded as people disloyal Moldova.<sup>3</sup>

Many disagreed with this idea, and we believe in that the Constitution and other laws regarding holding high and public state positions it is clearly stipulated a condition – Moldovan citizenship, but the text of the law does not stipulate that if a citizen who regained Romanian citizenship already and he lost some of its status as a citizen of Moldova.

Given the fact its complexity citizenship and employment in several branches of law, researcher Gh. Ciocârlan analyses the legal nature of citizenship as a general phenomenon which covers the entire activity of the person as follows: "1. Private law theories concerning the legal nature of citizenship in terms of private law relations between the individual and the state, conceived as relations of equality. Such theories are: 1. Theory of personal legal status. 2. Theories of public law in mind that the state, as the institutionalized system of public power, is one which provides the legal framework of relations residents, as citizens, institutions elderly. As a result, between state and citizen is no question of legal equality. As power relations, they are asymmetrical, and inequality. 3. Mixed theories explain citizenship as part of legal capacity".<sup>4</sup>

The concept of European citizenship is treated in his doctor to S. Belecciu and researcher in Romania R. Rotaru entitled "Ways of acquiring citizenship in the context of European citizenship".<sup>5</sup> According to the authors, the concept of European citizenship and made a huge leap from a utopian concept (half a century ago) became one concrete. So then, European citizenship was established by art. 17 of the EC Treaty, it complements the citizenship of Member States and the rights conferred on them by European citizens are not accompanied by duties. Principles governing the institution of European citizenship are equality and non-discrimination, which means that the EU treats its citizens equally; principle of subsidiarity, which means that any citizen of the member states is an EU citizen; principle of representation; recognition and political rights; recognizing the right to opinion and free expression thereof.

Following a comprehensive analysis of European citizenship, the rights enshrined Europeans, S. Belecciu and R. Rotaru drew the following conclusion: "The definition of citizenship or nationality remains the exclusive prerogative of Member States. The European Union has no competence in this area. States remain sovereign institution through legislation governing citizenship, so they are free to decide who can and who cannot be a European citizen".<sup>6</sup>

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<sup>1</sup> The European Convention on Human Rights and Fundamental Freedoms. European Court of Human Rights Council of Europe, Strasbourg cedex. [www.ec.hr.coe.int](http://www.ec.hr.coe.int)

<sup>2</sup> Constitution of the Republic of Moldova of 29.07.1994. Official Gazette no. 1 of 12.08.1994.

<sup>3</sup> Catană V. "Multiple Citizenship: precedents and solutions for the Republic of Moldova: PhD thesis in law. Chisinau, 2007.

<sup>4</sup> Ciocârlan Gh. Developing the Citizenship Institution in Romania and the Republic of Moldova: PhD thesis in law. Chisinau, 2016. p.38

<sup>5</sup> Belecciu Ș., Rotaru R. Methods of acquiring citizenship in the context of European citizenship. Law and Life, 2014, no. 11, p. 26

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## THE DEVELOPMENT OF CRIMINAL LEGISLATION OF THE REPUBLIC OF MOLDOVA ON THE ORGANIZATION OF ILLEGAL MIGRATION

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*The present article focuses on the evolution of criminal legislation of the Republic of Moldova about liability for illegal migration organization. Author discloses the importance of permanent actualization of criminal legislation about effective struggle against this phenomenon. There are analyzed international and national legally enforceable enactments on effective struggle against illegal migration organization.*

**Key words:** *Organization, migration, illegal migration, criminal group, criminal policy.*

Migrations erode the foundations on which the international system is built: sovereignty, frontier, citizenship. They call into question the economic and political equilibria of the receiving countries, which, at the time of their constitution, did not imply the existence of foreigners, ethnic and cultural diversity, and which went from the notion of individuals belonging to the same values. Migrations make education; housing and health systems shake in their foundations. They prove the permeability of the borders and of the territorial waters, the security incapacity of protecting the territory and weaken the national identity. Under these conditions, it is clear that securing supervision and control of state borders is absolutely necessary, but in order to control globalized flows, states must cooperate. As migrations are more and more diverse, more autonomous, the policies that concern them have to change constantly, their aim being that migration is seen as a process to be managed and not as a problem to be solved.

Economic and social transformations along with the liberalization of political frontiers have influenced the growth of people's mobility across the globe.

At transnational level, criminal organizations have learned to exploit the economic opportunities of the global illegal market. In this respect, migrant trafficking is a major source of income for organized crime. Legislative gaps and discrepancies in some parts of the world make the illegal migration business a low-risk type of activity compared with other organized crime activities, such as offenses related to illegal drug trafficking, which attract more public attention and inquiries. Significant inequality of economic well-being and differences in political and legislative systems in many parts of the world provide a large number of clients to the organized crime, providing traffickers with a stable source of income [1].

In connection with these negative phenomena, on 15 November 2000, the Convention of the Organisation of United Nations against Transnational Organized Crime, which entered into force for Moldova on 16.10.2005, was adopted [2]. Thus, Annex III to this Convention is the Protocol against the Illicit Traffic of Migrants by Land, Air and Sea ways [3]. The States signatories of the Protocol are therefore recommended to provide for criminal liability for the organization of illegal migration.

The national legislative framework has evolved over time. In order to bring Moldova's migration legislation to the international and European standards regarding the penal sanction of persons receiving benefits on the account of carrying out activities that contribute to illegal migration, on January 31, 2006 was completed the Criminal Code of the Republic of Moldova with art. 362<sup>1</sup> "The organization of illegal migration", which has the following content: *Organization for the purpose of profit of illegal entry and / or stay on the territory of a state of a person who is not a citizen or resident thereof, committed by: making, holding, selling or using fake official documents, issuing or obtaining documents illegally, or by a false statement, the use of official documents by a person other than the legitimate holder* [4].

Over time legislative conflicts have arisen that did not permit the normal conduct of investigative work.

Concepts of conflict have begun to sharpen, so that conflicts are perceived as positive and negative forces at the same time. [5]

On the territory of the Republic of Moldova, passes ne of the unofficial routes of the illegal transit migration to Western Europe (the countries of South-West Asia – CIS (Russia, Ukraine, Moldova) – Romania – Hungary and further to Western Europe. Most illegal transit migrants come to Moldova by rail or air from Ukraine, the Russian Federation and Turkey.

Thus, most of the arrived foreigners in the Republic of Moldova crossed legally the state border and did not violate the residence regime because they are citizens of the states with a liberalized visa regime, which does not require obtaining visas for entry into the country, or their search, seeks asylum to legalize their stay in the country.

At the same time, the police are discovering an increasing number of organized criminal groups involved in the trafficking of migrants, who are in charge of crossing into Romania foreign citizens who want to enter illegally in one of the countries of the European Union or in the Schengen area, taking advantage of the legislation in force, which allows the free movement within the European Union of those who have been granted refugee or asylum status. In this context, organized groups could not be held criminally liable until 2008.

In connection with these difficulties, on 21.10.2008 the name of the article was changed in the *Organization of illegal migration and the paragraph 1 was amended as follows: The organization, with a view to obtaining, directly or indirectly, a financial or material benefit, of the entry, the illegal transit of the territory of the State or the exit from that territory of a person who is neither a national nor a resident of that State: the making, possession, sale or use of false official documents, the issuance or obtaining of documents illegally or by a false declaration, the use of official documents by a person other than the legitimate holder* [6].

Also, in the Government Decision of the Republic of Moldova on the approval of the National Strategy on Migration and Asylum Field (2011-2020) [7] there is reported the globalization, the development of information technologies, the flexibility and the interdependence between international trade, investments and financial capital followed by repeated migration flows. Along with the many positive aspects and opportunities regarding the development, these are also the cause of many social challenges and risks. Among them are phenomena such as illegal migration, trafficking of human beings, etc.

Taking into account the international character and the complexity of the phenomenon, the effective countering of illegal migration requires a more advanced degree of international collaboration of both the governmental structures and the non-governmental sector and the society as a whole. Reducing illegal migration can also be achieved through the development of effective mechanisms for controlling legal migration in respect of foreigners' compliance with the purpose of entry and stay on the territory of the Republic of Moldova. Thus, it is important to create an effective mechanism for sanctioning "third persons" who receive benefits on the basis of activities that contribute to illegal migration.

Combating illegal migration is a part of the field of some common activities promoted together with EU countries, neighboring countries, countries of origin and destination for migrants in / from the Republic of Moldova. In achieving the proposed objectives, the Republic of Moldova has aligned itself with the European Union's policies in this area, but opts for a fair sharing between states of responsibilities for diminishing illegal migration. In connection with this, the following objectives are outlined:

Objective I. To develop complex policies to prevent uncontrolled massive immigration into the country or transit to the European region of people from politically, economically or socially disadvantaged regions from areas affected by internal and international conflicts, humanitarian and ecological crises.

**Objective II.** To streamline the monitoring of illegal migratory flows from the country by coordinating and intensifying the efforts of the responsible authorities in order to detect and remove foreigners who stay illegally in the Republic of Moldova.

**Objective III.** To improve the existing legislative and institutional framework, to develop interinstitutional collaboration mechanisms to prevent the illegal entry of foreigners in the Republic of Moldova.

**Objective IV.** To develop cooperation with states with increased migration potential to reduce the number of illegal migrants, streamlining the return policies to those states of people susceptible to committing crimes, belonging to different criminal groups, etc., which may pose a threat to the security of the state and the citizen [8].

In this regard, on March 29, 2013, Article 362<sup>1</sup> of the Criminal Code of the Republic of Moldova shall be supplemented with the paragraph (4) with the following context: *The victim of illegal migration is subject to criminal liability for the entry, stay, illegal transit of the territory of the state or exit from that territory, and for deeds for the possession and use of false official documents for the purpose of organizing its illegal migration.*

Through this amendment the legislator capitalized on the principles of the Moldovan criminal policy. Currently, **criminal policy** is defined as a set of means and measures proposed to the legislator or effectively used by the state at some point to combat and prevent crime [9]; or **criminal policy** is equally a science and art that seeks to find the best possible solutions to the various background and form issues involved in the phenomenon of crime [10].

Thus, the criminal code protects society from criminal groups, which destabilize national security. It is therefore important that, in the case of committing such offenses, the aim pursued by the victim of the offense specified in art. 362<sup>1</sup> of the Criminal Code of the Republic of Moldova (CC of RM) to express itself in the organization of its illegal migration, not in organizing the migration of other persons. Only the presence of this condition makes applicable the provision of para. (4) of the Art. 362<sup>1</sup> CC of RM.

