The Liquidity Risk Management in the Reform Period of Romanian Banking System

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Abstract

The current economic and financial context on the international level has automatically triggered our interest in understanding the causes of the recent financial crisis. Liquidity is for sure a solution for saving the modern economy and therefore it needs to be efficiently managed. For these reasons we have selected this theme as a chapter in Romanian economic reform. We explore the hypothesis of prevalence of profit focus over liquidity risk management in Romanian banking system in the reform economy period. Our study on seven Romanian banks in period 2011-2015 shows inconsistency and non-homogeneous results. We concluded there is a different focus on going concern in different banks and their banking management. This depend on historical profile, on kind of customers and recent development evolutions in this field.

Key words: Enterprise Risk Management, risk liquidity, reform period

J.E.L. classification: G21

1. Introduction

The Romania's including in EU triggered the necessity to transpose and implement the Directive no. 2006/48/CE belonging to the European Parliament and Council from the 14th June 2006 on the activity's access and development in the credit institutions and Directive no. 2006/49/CE belonging to the European Parliament and Council from the 14the June 2006 on the investment companies and credit institutions' capital adequacy. Following this legislative harmonization with the European directives, the credit institutions in Romania cannot be authorized by Romanian National Bank, if they do not have distinct personal funds or an initial capital level at least equal to the minimum level established through regulations (In respect of Romanian Banking Law no. 227/2007 which approve Urgency Ordinance no. 99/2006, minimum level of bank capital cannot be smaller than the equivalent in lei of 5 million Euros (art.11 in UG no. 99/2006). An important issue was arising in Romanian banking as a new challenge: risk management in banking activities in the context of the European market, and the freedom of capitals, services and labor.

2. The Risk Management in theory, practice and banking regulations

Enterprise Risk Management is a compliance requirement in most jurisdictions and it's something all companies must do well in order to be profitable, successful, or even to survive. So, in this situation, *every human being is programmed to be a risk manager* (Rodney, 2018).

In general, the financial management authors (Eitman, et al, 2004, p.230), say that risks of economic transactions may be mitigating by different measures like: (i) cash flows currency

supporting; (ii) splitting risks agreements; (iii) back to back loans or parallel loans; (iv) currency swaps.

The cash flows currency supporting is considered the oldest form of hedging companies' economic transactions. In this approach, a French company who exports commodities in United States and receivables is in American dollars, may contract a loan in American dollars from an American bank. Then, the risk of market is avoided and the liquidity of company is safe.

Not only in the specialized literature, but also in the international practice, the position of enterprise risk management represents a professional concern for management, the internal control system and internal as well as external audit (Dobre, 2008, p.12). The risk management's stages are as follows (Dobroteanu, et al, 2007, p.21): *Identifying the risks* by detecting the probability of their occurrences and evaluating the consequences or the patrimonial impact; *Evaluating the risks* and establishing their relevance for banking activities; Keep up a *risk register* identifying the risks and establishing the owner of the risk; *Sizing the risk relevance or significance*; *Prioritizing risks in terms of their relevance* or *significance*.

In banking sector, the management of economic and financial risks it's a permanent as day by day concerning. Nowadays, risk and banking performance become an interesting theme for scholars. Even more, in national area, reliable research are made on Romanian banks, for instance, on the correlation between credit risk ratio and rate on assets (Munteanu, 2015, p.836).

The cash-flow management is also, a favorite theme when we discuss about banking. The cash flow indicators become even an important pillar in credit rating and we can discuss about the role of operating cash flow in credit rating. (Wang, et al, 2012, p.48).

The most known classification of the main risk types undertaken by a universal bank meet in banking literature (Roxin, 1997, p.109) is based on the financial risks assumed in the balance management and also, performance risks specific to the banking services' area and environment risks. The *financial risks* are considered the most important group of banking risks which include:

- (1) the credit risk, expressing the low probability of the effective cash collection, at the date of payment, of the anticipated revenue flows;
 - (2) the liquidity risk expressing the low probability of the bank operations' effective financing;
- (3) the market risk or the interest variation expressing currency risk and variation risk of the financial assets. This kind of risk express a high probability that a variation of the market conditions affect in a negative way the bank profit;

The results of effective appearance of all this risks may generate *the bankruptcy risk*, expressing the high probability that the bank's personal funds are insufficient to cover loses derived from the current activity and these loses are susceptible to affect the bank debtors' investments in a negative way.

