MINISTRY OF EDUCATION OF AZERBAIJAN REPUBLIC

AZERBAIJAN STATE UNIVERSITY OF ECONOMICS

INTERNATIONAL GRADUATE AND DOCTORAL CENTER

On the right of manuscript

Ismayılov Elkhan Rafıg

MASTER DISSERTATION

on the topic of

"The impact of credit rating agencies to 2007 - 2009 financial crises"

Specialty code and name: 060403 - "Finance"

Specialization: "Financial management"

Supervisor **Head of Master program**

Head of department

Baku - 2018

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Mövzunun aktuallığı.Kredit reytinqinə maraq beynəlxalq kredit reytinq agentliklərinin dünya bazarında ortaya çıxmasından sonra yarandı.Ölkə iqtisadiyyatının inkişafı və xarici borc cəlb etmənin əhəmiyyəti riski qiymətləndirmə alətlərinin genişlənməsinə təkan verdi.

Kredit reytinqi agentlikləri maliyyə bazarlarında əhəmiyyətli rol oynayır.Təşkilatların borc ödəmə qabiliyyətlərini ölçməkdə məlumatlandırıcı vasitəçilər kimi ixtisaslaşmış reytinq agentlikləri maliyyə bazarlarının effektiv işləməsi üçün imkanlar yaradır. Kredit reytinqi agentlikləri mütəmadi olaraq ölkələr və digər bazar iştirakçıları tərəfindən bu vəya digər maliyyə alətləri ilə əlaqəli riskləri adekvat qiymətləndirə bilməməsi ,habelə ölkələrin iqtisadiyyatına dövri təsirləri səbəbindən tənqid olunurlar.

Mövzunun məqsədi kredit reytinqi agentliklərinin fəaliyyətlərinin böhrana təsirlərinin təhlil olunması, və onların fəaliyyətinin tənzimlənməsinin təkmilləşdirilməsi üçün tövsiyələrin hazırlanmasıdır.

Tədqiqatın hədəfi kredit reytinqinin təyin edilməsi prosesidir.

Tədqiqatın mövzusu isə kredit reytinqi agentliklərinin fəaliyyətlərinin tənzimlənməsidir.

1. INTRODUCTION

Actuality of the study. The interest in credit ratings arose after the arrival of international rating agencies on the world market. The development of the state economy and the possibility of obtaining foreign loans stimulated the growth of this risk assessment tool.

Credit rating agencies play an important role in financial markets. Acting as informational intermediaries specializing in the evaluation of organizations that issue debt, rating agencies provide an opportunity for financial markets to work effectively.Credit rating agencies (CRAs) have repeatedly been criticized by states and market participants for their inability to adequately assess the risks associated with these or other financial instruments, or for their procyclical impact on the economies of countries. Regardless, regulation of CRA activities was practically not carried out either at the global or the pan-European level. The crisis of mortgage lending in the US and the subsequent global financial and economic crisis, as well as the crisis of sovereign debts in the euro area, first, prompted states to clarify the role of the CRA in the development of these crises, and, secondly, to find ways to improve functioning CRA and methods of their regulation.

While in the United States, the CRA started to gradually regulate in 2006, in the EU there was no regulation or supervision of the KCRA until 2008 at all. Brussels failed to change the current state of affairs, where about 97% of the market for rating services are held by three US companies - Moody's, Standard & Poor's and Fitch. The measures taken by the EU leadership have echoed the measures of the US Congress and did not contain fundamentally new or different approaches from the US. Despite the preparation of a number of reports on the activities of the CRA, including the “Groups 20”, as well as the initiative to establish a European credit rating agency, the EU has not begun to play an active role in the global management of the CRA.The most widespread are bank ratings. This is explained by the high risk of operations in the world financial markets, the relative transparency of bank reporting compared to the reporting of enterprises and the increased requirements for bank reporting by prudential supervision bodies.The issue of regulating the activities of credit rating agencies is now one of the most urgent and debated problems. This is because:

- the rating assessment has a significant impact on the stability of the bank being assessed and on the banking system as a whole;

- financial crises revealed the failure of ratings and the active participation of rating agencies themselves in creating crisis conditions;

- an important aspect for the normal functioning of markets is the adequacy of credit ratings;

- despite the importance of the rating, rating agencies in the world remain poorly regulated organizations.

Therefore, in the current economic conditions, the issue of studying the activities of credit rating agencies and their regulation remains topical.

The purpose of the study is to examine the impact of the activities of credit rating agencies on the crisis and develop recommendations for improving the regulation of the activities of rating agencies. To achieve the purpose, the following tasks were set:

- consider the theoretical aspects of the activities of rating services, namely: the concept and types of credit rating, the methodology for assigning a credit rating and the direction of its use;

- to conduct analysis of the market of rating services and ratings of banks;

- analyze the impact of credit ratings on the bank's stability and the existing ratings failures;

- consider the European, American and Russian aspects of regulating the activities of rating agencies.

- develop recommendations for improving the regulation of credit rating agencies.

The object of the study is the process of assigning a credit rating.

The subject of the study is - regulation of the activities of credit rating agencies.

1.1. LITERATURE REVIEW

The activities of the largest credit rating agencies (CRA), the so-called "Big Three" - Moody's, Standard & Poors (S & P) and Fitch, have repeatedly been the object of sharp criticism not only from stock market participants, but also state regulation bodies. Perhaps, one of the first crises, in the aggravation of which the rating agencies accuse, can be considered the Asian crisis of 1997-1998. Leading international organizations: The Bank for International Settlements, the International Monetary Fund (IMF), and the World Bank both blamed these agencies for failing in their forecasts to point out the problems in the economies of East Asian states. Rating agencies admitted their mistakes, but tried to find an excuse for them. Their leadership referred to the fact that the crisis was caused by problems in the private sector, rather than the public sector, and there were no relevant statistical models at their disposal. Nevertheless, in the midst of the crisis, the same agencies have lowered the sovereign rating of Indonesia, Korea and Thailand below the investment level. Some experts believe that the economic situation in these countries was not so critical, and the rating agencies wanted, therefore, to restore the confidence of their investors and restore their reputation [18].