While the struggle with the organization of illegal migration has intensified, criminal organizations have begun to look for ways to corrupt civil servants in the field in order to remain in the criminal market.

At the same time, on 10.12.2013 was completed art. 362<sup>1</sup> as a new aggravating circumstance provided in par. (2) with letter d), with the following content: *“by a public person, by a person holding a position of responsibility, by a person with a public dignity function, by a foreign public person or by an international official”* [11].

Thus, the legislator started to fight with the organization of illegal migration on the inside, namely with corrupt officials, more precisely with the phenomenon of corruption in the field of illegal migration. History demonstrates that this phenomenon has been a stagnant factor for the development of society. But, how perfect the legislation is, at some time we become, helpless against criminality, because of the phenomenon of corruption.

All these changes, in time, confirm the timeliness of the application of the criminal law means against the organization of illegal migration under the provisions of art. 362<sup>1</sup> of the Criminal Code of the Republic of Moldova.

In conclusion, we mention that the criminal normative norms aimed at combating the organization of the illegal migration of the Republic of Moldova are rallied to the European requirements and standards; its evolution began with the strengthening of the rule of law and the integration of the Republic of Moldova into the European Union; efforts are currently being made to improve it.

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## **ELECTORAL CORRUPTION – THE PREMISE OF ELECTORAL RESPONSABILITY**

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*In this article I have broached the most important aspects of electoral corruption. Electoral corruption is one of political corruption forms, where individuals in political positions use their abusive benefits to influence the electoral process. It can be found in several forms, namely: the abusive financing of electoral campaigns in order to obtain illegitimate subsequent benefits, the use of political power held to influence the electoral process for the benefit of the ruling political party, the electoral bribery, and the use of political resources in order to support an electoral campaign.*

**Key words:** *corruption, elections, abuse, politics, bribes.*

The purpose of this investigation is to analyse the phenomenon of corruption in the electoral field, as a liability for violation of electoral legislation.

The correct application of electoral laws and regulations is an essential element in the pursuit of free and fair elections. Good enforcement of the law is not just the correct application of the legal framework in the electoral field but also gives voters confidence in a fair electoral process.

In the last two decades, in most of the electoral campaigns, one of the most obvious problems, that have raised the interest of specialists, politicians and ordinary citizens, is the legality of the election process [1, p.39].

Corruption is a problem which is in highlight by scientists, politicians and public figures. Though on this phenomenon, thinkers have exposed their views from ancient times (Plato, Aristotle, Hobbes, Machiavelli, etc.), corruption has become the object of multilateral scientific research towards the end of the 20th century.

One of the problems of holding free and fair elections is the corruption phenomenon in the electoral field.

As regards the treatment of corruption in general and electoral corruption in particular, we can highlight authors such as: Popa V., Munteanu I., Guceac I., Cușnir V. Izdebschi N., Cuhal I. Transparency International Moldova has a considerable contribution, bringing important issues regarding corruption in Moldova.

The scientific researches in this thesis are based on the interaction of different methods, procedures and investigation techniques.

The analysis and synthesis, the induction and deduction and the generalization are the main tools used to conclude the real objectives about the principles of legal liability and their functional structure.

The “UN Convention against Corruption” (2003) defines corruption in the national public sectors as a crime of the public subject, consisting in requesting or receiving, directly or through intermediation, the illicit profit for himself or for another person in order of performing or not performing the activity that is part of of its service obligations.

Corruption is a form of dishonest or unethical conduct by a person entrusted with a position of authority, both in the public or private industry, often to obtain goods, advantages or other undue benefits, for himself or for another person [2].

By making an analysis of the electoral corruption phenomenon, it is necessary to explain the notion of political corruption.

Political corruption is the abuse of public power, office, or resources by elected government officials for personal gain, by extortion, soliciting or offering bribes. It can also take the form of office holders maintaining themselves in office by purchasing votes by enacting laws which use taxpayers' money. Also corrupt politicians can be identified before, during or after taking office [3].

Some negative effects of political corruption are: the difficulties in implementing laws and policies; the undermined society's confidence in politicians, in political institutions and processes; corrupt parliamentarians; the forged election results, etc.

Electoral corruption is a form of political corruption and means illegal interference with the process of an election, whether by increasing the vote share of the favoured candidate, depressing the vote share of the rival candidates, or both.

Also there are series of legislative measures that directly regulate the acts of corruption in the electoral field nationwide.

Thus, the preventing and combating corruption law defines corruption as: “An illegal act which affects the normal exercise of a position and consists either in the subject's corruption acts or acts of corrupt behaviour of his or her function for the requesting, receiving or accepting, directly or indirectly, for himself or for another person material benefits or unworthy advantages, either in the unlawful promise, offering or granting of such unfair advantage or benefit to the corruption subjects”.

In addition to other corruption acts specific for other law branches regulated by art. 16 of the Preventing and Combating Corruption Law, as well as giving and taking bribes, etc., in par. (3) points i. and j. of the same article, there are also highlighted the corruption acts in the electoral field, namely: falsification the voting results and corrupting voters [4].

Article 70 of the Republic of Moldova Electoral Code refers to Article 181 of the Republic of Moldova Criminal Code, which also provides for corruption offenses.

Subjects of corruption acts or of the acts of corrupt behaviour, private individuals and legal entities are held accountable, according to the Criminal Code, for committing acts of corruption.

Hereby, art. 181 of the Republic of Moldova Criminal Code, regulates the offenses in the electoral field.

Article 181<sup>1</sup> on the corruption of voters stipulates that any attempts in offering or giving money, goods, services or other benefits in order to determine the voter to exercise his electoral right in a certain way in parliamentary, local elections or in a referendum, are prohibited. The penalty for this offense is a fine ranging from 500 to 850 conventional units or one year to 5 years imprisonment for the private individuals; the legal entities are punished by a fine in the amount of 4000 to 6000 conventional units, with the deprivation of the right to exercise a certain activity or with its liquidation.

In the category of goods referred to in paragraph (1) also includes alcoholic beverages, tobacco products and foodstuffs. Materials and objects of electoral agitation, paid from the electoral fund, bearing the name and surname of the candidate, namely the name of the political party, signs or symbols of the electoral contestants, such as posters, flyers, postcards, calendars, notebooks, illustrated pens, briquettes, badges, CDs, DVDs, USB sticks, pencils, flags, books, bags, shirts, caps, scarves, the value of which does not exceed two conventional units for one unit, falls within the category of goods referred to in paragraph (1) [5].

Vote buying is one of the most widespread acts of electoral corruption.

The more votes are bought, the less the responsibility after the elections. The newly-formed state authorities as a result of the vote buying are illegally instituted. The vote buying is associated with voting control. Voting control methods must be known in order to be counteracted:

- The “Photo” method. This is done by entering the voting booth with a camera in order to photograph their ballot. Such a procedure is applied by those who have promised money or other benefits in order to pursue the individual's vote.
- The “flying shuttle” method. It happens when those who buy votes are using a fraudulent ballot and a counterfeit stamp.
- The “Blue shirt” method. A person, recognized after a clothing item, is engaged to accompany the voter in the voting booth for the purpose of overseeing him during voting.
- The “Mobile ballot box” method. It is when the mobile ballot box, which needs the approval of the voting office president, is excessively used as a result of repeated written requests. Thus the secret of voting is not assured when the mobile ballot box is sent [3].

Another electoral corruption offense is regulated in the art. 181<sup>2</sup> of the Republic of Moldova Criminal Code, namely: illegal financing the political parties or the electoral campaigns and the political parties' financial means management violation.

This offense may be materialized by:

- tampering the financial reports of the political parties and / or the financing reports of the electoral campaigns in an attempt to substitute or to hide the identity of donors, the volume of funds accumulated, the destination or the volume of means used;
- the use of administrative resources (public goods);

- favouring the illegal use of administrative resources (public goods) in electoral campaigns, if large amounts of damage have been caused;
- donation extortion for political parties and / or electoral funds;
- the use of state budget allocations for political parties or funds from the electoral fund contrary to its destination;
- accepting the funding of the political party or electoral contestant from an organized criminal group or an organization (association).

“All electoral competitors must have equal chances and only one source of funding – the electoral fund. It must be constituted on legal grounds”.

The election campaigns illegal funding is one of the most dangerous forms of electoral corruption.

The issue of electoral campaigns illegal funding is also pronounced by various international bodies, which claim the need to impose more rigorous rules in regulating this area.

Thus, Article 16 (2003) of the Recommendation of the Committee of Ministers of the Council of Europe on General Anti-Corruption Rules for Financing Political Parties and Electoral Campaigns states: “States will demand that any violation of the rules on funding political parties or election campaigns shall be penalized in an effective, proportionate and convincing manner”.

The 15th point of the Resolution (97) 24 of the Committee of Ministers of the Council of Europe, concerning twenty principles against corruption, also include the following item: “to develop rules on funding the political parties and electoral campaigns that discourages corruption”.

In the Third Compliance Report on Moldova, the GRECO Group recommends to the authorities in our country: “to make all violations of general funding rules for political parties and electoral campaigns clear and followed by effective and dissuasive sanctions”.

Another offense of electoral corruption is provided by Article 182 of the Criminal Code of the Republic of Moldova [5].

It provides the voting of a person: without having this right either two or more times, by introducing more ballots in the ballot box than he or she is entitled to, or by using a false identity document or a fake ballot.

Several methods can lead to this crime:

- *The “Multiple” method.* It is when the voting bureau members give several ballots to well-known persons, signing for the presence of other people who are known not to come.
- Another way refers to *people who are gone working abroad*, usually from small communities. This method is valid only if the offenders have the personal identity number of these citizens. In these situations, half an hour before the voting starts, in the ballot box are put several ballot papers already stamped for “who should,” after which the offenders just have to sign on the voting list instead of the people who are known to be abroad.
- The *“Fifty-Fifty”* method. The Unused bulletins are shared by the Voting Bureau representatives and placed in the ballot box. This usually works in small sections where they are not observers.
- *Minutes falsification with the voting results:*
- The *“Done at home minutes”* – usually practiced in small and isolated localities. It is when the president of the polling station has a “ready-made” report and which is signed after the voting ends.
- The *“After vote”* – the president of the polling station may have another minutes form that he completes and signs it falsely on the way from the station to the electoral office.
- *The use of false identity papers.* A trusted person receives many fake IDs with which to vote on behalf of others. A method that can be used in large cities.
- *The “Ghost voters”.* Registering in the voter lists, people who do not actually exist or are deceased. This means that instead of these people are voting those who know about it, or voting ballots are introduced by the party's representative in the electoral bureau [3].

