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## DECISION-MAKING FLEXIBILITY IN BANKS' INVESTMENT ACTIVITY AND ITS INSTITUTIONAL LIMITATIONS

*The article deals with different interpretations of institutional environment concept and institutional limitations, emphasizes that the volume, structure, efficiency and risk level of investment in banks, the freedom of decision-making in that field must be limited effectively. The structure of institutional limitations which influence the flexibility of decision-making in investment activity is presented.*

*Keywords:* institutions; institutional environment; institutional limitation; flexibility of decision-making.

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## ГНУЧКІСТЬ ПРИЙНЯТТЯ РІШЕНЬ В ІНВЕСТИЦІЙНІЙ ДІЯЛЬНОСТІ БАНКІВ ТА ЇХ ІНСТИТУЦІЙНІ ОБМЕЖЕННЯ

*У статті розглянуто різні трактування термінів інституційного середовища та інституційних обмежень. Виявлено, що обсяг, структура, ефективність і рівень ризику інвестування в банки обмежені свободою прийняття рішень у цій області. Представлено структуру інституціональних обмежень, які впливають на гнучкість прийняття рішень в інвестиційній діяльності банків.*

*Ключові слова:* інститути, інституційне середовище, інституційні обмеження, гнучкість прийняття рішень.

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## ГИБКОСТЬ ПРИНЯТИЯ РЕШЕНИЙ В ИНВЕСТИЦИОННОЙ ДЕЯТЕЛЬНОСТИ БАНКОВ И ИХ ИНСТИТУЦИОНАЛЬНЫЕ ОГРАНИЧЕНИЯ

*В статье рассматриваются различные трактовки понятий институциональной среды и институциональных ограничений. Выявлено, что объем, структура, эффективность и уровень риска инвестирования в банки ограничены свободой принятия решений в данной области. Представлена структура институциональных ограничений, влияющих на гибкость принятия решений в инвестиционной деятельности банков.*

*Ключевые слова:* институты, институциональная среда, институциональные ограничения, гибкость принятия решений.

**Introduction.** Despite the tendency of formation of a financial system oriented at banks in Ukraine, with its mainly banking instruments of economy financing, the problems of using banks as financial intermediaries at the stock market remain urgent. This is favoured by both the demand of corporations for investment services and necessity to solve problems which arise as a result of the specific role of banks in the country's financial stability support, on the one hand, and their functional aims as subjects of business activity, on the other. In the view of the latest financial crisis, the intensification of banks' universalization being characteristic even for traditionally specialized bank systems (e.g., in the USA) makes it essential for banks to search and revise the formal institutional basis of investment. From the perspective of

amounts and structure, efficiency and risk level of investment, the freedom of decision-making in that field must be effectively limited. It must be implemented by the complex of institutes which allow reducing the conflict of interests, the bank being both an investor or agent dealing with turnover of securities, and a creditor. These institutes also allow reducing moral hazard, which occurs due to the deposit insurance system, which causes the possibility of high banking risks.

**Analysis of the research and publications.** The problems of institutions, institutional environment and institutional changes in the economy draw attention of many foreign and national scholars, such as L. Davis (1971), A. Gritsenko (2008), D. North (1997), A. Oleynick (2002), S. Skorev (2004), A. Shastitko (2002) and others. At the same time the problems of institutional environment in banking are not studied enough. These problems are considered in the works of such Ukrainian scholars as Z. Vatamanuk (2005), T. Kosova (2011), U. Kovalenko (2011) and others.

**The object of this research** is the structure of institutional limitations that influences the flexibility of decision making in investment activity of banks.

**The aim of research** is to investigate the theoretical fundamentals and classification of institutional limitations of decision making flexibility in banks' investment activity.

**The methods of research are** systematic and comparative analysis of scientific literature and statistical information.

**The observation of investment activity of banks in some countries.** Foreign studies have shown that financial institutes in world practice have considerably increased the amount of activities not connected with usual bank transactions and presupposing non-interest income up to 38% of the total income (Laeven, 2008). This in its turn proves the development tendency of universalization of banks' transactions that could be observed within the past 2 decades. At the same time, a number of studies have proved that such diversification has not resulted in general decrease of business risk rate of the financial institutions (Laeven, 2007).

As a rule, a share of securities in the portfolio of a commercial bank is not very big – on average 44%. Analyzing data in Figure 1 one can come to the conclusion that the least share of investments in securities in assets of foreign banks is observed in Canada.