In 2001, credit rating agencies again attracted attention due to the bankruptcy of Enron Corporation (the US energy company) and, as a consequence, to the actual closure of Arthur Andersen, the largest auditing company. In October 2002, the US Senate Committee on Public Administration issued a report, which among other things contained the results of an investigation into the actions of the "Big Three" three years before Enron was ruined. The authors of the report pointed to the errors of the CRA and their inability to warn about the threat of bankruptcy of this company. (Report on the Role and Function of Credit Rating Agencies in the Operation on the Securities Markets, 2003) Five years later, in 2006, the CRA again found itself at the center of the scandal with WorldCom, the US telecommunications company. The reason was the same: the agencies were late informing about the problems in the company. Moody's changed its rating to negative for 48 days before bankruptcy, and S & P - for 32 days. [10, p.189] The impact of the CRA was much more widespread when the mortgage crisis in the United States began in 2007. All three agencies actively participated in assigning ratings to various structured securities, namely subprime residential mortgage-backed securities (RMBS). Although securities secured by housing mortgages existed since 1970, their substandard variety is a relatively new phenomenon. The fact is that these securities were secured by mortgage loans, which required a small initial deposit with very low interest payments during the first few years and that were given to customers who would never receive a home loan under normal mortgage requirements.

Subprime mortgages became widely used in securitization, and players in the market relied on rising real estate prices. Despite the lack of information on such financial instruments, the CRA assigned them high ratings. The US Commission's report on the causes of the financial crisis notes that "from 2000 to 2007, Moody's appropriated 45,000 securities secured by housing mortgages, a triple-A rating. As it became apparent in the summer of 2007, the CRA failed to manage the ratings of structured financial products, possibly because of weak reputational initiatives or unreliable sources of information, or both. "In 2010, 93% of all subprime mortgages, which in 2006 had the rating "AAA", received a rating "below investment".[12]

However, the participation of the CRA in the strengthening of the financial crisis was not limited, and in 2012 their actions had a significant impact on the economies of the euro area countries. On January 13, 2012, S & P downgraded the sovereign ratings of nine European countries. The rating of France fell from "AAA" to "AA +", and Portugal and Cyprus in general to "junk". On February 27 of the same year, S & P downgraded Greece's government bond rating to "SD" (Selective Default), thereby substantially alerting players to the situation in the European financial markets.

It is worth acknowledging that such a result of the CRA's activities can be considered quite satisfactory, taking into account the fact that they appeared at the beginning of the 20th century, and their functions were practically not regulated by the state. The world's first Moody's credit agency was established in the United States and published its rating in 1909. Then in 1922 and 1923 also the agencies Fitch and S & P appeared in the USA. Currently, these three agencies occupy 97% of the world market of rating services, which speaks of the extremely oligopolistic structure of this industry.

What is the purpose of the CRA, and by what means is their profit formed? First of all, the CRA act as intermediaries between creditors and debtors. Investors need to have information about the future profitability and the degree of risk associated with investing in an asset. Through the analysis of a large volume of accounting and auditing reporting, and sometimes even insider information, agencies assign ratings to companies, financial instruments or sovereign states, which in its essence is just an "opinion". Such "opinions" are extremely important for market participants, as they do not need to independently assess the degree of risk and incur additional costs.

CRA revenues come from two main sources: from investors who acquire the results of their research, and from issuers that require a rating. Initially, the CRA appropriated rating indicators exclusively for investors. However, in the 1970s, the presence of the rating became a mandatory requirement of the US Securities and Exchange Commission (SEC), and in 1975 the same Commission gave the Big Three agencies the status of " nationally recognized statistical organizations "(Nationally Recognized Statistical Ratings Organizations - NRSROs). As a result of these steps, the demand for ratings on the part of issuers increased, and the CRA began to receive most of its revenues just from issuers of securities.

The business model "issuer pays" is capable of leading to serious conflicts of interest between creditors and debtors. First, the CRA can assist issuers of structured financial instruments in the development of these instruments themselves, which will subsequently be given a rating. So, in 2006, the income from the provision of this type of advisory services was about 40% of Moody's total income, which certainly can raise doubts about the objectivity of these ratings

[19, p.533]. Secondly, a higher rating of the security reduces the cost of its issuance. In this regard, issuers who pay agencies for rating assignment are interested in the highest possible positive estimates. It is suggested that it is these conflicts of interest, or rather the collusion between the CRA and the subprime mortgage issuers, that provoked the global financial crisis [6, p.41]. Therefore, the discussion on regulating the activities of the CRA mainly reduces to the creation of such a system that would allow eliminating such conflicts of interest.

The first attempts at least indirectly to influence the activities of the CRA began to be made in the United States after the above-mentioned history with Enron Corporation in 2001. In 2002, the Sarbanes-Oxley Act was enacted, tightening requirements for audit firms. The activity of audit firms was associated with conflicts of interest, similar to those that arose in the relationship between clients and employees of rating agencies. First, the Sarbanes-Oxley Act imposed a ban on the provision of non-audit services, for example, insurance, legal, accounting, brokerage and other services. Secondly, auditors were forbidden to have any business relations with clients, associated with obtaining from them material benefits and beyond their official activities. In other words, efforts were made to prevent collusion between audit firms and customers of their services.

The International Organization of Securities Commissions (IOSCO-International Organization of Securities Commissions) conducted an investigation into the role of the CRA in the financial markets after the scandal with Enron and in 2003 published the "Regulation on the Principles of the Operation of Credit Rating Agencies" (Statement of Principles Regarding the Activities of Credit Rating Agencies). [8]The Regulation particularly emphasized the role of the CRA, regulators, issuers and other market participants in improving the protection of investors and improving the efficiency and transparency of the securities markets and reducing systemic risks. However, soon the IOSCO was required to clarify the application of the principles of the above-mentioned Regulations.

In 2004, IOSCO adopted the "Code of Conduct for Credit Rating Agencies", in the development of which the American side, in the person of representatives of the SEC, took an active part. The Code defines rules that ensure the quality and consistency of the rating process, including rating control, which guarantees analytical independence in order to avoid conflicts of interest, as well as the transparency of rating methods. The rules of the Code were very general and did not deal with questions of methodology, models or categories of ratings. And most importantly - the fulfillment of the requirements of the Code was voluntary. It was assumed that the CRA would incorporate the provisions of the Code into their own codes or give explanations as to why they refused to do so. Compliance with the rules of the code was followed by authorized bodies. There was no mechanism for fines or sanctions. Most of the rating agencies adopted this Code.

Interestingly, in September 2006, almost on the eve of the mortgage crisis, the US Congress adopted the Credit Ratings Agency Reform Act, which entered into force in July 2007, that is, during the mortgage crisis. Particular attention in this document was paid to issues of increasing competition between the CRA, management of conflicts of interests, transparency and openness of agency information.