If we are to talk about some practical aspects and statistical data on the corruption phenomenon in Moldova, in 2016, as in the last few years, the corruption scourge remained a serious problem in the Republic of Moldova and due to this, our country lowered several positions in the Corruption Perceptions Index (CPI). According to statistical data, the Republic of Moldova has positioned itself at the bottom of the ranking, registering a CPI score of 30 points out of 100, three points less than in 2015, where “0” signifies total corruption, and “100” – lack of corruption. Thus, Transparency International's Corruption Perception Index 2016 ranks Moldova 123 on the list of a total 176 countries [6].

The corruption issue is also caused by poverty, unskilled workers, mentality, legislative loopholes, etc. It is very important to be aware of the gravity of this phenomenon that has sprouted society, turning it into a vicious chain. A chain where you take today with one hand, but tomorrow you give two back.

Concerning especially electoral corruption, we must mention that the electoral corruption inevitably appears with every electoral campaign. Various parties or various candidates who are unsure of their chances of being elected or re-elected, and whose desire to keep or put their hands on political power is stronger than that of fairness, resort to forms of electoral corruption to ensure victory in elections [7, p.51].

Candidates who give electoral bribery or those who buy votes in electoral campaigns, are prone to take bribes when they are in power, whether it is city hall, local council, Parliament, etc. In order to make up for the donors who donated money to buy votes, electoral candidates once elected will entrust these sponsors with public contracts, so they will reward their financiers with public money. The vicious chain closes and every voter who sells his vote will pay back, in the form of taxes that are not used in public purposes.

The results of the research and the conclusions formulated might be used in the interpretation of the causes of electoral responsibility, because the difficulties encountered in solving practical problems cannot be overcome without a theoretical conceptualization.

Thus, the following results were obtained in the investigation process:

- the theoretical and practical relevance of electoral rights, of their violation by corruption acts, as well as the accountability of those guilty, was determined;
- the concept of corruption in general and electoral corruption, in particular was brought to light;
- the efficiency of justice in the fight against electoral corruption;
- an analysis of the electoral corruption was made;

In conclusion, we can undoubtedly assert that in order to fight this disastrous phenomenon of electoral corruption, we must start each of ourselves, refuse to be part of corruption and poverty, refuse to pay any kind of facilitation, to oppose any form of electoral bribe and to take an attitude whenever we are faced with such situations.

It is necessary to draw the politicians' attention that the fight against corruption is not a matter of electoral propaganda, but a personal act, and we are therefore asking them to show wisdom and commitment when addressing this issue in the future electoral platform.

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### **PARTICULARITIES OF THE MODEL OF CONSTITUTIONAL JUSTICE APPLICABLE IN THE REPUBLIC OF MOLDOVA**

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*This article intends to examine the evolution of the constitutional justice applicable in Republic of Moldova, with the establishment of the Constitutional court, analyzing the key differences between European model of Constitutional court and the mechanism created in the Republic of Moldova over the years, while focusing on the concrete Moldavian historical-political background which had an impact on the shaping of the Constitutional Court.*

**Key words:** *European model, Constitutional Court, Constitution, democracy, constitutional justice, the exceptions of unconstitutionality*

The emergence of constitutional justice in the history of each nation is a sine qua non for the constitution and achievement of all the requirements of the rule of law regulated by the provisions of art. 1 of the Constitution

of the Republic of Moldova. The German scholar Georg Jellinek, author of “A Constitutional Court for Austria”, mentions the necessity of a Constitutional Court as a body specialized in the protection of the Constitution [1].

The concept of “constitutional justice” needs to be considered differently from constitutional law as a branch of law, defined as the totality of norms and legal institutions that regulate those social relationships that appear in the process of establishing, maintaining the exercise of public power. Therefore, constitutional justice has the meaning of a set of legal techniques and ways by which the supremacy of the Constitution must be guaranteed [2].

The Constitutional Law Control, theorized by Kelsen (1918), is organized into two major systems: control by a common law jurisdiction, also called the American model and control by a particular and specialized single organ or European model.

Therefore, the European model strengthened in almost all Western European states, gives the Constitutional Court in the light of Hans Kelsen's theory, the role of a body that acts as a complement to the parliamentary assembly and has the role of a “negative legislator”.

Applicable to the Republic of Moldova, we consider that the essential functions of the democratic state are established with the adoption of the Declaration of Sovereignty on June 23, 1990, and later on August 27, 1991 by the Declaration of Independence. Regarding the establishment of a Constitutional Court, following the adoption of the Constitution of the Republic of Moldova on 29 July 1994, the Constitutional Court included in its text a special title. Statute of the Constitutional Court as “the unique authority of constitutional jurisdiction” was later completed by the Law on the Constitutional Court of 13 December 1994[3] and the Code of Constitutional Court of 16 June 1995[4].

Establishing the model of constitutional justice applied in the Republic of Moldova, it should be noted that it is in an inseparable connection with the type of the competent authority to exercise the control of the constitutionality of laws, with the attributions of this authority, but also with the procedures applied in the constitutional review process.

The Republic of Moldova institutionalized the European model of control of the constitutionality of laws, exercised by a specialized judicial body – the Constitutional Court. At the same time, the model of constitutional jurisdiction applicable in the Republic of Moldova has its own peculiarities, which derive from the political wishes of the members of the Constituent Assembly, which elaborated the Statute of the Constitutional Court provided by Title VI of the Constitution. One of the peculiarities is taking over the American experience – the procedure for lifting the exceptions of unconstitutionality (also present in the interwar Romanian law) [5], which solved the dilemma: to admit citizens, directly or indirectly, to constitutional justice.

Thus, the exception of unconstitutionality in the Republic of Moldova does not establish the direct access of the citizen to constitutional justice, as in the German legal system through direct appeal or the Russian Federation through the direct access of the party in a pending trial to a common law court.

As originally was provided in the Constitution, the part to the proceedings had the right to refer the Constitutional Court, through the court examining the case, which in turn could only refer the matter to the Constitutional Court through the Supreme Court of Justice. In addition, the recent access of the citizen to constitutional justice has known a significant transformation in the Republic of Moldova, being allowed the right of any court “as in the diffuse model of constitutional control” to raise the issue of constitutionality, the only distinction being the fact that the final control of constitutionality is exercised by a specialized court – the Constitutional Court.

A substantial approach to the metamorphosis of the exception of unconstitutionality can be achieved by analyzing the case law of the Constitutional Court in this regard. Adopted on May 6, 1997, the Constitutional Court Decision no. 15 repeats the constitutional provisions by which the Supreme Court of Justice is empowered with the right to refer the Constitutional Court except for unconstitutionality, without expressing on the right of the other courts to refer the Constitutional Court directly.

Also, the Constitutional Court didn't pronounce in the mentioned Decision on the relations existing between the courts and the parties to the litigation brought before the court when the exception was lifted. The solution in this regard comes much later through the Constitutional Court's Decision no. 2 of February 9, 2016[6]. After almost 20 years after the application of this procedure, the new interpretation of the Constitution, from 2016, brings significant changes by separating the procedure of raising the unconstitutionality exception into two stages.

The first step is on the common law court, which consists in lifting the unconstitutionality exception in a pending litigation, by the litigants or by the court of its own motion. The second step, of the constitutional litigation, consists in resolving the exception, however increasing the circle of the rights holders to the Constitutional Court, legitimizing this right to all courts.

The new interpretations, which have become applicable since 2016, have considerably contributed to the increase in the number of exceptions raised before the Constitutional Court, which in the future could complicate

the work of the constitutional judge and why not, to reflect on the quality of the Court's judgments. On the other hand, the mechanism created requires the common law judge to verify the cumulative existence of some conditions, without exposing concerning to the referral or the compliance of the contested rules with the Constitution.

Thus, by the abovementioned judgment, the Court has established 4 conditions which are a preventive filter for the admissibility of the exception: the subject of the exception falls within the category of acts contained in Article 135 (1) lit. A) Of the Constitution; the exception is lifted by one of the parties or its representative, or it is indicated that the court of its own motion extinguishes it; the contested provisions must be applied to the case; there is no previous judgment of the Court concerning the contested provisions.

As we can see, the model of constitutional justice applied in the Republic of Moldova has been strongly transfigured over the years, following the case law of the Constitutional Court. Along with this, the transformation of the model applied in the Republic of Moldova was also determined by external factors.

On the international level, we have a convergent evolution of the two classic models of constitutional jurisdiction. On the one hand, European and American models inspire each other by implementing classical elements attributed to the opposite models. On the other hand, the European model in most of the states that have implemented it also contains other procedures for the exercise of constitutionality control than those envisaged by Hans Kelsen in 1920, as is the case with the Republic of Moldova through the exception of the unconstitutionality procedure.

In these circumstances, it can be stated that, during the transition period and the political and constitutional transformations by which the Republic of Moldova passes, the control of the constitutionality of the laws has become the most effective mechanism for controlling the organization of the system of law.

In this process, the constitutional jurisprudence acquires normative valences, having effect both on the entire normative system by constitutionalizing the law, by impregnating all branches of the law with the constitutional values and principles, as well as on the Supreme Law itself.

Moreover, we subscribe to the opinion expressed by the President of the Constitutional Court, Tănase Alexandru, according to which "the evolution of judicial control of laws and its forms has been based most often on the result of the activity of jurisdiction and not on the expression of the will of the legislator" [7], adding that in this activity the Court pursued the goal of the supremacy of the Constitution, giving greater protection of individual rights.

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## **THEORETIC REFLECTIONS ON FUNDAMENTAL DUTIES**

*PhD student Veronica ROȘCA, SUM*

*The research aims at revealing the essential issues related to the examination of fundamental human rights and duties ratio of the individual citizen and the state elucidating the concept of "fundamental duties" from a legal perspective, politics, psychological and sociological.*

**Key words:** *fundamental duties, Human Duties and Responsibilities, the Constitution, the holder of rights and duties, homeland defence, financial contributions, protection environment and protection of the monuments.*

The fundamental problem of the duties of man and citizen is one that has not been approached enough, complicated and topical. The subject that we are discussing in this paper requires a thorough analysis in the doctrinal, methodological and practical way starting from the fact that the present reality puts in front of the theoreticians and practitioners an essential and controversial problem, namely the scientific argumentation of

necessity and Ways of limiting fundamental rights and freedoms by invoking the general interests and respecting the fundamental obligations, considered as “state and society claims” towards citizens.