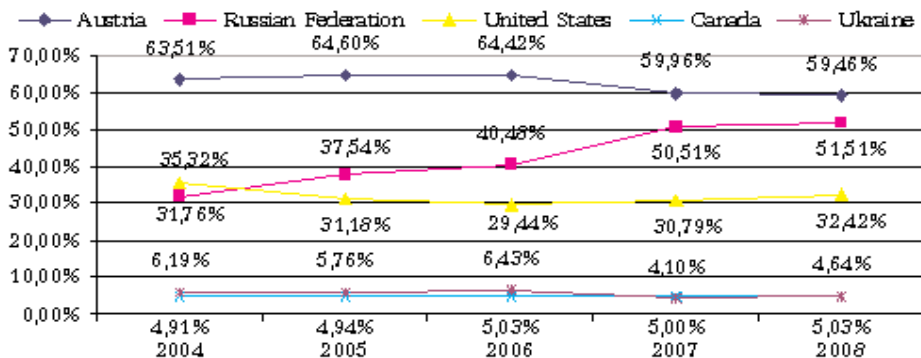
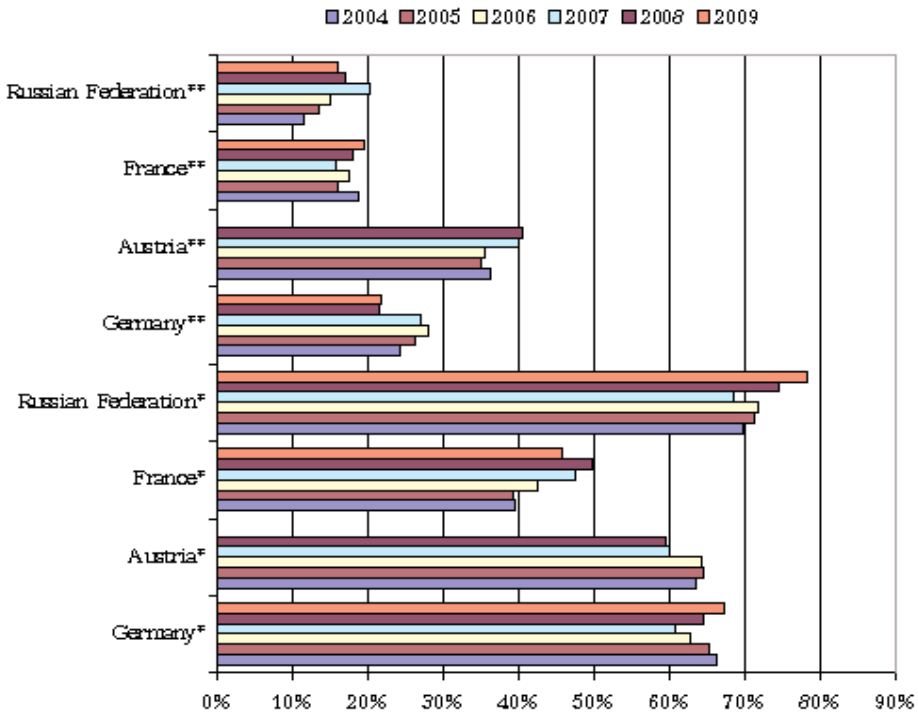


Figure 1. The share of investments in securities in the assets of commercial banks. Based on the data from income statements and balance sheets

Investments in securities were insignificant and it is explained by the fact that banks in Canada don't pay proper attention to investment activity and concentrate their efforts on traditional transactions and services. The highest index was observed in Austrian banks where in 2008 the share of investments in securities in bank assets was 59,46%. At the same time in banks of Russia and the USA this index was somewhat lower. In 2008 in Russia it was 51,51%, in 2004 in the USA – 35,32%. In Ukraine investments in securities were insignificant, the highest index during the analyzed period was observed in 2004 – 6,19%.

After the analysis of the investments share in assets, it is expedient to study the structure of investments into stocks and bonds in bank portfolios (Figure 2).



\* The proportion of shares in the total amount of investments in securities.

\*\* The share of bonds in the total investments in securities.