Thus, until 2008, neither at the international level nor in the US as a state of the legal affiliation of the three largest agencies, there have been no significant measures to regulate this sphere.

In the European Union (EU) until 2008, regulation of the CRA by EU institutions and bodies has not been carried out. At first glance this seems logical, since the rating agencies of the EU member states cannot compete with the "big three". In matters of regulation and supervision of the CRA, the EU relied entirely on the voluntary IOSCO Code. However, in the light of the high level of economic integration within the EU and the interdependence of the economies of member states, this approach was very risky. Only when the European economy felt the extremely negative procyclical impact of lower sovereign ratings, and national or pan-European agencies and / or bodies which are at least indirectly monitor the work of the CRA, we were not able to oppose anything the ratings of the "Big

Three" the EU has begun to look for ways to solve the problem of managing the CRA both at the national and global levels.

At the global level, the first comprehensive analysis of the participation of the CRA in the development of the global financial and economic crisis appeared in April 2008 in the report of the experts of the Financial Stability Forum (FSF).The report said that the CRA significantly underestimated the risk associated with the issuance of structured financial instruments due to methodological flaws. The authors of the report proposed to distinguish between the ratings of structured financial instruments and other corporate bonds in order to identify differences in methodology. At the same time, despite the fact that the CRA was criticized for inadequate risk assessment of securitized products, the experts positively assessed the measures taken by the industry itself and proposed to further enhance the transparency of the procedures for assigning ratings and compliance with the IOSCO Code.

The European Commission in 2008 asked the Committee of European Securities Regulators (CESR) and the European Securities Markets Expert Group (ESME) to assess the appropriateness of adopting European standards for regulating activities CRA. Experts of both bodies agreed that additional regulation of the CRA is not required, since the latter and so largely comply with the requirements of the IOSCO Code.

It is worth noting that since 2005 CESR in its reports has opposed interference in the work of the CRA, except in cases of non-compliance with the IOSCO Code. One of the reasons why it is not worthwhile to take action at the European level, CESR experts considered the decrease of the importance of the "globally recognized minimum standards" [8] of the IOSCO Code, in the case of parallel use of regulations that would appear in the EU.

In 2008, the European Commission (EC) ignored this recommendation and proceeded to draft the EU Regulation 1060/2009 on credit rating agencies, [14]which was adopted in April 2009. The EC considered this Regulation as a counterbalance to "other important jurisdictions" and sought to create a regulatory framework for the CRA, similar to that found in the United States and is based on the same principles. (Proposal for a Regulation of the European Parliament and the Council on Credit Rating Agencies, COM, 2008) One of the key provisions of Regulation 1060/2009 is the establishment of a mandatory registration mechanism for the CRA, which operates in the EU. In addition, attention is paid to the procedure for recalling registrations, working with structured financial instruments and ensuring the transparency of agency activities. In general, the Regulation is largely based on the provisions of the IOSCO Code and it is not entirely clear how these two documents relate to each other.

In 2010, Michel Barnier, member of the EC on the domestic market in the Commission J.M. Barroso, considered the possibility of creating a rating agency in the EU. (Barnier Considers EU Rating Agency, 2010) The proposal to create such an agency was made by Marcus Krul, a former partner of the German consulting firm Roland Berger. The future European rating agency was to be organized in the form of a fund, whose capital would amount to a contribution of 10 million euros from each of the 30 investors working in the financial market. However, for three years, Mr. Krul and could not find investors, and the idea of a pan-European rating agency refused.[4]

The American division of the Bertelsmann Foundation, a German non-governmental non-profit organization, in 2011 proposed the creation of an international non-profit rating agency - the International Non-Profit Credit Rating Agency (INCRA), which will solely assign sovereign ratings. In the framework of INCRA, the use of a new rating methodology is proposed. In particular, not only traditional macroeconomic indicators should be taken into account, but also the overall level of political, economic and financial development of the country. The Bertelsmann Transformation Index and indicators of sustainability of public administration and government interaction with the electorate will be used as a basis for rating evaluation. To finance such an agency, it will be necessary to create a development fund, the so-called endowment, in the amount of $ 400 million. Funds can be formed from contributions of states, international financial institutions, such as the World Bank and the IMF, and participants in the financial market. However, to date, the scale of the agency's activities is not so significant. In 2015, INCRA published ratings for only six countries: Brazil, Mexico, Germany, Italy, the United States and France.

Taking into account the chronology and content of the measures that have been taken to regulate the CRA both before and after 2008, it becomes evident that the EU has not acted as the initiator of the development and adoption of fundamentally new approaches to regulation. If we consider norm-setting activities in the three main blocks of issues, namely: competition, conflicts of interest and transparency of the CRA, in the USA, in 2006, the Act on the reform of credit rating agencies was adopted. The final rules for its implementation appeared in 2007 and the Final Act changes were adopted in February and November 2009. In total, these documents total 500 pages. In the EU, the only document was adopted - Regulation 1060/2009, consisting of 31 pages.

It will be correct to assume that the above-mentioned issues of the activities of the CRA are covered superficially in the Regulations and echo American regulation. For example, the extremely complex and controversial issue of increasing competition among the CRA in the EU has not been practically discussed. The fact is that the presence of a large number of rating agencies can lead to the fact that customers - issuers and investors - will choose an agency that will offer them a higher rating. This state of affairs can undermine trust both directly to the ratings themselves and to agencies.

In the US, more advocate for a moderate development of competition in this area while monitoring the quality and objectivity of the ratings. Regarding the transparency of the activities of the CRA, there are clear rules regarding the conditions under which disclosure is required about how the rating was assigned. In the EU, disclosure of information is required only if the rating is based on data for a short period. The European CESR actively cooperated with the US SEC and IOSCO on regulation of the CRA. In general, the European Union has not developed its own approaches to regulating the activities of the CRA, but only followed the trends of global regulation of this sphere, where the key role belongs to the United States.

2. THEORETICAL ANALYSIS

2.1. THEORETICAL ASPECTS OF THE ACTIVITIES FOR THE PROVISION OF RATING SERVICES

2.1.1. The notion of rating. Subjects of rating and rating assignment

Currently, there are several approaches to the definition of the term "rating".

Translated from English, the term "rating" means "evaluation", "classification, category, category".

We can also highlight a broad and narrow concept of rating.

A broad definition is the definition given in the Code of Professional Ethics of rating agencies.

According to the code, rating is the value of a rating measurement, which, according to the rating agency, corresponds to the rated object at a certain moment or period of time [9, p.304].