One of the problems that humanity has to unravel is that of a civil society that manages fairly and harmoniously the right, restrict the freedom of the individual for the freedom of his fellow human beings, promote, respect and protect the fundamental human rights On a holy religion, but at the same time to watch the development of humanity by promoting the fundamental duties, thus achieving the general interest. Although considerable experience has been gained in the field of human rights in promoting, protecting and respecting human rights in the last few years, the issue of the relationship between the individual and the state has not been thoroughly investigated to date, in particular the legal nature and mandatory force of fundamental obligations. The need to promote the general interests of society in the context of blocking state abuse requires reconsideration of the relationship between the general interest and the fundamental human rights and from the point of view of proportionality. Taking into account that the scientific approach to the problem ensures its more efficient functioning in practice, it is necessary not only to formulate definitions and delimit the fundamental characteristic signs, but also to identify the mechanism by which the general interest of the members of society with their freedom and their peers is combined.

Right is a social science because it exists only where there are people with their particular interests, their values and aspirations. Right is a social phenomenon, because it is a product of society, it intervenes through legal norms to regulate all processes in society. It is the law that correlates the relationship between the rights and duties of citizens, which limits the freedom of individuals when it affects the freedom of others. Social life and human condition are complex and contradictory, and an approach from the perspective of the axiological dimension is necessary. The law cannot be conceived beyond its axiological dimension, it is a product of the will of man and of a sale of deeds, it is a set of acts and actions of will and authority, freedom and coercion which ultimately must protect Both the personal interests, but especially the collective, general interest. Every human community is a system of values, but there are some general values that meet the universal needs, needs and aspirations of people regardless of the history of time.

Throughout history, values have been ordered and hierarchized according to their significance to man and the importance given by human collectives, being in an order that corresponds to the needs and ideals of the human community. The right in the contemporary context must be the focus of man, protect society, its fundamental rights and freedoms, manage the inequalities and un-correlation of the freedom of individuals to avoid anarchy, but at the same time to target the general interest, but blocking the abuse of the state.

The profound transformations that took place in the Republic of Moldova in the sense of asserting the general values of man, the building of the rule of law, the constitution of the civil society impose the necessity of studying the mechanism of combining the general interest through the fulfilment of the fundamental duties, human rights and fundamental freedoms.

We propose to make a multi-subject, complex, scientifically founded study on the issue of fundamental duties in the Republic of Moldova.

The issue of human rights has gained a wide recognition and affirmation in recent decades as a result of its deep moral content, of the fundamental values on which it is based, and mostly of verifying a long historical experience that has revealed that without respect for human rights there is not possible any assurance of peace nor maintaining relationships worthy of trust, and collaboration between peoples.

In the complex of realities, problems and desiderata that concern mankind, the rights, freedoms and duties of the human being occupy an important role, being interdependent with the cardinal problems of mankind.

It is unanimously acknowledged that members of a society, regardless of the level and form of aggregation, along with rights, are endowed with certain duties, obligations towards society. The good citizen must bring together in his person the knowledge and the force of obedience and government, the virtues of the citizen, for example his righteousness, may not always be the same; They have to change its form, as it obeys or governs.

Their existence is determined by the content of any legal relationship, because the subjective rights cannot be exercised in the absence of correlated legal obligations. By virtue of this situation, no one can enjoy only rights without assuming the respective duties, which, in Cicero's opinion, are hierarchical in the first place towards the country, secondly to the neighbours, and thirdly To the human genre. Or the first natural obligation of an individual is solidarity with the society he is a member, regardless of his status, even a slave “puts all the bravery and all his forces at the service of the common salvation.”

A society cannot survive without certain moral standards that most place them above tolerance and which it imposes on those who do not agree with them, because some moral compliance is essential to its life. Every company has the right to preserve its own existence and as such the right to insist on compliance.

If society has such a right, then it has the right to enforce sanctions of the rule of law in order to protect morality and prevent corruption of compliance that maintains its cohesion. While preparing the Universal

Declaration of Human Rights of 1948, heated debates were held on the role and place of duties of the international instruments relating to human rights. A general opinion was that the present rights could not exist without the obligations, however, taking into account the context of the adoption of the Declaration, in particular Western Nations perceived the inclusion of duties in international documents along with rights and freedoms as a threat to the protection offered to individuals, a fact for which the Soviet Union criticized this legal international act.

The subject of fundamental duties as well as their relationship with fundamental rights is a continuous and discussed the problem. Attempts have been made to outline the fundamental duties and moral responsibilities on the basis of the main arguments presented in public debate and in domestic and international instruments which, in one way or another, have dealt with this topic.

Fundamental duties are correlated with fundamental rights and freedoms. The correlative nature of citizen's duties towards rights is fully justified and no individual or legal person can rely solely on rights, without assuming proper obligations. This means that the constituent gave them equal attention. Fundamental duties are essential, vital to the state, to the extent that rights and freedoms are essential to the individual.

The state is reduced to abstraction, to a form without substance unless it is given the tools of its conservation and development. These tools are partly provided by their citizens through conscious assumption and the fulfilment by them of their fundamental duties. Building on its own citizens, the state is continuously strengthening, also guaranteeing the citizens' rights and freedoms proclaimed in the Constitution.

Human society is made up of people, having the interest that its fundamental rights and freedoms are respected. From this point of view, human society should only act in the direction of respecting human rights and fundamental freedoms.

However, in some cases states, in other cases communities, some people, some segments of society, broader or narrower, produce phenomena or create situations that lead to violations of fundamental rights or freedoms or represent obstacles to the exercise of certain Rights and freedoms. Without stopping on the social and sociological aspects of this relationship, we find that it starts from the conception of a direct and harmonious relationship between human rights and freedoms and society, the community it is part of. This report has a decisive influence on the content, the way and the conditions of exercising its human rights and freedoms and the fulfilment of the fundamental duties of each member of society.

The institution of the fundamental rights and duties of citizens does not include all the rights and obligations that citizens have or may have, being a more restricted institution. Every branch of law establishes rights and obligations, and fundamental rights and duties are only those stipulated in the Constitution and considered essential for citizens and the state.

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### **AUTONOMOUS TRADE PREFERENCE AND ASSOCIATION AGREEMENT, THE TWO MOST IMPORTANT DOCUMENTS THE REPUBLIC OF MOLDOVA SIGNED IN THE LAST 10 YEARS WITH EU. DIFFERENCES AND POINTS IN COMMON**

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*The research analyse the two agreements Moldova signed with the European Union in the last decade, the Autonomous trade preference in 2008 and the Association Agreement in 2014.*

*These two agreements played a major role in shaping up Moldavian economy and politics, but they are completely different in terms of political goals and areas covered, the first one being only an agreement willing to allow Moldavian exporters to sell products and services tariff free in the EU, while the second is a very ambitious plan of reform for Moldova to align with European standards in different sector of social life*

**Key words:** *Autonomous trade preference, Association agreement, D.C.F.T.A., Republic of Moldova, European Union*

## **Introduction**

The Autonomous Trade Preference or ATP was granted from the European Union to Moldova in 2008 and it was the previous agreement to regulate the commercial relationship between the 2 parts.

The ATP differs from the Association Agreement that is now into force in several ways:

- 1) first of all it is just a commercial agreement between two parts and does not have any political and integration goal, neither in the small nor in the medium long term like the Association Agreement does;
- 2) the second main difference between the 2 agreement is its provisions in the commercial part applies only to Moldavian exporter but the internal market of Moldova remained under the same tariff regime to European goods and services.

The Association agreement is a much more ambitious kind of agreement between parts; because it opens up the markets through its DCFTA part, but at the same time it has many political integration goals to achieve in the medium long term.

Moldova is following a very thorough path in order to reform its legislation to meet all the requirements the association agreement has, basically it can be defined a real government program.

Association agreement is the main tool the European Union has in order to bring countries of the eastern partnership (Moldova, Ukraine, Georgia, Byelorussia, Armenia and Azerbaijan close to EU standards and regulation in different sector of social life.

It comprises 4 general chapters that covers very diverse area of life: 1) Common foreign and security policy; 2) Justice and Home affairs; 3) The deep and Comprehensive free Trade Area (DCFTA); 4) Environment Science Transportation and Education.

The DCFTA is probably the most relevant part of the association Agreement, and countries signing it will be committing them to adopt specific pieces of EU legislation in trade, consumer protection and environmental regulation. Countries that sign a DCFTA must adopt some 350 EU laws within a 10 year timeframe.

As a reward for the compliance with the EU laws signatories of the DCFTA will have access without barriers to a huge market of 500 million consumers with a combined economy of 12.9 trillion euros annually, the second largest in the world.

After an Eastern partnership country signs the association Agreement it must be ratified by the parliament of all EU member states, a process by the way that can take several years.

In the meantime it is foreseen there would be a provisional application of parts of the agreements such as trade, once an Eastern Partnership signatory ratifies the agreement and the European parliament has given its assent.

Moldova finishes its negotiations in June 2014 and a provisional application started in September 2014.

The trade part of the agreement, as far as Moldova is concerned, will be in place for Transnistrian companies as well, as far as companies from the eastern part of the country will comply with the EU standards.

It has to be pointed out very clearly anyway that the Association Agreement do not offer a path toward membership in the EU for the countries that signed it like the case of countries in the western Balkans, but it is worth noting it offers much more in comparisons with the association agreement the EU signed previously with countries such as Morocco and Tunisia which on the other hand clearly exclude any possible future membership.

The Association agreement is basically a program of reforms to bring the signing country in line with European Union standards in different fields, from economy to the rule of law and democratic institution.

From an economic standpoint the Association agreement aims at increasing productivity of the Moldavian economy by boosting trade ties between EU and Moldova's company and by reforming regulation that are behind business life, to bring the best international practices in use in the Moldavian economic system.

The EU has opened up its market to Moldova's export removing tariffs, and this represent a huge opportunity that deserves to be fully exploited.

Financial assistance is available in order to help Moldavian firms to become competitive and to comply with new technical standards.