Figure 2. Share of stocks and bonds in the investments of banks into securities. Based on the data from income statements and balance sheets

The analysis showed that the biggest investments in stocks were observed in Austrian banks in 2008 – 40,54%, in Germany in 2006 – 28,13%, in Russia in 2007 – 20,36%. The lowest investments were in Russia in 2004 – 11,45%. Investments in bank bonds were more considerable. The highest indices were fixed in Russia in 2006 – 71,70%, and in Germany in 2009 – 67,42%, the lowest indices – in France in 2004 – 39,69%. Thus the analysis showed that mainly bonds prevail in the investments in securities, and shares make up the insignificant part of a bank investment portfolio. In some cases it is explained by the fact that it is investments into securities (securi-

ties with fixed income) that are recognized by banks as investments and are toughly regulated by central banks.

At increased risk of banking operations with securities indicates the ratio of net profit or loss from financial transactions with a total value of net interest and non-interest income of banks.

The analysis points to the considerable losses that banks of Austria, Japan and the USA face because of operations with securities. Such situation proves that it is necessary to find solution of the problem, to define the optimal level of institutional limitations in the sphere of banks' investment operations.

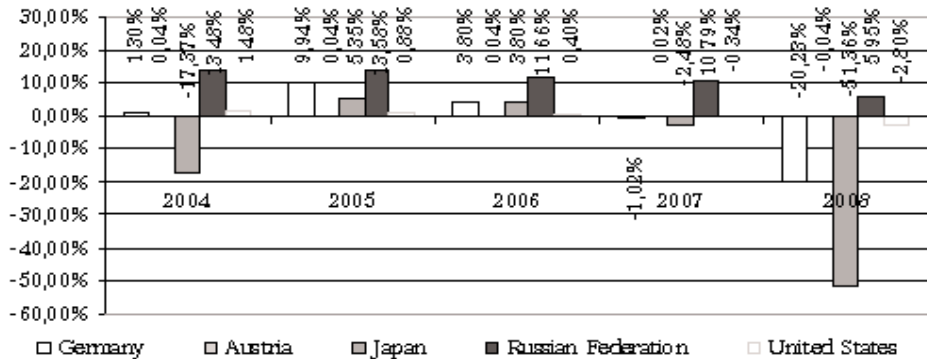


Figure 3. Ratio of net profit or loss from financial operations to net interest and noninterest income. Based on the data from income statements and balance sheets

**Theoretical review of institutional environment of investment activity of banks.** In the structure of environment factors which influence the investment activity of banks institutional limitations are part of the so-called institutional space or institutional environment. According to Williamson (1996), it represents game rules which determine the context in which economic activity takes place – main political, social and legal norms which are the basis for production, exchange and consumption.

Oxley (1999) has a similar approach. She considered that institutional environment should be treated as a set of political, economic, social and legal norms which serve as a basis for production and exchange.

Davis (1971) and North (1997) in turn give concrete expression to this concept and understand institutional environment as a totality of fundamental political, social and basic legal norms which regulate economic and political activity. This approach can be also observed practically in all the works of Ukrainian and Russian scholars.

Based on the fact that institutional environment is the totality of institutions singled out according to certain signs, each author has his own understanding of this category of institution. Most vividly it can be seen in the interpretation of Oleynick (2002) who emphasizes fulfillment of certain functions by institutions: institutional environment (economic constitution, institutional economy structure, institutional framework) – characteristics of external economic environment which are important for economic activity, totality of values, formal and informal norms, which influence the correlation of motivations in activity and determine the achievement of maximum agreement among people. M. Skorev (2008) also treats institutional environ-

ment from the functional point of view. For him it is a certain set of institutions creating matrices of economic behavior and determining limitations for business subjects which are formed in the framework of a certain system of business activity coordination.

E. Kolyushin in his work "The Influence of Existing Environment on Investment Relations" (2010) defines institutional environment as a set of institutions and game rules created by them. Institutional environment is not only a set of institutions corresponding to its type. It defines the direction and speed of institutional changes. With the assumption that institutional environment is not only a set of corresponding institutions we can consider it a special institution of a higher order. It defines the main direction of system development, and also those reference points which serve as a basis for formation and selection of the most effective economic and social institutions.

Institutional environment of banking activity is a well-defined set of institutions which influence the process of institutional banking regulation. They determine the development level of relations in banking, rules for bank interaction with economic subjects, state bodies and physical persons, and also bank limitations which are formed in the framework of a system of banking coordination.