In the narrow sense, the rating is a reflection of the level of risk:

The national rating agency understands the rating as a level of risk, defined in alphabetical order by a standard scale [11].

Karminsky A.M. Understand the complex assessment of the risks of an economic entity and financial instruments on a discrete, ordered scale, called a rating scale [4].

For a correct understanding of the term "rating" it is necessary to distinguish between the concepts of rating, ranking and index (Table 1).

Table 1

Concepts rating, rents, index

Rating	Ranking	Index
Complex assessment of the condition of the subject. Assignment of an economic entity to a class or category	List of economic entities ranked by the value of any performance indicator	The indicator of activity, productivity, development or change of something

Thus, under the rating, we will understand the comprehensive assessment of the state of an economic entity conducted by the rating agency and its attribution based on the results of the assessment to a certain category at a certain moment or time period (author's wording).

Let's present the classification of ratings.

Economists distinguish two types of ratings:

- credit ratings;
- derivatives (non-credit) ratings.

A credit rating is an opinion on the ability of a rated person to fulfill the financial obligations (creditworthiness, financial reliability, financial stability) and / or the credit risk of its individual financial liabilities or financial instruments, expressed using the rating category (Bamier Considers EU Rating Agency (2010)).

Karminsky A.M. the credit rating defines both the rating agency's assessment of the overall creditworthiness of the borrower or the borrower's creditworthiness with respect to specific debt obligations based on the assessment of risk factors [6, p.41].

Derivatives ratings are ratings not related to the assessment of the probability of default on credit obligations [19, p.533].

Let's consider in more detail credit ratings. The main examples of credit ratings are:

1. The credit rating is the opinion of the rating agency about the ability of an economic entity to timely and fully fulfill its financial obligations.

2. The financial stability rating is the opinion of the rating agency about the internal stability and reliability of the business entity, its ability to meet its financial obligations to customers, counterparties and creditors. It does not take into account the probability of obtaining credit support from external sources.

3. The rating of support is the opinion of the rating agency about the possibility of receiving the support of an economic entity in case of need. At the same time, they allocate an independent rating (without taking into account the support factor) and a rating taking into account the support. The rating taking into

account the support will be higher than the independent rating by the amount of the difference between the creditworthiness (financial stability) of the rating object and the creditworthiness (financial stability) of the person providing support.

4. A separate group should be the country ceiling ratings. A ceiling is the highest rating that can be assigned to an entity or a financial instrument. These ratings reflect the opinion of the rating agency regarding the risk of introducing measures of capital controls and currency regulation measures on the part of the country's authorities. Depending on the rating scale used:

1. International credit ratings - ratings issued for liabilities in foreign or national currency and showing an assessment of the ability to meet these obligations. The rating is given by the international rating scale.

2. National ratings - these are the ratings that are issued according to the national rating scale. The national rating scale is individual for each country and is designed to meet the needs of a particular domestic market. Thus, the national rating scale provides an opportunity to assess the creditworthiness of an economic entity within a country.

From the point of view of the time period:

1. Long-term ratings. When evaluating an economic entity, greater importance is attached to long-term factors (for example, competitiveness, profit trend).

2. Short-term ratings. When evaluating an economic entity, greater importance is attached to short-term indicators (for example, liquidity, financial flexibility).

Depending on the type and amount of information used, when assessing an economic entity:

1. Ratings without a request (remote ratings). For this type of ratings, public information of a financial and other nature is used. This rating is awarded without entering into an agreement with the rated person.

2. Ratings on request (insider or contact ratings). This type of ratings implies access to a study of the subject's internal activity, that is, confidential information

is used.

A rated person means a legal entity or a public legal entity that directly or indirectly assesses the ability to fulfill its financial obligations.

The object of the rating is the rated person and (or) his financial obligations or financial instruments (Table 2) (Ferri G, Liu L.-G, Stiglitz J.E. (1999)).

Table 2

Objects of the rating (compiled by the author)

Business entity	Financial instrument / commitment
- Credit organizations (banks); - enterprises; - holding companies; - investment companies; - microfinance organizations; - Insurance companies; - management companies; - Countries / Regions	- issue of bonds; - assets; - portfolio of the bond fund; - debentures; - individual securities

Rating agencies assign the following ratings to banks[10, p.189]:

- credit rating of banks;
- rating of financial stability of banks;
- rating of the quality of risk management;
- The rating of bank deposits;
- Country ceiling for ratings of bank deposits in foreign currency.

The definitions of the credit rating and the financial strength rating were given above. Let's define the remaining types of ratings in the list.

The rating of the quality of risk management is assessed by the level of risk assumed by the counterparty of the company being valued [17, p.442].

The rating of bank deposits is the opinion of the rating agency about the ability of the bank to timely and in full repay its obligations on deposits in foreign and (or) national currency [6, p.41].

The country ceiling for ratings of bank deposits in foreign currency determines the highest rating that can be assigned to deposit liabilities in foreign currency

- domestic and foreign branches of banks, head offices of which are located in this jurisdiction;

- local branches of foreign banks [9, p.304].

Consider the purpose of credit ratings[11].

Once again, we emphasize that a rating is a complex assessment of a subject's condition, which allows him to be referred to a certain category. Thus, the rating is information about the status and trends of the creditworthiness (financial stability) of an economic entity in a compact form. The information stated in this form serves as an indicator for decision making, establishment and maintenance of business relations. A rating can act as such an indicator, as it is an objective independent assessment of the financial condition of an economic entity.

The received information can be used by the rated person himself and his counterparties (including potential counterparts).

The rating person uses ratings primarily to attract investors and business partners. The ratings allow, first, to reduce the asymmetry of information between organizations and investors, and secondly, the presence of a rating rating increases the company's value and its status.

Business partners will be given a rating to assess counterparty risk (the risk that the company will not fulfill its obligations).

Financial intermediaries use the rating to make decisions on lending and money market transactions. The presence of a high level of rating allows the company to receive cheaper borrowed funds.

In addition, a credit rating is required for admission to certain transactions (mortgage auctions, listing of bonds, inclusion in the quotation list on the exchange). In addition, if the bank wants to borrow from the central bank, then its assets must have a certain minimum rating (the minimum is set by this central bank).

According to Basel II, the bank can use ratings in the following cases[2, p.229]:

- When assessing risk assets, a bank can classify borrowers in one of the categories in accordance with the rating assigned by the rating agencies. At the same time, if the borrower is assigned two ratings, to which different risk factors correspond, the bank should use the highest risk factor.