The DCFTA will certainly help to establish a more competitive and productive business environment in the Republic of Moldova.

## **Discussion**

The association agreement has 4 main objectives:

### **Political Purposes**

The Association Agreement has also very important political aim to accomplish, Moldova still now has fragile political institution even though the electoral process is fair and competitive and also human rights record are improving quickly.

Moldova needs anyway to realize important reforms in order to be considered a mature democracy.

### **Rule of Law**

Fight against corruption is also a crucial objectives Moldova needs to pursue in order to create a fair and competitive business environment, to lure foreign investors and to increase possibility trough foreign investments, of success for the implementation of the Association Agreement.

### **Foreign and Security Policy**

The Association Agreement between the European Union and Moldova envisages also objectives in the foreign policy field; in fact the ultimate goal is to align Moldova foreign policy to the EU one.

Obviously in Moldova the Trasnistrian conflict has played a major role in shaping up its foreign and security policy since gaining independence from the Soviet Union in 1991.

The EU Border Assistance Mission is the most important operational program which aims to facilitate cooperation over the borders between Moldova and Ukraine in the Trasnistrian segment, and also trying to settle the conflict.

Since 2014 it also involved in the implementation of the DCFTA provisions.

### **DCFTA**

Now it is very important to understand what the DCFTA is, and the issues covered in this very important part of the Association Agreement, which wants to establish a free trade area between the European Union and Moldova.

#### **1. Tariffs**

One of the first steps to take in order to create a free trade area is to remove tariffs on trades of goods and services.

Since September 1 of 2014 the EU has removed tariffs on imported goods from Moldova on almost everything, with few relevant exceptions on agricultural products.

At the same time, Moldova got a transitional period to remove its tariffs on European products in order to protect its home market from an invasion of more productive and efficient European products.

In this transitional period Moldavian firm's needs to improve their productivity and standards in order to be able to face the competition on of the free market in the future and for these reasons are available line of financing to reach this goals

The DCFTA includes also some measures in order to defence the national industry from damages the other part may bring:

- a) Anti dumping measures
- b) Anti subsidy measures
- c) Safeguard measures

a) Anti-dumping measures are the main instrument used when a company is exporting a product at a lower price than on its home market.

If this happens, the Government of the country, importing the goods, may act imposing duties if and when there is a material damage to the national production.

b) Anti subsidy measures are trade import duties which are imposed to avoid the negative effects subsidies granted by public authorities of another country. After an investigation finds out that a country through public subsidies helps its own export damaging considerably domestic producers in the importing country this kind of measures can be imposed. This subsidy may be utilized in order for instance to reduce costs and to offer a better pricing to gain market share undermining a fair and free competition

c) Safeguard measures may take a "safeguard" action (i.e., restrict imports of a product temporarily) to protect a specific domestic industry from an increase in imports of any product which is causing, or which is threatening to cause, serious injury to the industry.

#### **2. Customs**

It is obvious in order to exploit to the full extent a free trade area it is necessary to have a customs service which is business friendly and do not delay commercial procedures, but it actually try to speed up the administrative procedures of import export.

The DCFTA has very detailed provisions in this matter, the main principles inspiring the custom legislation is to be stable, transparent and non-discriminatory.

Different measures to make more efficient customs procedures have been adopted including 1) reduction of permissions acts required for export 2) the authorized economic operator 3) electronic customs declaration.

All this measures needs to align Moldavian legislation to the best international practices and to reduce the corruption level that so badly affect the competitiveness of the national economy and its private sector overall.

#### **3. Technical Standards for industrial goods**

After the provisional entrance into force of the association Agreement tariffs between the European Union and Moldova will disappear progressively, this means the main barriers to trade will be technical standards the products needs to comply with.

Moldova in order to fully benefit from the DCFTA is committed to adopt the most important European legislation in the field.

European legislation for industrial goods is composed of 2 different lines of rules:

- a) EU harmonization's law which are 30 directives that covers broad industrial groups
- b) Around 5000 specific harmonized standards which in details foreseen everything about health and safety requirements

#### **4. Food Safety regulations**

Food safety or officially called Sanitary and Phytosanitary measures are all the rules which apply to food and agricultural products.

The EU has 235 directives and regulations, of which 78 are for veterinary requirements, 48 for health of agro-foods products, 27 are for animal feed and 10 deals with the OGM subject.

In order to comply with this rules are involved huge financial cost, for this reason the Association Agreement granted to small Moldavian farms an exemption.

The EU is active in supporting reforms in the Moldavian system in order to improve the food safety control system.

The Moldavian national Agency for Food safety (ANSA) needs to be reformed in order to work properly, at the moment for instance Moldova is experiencing huge challenges to export toward EU products of animal origin because of the lack of infrastructure in the laboratory and also lack of international accreditation

#### **5. Services**

The association Agreement foresees 3 main situations applying to the service sector:

- a) Establishment, which means the right of one party to establish its activity in the other party
- b) Cross border supply of services, for instance software outsourcing
- c) Temporary presence of individuals of one side on the other side for business purposes

In general the service sector in the DCFTA has been liberalized but still persist significant limitations from the EU side in order to protect European services sector from low cost services coming from third countries.

#### **6. Public procurement**

The DCFTA has provisions also for public procurements which accounts for large share of the economy both in the EU and in Moldova.

The Liberalization is the main achievements to reach with conditions Moldova align its legislation in the issue to the one in the European Union.

Moldova needs to undertake reforms to get a market fair and competitive.

In the DCFTA is possible to find standards in order to win procurements:

- a) Principle of non-discrimination
- b) Principle of Equal treatment
- c) Principle of transparency
- d) Principle of Proportionality

Moldova in 2015 has adopted a new public procurement law to align itself to the EU principles in the field.

#### **7. Intellectual property right**

We are living in a society that is increasing knowledge based and where the main economic assets are becoming intangible.

In this situation the protection of intellectual property rights are becoming even more important of what they used to be in the past.

Moldova is committed to create an environment where companies can enjoy protection for their intangible assets.

The intellectual property law includes:

- a) Copyright that is a legal right granting the creator of an original work exclusive rights for its commercialization
- b) Trademarks which is a recognizable sign design or expression that identifies a product or service
- c) Design and Patents which is a set of exclusive rights granted to an inventor for a limited period of time in exchange for disclosure of an invention
- d) Geographic indication it is a name or sign of products which corresponds to a specific location of origin, and act as a certification the product has specific qualities and it is made according specific procedures. It is widely used for wine and food in general

#### **8. Competition policy**

Competition policy is actually very important in order to keep the economy efficient given the fact a good competition assures to consumers better price for a better quality.

Moldova after the signing of the DCFTA needs to create legislation that effectively addresses anti-competitive cartels, mergers and abuse of dominant position.

Legislation in order to be efficiently enforced needs to have an independent authority that will take care of it.

Since 2012 Moldova is receiving precious help from the European Union and single member states to increase its capacity to enforce competition law

The Competition council has a wide range of interventions:

- a) Decision
- b) Regulation
- c) Prohibition
- d) Intervention and Inspection
- e) Sanctions

The main infractions in the competition policy were:

- a) Abuse of dominant position
- b) Mergers and acquisition
- c) State Aid

a) Abuse of dominant position is one of the most typical situation competition policy (Antitrust) is trying to fight; basically it takes place when one company holds a dominant position in a given market and it tries to abuse that position.

Abuse of a dominant position may appear in several situations, for example when a company imposes unfair purchase or selling price or imposes supplementary obligations which have no connection with the subject of such contract etc.

It is not forbidden to have a dominant position but to abuse this position

b) It is a situation control happening when a proposed merger acquisition or joint ventures involves companies with a certain amount of turnover

c) It is a control of direct and indirect State aid

The Association Agreement includes also several other chapters: 1) Financial assistance; 2) the aligning of Moldavian legislation in the banking and financial assistance at least in the medium term; 3) Transport sector; 4) Energy; 5) Environment; 6) Digital sector; 7) Consumer protection; 8) Company law; 9) Agriculture, in this field it is very important the program Empard which support agricultural and rural development; 10) Employment and social policies; 12) Education training and culture; 13) Science technology and space; 14) EU agencies and programmer; 15) Cross border cooperation; 16) Civil society.

#### **Autonomous Trade Preference**

The Autonomous Trade Preference was the previous agreement regulating relationship between the Republic of Moldova and the European Union.

It is a different kind of agreement, less ambitious of the Association Agreement and covers only commercial matters without taking into consideration any other issue such as rule of law foreign and security policy etc.

The Association agreement basically it is much more than a simple creation of a free trade area, but it envisages also the alignment of the legislation in a very wide spectrum of issues of the signatory countries to the EU legislation in order to create a single area of rights and democracy at its borders.

Moldova got this preferential treatment with the European Union through the Autonomous Trade preference with the Council regulation no.55/2008 on January 21, 2008.

The European Neighbourhood Policy action plan for Moldova foresaw the possibility to consider granting additional Autonomous Trade Preferences (ATPs) given the fact the country improved substantially system of control and certification of origin of goods.

In 2006 Moldova adopted a very substantial reform of custom legislation and already by 2007 the level of implementation of it was quite good.

The Autonomous Trade Preference gave to Moldova the possibility to export its industrial production without tariffs and also agricultural products to some extent at least.

In fact it was stated in the ATP the possibility for Moldova to export tariff free each year fixed quotas of production for each agricultural product considered.

The European Union decided to take these important steps because the total level of import from Moldova in the EU was very small, 0.03% back then, and the opening up of the European market to Moldavian firms was not threatening the local industrial system by any means.

On the other hand this opening up of the European market was quite significant for the small and open economy of Moldova and would have brought economic growth, investments, the creation of new jobs and the overall export level.

It was clear that level of integration of Moldova's economy was related to its commitment to align to European legislation.

For instance key to try to fully exploit the benefit the Autonomous Trade Preference to Moldova was the compliance of the principle of the rule of origins of products.

In the ATP was also included the possibility to suspend temporarily the benefit of free tariffs commerce when serious violations of the rules for the entitlements to the preferential arrangements, such as fraud or failure to provide administrative cooperation in the process of verification of the origin of the goods happened.

In the ATP was also foresaw the possibility to return on a stable basis to the old system of Tariff in the cross border transaction for products threatening to cause difficulties to European producers.

As I already stressed in the ATP was not included the other way around, this means European producers were still working in their Moldavian transaction under a system of tariffs, basically ATP was only a system to try to spur, via export, the Moldavian economy in its attempt to reach better level of life.