It is necessary to note that despite the fact that an institution itself is a certain "limitation" which structures the interaction of organizations and people, from a wider point of view institutional environment has regulating, informative, regulatory, protective, controlling, stimulating, coordinating and cooperative functions (Kosova, 2006).

The regulating function is to provide stable and safe banks' functioning. It involves the authorized development and enactment of regulatory acts, which regulate banking, setting of requirements and limits concerning banking, giving recommendations.

The informational function is to provide access to the results of bank studies for people and organizations.

The procedural function is to form the structure and the hierarchy of banks' management, to delegate power to certain categories of employees and to determine the orientation of their work.

The protective function is to secure banking, to take preventive measures at early stages of financial crisis danger, to monitor and limit risks in banking and to protect interests of depositors.

The controlling function is to promote banks and their managers, to control the compliance with requirements (with minimal risk) of rational banking, to prevent crisis situations in operation and to control the fulfillment of bank legislation and regulatory documents.

The stimulating function is to stimulate efficient cooperation of financial sector with other economy's sectors.

The coordinating function is performed by institutes which are to solve coordinative problems creating for that purpose the informational infrastructure and providing access to it for all potential participants of business relations.

The cooperative function is performed by the institute which provides cooperation of the participants of economic relations – conventional law. It includes a set of

rules and regulations which limit their activity to avoid social inefficiency of the results.

Therefore, it is reasonable to single out the term "institutional limits" which perform protective, regulating and procedural functions mainly within their formal components and constructional informal components. The activity of these institutes in the banks' investment is aimed at the limit of freedom of decision-making in this field, from the perspective of its amounts and structure, efficiency and risk rate.

Different sources consider institutional limits mainly from the perspective of their institutional inefficiency, destructiveness and, therefore, compare them with institutional barriers (Kovalenko, 2011). Thus, Kosova (2006) explains institutional limits of investment development with firm reasons, which result from the institutional structure reformation of the economy of Ukraine and which negatively influence the investment process. Such institute is changed not according to the rules transformation with other institutes and, therefore, creates the deadlock in economy. From our viewpoint, such inefficient institutes should be defined as destructive to avoid the confusion in terms, because both formal and informal institutes can be destructive.

**Classification of institutional limitations of decision making flexibility in banks' investment activity.** Following the classification criteria of Nort – formal and informal institutes (1997), Kryuchkova – technical-technological, social-economic and ideological (2008), Kovalenko – systemic, and local-organizational (2011), and also the classifications of banking regulation, the institutional limits of decision-making in banks' investment can be structured as follows:

- formal (general legal, administrative, indicative-legal and contractual). These limits in their turn can be universal – limits for all stock market participants, and specific – limits only within the bank system;

- informal limits of destructive and constructive character (Figure 4).

The general legal limits are determined by the regulatory acts, which state the conditions and order of securities issue (shares, bonds, treasury obligations, saving certificates); regulation of agency business in organization of securities turnover; regulatory acts, which determine the structure of bank system, economic, organizational and legal basis of the foundation, activity, reorganization and liquidation of banks, and also the order of forming and the amount of the authorized capital of the bank; regulation of bank transactions list (including securities transactions); regulatory acts, which determine the legal basis of the state regulation and control over the securities market, forms and bodies of state regulation, powers and tasks of the Securities and Stock Market State Commission and powers of the securities market organizations with self-regulation (Figure 5).

The essential administrative universal limits include determination of rules and standards for operations implementation at the securities market and monitoring their compliance; limits in necessity to get license for certain activity by the participants at the stock market; state guarantees certain conditions for investment activities, compliance with the rights and interests of their subjects; limits upto suspension or discontinuation of professional activities without having special permission for these activities.