Most part of Romanian authors (Diaconescu, 1999; Hoanta, 2001; Stoica, 2002) appreciate that, while a bank performing its own operations is in a permanent competition environment regulated by the central bank and performing within the dynamics of economic national and international field. Also, the financial risks are considered the most important group of banking risks which include cash flows risks or *the liquidity risk*.

3. Relevant management imposed rules in the reform period of Romanian banking system

The credit institutions including banks are responsible in terms of the regulations of Romanian National Bank on the internal control and audit and significant risk management, for measures on the significant risk management: the credit risk, the market risk, the liquidity risk, the operational risk, the country risks and others.

In this respect, the credit institutions' board has at least the following duties: to approve and reconsider their *risk profile*; to approve *the politics* on the management of the respective risks, to analyze them periodically, at least annually, and revise them, if necessary; to ensure the *necessary measures to identify, evaluate, supervise and control the risks* including the externalized activities taken by the credit institutions' heads; to approve the *procedures of establishing the competencies and responsibilities* in the risk management field. The *risk profile* determines establishing the *objective and strategy* for each significant risk. It's important to be taken into account the nature, size and complexity of banking activities. The strategy on the significant risk management is

supposed to determine the report *between risk and profit* being acceptable under circumstances of continuing a healthy and prudent activity.

4. The banking management of the liquidity risk and going concern principle

Romanian banking accounting is aligned on IFRS requirements which became basis of preparation of closing financial statements. IFRS was adopted by National Bank of Romania Order no. 27/2010 and this was the moment of implementation *going concern* as accounting policy in the context of financial crisis effects (Dobre, 2014 p. 9). Under the going concern assumption, an entity is viewed as continuing in business for the foreseeable future. It's known that general purpose financial statements are prepared on a going concern basis, unless management either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so. When the use of the going concern assumption is appropriate, assets and liabilities are recorded on the basis that the entity will be able to realize its assets and discharge its liabilities in the normal course of business.

Liquidity is a general feature of the assets expressing their capacity to be rapidly transformed and using a minimum expense in cash or available in the current account (Dobre, 2003). The banking liquidity refers to the banking liabilities and assets' management having different levels of liquidity and expressing the bank's capacity to finance the current operations. The *liquidity risk* could derive not only from the banking assets' incapacity to change into cash but also from the incorrect estimation of the liquidity needs.

The task of the banking management is to permanently adapt the current liquidity of the banking assets to the liquidity necessary to the due eligible payments. In the long run, possessing liquid assets bigger than the liquidity needs could affect the bank's capitalization. On the other hand, less liquidity could generate insolvency, insolvability and bankruptcy. The liquidity appropriate to each bank in the system is also important for the systemic risk due to its easy dissemination through the inter-bank payment system. The banking liquidity management is measured by the *money position indicator* representing the value of all liquid banking assets at a given time. The *money position's* components are as follows: the *cash from the pay desk and treasury* (coins or bills) belonging to the bank; *the money available in the reserve account at the central bank* (the obligatory minimum reserves imposed as a prudential measure by the central bank, including Romania); *the money available in the current accounts at other banks* as call deposits the smaller banks make at partner banks (bigger) to benefit from banking services such as participating in traded credits, international transactions of merging and taking over, counseling and assistance for investments; *sums to collect from other banks* which are in transit or in course of payment in the banking system.

Supposing the banking management objective is maximizing capitalization then the value of the liquid assets needs to be minimized. The optimal minimization is that following the steps: transit collected sums, call deposits at other banks, cash, and reserves at the central bank. The money position management presupposes the framing on the minimum level of the obligatory reserves and the permanent adequacy of the liquid assets' value at the liquidity needs. In the Romanian banking system, there are applied norms of banking liquidity imposing the minimum limit of the liquidity indicator at value 1. The *liquidity indicator* is computed in terms of the effective liquidity and the liquidity necessary for each date of payment bands (1 month, 3 months, 6 months, 12 months, over 12 months). The requirement is to maintain the liquidity indicator at least level 1 (according to RNB Norm no. 1 on the 9th Apr. 2001 published in the Official Monitor no. 201 on the 20 Apr. 2001). If liquidity surplus appears on the date of payment bands except for the last band it will be added to the effective liquidity level related to the next date of payment band. The effective liquidity is done by collecting the balancing assets and the received commitments out of the balance from each date of payment band. The necessary liquidity is determined by collecting the balancing obligations and the received-given commitments out of the balance from each date of payment band.