- When a bank buys debt securities for risk assessment, they can also use the ratings assigned to this issue of securities.
- When determining the risk factor for securitization transactions, external ratings for the asset can be used.
- The use of external ratings to determine the weighting factor to take into account the specific market risk for different categories of securities.

Thus, for rating entities, which can act as business entities (banks, enterprises, regions) and financial liabilities (securities), it is advisable to apply the interpretation of the rating in the narrow sense. Credit ratings are used by various economic entities. The rating rating is important both for the most rated person, and for its counterparties and authorities. In addition, credit ratings play a significant role in foreign economic activity. In modern conditions, the processes of globalization are increasingly integrating the banking sector into international financial processes. Therefore, the importance of credit ratings is further increased.[10, p.189]

2.1.2. Organization of work of rating agencies. Technology of the rating process

There are requirements for the activities of rating agencies. These requirements are set out in several documents (Table 3).

Table 3

Documents reflecting the requirements for the activities of rating agencies

International documents	Domestic documents
Materials of the Basel Committee ("International Convergence of Capital Measurement and Capital Standards", June 2004); - IOSCO Code - fundamental provisions for credit rating agencies, October 2004; - Report of the Financial Stability Forum presented to the meeting of finance ministers and central bank governors of the G-7 countries, held on April 11, 2008 in Washington.	- The Code of Professional Ethics of Rating Agencies, adopted by the National Stock Association in 2008.

Consider the minimum requirements of the Basel Committee to rating agencies [5, p.335]:

1. Objectivity. The methodology for assigning credit ratings should be clear, systematic and in some form supported by historical experience. The ratings must be constantly monitored and changed depending on the financial situation. Before the supervisory authorities confirm the methodology for assigning ratings to each market segment, it must function for at least a year (preferably three years), including thorough historical testing.

2. Independence. The agency should be independent and not subject to political or economic pressure that could affect the ratings. The process of assigning ratings should not depend on any restrictions that may arise in those situations if the composition of the board of directors or the structure of shareholders of the rating agency can cause a conflict of interest.

3. International access (transparency). Both foreign and local institutions with legitimate interests should receive ratings on equal terms. The general methodology used by the rating agency should be widely available.

Disclosure of information. The rating agency should disclose the following information: the methodology for assigning ratings, including the definition of default, the time horizon and the value of each rating; real default levels for each of the ratings categories; the movement of ratings (the transition from one rating level to another).

4. Resources. The rating agency should have sufficient resources to conduct high-quality credit ratings. These resources should ensure constant and close contact with the higher and operational levels of the evaluated institutions in order to improve the quality of the ratings assigned. These ratings should be based on a combination of quantitative and qualitative approaches.

5. Reliability. To some extent, the validity stems from the above criteria. In addition, the reliability is confirmed by reliance on external credit ratings of the agency by independent parties (investors, insurance campaigns, trading partners). The reliability of the agency is also provided by internal procedures to prevent the abuse of confidential information. To recognize an agency, it's enough to assign ratings to companies of one country.

In addition to the basic principles of the activity of rating agencies, we will consider a few more requirements reflected in the Code of Professional Ethics of rating agencies.

1. Verification of the methodology of the rating evaluation. Investors and regulators should be able to get explanations about some or other issues of methodological approaches to rating assessments and rating procedures.

2. Use of standardized definitions that characterize the rating process. Rating agencies should operate with standard terms, the value of which is objectively understandable to users of ratings and those who receive ratings.[19, p.553]

Consider the procedure for assigning ratings using the example of a bank's credit rating.

The procedure for assigning a rating consists of 8 stages:

1. Conclusion of the contract. The Bank enters into an agreement with the rating agency on the provision of rating services.

2. Provision of information. The Bank provides a package of documents (a questionnaire on the form of the agency, reporting (including annual and on IFRS), internal documents).

3. Primary information analysis. A primary analysis of the information

provided and, if necessary, a meeting of rating analysts with representatives of the rated person is held.

4. Analysis of all information, including those provided at a meeting with analysts.

5. Holding of the rating committee and approval of the rating. A collegial decision is made regarding the credit rating of the bank. Preparing a press release on the assignment or revision of the rating.

6. Granting of the rating report to the rated person. The rating entity checks the report in order to exclude from it incorrect data and confidential commercial information.

The bank may agree or disagree with the decision of the rating committee.

7. If the bank does not agree with the decision, the agency can review the comments of the bank, if possible, make adjustments to the rating report and re-assemble the rating committee.

With the consent or disagreement with the decision of the rating agency, the bank may choose to disclose or not disclose information about the rating. If necessary, a confidentiality agreement is signed.

8. Publication of the rating. If the bank agrees with the decision, the rating agency coordinates with it a rating report and a press release. Information disclosure (publication of a press release). [4]

After assigning a rating, the agency constantly monitors all factors that may affect the rating. Revision of the rating is usually carried out at least once a year.

Let's consider what indicators assess the national rating agencies (RA) for rating the bank's credit rating.

The rating assessment of the bank's creditworthiness consists of two main blocks: financial and non-financial.

- In the financial section, the following are analyzed:
- 1. Assets:
- structure of assets;
- the dynamics of assets;

- general assessment of asset quality;
- assessment of asset diversification by structure (by maturity and debtors);
- quality of loan debt;
- quality of the loan portfolio;
- quality of the securities portfolio;
- quality of issued guarantees and guarantees.

In particular, the bank's liquidity is assessed:

- the share of highly liquid assets in the total assets of the bank;
- an estimation of the general level of liquidity;
- standards for instant, current and long-term liquidity;
- assessment of the quality of liquidity management.

1. Commitments:

- the main sources of liabilities and their structure;
- assessment of the sustainability of liabilities;
- assessment of the diversification of liabilities by sources (terms and lenders);
- assessment of the bank's ability to refinance liabilities;
- dependence of the resource base on sources of retail funding.

2. The capital:

- the main sources of capital;
- dynamics of own capital;
- level of capital adequacy;
- evaluation of the quality of capital;
- transparency of the bank's own funds structure.

3. Profitability:

- the main sources of income (expenditure) and their structure;
- level of profitability (unprofitableness) of activity of bank;
- Factors of profitableness (unprofitableness) of bank;
- profitability and profitability dynamics;
- level of interest margin.