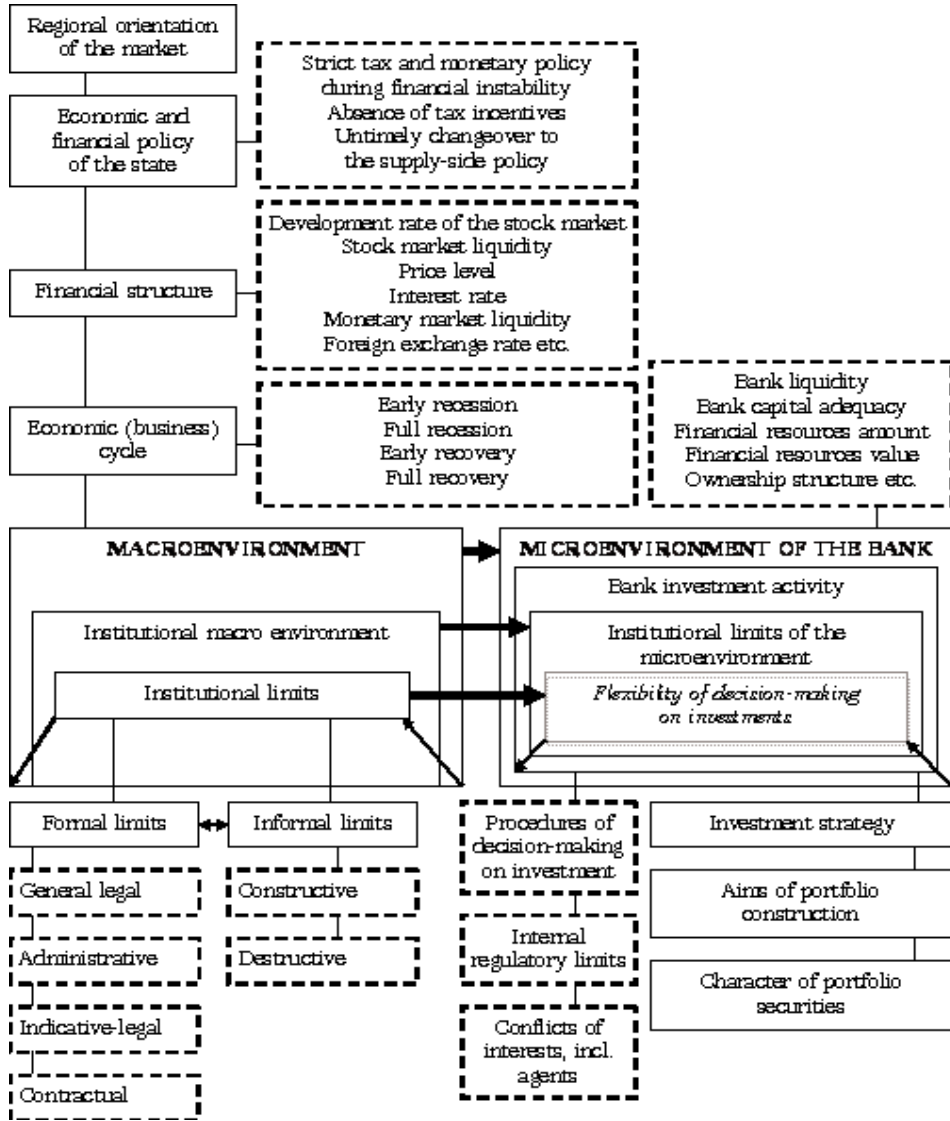


Figure 4. The structure of factors influencing decision-making in banks' investment and its flexibility. Developed by the authors

Administrative special institutional limits for banks as participants of securities market include limits on the possibility to implement underwriting, brokerage and dealer activities of banks at the stock market; universal and special limits according to the bank division; limits which define the necessity to reorganize a bank into a special one in the case of increasing its assets of the securities of certain value within structure; limits concerning the possibility of bank investment in statutory capital of individuals in the non-financial sector of the economy, limits caused by prohibition on vote in terms of shares according to the attorney. That is why the peculiarity of