The *politics of banks and other credit institutions* on the liquidity management refers to the following:

i) the assets' *composition* using their liquidity and capacity to be transacted in the market, the liabilities, as well as the elements out of balance;

- ii) the *management manner* of the liquidity of the main foreign currencies operating individually or particularly;
 - iii) the utilization of certain financial instruments such as derived financial instruments.

The scenarios of liquidity management should be periodically reviewed to determine if they are continuing trend. The *liquidity risk* which is wrongly managed could lead to the *insolvency risk* as a consequence of one or more presented risks that the bank did not prevent. It shows the value at which the bank's personal funds could decrease before the creditors' position to be jeopardized. This risk management is related to the size of the bank's personal funds as regardless of the efficacy of the actions undertaken to manage the risks, the occurrence of losses is possible any time. As a result of this practice, appears a permanent need to increase the personal funds.

Identifying, quantifying and supervising the insolvency risk could be done using RNB Regulations (as Regulation no. 8/26th April 1999 on limiting the banks' credit risk; Regulation no 7/16th April 1999 on the bank's personal funds) on the banks' personal funds as well as the Early Warning and Banking Rating System - C.A.M.P.L. presented by the Supervision Department in the Romanian National Bank, where C: capital adequacy; A: assets' quality; M: management; P: profitability and L: liquidity.

The Romania's including in EU triggered the necessity to transpose and implement the Directive no. 2006/48/CE belonging to the European Parliament and Council from the 14th June 2006 on the activity's access and development in the credit institutions and Directive no. 2006/49/CE belonging to the European Parliament and Council from the 14the June 2006 on the investment companies and credit institutions' capital adequacy. Following this legislative harmonization with the European directives, the credit institutions in Romania cannot be authorized by Romanian National Bank, if they do not have distinct personal funds or an initial capital level at least equal to the minimum level established through regulations (in respect of Romanian Banking Law no. 227/2007 which approve Urgency Ordinance no. 99/2006, minimum level of bank capital cannot be smaller than the equivalent in lei of 5 million Euros (art.11 in UG no. 99/2006). The matrices of liquidity risk management present in banking financial reporting contains on vertical line assets and liabilities and on horizontal line strips of maturity period. The table below, present the nature of banking assets and liabilities in a liquidity approach.

Table no. 1 Nature of banking assets and liabilities

	Up to 3 months	Between 3-12 months	Between 1-5	Over 5 years
FINANCIAL ASSETS	months	Inontils	years	
Cash and assimilated elements				
Current accounts and bank deposits				
Financial assets at real value				
Credits and advances given to the clients				
Leasing claims				
Financial assets for selling				
Securities kept until the date of payment				
Investments in associates				
Other assets				
Total financial assets				
FINANCIAL LIABILITIES				
Bank Deposits				
Client Deposits				
Loans from banks, other subject loans and				
debt securities				
Other liabilities				
Total financial assets			_	
Deficits /Surpluses (Exceeding liquidity)				

Source: Own authors processing data

5. Romanian banks liquidity risk management in reform period

Nowadays, in the context of the financial crisis effects, student and professionals are more and more interested by banking performance and risk management in this field.

For our study, we have chosen four banks and their reporting data under IFRS framework accounting system. Data are selected from explanations on seven banks financial statement for five years period (2011-2015). One of this, was excluded from study cause the unbiased results. Is about BRD Societe Generale whose indicators (surplus/deficit) are zero, which shows an no realistic or ideal situation. In this case, we decided to explore this results later, in a larger study.