ATP managed to help a lot the economy in Moldova; in fact in 2008 the export level increased substantially reaching an all-time high, and also foreign direct investment reach an all-time high of approximately 600 million euros on an annual bases.

The Association agreement went much further in integration between the EU and Moldova with the DCFTA aim to create a real free trade area between the two counterparts.

#### **Comparison between DCFTA and ATP**

The DCFTA is in place since 2014, this means probably it is early to draw conclusions on its effect on the Moldavian economy; anyway some data are already available and deserves to be analysed.

In the first year of effect of DCFTA from September 2014 to September 2015, total export from Moldova decreased 14.8% but export toward the EU was stable decreasing only 1.4%.

If we take into consideration only agricultural and food export, which is the backbone of the national economy, in the same period increased 10.8%.

It is clear Moldova will need to comply with Sanitary and Phytosanitary rules in order to experience a real jump in export for food products, in particular if we talk about product of animal origin, otherwise the removal of tariff barriers will be frustrated from non-tariffs barriers.

On the other hand one of the biggest fears the DCFTA was bringing, the invasion of Moldavian market from European product didn't happen, in fact in the first year of the free trade area actually import declined by 16.4%.

This statistics was however influenced by the fact that European producers are still under a tariffs regime and furthermore Moldova's, economy experienced a severe recession in that period of time that clearly affected import.

In 2016 overall export of goods and services totalled 2,9 billion American dollars, equivalent to 44% of the total national GDP.

At the end of 2016 total Moldavian export fully recovered the small losses it experienced in the first year of the DCFTA with a 9.4% increase over 2015 and it is 6.9% higher than in 2014 when the DCFTA enter into force.

If we also analyse the kind of product Moldova is exporting toward the EU we can easily notice the huge increase for Machinery and equipment that was linked mainly to foreign direct investment coming from abroad to open factories and activities in Moldova to benefit from the free trade agreement, and export the products towards European markets.

This increase is almost fourfold since 2004; this means that also various previous agreements played a role in this growth including the Autonomous Trade Preference.

Even the decrease of export that happens in 2015 was due mainly to the decrease in prices of commodities such as sunflowers and nuts on which the Moldova's economy relies heavily but if we take in consideration not prices but only physical volumes export toward EU increased 27% in 2015.

#### **Conclusions**

In general the DCFTA is bringing new investments and an increase in export to Moldova and had so far a moderate positive effect on its economy.

The export growth towards the EU, and a general reorientation of Moldavian export, started to begin in 2004, thanks to other agreements including the very important Autonomous Trade Preference of 2008 that preceded the DCFTA and was a major step to put Moldova on a very good position to become a centre where to invest for export towards EU market.

The DCFTA it is probably extending a phenomenon that already started several years ago of a general increase of Moldavian export towards Europe, which it is also exacerbated from the steep decline of export towards the most classical markets of Russian Federation and CIS countries in general, due to Russian sanctions to many key agricultural products and the recession that struck particularly hard there since 2014.

At the moment the share of the European Union of the total Moldavian export it is approximately 63% and it will probably grow in the future even further thanks to the DCFTA which will place Moldova in a good position to receive foreign direct investments from foreign firms willing to use the country in order to establish it as a export base towards European markets.

Moldova is also experiencing to some extent a strengthening of its Public Institution thanks to reform linked with the Association Agreement, and Moldavian citizens got the possibility of visa free travel towards the European Union, which clearly increased the attractiveness of Moldavian passport for its citizens.

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### **LEGAL-PENAL PROTECTION OF HUMAN GENETICS. COMPARATIVE ASPECTS**

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*This paper treats the necessity for legal-criminal protection of human genetics against effects raised by biotechnology and medicine that have led to. Such problems as genetic manipulations, experiments on human embryos, medically controlled birth, trafficking in organs, tissues and cells; human cloning, etc. may be sometimes very dangerous. That is why it is necessary to establish new ways of protection of the human rights as well as the right of genetic integrity that gives the absolute right over own body. In this sense, the interdiction of cloning is an universal right of human beings, but the right to dispose over own body is prohibited when it is transgressing upon the rights and freedoms of others, the public order and good manners. Such an interdiction recalls the need that the law keeps under control the scientific development, as stated in one United Nations resolution.*

#### **Introduction**

Biotechnology and genetic engineering play an increasingly important role in a wide range of sectors, and the protection of biotechnological inventions is certainly of fundamental importance for national and community economic development.

In the same time genetic engineering, in addition to positive and innovative results, can also lead to abuses or even crimes.

The importance of social values whose criminal protection is achieved by criminalizing the facts of genetic manipulation with negative effects, namely the genetic identity of the human species and the human races in their diversity, uniqueness, integrity and health, as well as natural selection, justifies the adoption of the necessary measures to prevent and combating crime in this area. Criminal protection against the consequences of individual genetic manipulation crimes thus becomes a protection of the uniqueness and unrepeatability of the human species in its entirety.

#### **Purpose of this paper:**

The Analysis of the Legislation of Some Foreign States ensuring protection of human genetics and reproductive health by criminal law.

#### **Analysis of bibliographic sources in the field of researched matter**

Selected theme "Criminal-law protection of human Genetics" is a little researched topic in the literature.

In the autochthonous literature, in the absence of monograph studies and doctoral theses, the direct investigation of criminal responsibility for genetic manipulation is reflected in scientific articles, textbooks and scientific-practical comments. We could mention the works of Teodor N. Țirdea “Elements of Bioethics” (2005), “Western Europe bioethics and bio-justice – the fourth path in the development of biological ethics: theoretical-methodological analysis” (2011).

Some aspects of researched topic are reflected in the works of Brînză Sergiu as: Crimes that endanger the life and health of the person (art. 160-163 CP RM): legal-criminal analysis (2014), “Legalization of the act of euthanasia: pros and cons” (2006), “The medical assistance of human reproduction to the attention of criminal law” (2006); the works of Boaghi, V. “Legal and criminal reflections on the cloning offense” (2007), “Cloning of human beings: ethical, moral and legal problem” (2004); the works of Midrigan V.-S. “Research and biomedical experiment as a variety-type of professional medical risk: exposing the legality conditions” (2011), Legal-criminal defence of the human embryo versus scientific progress: some law proposals (2013).

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From foreign literature we can mention following works “Man a genetic adventure” by Wells Spencer (2009), “The human genome project and its ethical, legal and social implications” by Tim Williams. *Le corps et l’argent*, by R. Ogien, (2010), etc.

#### **Used materials and applied methods**

The elaboration of the present paper has been conditioned of studying of the international, regional and national regulatory framework that provides the legal protection of human genetics, as well as a vast doctrinal framework in the field of genetics and criminal law. The used methods were: logical, comparative, systemic, analysis and synthesis.

#### **Results and discussions**

The issues rose by biotechnology and medicine have led to the need for legal-criminal protection of human genetics. In this respect, a number of normative acts have been adopted at international and national level. These regulations are of undeniable value, as long as such practices can pose potential risks to life, health, or may call into question the future of the species, especially when talking about experiments on the human genome. These practices redefine the notion of the right to life, bringing into its area of protection the genetic data of the person. In the light of these new developments, it may be questioned whether the right to life will widen its content and makes it more difficult to draw the boundaries between the right to life and the right to physical integrity [5, p. 82].

At national level, the legal protection of human genetics is ensured by state supreme laws, criminal laws, and special laws. It is worth mentioning that the regulatory areas are different, as is the spectrum of actions incriminated. Various aspects such as embryo and fetal status, substitution mother position, death and abortion concept, tissue and organ donor status, active and passive euthanasia etc. are regulated.

Currently, it has begun actively to criminalize genetic manipulation processes. In particular, such criminal offenses are included in the criminal codes of Spain – 1995, Salvador – 1997, Colombia – 2000, Estonia – 2001, Mexico – 2002, Slovenia – 2002, Slovakia – 2003.

In some countries (Brazil, Germany, Great Britain, Japan), criminal liability for genetic manipulations was introduced by special laws.

Switzerland regulated the field of human genetics through the Supreme Law, thus providing protection at the highest level. The federal constitution of the Swiss Confederation of April 18, 1999 (as of March 11, 2012) regulates the legal protection of human genetics through the constitutional texts provided by art. 118-120 [8].

According to art. 118 of the Constitution, the Confederation takes action to protect health. According to art. 118a52 of the Constitution, freedom of research is ensured and the importance of research for health and society is taken into account. According to paragraph 2), biological and medical research involving people, must be done as for the following principles:

- A. A research project can only be carried out if the person who participates or the person designated by law has given its consent following prior information; The law may provide for exceptions; A refusal is possible in any case;
- B. The risks and constraints incurred by persons participating in a research project must not be disproportionate to the utility of the project;

- C. A research project cannot be carried out on undocumented persons unless such equivalent results can be obtained from persons with discernment; Risks and constraints must be minimal;
- D. An independent research project expertise must establish that the protection of the persons participating in this project is guaranteed [8].

In Article 119, the Constitution of the Confederation regulates medical assisted procreation and genetic engineering in the human sphere. The constitutional text stipulates that the human being must be protected against abuses in the field of medical assisted procreation and genetic engineering. The Confederation regulates the field on the use of human germ and genetic patrimony.

In Article 119a54, the Confederation adopts provisions in the field of organ, tissue and cell transplantation. This ensures the protection of human dignity, personality and health. It also ensures a fair distribution of organs. Donation of organs, tissues and human cells is free of charge. Trade in human organs is prohibited.

In accordance with the provisions of Article 120, genetic engineering is regulated in the non-human sphere, establishing that the human being and the environment must be protected against genetic engineering abuses. The Confederation regulates the use of germinal and genetic patrimony of animals, plants and other organisms. This ensures the observance of the integrity of living organisms and the safety of human beings, animals and the environment, and thus protects the genetic diversity of animal and plant species [8].

The French Criminal Code of 1994 contains, in Chapter II, Crime and Punishments against the Person, Title I “Crime against humanity and human species”, a chapter titled “About the crimes of eugenics and reproductive cloning” (Articles 214-1 to 215-4). Article 214 of the French Penal Code penalizes the implementation of eugenic practices aimed at organizing the selection of persons and the interventions to obtain a genetic child identical to other living or deceased beings. [9].

The Spanish Penal Code of 1995 contains a chapter titled “Delictes in Genetic Handling” [12].