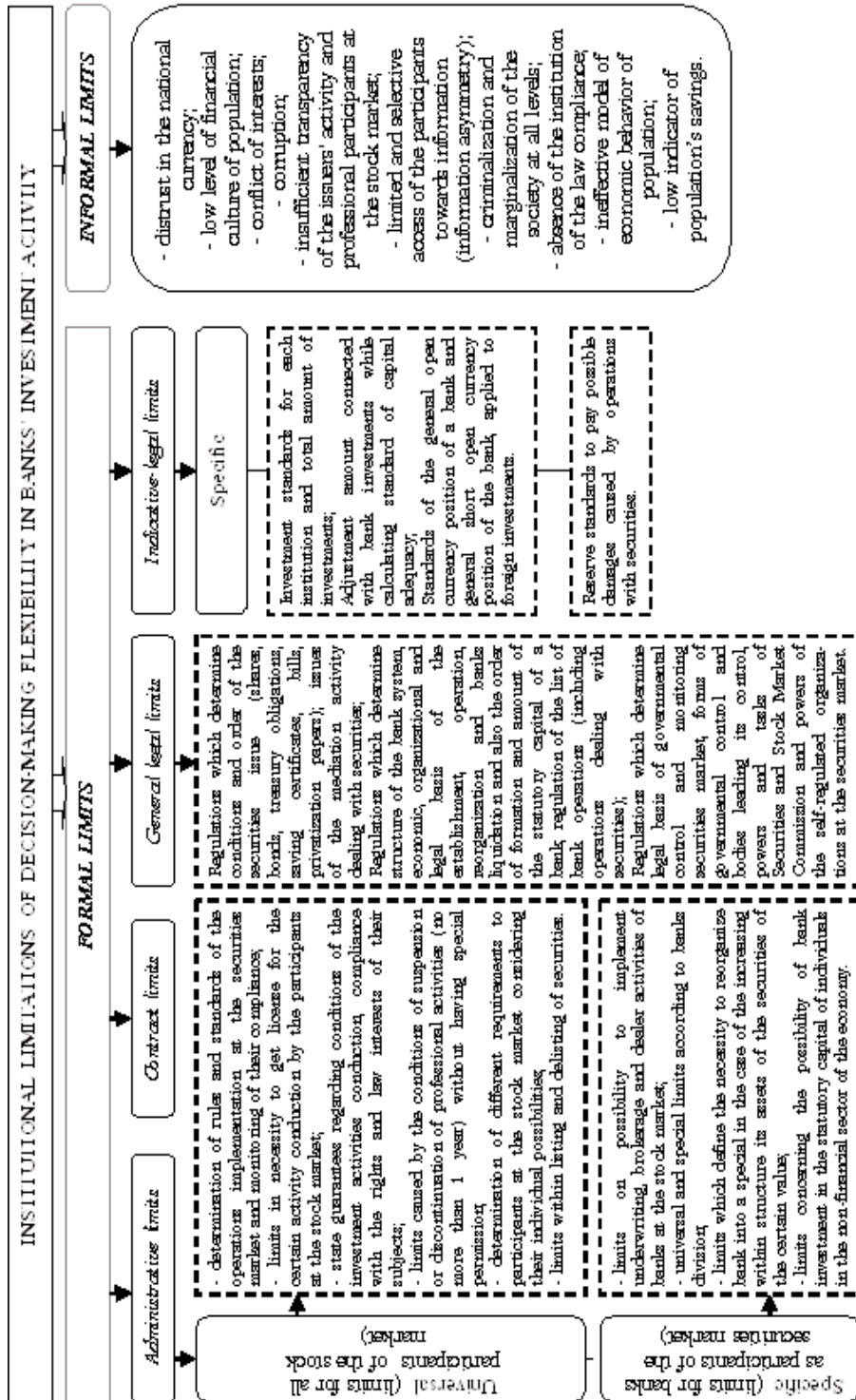


Figure 5. Types of institutional limitations of decision-making flexibility in banks' investment activity.  
Developed by the authors



administrative institutional limits is their implementation to define qualitative and quantitative parameters of banking. Mostly they are used in decision-making on bank entry to the market.

Indicative-legal institutional limits are mainly specific limits for banks. The standards which influence investment activity in Ukraine include investment standards to each institution and total amount of the investment and standards of the upper size of the credit risk for one contractor and large credit risks in the part of banking with obligations. The standard values should not exceed 60% for universal banks, 10% for clearing banks, 90% for investment. Such standard limits within rational diversity of the investment portfolio do not influence considerably investment activity of a bank. Implementation of strict limits is the result of the obligatory reserve formation in order to pay damages caused by operations with securities. The creation of such reserve is regulated by the Regulation on the payment procedure of the reserve to pay possible losses in the result of operations with securities and by the Regulation on the order of the fair value determination for the reduction of the securities effectiveness, confirmed by Resolutions of the National Bank of Ukraine № 629 and № 561 respectively (1999).

Strict requirements of the National Bank of Ukraine concerning the formation of the reserve to pay possible losses as a result of operations with securities directed at the defense of banks from the possible losses in the result of operations with securities in case of the worse financial state of the securities issuer, reduction of the securities market value as a result of the market rates of interests and change of the investment bank policy. That is why the main purpose of the reserve is to compensate the implemented investment risks and to provide appropriate assessment of risks.