Table no. 2 Nature of banking assets and liabilities

Tubie i	10. 2 1	aiure oj banking	g assets and liab	riiies		1		EL 4
Banks and reporting years		< 1-1month + 1-3months	3-6 months + 6-12 months	1-3 years 1-5 years	Over 5 years	Assets & Liabilities without maturity	Surpluses/ <mark>Deficit</mark> s	Evolution 2015/2011 2012/2011 2013/2012 2014/2013 2015/2014
Romanian Bank	2011	(1.201.419)+ (1.083.667)	(362.001)	901.875	2.615.597	-	870.385	71.86%
	2012	(1.570.398)+ (984.124)	(62.844)	731.499	2.607.348	-	721.481	82,89 %
	2013	(1,472,158)+ (951,861)	(637,887)	907,243	2,818,556	-	663,893	92.01%
	2014	(1,457,907)+ (960,551)	(1,585,747)	1,836,335	2,810,303	-	642,433	96.76 %
	2015	(951,877) +(1,129,324)	(1,101,740)	1,015,785	2,792,637	-	625,481	97.36 %
	2011	(12.238.924)+ (2.636.701)	982.247+ 10.323.580	8.229.025	(4.659.227)	(12.238.924)	0	X
PDD	2012	(10.732.629)+ (2.577.185)	1.490.361+ 8.234.389	7.723.681	(4.138.627)	10.732.620	12	X
BRD Societe Generale	2013	(13,601,530)+ (3,629,500)	2,513,947	7,161,842	11,468,570	(3,913,328)	1	X
Generale	2014	(14,473,385)+ (3,335,525)	(369,681)	11,394,378	11,091,729	(4,307,515)	1	X
	2015	6,787,560 + (1,522,494)	(1,844,086)	(3,140,327)	(280,653)	-	0	X
	2011	(3.298.873)	(1.011.692)+ 1.796.282	598.149+ 99.926	3.738.491	72.959	1.995.242	956,33%
Transylva nia Bank	2012	(2.478.491)	(1.414.492)+ 1.081.255	1.159.360+291. 629	3.684.145	103.186	2.432.142	121.89%
	2013	(1,467,418)	(1,171,806) +4,479,114	3,472,234+1,10 0,231	5,905,942	139,392	12,457,689	512,21%
	2014	(718,522)	(1,723,578)+ 1,405,223	4,454,568+2,09 8,648	6,837,525	155,751	12,509,617	152.53 %
	2015	(2,977,384)	(1,501,810)+ 847,973	5,622,650+3,91 6,260	13,009,553	163,908	19,081,150	100.42 %
	2011	(8.558.594)+ (4.657.100)	9.596.334	7.638.554	3.045.936	23.291	7.088.421	19,76%
	2012	(10.907.757)+ (3.910.026)	8.154.682	7.920.714	1.405.622	4.732	2.667.964	37,63 %
CEC Bank	2013	(6,433,013) +(4,169,997)	5,303,745	4,790,561	1,669,154	20,849	1,181,299	44,27%
	2014	(4,254,999)+ (5,816,840)	31,006	5,480,507	5,868,248	(4,433)	1,303,489	110.34 %
	2015	(4,063,014) + (5,280,216)	(3,149,128)	7,949,009	5,927,467	16,807	1,400,925	107.47%
ProCredit _	2011	(514.947)+ (175.016.557)	22.823.141 +86.617.352	319.372.236	70.675.326	-	89.289.953	424,98%
	2012	70.161.147+ (198.494.176)	(77.756.404)+ 42.378.805	283.450.861	99.907.042	-	161.911.026	181,33 %
	2013	51,549,899 +(165,659,792)	(94,57,820)+ 151,993,147	375,012,796	58,210,032	-	461,648,262	285.12%
	2014	24,195,417 +(162,558,779)	(14,468,606) + 88,472,433	328,944,650	75,753,141	-	340,338,256	73.72 %
	2015	(29,107,743)+ (79,507,064)	(92,799,541)+ 138,222,390	344,604,235	98,058,097	-	379,470,374	111.49 %
	2011	(8.470.808)	1.883.182	4.350.692	4.490.609	477.732	2.731.407	115,80%
	2012	(5.020.793)	568.819	2.509.592	4.327.103	546.903	2.931.624	107,33 %
Raiffeisen	2013	(6,092,566)	573,606	4,458,215	4,086,423	6,937	3,032,615	103,44%
Bank	2014	(6,094,221)	1,120,770	4,327,935	3,976,738	6,597	3,337,819	110.06 %
	2015	(8,222,254)	824,885	4,993,901	5,494,803	71,731	3,163,066	94.76%