According to art. 159 of the Spanish Penal Code is criminalized genetic manipulations, which lead to the modification of the human genotype, except for those performed in order to eliminate or reduce defects or treat serious diseases. These deeds are punished by imprisonment from two to six years, and the prohibition of occupying a public office, profession or occupation from seven to ten years.

According to art. 160 of the Spanish Penal Code is criminalized the use of genetic engineering to produce biological weapons or mass extermination of the human species, the illegal creation of human embryos for purposes other than the purpose of human procreation, the creation of identical human beings by cloning or by other procedures of selection of the species (race).

In accordance with Article 161 of the Spanish Penal Code is penalized the assisted reproduction practice of a woman without her consent, an offense punishable by imprisonment from two to six years, and the prohibition of a public office, profession or occupation from one to four years. In order to start the criminal proceedings in this crime, it must be a complaint from the injured person or his legal representative. In the case of a minor or disabled, who need special protection, could also initiate criminal prosecution Tax Ministry [12].

In the UK, there are two special laws in this field: the Human Reproductive Cloning Act of 2001 and the Human Fertilization and Embryology Act of 2008 [4,13].

The Human Reproductive Cloning Act 2001 contains criminal norms prohibiting the introduction of an embryo into a woman's uterus, created by cloning or other methods except fertilization. The penalty for these actions is 10 years of deprivation of liberty for cloning. According to art. 1 paragraph 3) of the Law, no proceedings can be opened in connection with this crime without the consent of the General Prosecutor [13]. This law was repealed by the Law on Human Fertilization and Embryology of 2008. [4].

The Human Fertilization and Embryology Act is one of the most democratic laws in the world. The law contains cert, clear and detailed provisions on what is allowed and prohibited in fertilization and embryology.

Part I covers the terms 'embryo', 'gametes', 'DNA' and 'in vitro fertilization', as well as the range of activities covered by the law concerned.

In accordance with point 3 of Part I, the following activities are prohibited: insertion in a uterus of an embryo or gametes, except for the permitted ones. The law explains the notion of “allowed embryo”, which only means “the embryo of a permitted egg and a permitted sperm”, the notion of “allowed egg”, meaning: “egg produced or extracted from a woman's ovary and whose DNA Is not altered “and the term” allowed sperm “, which means the sperm produced by or extracted from a male's testes and whose DNA has not been altered”. In accordance with section 4, it is forbidden to introduce genetically-engineered embryos, non-human embryos and gametes from the animals into the uterus. At the same time, it is forbidden to mix

human gametes with gametes of animals, to produce human embryos in a mixture or to keep and use a mixed human embryo rather than under a license. [4].

In Germany, the field investigated is regulated by two special laws: the Act on Embryo Protection of 13.12.1990, as amended and the Stem Cell Act of 2002 [10, 11].

The German Embryo Protection Act (ESchG) of 1990 prohibits all forms of research on human embryos in vitro that are required for purposes other than for their own preservation. Thus German scientists cannot create ES cells for research; neither can they clone human embryos for research purposes. They can, however, work abroad or undertake research on imported ES cell lines. The act also regulates cases of unauthorized fertilization, unauthorized embryo transfer, and post-mortem fertilization (Section 4); the artificial alteration of the human genome; human cloning, etc.

Since January 2002 these regulations have been complemented by the Law on Stem Cell Research (StZG). According to this law the import and use of embryonic stem cells are prohibited on principle but it allows some exceptions if [11, s. 4 par. 2]:

- the lines were extracted from surplus embryos from in vitro fertilisations in the country of origin before 1 January 2002,
- the persons entitled to disposal under the law of the country of origin have properly consented to the extraction of stem cells,
- no remuneration or benefit in kind has been granted,
- no other regulations, especially those of the ESchG, are violated.

Furthermore research projects dealing with these ES cells are only to be permitted on a case by case basis by the administration in charge:

- if they “serve high-ranking research objectives in association with the progress of scientific understanding within the framework of basic research or with the extension of medical knowledge when developing diagnostic, prophylactic or therapeutic techniques to be applied on human beings” [11, s. 5 no. 1].
- if the questions posed have already been provisionally answered as far as possible by using animal cells or animal embryos, and
- if no equivalent results can be expected from research on anything other than embryonic stem cells [11, s. 5 no. 2].

In the US, the ban on cloning was introduced for the first time in 1980. In 2003, the palace of US Congress representatives adopted the cloning ban, according to which both reproductive and therapeutic cloning are considered as crimes. The punishment for committing the offense is 10 years' imprisonment and \$ 1,000,000 fine. In January 2009, the ban on therapeutic cloning was ruled out [5].

In Japan, the Parliament adopted on 29 November 2000 the Law on the regulation of human cloning technology and other related technologies, which contains criminal sanctions [1]. The law prohibits the transfer of the human embryo, the cloned human-animal embryo performed by nuclear somatic transfer as well as human-animal chimeric embryos and human-animal hybrid embryos to a human or animal uterus. A violation of this ban may be punished by up to 10 years imprisonment and a fine of 10 million Japanese yen (approximately US \$ 93,000).

At the same time, this act does not prohibit the transfer of the cloned human embryo achieved by the division and nuclear transfer from embryonic to uterine cells, the transfer of human-human chimeric embryos.

In addition, the law allows the research of the human embryo in vitro. Moreover, the law permits the cloning of a human embryo by somatic nuclear transfer, and to make man-man, human-animal, or human-human-animal embryos. The act admits the so-called “therapeutic cloning.” It does not refer to other types of human embryo research such as human embryonic stem cell manufacturing [1,3].

The law does not lay down fundamental ethical principles, such as the free character of embryo and ova donation for research purposes. The sale of human embryos and oocytes is not legally prohibited in Japan. In this context, we mention that the sale of solid human organs such as the heart or liver is prohibited by law through the Organ Transplantation Act in 1997.

Although the Russian Federation did not ratify the Conventions and the Protocol, it adopted Temporary Law on the prohibition of cloning No 54-FZ on May 20, 2002. The ban was set for 5 years. However, at the end of March 2010, the law was prolonged indefinitely, until a special law on biotechnology came into force.

In Romania, unlike modern criminal codes in Europe, the new Romanian Criminal Code does not pay any attention to combat dangerous facts in the field of genetic engineering, such as human cloning or the production of biological weapons. At the same time, following the initiatives of several MPs and senators belonging to all parliamentary groups, the Special Law on the prohibition of cloning and biomedicine applications that violate human rights and human dignity has been adopted [14].

The law prohibits the human cloning. This represents the asexual reproduction by insertion of somatic cells' cores into a fertilized or non-fertilized ovum whose core has been removed or deactivated to produce a living organism in any stage of development which has a human genetic constitution or a predominant human genome. The somatic cell is defined as a diploid cell (which has a complete set of chromosomes) in any stage of development, obtained or derived from a living or dead human body.

The law also prohibits the implantation of the human embryo in the body of an animal, the growth and development of a human embryo created otherwise than by in vitro fertilization and the growth and development of a human embryo outside a woman's body for more than 14 days. It is forbidden to place an illegally obtained embryo in the body of a carrier mother, to trade in human embryos and human gametes to obtain an unjust patrimonial benefit. Human cloning is punished by imprisonment from 3 to 7 years.

The other applications of medicine prohibited by law are punishable by imprisonment from 6 months to 2 years. When the doctors and nurses are involved in such cases, they would be prohibited from practicing the profession.

The criminal law of the Republic of Moldova does not assure a good protection of human genetics.

The Criminal Code of the Republic of Moldova is to be adjusted to the requirements of time. I consider it appropriate to include a new chapter in the Criminal Code after Chapter I, as follows: "Chapter I<sup>1</sup> – Offenses against human genetics", starting with Art. 144.

The inclusion of these crimes in a separate chapter is necessary because at the moment they are scattered through different chapters, articles and alignments of the Penal Code. At the same time, antisocial facts in the field of human genetics have a major impact on humanity and the human species, and genetic manipulations are directly proportional to the development of science. For these reasons, given the importance of protected social values, these crimes are to be included immediately after Chapter I, the special part.

The new proposed offenses are: "Genotyping Alteration," "Dangerous Use of Genetic Engineering," "Illegal Human Embryo Creation and Cloning."

Proposed forward-looking laws would contain solutions for preventing and sanctioning research and experiments with the use of genetic engineering to produce biological weapons or weapons of mass extermination of the being.

### **Conclusions**

Legal-criminal protection of human genetics is achieved through a range of regulations at international and regional level. The Convention on Human Rights and Biomedicine, signed in Oviedo on 4 April 1997 (the European Convention for the Protection of Human Rights and the dignity of the human being against applications of biology and medicine), UN Resolutions and Declarations, the statements of the Council of Europe, of the European Parliament, of UNESCO, the criminal codes and the special laws of different states can be mentioned. Under the conditions of ensuring international legal protection of human genetics, the state has actively started to criminalize in the national laws the facts that challenge human genetics. At national level, the legal protection of human genetics is ensured by state supreme laws, criminal laws, and special laws. It is worth mentioning that the regulatory areas are different, as is the spectrum of actions incriminated. Different aspects such as human cloning, embryonic and fetal status, substitution mother position, death and abortion concepts, tissue and organ donor status, active and passive euthanasia, etc. are regulated differently.

The criminal law of the Republic of Moldova does not assure a good protection of human genetics. The Criminal Code of the Republic of Moldova is to be adjusted to the requirements of time. I consider it appropriate to include a new chapter in the Criminal Code after Chapter I, as follows: "Chapter I<sup>1</sup> – Offenses against human genetics", starting with Art. 144. The new proposed offenses are: "Genotyping Alteration", "Dangerous Use of Genetic Engineering", "Illegal Human Embryo Creation and Cloning".

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## GENERAL THEORETICAL FRAMEWORK OF EVOLUTION AND DEVELOPMENT OF PUBLIC PROCUREMENT IN THE REPUBLIC OF MOLDOVA

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*Evolution and development of public procurement is determined by a number of external factors that have a strong influence. These include the effects of inflation and opening of new markets, transactional methods that are unable to react effectively in certain situations. Internal influences also play an important role, such as rising raw material costs and outsourced materials, and the installation of integrated systems, which propels the procurement function to higher level. All of these, as a whole, initiate a change.*

**Key words:** *evolution, development process, public procurement, influence factors, public sector, European directives.*

In present, organizations handle a whole range of inputs related to inputs, and among input-related activities we understand: purchases, inventory control, warehouse management, and domestic shipments. The ability of organization to achieve its strategic objectives depends on proper development of all its components, in line with the responsibilities assigned to them.