4. Risks:

- Assessment of the overall sensitivity level of the bank to financial risks;

In this block, risks such as:

Liquidity risk implies the loss of the ability to quickly sell a financial asset and turn it into a cash form, as well as the loss of the opportunity to raise additional resources in sufficient amount to pay the liabilities. [2, p.229]

- evaluation and causes of liquidity risk.
- Credit risk is understood as the risk of economic losses as a result of the borrower's failure to fulfill its financial obligations.
- the amount of risk per customer;
- total insured risk;
- the stability of capital to the implementation of credit risks.

Market risk is caused by possible depreciation of securities. It can arise as a result of fluctuations in the rate of loan interest, changes in the profitability and financial health of issuers, as well as inflationary depreciation of money.

Market risk is usually assessed on the basis of its components, namely:

- interest rate risk (related to the availability of debt securities and other financial instruments, the cost of which is dependent on interest rates).
- Currency risk (occurs when the bank conducts foreign exchange transactions and is associated with the possibility of monetary losses as a result of unpredictable fluctuations in exchange rates). At the same time, currency risk is assessed not only for each currency, but also for the whole bank.

In addition, an assessment of the overall market risk, which is associated with changes in market interest rates.

Operational risk is the risk of direct or indirect losses caused by inadequate or erroneous processes, actions of personnel or information systems, as well as external factors.

- In the non-financial block, the following are analyzed:

1. Ownership structure:

- Transparency of ownership structure;

- controlling owners of the bank;
- the influence of owners on the bank;
- probability of change of controlling bodies.

2. Corporate governance:

- effectiveness of the organizational structure of bank management;
- quality of bank management;
- independence and effectiveness of the bank's management;
- development strategy of the bank and its execution;
- the effectiveness of the internal control and audit services performing their functions;
- the level of informativeness of the official site.

3. Market position:

- duration of work in the market;
- reputation of management and owners of the bank;
- the geography of the bank's business, the development of the network of divisions;
- the dynamics of the development of the branch network;
- customer base;
- assessment of the development, sustainability and potential for growth of the market position;
- the place of the bank in the market in key business areas.

4. Non-financial risks:

Non-financial risks include political risk, strategic risk, reputational risk, risk of changing legislation, etc.

- assessment of the bank's sensitivity to non-financial risks.

Consider the methodology for assigning international ratings. A feature of international ratings is the inclusion of risks associated with the insolvency of a sovereign state and their influence on the level of the organization's solvency. When analyzing sovereign risks, the following positions are usually considered:

- current and projected creditworthiness of the state;

- macroeconomic instability;
- inflation risks;
- exchange rate risks;
- fiscal and legal system;
- foreign economic policy.

In addition, an industry analysis is:

- assessment of the current state and development of the overall situation in the industry;
- analysis of state regulation;

Definition of the characteristics of the industry (competition, concentration, diversification, scale of activities, etc.).[9, p.304]

Consider the credit rating of the bank on the example of the methodology of the rating agency Moody. The main blocks analyzed are:

1. Basic credit rating. This block analyzes financial documents of the bank for determining the probability of its bankruptcy.
2. Support of affiliated persons. An updated assessment of the bank's creditworthiness is formed, taking into account the possible support of affiliated persons.
3. Analysis of losses that can lead to bankruptcy. Perform an analysis of the risk of non-payment of debt on the financial obligations of the bank.
4. Government support. It assesses to what extent the risk for each class of creditors decreases as a result of external support.

Let's consider what indicators are evaluated by the rating agency in each of the above blocks.

When forming a basic assessment of the bank's creditworthiness:

1. Macroeconomic indicators.

The main factor in assessing the creditworthiness of individual banks is the level of country (or sovereign) risk (Table 4).

Table 4

Block of macroeconomic indicators, allowing to assess the country risk

Estimated block	Indicators
Economic sustainability	- dynamics of growth; - the scale of the economy; - national income
Institutional sustainability	- institutional structure; - Authority and effectiveness of policy
Susceptibility to the risk of an adverse event	- political risk; - state liquidity risk; - risk of reduced resistance to external influences

Credit conditions:

- the amount of credit for the private sector to gross domestic product (GDP);
- growth in the ratio of credit for the private sector to GDP.

Financial conditions:

- measurement of market financing;
- accounting report of the central bank.

Industry Assessment:

- Herfindahl-Hirschman index for measuring the level of concentration within the banking sector;
- presence of banks with state participation;
- changes in legislation;
- the availability of innovative structures.

2. Financial indicators.

In this block, solvency is assessed (Table 5) and liquidity of the bank (Table 6).

Under the solvency, the rating agency Moobu'B understands the combination of the bank's risks and its ability to level them, absorb it with the help of the bank's available capital and its income.[11]

Table 5

Analysis of solvency of the bank

Estimated block	Indicators
Asset risk	- the ratio of problem assets to the total volume of loans issued; - degree of concentration of credit risks on a small group of counterparties (one industry, one geographic region); - the volume of losses on loans in the long-term period; - Credit risk for non-credit activities (for example, leasing); -market risk (includes currency, investment, insurance risk, interest risk); - Operational risk
Capital	-the ratio of fixed capital to risk-weighted assets; -finance leverage; - quality of capital; - interchangeability of capital
Profitability	-net income to fixed assets ratio; -income stability

Under liquidity, the rating agency Moody's understands the discrepancy between the amount of payments on the bank's liabilities and available liquid funds, and also takes into account the bank's ability to provide itself with these liquid funds.

Table 6

Bank liquidity analysis

Estimated block	Indicators
Structure of financing (analysis of liabilities)	- the ratio of borrowed capital to own ; - quality of market financing (interbank funds, foreign and domestic investors, REPO transactions, bonds with coverage); - quality of deposits (current and savings accounts, channel of origin of funds, corporate accounts); - terms of deposits; - market access
Liquid resources	- ratio of liquid assets to fixed assets of the bank; - quality of liquid assets

3. Quality of management.

To assess the quality of management, business diversification, opacity and complexity of work, corporate behavior.

When considering the opacity and complexity of the work, the rating agency estimates:

- the multiplicity of activities;
- complexity of the organizational structure;
- long-term cooperation with other financial institutions;
- reliability of accounting.

When reviewing corporate behavior, the rating agency estimates:

- risk of key personnel leaving;
- strategy and management;
- dividend payment policy;
- principles of labor remuneration;
- Accounting policy.

After determining the basic assessment of the bank's creditworthiness, a revised estimate should be constructed by determining the level of support for affiliated persons. For this, aspects such as:

- probability of bank failure without support;
- probability of providing support from affiliated persons (documentary confirmation, compliance with the strategy);
- the ability of affiliated persons to provide support;
- the relationship between the relevant organizations (the degree of interconnectedness of organizations, business environment).