	2011	6.632.348.625	5.031.504.117	2.227.698.892	1.881.122.113	45.801.949	2.553.778.446	128,02%
UniCredit	2012	4.001.186.932	4.384.921.746	(483.505.949)	2.770.885.292	60.234.611	2.731.348.768	106,95%
Tiriac	2013	(5,784,925,286)	4,319,299,151	1,466,324,149	2,897,394,812	3,507,110	2,901,599,936	106,23%
Bank	2014	(7,468,042,140)	5,140,024,327	2,464,050,387	2,768,232,505	138,436,633	3,042,701,712	104.86 %
	2015	(9,090,313,204)	4,582,633,468	3,087,969,758	4,413,786,549	275,273,200	3,269,349,771	107.44%

Source: Own author processing data

6. Data evolution, results interpretation and case study conclusion

In the below table, we synthesized results and we try to give an adequate interpretation

Table no. 3 Data evolution and results interpretation

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	2015/2011	71.86%			
Romanian Bank	2012/2011	82,89 %	Romanian Bank is a commercial profile registered an involution of liquidity year by		
	2013/2012	92.01%	year and the accrual result in five years is 71.86% percent 2015 face to 2011. The		
	2014/2013	96.76 %	reflect a lack of <i>ongoing</i> concern in banking management.		
	2015/2014	97.36 %			
	2015/2011	956,33%			
	2012/2011	121.89%	Transylvania Bank have a commercial profile and registered a very good increase of		
Transilvania	2013/2012	512,21%	liquidity year by year and the accrual result in five years is 956,33% percent 2015		
Bank	2014/2013	152.53 %	face to 2011. This means almost ten times increasing and these figures reflect a strong focus of <i>ongoing</i> concern in banking management.		
	2015/2014	100.42 %	strong rocus of ongoing concern in banking management.		
	2015/2011	19,76%	CEC Bank is 150 years old Romanian popular bank with a commercial profile and		
 	2012/2011	37,63 %	Romanian State owner. Fundamental values of CEC Bank: trust, honesty, stability.		
	2013/2012	44,27%	Functional values of CEC Bank: safety, accessibility, simplicity. Finally,		
CEC BANK	2014/2013	110.34 %	representing values of CEC Bank: tradition and national symbol.		
	2015/2014	107.47%	In the analyzed period, this bank registered an involution of liquidity year by year and the accrual result in five years is 19.76% percent 2015 face to 2011. This may reflect a lack of <i>ongoing</i> concern in banking management or may reflect a large extension of logistics area due of the popularity and tradition as a low cost banking services and interest level.		
	2015/2011	424,98%	This bank is a new one in Romanian banking sector with a commercial profile. Pro		
PRO	2012/2011	181,33 %	Credit Bank registered a good increase of liquidity year by year and the accrual		
CREDIT	2013/2012	285.12%	result in five years is 424,98% percent 2015 face to 2011. This means over four		
CKEDII	2014/2013	73.72 %	times increasing and this figures reflect a good focus of <i>ongoing</i> concern in banking		
	2015/2014	111.49 %	management.		
	2015/2011	115,80%	D-iff.i D11 k		
Raiffeisen	2012/2011	107,33 %	Raiffeisen Bank, also have a commercial profile and registered a small increase of liquidity year by year and the accrual result in five years is 115.80% percent 2015		
Bank	2013/2012	103,44%	face to 2011. This figures reflect a low focus of <i>ongoing</i> concern in banking		
Dank	2014/2013	110.06 %	management.		
	2015/2014	94.76%	management.		
UniCredit Tiriac Bank	2015/2011	128,02%	UniCredit Tiriac Bank, also have a commercial profile and registered a small		
	2012/2011	106,95%	increase of liquidity year by year and the accrual result in five years is 128,02%		
	2013/2012	106,23%	percent 2015 face to 2011. This figures reflect a low focus of <i>ongoing</i> concern in		
	2014/2013	104.86 %	banking management.		
	2015/2014	107.44%	ounting management.		

Source: Own authors processing data

The study conclusion is despite the non homogenates results; we can observe liquidity of assets (receivables on banking credits) and also, liquidity of liabilities (debts on banking deposits). The big differences between Transylvania Bank and CEC BANK may give an interpretation linked on different size, different tradition and different ongoing management. Another study (Dobre, 2008, pp. 12-27) show at the end of 2007, Transylvania Bank foreshadowed a positive liquidity in the long run up to 5 years but with a liquidity deficit of 2,020,417 money units (thousands of Euros) in the short run. It seems that during the last years our banks have recorded positive evolutions on putting into practice the Western best concepts regarding the risk management. Up to this study, Transylvania Bank registered a very good increase of liquidity year by year and the accrual result in five years is 956,33% percent 2015 face to 2011. This means almost ten times increasing and these figures reflect a strong focus of ongoing concern in banking management. On the other side is CEC Bank who registered an involution of liquidity year by year and the accrual result in five years is 19.76% percent 2015 face to 2011. This may reflect a lack of ongoing concern in banking management or may reflect a large extension of logistics area due of the popularity and tradition as a low cost banking services and interest level. Up to their own presentation, CEC Bank is a universal, competitive commercial bank to provide customers with diverse and quality products