Public procurement describes that “a procedure which a contracting authority must undertake in accordance with the law to conclude, with one or more economic operators, a contract for the supply of goods, services or works for consideration” [10, p. 1]. In a narrower sense, public procurement means “the object of a contract that a contracting authority concludes under the law of supplying a product, providing a service or executing a work”. The concept of public procurement is related to the content of legal relationships similar to those of sale-purchase, but appreciated in a very broad sense and with specific connotations [17, p. 13].

From the historical point of view, public procurement in the Republic of Moldova had several stages of evolution, from the modernization of the legal framework, to the digitization of public procurement, to the “adaptation” of the national legal framework to the *acquis communautaire*.

Thus, at the first stage, the Law on the procurement of goods, works and services for the state’s needs № 1166-XIII of April 30, 1997, which was already obsolete, was replaced by Law № 96 of 13.04.2007 on the public procurement. In order to transpose the provisions of the *communautaire acquis*, the new Public Procurement Act came into force in 2016 [4].

Thus, new legislation has brought a number of fundamental improvements, including introducing the principles that are considered in the public procurement process: transparency, efficiency of public money use, equal treatment of economic operators etc.

Another aspect is the emergence of new procurement procedures such as competitive dialogue, negotiated procedures, dynamic purchasing systems or electronic auction. At the same time, some old procedures were cancelled (two-stage bidding or special auction with limited participation). In the process of modification of the legislation in this field, the National Agency of Public Procurement has replaced the Agency of Material Reserves, Public Procurement and Humanitarian Aid, which were active until 2009.

Another key element of the renewed legal framework is definition of contracting authorities' status and their functions in the procurement process. Modernization of the legal framework was inevitable and included a number of innovative elements. Therefore, this stage has led not only reviewing legislation in the field, but also updating it in the line with new trends.

The second phase of development introduced a number of specifications related to new applicable electronic procurement practices: electronic communication between contracting authorities and bidders; Implementing a fully electronic dynamic purchasing system; Publication in electronic format of notices, specifications and all additional documents; making all communications and information exchange electronically; electronic submission of tenders; making electronic auctions.

Thus, electronic auction achieved a clearer regulatory framework only to the end of 2013 when the Public Procurement Regulation was adopted in terms of public acquisitions by using the electronic auction. It meant partial implementation of European rules, focusing on the use of an electronic device in order to analyze in decreasing form the prices of the proposed offers. In general, electronic auction is intended to help to increase the transparency of public procurement, but, in order to participate; economic operators are obligated to register in the appropriate electronic system. A significant achievement in this area is Automated Information System "State Registry of Public Procurement", which was developed in 2008, in order to automate procurement process.

The last step concerns the processes of taking over and transposing the European legislation in this field. The process begun to accelerate after the signature and ratification of the Association Agreement with the European Union. Thus, the preferential margin, which allowed the domestic operators to benefit, was excluded as part of a country's commitments to the European partners specified in the Memorandum of Understanding between the Republic of Moldova and the European Union on Macro financial Assistance and the European Neighborhood Policy, in the context of the transposition of European legislation, the Common Procurement Vocabulary (CPV). Regulation was approved, being unique classification in the system, which in itself includes the names of products, works or services that are the subject of procurement contracts.

The provisions of the Association Agreement with the European Union contain commitments related to the reciprocal opening of public procurement markets, ensuring transparent offers under non-discriminatory and competitive treatment. Therefore, irrespective of the place where public procurement takes place (at national, regional, local), the involved actors have to be treated identically. Also, in the Association Agreement, two European directives [3, art. 268] are set out, the principles and terms of which are increasingly found in national legislation. The reciprocal opening up of the public procurement market is to be carried out gradually and simultaneously with the harmonization of national legislation with the European one [12, p. 13].

Trends in digitization and Europeanization of public procurement remain on the rise, increasing the degree of transparency in the field, a beneficial normative framework for streamlining public procurement procedures, and ensuring greater competition, including opening the sector to European economic operators.

Currently, a good example is practice of the neighboring state, Romania, a member state of the European Union, which regulates, through the existing and applicable normative framework, a series of Government Ordinances on public procurement that transpose the European Union Directives No. 20/2002 on public procurement through electronic auctions harmoniously integrates the provisions of several European directives into one act. [9, p. 236].

Previously, according to the European Commission, firms wishing to enter in the public procurement market in Member States other than their own could not do it, and this was equivalent to exclude them.

One of the Commission's main aims was the liberalization of the public procurement market in order to create an internal market – area without internal borders where free movement of goods, people, services and funds is.

It has been identified that Community measures are needed to ensure that these types of contracts are open to all nationalities on equal terms and to make tender procedures more transparent so that compliance with the principles, lay down in the Treaties, could be monitored and enforced. The directives, adopted as a result of these comments, were based on three major principles: transparency and information of the contracts by announcing it on community level, non-discrimination, by involving an open selection criteria and open standards, with obligated use of European Commission stipulations and standards and competitive supply through genuine competition for the award of contracts on community level [8, p. 384].

The Public Procurement Directives regulate three types of contracts: works, procurement of goods and services. They all have a number of common features: they are concluded for pecuniary interest, have a written form, and are concluded between two parts. Therefore, a public procurement contract must be concluded by consideration. It requires the contracting authority to receive, under the contract, a consi-

deration, which must be of direct economic interest. Similarly, the public procurement contract must be concluded in writing form between two parts: economic operator and contracting authority.

In accordance with the provisions of the new Directive on public procurement, the contracting authority is the State, regional or local authorities, bodies governed by public law or associations formed by one or more such authorities or one or more such bodies governed by public law [1, art. 2, alin.1, pct.1].

Furthermore, central government authorities are all contracting authorities listed in Annex I of the Directive in order to extent these corrections or changes that are made at national level. Regional or local contracting authorities mean all contracting authorities that are not central governmental authorities [1, art. 2, alin.1, pct. 2, 3].

Directive requires the fulfillment of cumulative conditions for the identification of bodies governed by public law. Thus, bodies governed by public law mean bodies that have the characteristics: they are established for the specific purpose of meeting needs in general interest without industrial or commercial character; Have legal personality; Are mostly financed by the State, regional or local authorities or other bodies governed by public law; Or their management is subject to supervision by the respective authorities or bodies, or have a management, supervisory or supervisory board, made up of more than 50% of the States, designated by regional authorities.

With regard to the procurement procedure, since the start of the preamble to the new public procurement Directive, the European legislator states that the award of public contracts in the Member States must comply with the principles of Treaty on Functioning of the European Union, free movement of goods, freedom of establishment and freedom to provide services, and for contracts that exceed certain thresholds, it is necessary to develop legal rules for the coordination of public procurement procedures so that these principles were transposed into practice.

Thus, the same Directive provides, in Art. 26, award procedures such as: open procedure, restricted procedure, competitive dialogue, competitive procedure with negotiation, innovation in partnership and negotiation procedure without prior publication of a call for participation. Contracting authorities must also take into account the principles of equal treatment, non-discrimination, transparency and proportionality, principles expressly laid down in Directive 2014/24 / EU, 18. when they award public procurement procedure.

With regard to the principle of transparency, European rules on public procurement allow contracting authorities to award contracts to the lowest bidder. The purpose of the European provisions is to remove barriers to the free movement of goods and services in order to protect the interests of individuals established in any Member State. Contracting authorities choose the criteria underlying the award of a contract; they must be formulated in such way as to take account of the most advantageous tender. Moreover, the principle of equal treatment of tenderers also implies an obligation of transparency in order to verify compliance with the principle of equal treatment. Transparency is ensured when the award criteria have been brought to the attention of bidders in the awarding documentation, and verification of the fulfillment of these criteria will be done by an expert, taking into account objective factors.

Another good practice of the European countries is the cooperation between the Court of Justice of the European Union and the national courts, through the preliminary referral mechanism, which has brought innumerable benefits to the understanding and application of the principles underpinning the adoption of European rules. In the field of public procurement, it has proved to be particularly useful, not only for the delivery of unitary solutions by national courts, but also for the elaboration of more comprehensive and easy-to-use European acts.

The Court found must have a direct economic interest in order to qualify a contract as public procurement of the contracting authority. This is easy to prove, especially when the contracting authority becomes the owner of the work, for example, when the contract is concluded or when it has a legal title that will ensure the subsequent availability of the work. However, there are several practical problems relating to the identification of contracting authorities, public law bodies to which the award procedure in the directives applies.

The Court has held that an entity which carries out both activities which meet needs in the general interest, whether industrial or commercial and which at the same time carries on commercial activities, may constitute a body governed by public law within the meaning of the Directive. It is also a contracting authority and an entity that is funded by individuals as insured if the amounts paid are levied, calculated and collected in accordance with public law rules.

Therefore, the award of public procurement contracts must take account of the principles of equal treatment, non-discrimination, transparency and proportionality, as a set out in the new directive. Contracting authorities have a duty of transparency, ensuring a degree of advertising sufficient to ensure the application of competition rules at the level of all Member States and impartiality in awarding the contract.

In the practice of public procurement in European countries, the legal framework of which is governed by the European directives, the notion of “public procurement” is defined both in Directive no. 2004/18/CE and the new Directive no. 2014/24/EU, similarly: a contract for pecuniary interest concluded in writing between one or more economic operators and one or more contracting authorities and having as their object the execution of works, the supply of goods or services. Hence, how the contracting authorities make purchases depends, to a large extent, on the efficiency of using public money. Losses resulting from public procurement seriously affect the development of public infrastructure and services, resulting in a deterioration of the business environment and affecting the quality of citizens’ lives.

In conclusion, public procurement must be perceived as an area that is influenced by the many social, administrative and legal relationships in society. We can certainly say that the development of concepts and techniques has had an important impact on procurement, namely: electronic data exchange, real-time production, rationalization of production and supply, integrated logistics, total quality management, value flow concepts, competitor activity, Customer desires, innovation, technology, integrated systems, structural changes, performance quantification, etc. Achieving high performance can not only be achieved by improving procurement procedures but also by influencing factors. Public procurement researchers have identified, during the evolution of the concept [5], that public procurement is not only an instrument that ensures the provision of public services to the members of society, but also a way of exercising the public power, respectively a means of implementing some options Public policy.

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