Further, the probability of bankruptcy of a bank and the need for external support:

The following factors are considered:

- level of unprofitability of the bank;
- legislation on bankruptcy procedure;
- the impact of bankruptcy proceedings on bank customers;

- choosing a bank to solve the problem of debt repayment (external state support, debt restructuring, borrowing from large creditors).

The last evaluated block is state support. In this block, the following factors are evaluated:

- ability to pay debt for each type of obligation without support;
- probability of support from the state;
- the ability of government agencies to provide support;
- degree of dependence between the bank and the organization providing support.

Thus, in accordance with the presented RA methodologies, the factors determining the final rating can be divided into:

- Factors of the environment in which the bank operates;
- internal factors that determine the financial stability of the bank itself;
- factors of external support.

Internal factors, in turn, are divided into quantitative (financial) and qualitative (non-financial). At the same time, it is considered that the main influence on the rating is provided by the financial state of the organization, as well as institutional factors. [17, p.442]

Another important aspect is the rating scale. By this term is meant a scale predetermined by the rating agency, consisting of a consecutive series of symbols indicating a decreasing value of the rating change. The scale contains level titles, letter symbols and a description of the features .

The rating scale has two main categories:

1. Investment category - used to denote ratings of issuers and debt securities with relatively high credit characteristics.

2. Speculative category - used for issuers that are currently able to meet their financial obligations, but face significant uncertainty.

One of the main problems in the integrated use of ratings is the comparability of the ratings of different agencies.

Table 7 provides an example of comparing the international ratings of long-term liabilities.

Table 7

Comparison of classes of international ratings

S&P, Fitch	Moody's	Interpretation
Investment category		
AAA	Aaa	The highest ability to timely and fully meet its debt obligations
AA+	Aa1	High ability to timely and fully meet their debt obligations
AA	Aa2	
AA-	Aa3	
A+	A1	Moderately high ability to timely and fully meet its debt obligations
A	A2	
A-	A3	
BBB+	Baa1	Adequate ability to timely and fully meet its debt obligations, but a higher sensitivity to the impact of adverse changes in commercial, financial and economic conditions
BBB	Baa2	
BBB-	Baa3	
Speculative category		
BB+	Ba1	Out of danger in the short term, however, a higher sensitivity to the impact of adverse changes in commercial, financial and economic conditions
BB	Ba2	
BB-	Ba3	
B+	B1	Higher vulnerability in the presence of unfavorable commercial, financial and economic conditions, but now it is possible to execute debt obligations on time and in full
B	B2	
B-	B3	
CCC+	Caa1	At the moment there is a potential possibility of the issuer failing to meet its debt obligations; timely performance of debt obligations is largely dependent on favorable commercial, financial and economic conditions
CCC	Caa2	
CCC-	Caa3	
C	Ca	A bankruptcy procedure has been initiated against the issuer or a similar action has been taken
D	D	Default on debt obligations

Comparisons of ratings of international and domestic rating agencies were carried out by many authors. Each of the authors offers their own methodology for comparing the rating scales. The econometric model based on financial and other indicators of banks.

Let's consider comparisons of rating scales on the example of the model proposed by A.M. Karminsky. He used the method of comparing the rating scales based on minimizing the integral state in the base scale. The results are shown in Table 8.

Table 8

Compliance of the rating scales of Russian banks (based on data for 2006-2010)

<table>
<tr><th colspan="3">International Scales (Basel II)</th><th colspan="4">Russian scales of rating agencies registered with the RF Ministry of Finance</th></tr>
<tr><td>Moody's</td><td>8&P</td><td>БЛсй</td><td>АК&М</td><td>Эксперт РА</td><td>НРА</td><td>Рус-Рейтинг</td></tr>
<tr><td>A3</td><td>A-</td><td>A-</td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="3"></td></tr>
<tr><td>Baa1</td><td>BBB+</td><td>BBB+</td></tr>
<tr><td>Baa2</td><td>BBB</td><td>BBB</td><td rowspan="5">A++</td><td rowspan="5">A++</td><td rowspan="5">AAA</td></tr>
<tr><td>Baa3</td><td>BBB-</td><td>BBB-</td><td>A+</td></tr>
<tr><td>Ba1</td><td>BB+</td><td>BB+</td><td>A</td></tr>
<tr><td rowspan="2">Ba2</td><td rowspan="2">BB</td><td rowspan="2">BB</td><td>A-</td></tr>
<tr><td rowspan="2">BBB+</td></tr>
<tr><td>Ba3</td><td>BB-</td><td>BB-</td><td rowspan="3">A+</td><td rowspan="2">A+</td><td>AA+</td></tr>
<tr><td>B1</td><td>B+</td><td>B+</td><td>AA</td><td>BBB-</td></tr>
<tr><td rowspan="2">B2</td><td rowspan="2">B</td><td rowspan="2">B</td><td rowspan="3">A</td><td rowspan="2">A-</td><td>BB+</td></tr>
<tr><td rowspan="3">A</td><td rowspan="2">BB</td></tr>
<tr><td rowspan="2">B3</td><td rowspan="2">B-</td><td rowspan="2">B-</td><td>A+</td></tr>
<tr><td rowspan="3">B++</td><td>A</td><td>BB-</td></tr>
<tr><td rowspan="2">Caa1</td><td rowspan="2">CCC+</td><td rowspan="6">CCC</td><td rowspan="4">B++</td><td>A-</td><td rowspan="2">B+</td></tr>
<tr><td>BBB+</td></tr>
<tr><td rowspan="2">Caa2</td><td rowspan="2">CCC</td><td rowspan="2">B+</td><td>BBB
BBB-</td><td>B</td></tr>
<tr><td>BB+</td><td>B-</td></tr>
<tr><td rowspan="2">Caa3</td><td rowspan="2">CCC-</td><td rowspan="2">B+</td><td rowspan="2">B</td><td rowspan="2">BB
BB-</td><td>CCC+</td></tr>
<tr><td>CCC</td></tr>
</table>

On the basis of this comparison, it was concluded that the discrepancies between the ratings of international banks in the speculative zone are less than in the Russian.