and services (https://www.cec.ro/despre-cec-bank). CEC Bank is focusing in particular on financing SMEs, agriculture, local government, as well as those banking projects that by their nature contribute to the development economic, creating and maintaining jobs. CEC Bank is an active element in helping clients to access the European Funds and engage in supporting Government Programs. Particular attention will be paid to the relationship with the Romanian population.

7. Conclusions

The banks are supposed to develop a strategy in the liquidity management field able to include a component of its daily management. We have study six banks and betwen them one is leader (Transylvania Bank), one is focused well on ongoing concern (Pro Credit Bank) and other two of them are a low focusing on ongoing concern (Raiffeisen Bank and UniCredit Bank). Finally, other two banks (Romanian Bank and CEC Bank) show a weak management and we can say even a lack of *ongoing* concern in banking management. Our study concluded there is a different focus on going concern in different banks and their banking management. This depends on historical profile, on kind of customers and recent development evolutions in this field.

The final conclusion of this study is in the reform period, Romanian banks, although they do not have a long experience in the risk management, have a permanent concerning and a long experience in the liquidity management field, thanks not only to the specialized literature but also to the BNR prudential supervision. This fact is an encouraging one, taking into consideration current financial crisis caused by an acute lack of liquidities following the American mortgage credit crisis.

8. References

- Eitman D., Stonehill A., Moffett M., 2004. *Gestion et Finance Internationales*, Paris: Pearson Education France.
- Diaconescu M., 1999. Banks, Payment systems and Risks. Bucharest: Economic Publishing House.
- Dobre, E., 2003. *Elements of currency, credit and banks*. Constanta: Ex Ponto Publishing House.
- Dobre, E., 2008. Managementul riscului de lichiditate în instituțiile de credit-Liquidity Risk Management in the credit institutions, Revista DREPT, ECONOMIE ȘI INFORMATICĂ, Universitatea Dunărea de Jos Galați în parteneriat cu Academia de Studii Economice Moldova Chişinău, nr.1 (14)/2008, pp.12-27 ISSN 1810-8725 https://ibn.idsi.md/sites/default/files/imag_file/5.Managementul%20riscului%20de%20Lichiditate%2 0in%20institutiile%20de%20credit.pdf [available at 28.07.2018]
- Dobre, E., 2014. *Going concern in actual banking system-an accounting approach*, INDIAN JOURNAL OF APPLIED RESEARCH, volume: 4, Issue: 2, 2014 February pp. 8-10, Journal DOI: 10.15373/2249 555X, https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/fileview.php?val=February_2014_1391258919_a81fc_89.pdf [available at 07.06.2018]
- Dobroţeanu C.L., Dobroţeanu L., 2007. *Internal Audit*. Bucharest: InfoMega Publishing House.
- Hoantă N., 2001, Money and Banks, Bucharest: Economic Publishing House.
- Munteanu I., 2015. Risk and Banking Performance: the Correlation between Credit Risk Ratio and ROA in the Romanian Banking System, Ovidius University Annals. Economic Sciences Series, 2015, vol. XV, pp 836-841
- Roxin L., 1997. Banking risk management. Bucharest: Didactic and Pedagogic Publishing House.
- Rodney I, 2018. "Managing Director of Redefining Value and Education", World Business Council for Sustainable Development, May 4, 2018 http://www.ifac.org/global-knowledge-gateway/author?author=270288 [available at 31.05.2018]
- Stoica M., 2002. Banking Management. Bucharest: Lumina Lex Publishing House.
- Xu (Frank) Wang, Jenny Zang, William Sanjian Zang, 2012. *The role of operating cash flow in credit rating: Investment-Grade FirmsVs. Speculative- Grade Firms*, Risk governance& control> financial markets & institutions/Volume 2, issue2, 2012, Kiev, VIRTUS Interpress, pp.48-50.