All groups of securities should be reserved, which are the part of bank portfolio during 15 and more working days, of the investments – 30 and more working days. At the same time the reservation is not spread on: 1) securities of own emission (share and debenture); 2) securities with sale agreement and prepayment; 3) investment in statutory capitals and associated companies.

Besides, making investments in securities, a commercial bank should analyze influence of these operations on regulatory capital of the bank. Regulatory capital is one of the most important rates in the activity of banks, the main destination of which is to cover negative consequences of different risks, which banks take upon themselves in their activity, and provide security of depositors, financial steadiness and stability of the activity of banks. With this purpose, in accordance with the Instruction of NBU, for determination of rate of regulatory capital of banks, total volume of the capital of the 1st and 2nd levels is additionally reduced by 1) balance cost of safety stocks and other securities with unfixed income, which are produced by banks, trade portfolio of banks and in bank portfolio for sale; 2) balance cost of investments in associated companies and subsidiary companies, and also balance cost of investments in capital of other institutes in volume of 10% and more of their statutory capital; 3) the amount of excess of operations sum total, which could be performed concerning one contractor, over the established normative settings of the standard maximal size of credit risk for one contractor (H7); 4) balance price of non-listing securities in the trade portfolio of the bank; 5) balance price of securities, which are not in the turn of the stock exchange (including trade of which is prohibited by the law of Ukraine)

in trade portfolio; 6) balance price of securities of non-diversified investment funds.

According to Basel approaches to the calculation of the capital for covering market risk, which has not been explored in Ukraine, banks are obliged to cover the capital interest-bearing and stock risks, and also monetary and marketable risks. But interest-bearing risk of the bank (not trade) portfolio, and stock risk of the bank portfolio concerned with unconsolidated investments to the capital of third persons which is taking into account by the sterling deduction of such investments from the bank capital or is covered by the capital in accordance to the same rules, that other assets, liable to credit risk (i.e., weight with the 100% rate of risk).

In accordance with the approach based on the internal models, which for the first time in world practice has given the opportunity to the banks to make accounts of adequacy of the regulatory capital, grounding on their own predictions of market risk as the index of cost measure of risk (value-at-risk – VaR) in case of observance a row of qualitative and quantitative requirements. According to this approach, bank daily calculates in accordance with its portfolio rate of the VaR with the 99% trust level and the 10 days horizon of prediction and determines the minimal size of the capital for covering market risks as the biggest among two meanings by yesterday's VaR rate and average for preceding 60 days of trade, multiplied on the normative coefficient  $m$ . This multiplier takes the value from 3.4 to 3.85 for the models which were admitted reasonably inaccurate according to the results of verification (which registered from 5 to 9 cases of the excess of actual damage value of VaR for the last 250 days of trade), and the meaning is equal to 4 – for models admitted inaccurate (10 or more) (International Convergence of Capital Measurement and Capital Standards).

The indirect standards also include limits of monetary open position and common brief open monetary position of the bank for the investment to securities of foreign issuers.

Thus, indicative legal limits, applied under indicative regulation, are determined due to special indicators, the methodics of their calculation is determined by the regulation body – central bank.

Contract limits provide such rules of contractors' cooperation which with application of certain mechanism of enforcement in contract, limit volumes and other conditions of provision of the investment services by the agent to the investor (or issuer).

Besides formal institutions there are informal ones which are determined as a wide spectrum of public stereotypes and rules of behavior, usually not regulated by official documents. To the informal institutions we can refer all the standards and codes of behavior, types of relations and connections.

The most destructive forms of behavior which limit flexibility of decision-making in the investment activity are: mistrust to the national currency, low level of financial culture of people; conflict of interests, corruption, insufficient clarity of the activity of issuers and professional stock exchange participants; restricted access of market participants to information (information asymmetry); criminalization and marginalization of the society; absence of law-abiding institutions; ineffective model of economic behavior of the population (religious factor); low norm of population's savings.

Institutional limits on the level of banks microenvironment also take the form of formal and informal, constructive and destructive.

**Conclusions.** It should be mentioned that between the activity of effective or constructive and ineffective institutions there is a certain dependency: destruction of formal limits results in intensification of the processes of forming and influence of destructive or barrier informal limits.

Thus, enhancement of institutional environment, its effectiveness in the field of investors property rights protection, regulation of operations on stock exchange increase the flexibility of bank investment decision-making and decrease transactional overheads.

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