Using the above principles of the work of credit rating agencies, we will make comparisons of international and national ratings (Table 9).[6, p.41]

Table 9

Comparison of international and national ratings

Comparable parameter	International rating	National rating
Scale used	National and international scales	National scale
Absolute / Relative Rating	Absolute	Relative
Model of building ratings	Scoring model	Scoring model
Methodology of rating depending on the forecasting horizon	"Tyrodd-She-suite"	"Pontyi-yshe"
The main focus of the analysis	Regulatory and operational environment	Financial analysis of the bank's activities
Which banks are guided by the RA	Leading banks	Other banks

International credit ratings, unlike national ones, are compiled both in international and national scales. At the same time, the rating can be compiled in foreign and national currency. The international rating in national currency does not take into account the risk of conversion, as well as transfer risk.

International ratings are absolute and reflect the probability of default taking into account the country's risk. That is, the rating of entities is limited by the level of sovereign risk of the country where the bank operates.

The national ratings are relative and reflect the likelihood of default relative to the country's sovereign rating.

In addition, ratings may vary depending on the forecasting horizon. International ratings are based on the principle of

"Through-the-cycle" (TTC - "during the cycle"), and national ratings - on the principle of "point-in-time" (PIT - "in time").

The TTC rating is constructed taking into account the cyclical changes in the probability of default of the rated person. This approach assumes assignment of a rating on the basis of the worst scenario. In this case, the bank's rating will not change during the business cycle.

The Basel Committee on Banking Supervision determines the PIT rating as an assessment of the current situation (or most probable position) of the borrower during a specified time horizon. Thus, the PIT ratings are calculated on the basis of the indicators of the current status of the rated person.

It is common for international and national ratings to build them on the basis of a scoring system that involves expert judgment for qualitative parameters and scoring for quantitative indicators [5, p.335]

2.1.3. Market of rating services in the world

Moody's admitted mistakes in issuing ratings to American securities in the 2000s, thereby taking over part of the responsibility for the global financial crisis. Moody's fined $ 864 million. Earlier, their colleagues from Standard & Poor's were guilty. Such cases again bring to reflection on how objective these ratings are and whether it is possible to believe in international agencies at all.

The world financial crisis of 2007-2008, the hardest in the last 80 years - until the end of it did not recover, none of the leading economies, as you know, began with the collapse of the mortgage bond market.

These papers brought financiers good earnings in the growing US real estate market. Qualitative and doubtful debts on the mortgage were mixed in one boiler, acting as collateral for the issue of bonds. Demand in this market was particularly high due to the fact that the securities received high, often maximum ratings from specialized agencies, including representatives of the "big three" - Moody's, Fitch, Standard & Poor's (S & P).

As a result of inflated demand, prices for these bonds have also been inflated many times over. But then the real estate market stopped growing, and happy owners of mortgages began to pay worse on loans. This would cause a crisis in any case, but the giant canopy of overvalued derivative financial instruments led to a real catastrophe.

The rescue was due to extraordinary measures, which the financial authorities could not have imagined earlier (for example, the Fed lowered rates to zero). But even taking into account the measures taken, the damage from the crisis was colossal.

The circle of individuals, organizations and entire sectors of the economy involved in the creation of a crisis situation was great. However, in the case of rating agencies, everything was on the surface. When the garbage papers exhibited the highest rating, giving a false green light for investors, with those who exposes these ratings, that is clearly not the case. And so the Securities and Exchange Commission together with US law enforcement agencies quickly engaged in matters related to the work of agencies.

The "Big Three" were threatened with multibillion fines. As a result, all of them managed to reach a pre-trial agreement - on terms of payment of considerable sums. In 2015, S & P recognized its mistakes, giving $ 1.5 billion to US regulators.

Last week, agreed with Moody's: 864 million dollars. This is a lot, comparable to the annual profit of the company, but still much less than could be obtained on the basis of legal proceedings.

At the same time, the agency, recognizing the mistakes and promising to take measures (for example, to remove analysts from discussions about the company's commercial activities), did not want to question its methodology and the fairness of the ratings. Moody's stressed that they comply with their own standards, although the US authorities accused the agency of their violation.

Representatives of the US prosecutor's office, in turn, said that the agency was exposed to the influence of its powerful clients from investment banks, which released overvalued garbage. There was a conflict of interest.

The deal with the investigation was reached, but the problem is not solved. Guarantees that such a scenario will not happen again, no one gave, and no radical changes were promised. The question of whether it makes sense at all to trust credit ratings, including from the most reputable agencies, remains open. [4]

This is a very delicate moment. Indeed, after the financial crisis, it turned out that tens of thousands of securities were the highest ratings, and not always deservedly. But if we look not at scandalous cases, but on the general matrix of defaults, then the situation looks more normal. Criticism of rating agencies is often opportunistic.

According to experts, it is necessary to understand that rating agencies are engaged in forecasts and may be wrong. Agencies are not the ultimate truth, they do not give a 100-percent guarantee there. Another matter - serious violations in the procedures. For example, a conflict of interest or a political factor. In such cases, one really needs to draw conclusions and take sanctions.

The problem is that the conflict of interests lies in the very nature of the rating business. After all, for exhibiting the evaluation pays the company, which is evaluated. The proverb about the one who orders music, here as it is impossible by the way. And if the agency can safely demonstrate objectivity towards a small enterprise, then the temptation to do well, say, one of the largest banks is too large. Otherwise, the next time a rich customer will turn to another.

About this in the pages of the American Forbes reasoned journalist Tim Worrell. In his opinion, the current system is really unfair and creates the ground for abuse. But all other options are even worse. Ratings cannot be made free of charge, someone must provide qualified expertise, he believes.

If the West worries about overvalued ratings that lead to crises, developing countries have long expressed dissatisfaction with the reverse situation - underestimation of estimates and the state as a borrower, and companies operating in the country.

Often an opinion is expressed that low ratings are exhibited for political reasons and under pressure from powerful states. Several state companies have already abandoned the services of the Big Three agencies. The government plans to develop its own rating agency, which would enjoy global authority.

Often in countries dissatisfied with the fact that when assessing domestic companies and the state "Big Three" uses some obscure, non-transparent criteria.

The issuers' rating is below the level that could be expected with the indicators available to it. It is enough to look at the "junk" (that is, below the investment) ratings.[10, p.189]

To date, the country has good indicators of the balance of payments, public debt (one of the lowest in the world relative to GDP). There is a budget deficit, but it is no more than the level recommended by the EU Maastricht criterion of three percent of GDP. With such indicators, any country in Europe or North America would be guaranteed to receive "AAA". We also agree with our Russian counterparts in the PRC. Agency Dagong estimates Russia's rating five levels above the same S & P (a solid investment "A" against "BB +").

According to Pavel Samiev of the NRA, the point here is in methodology and cultural differences. "Western agencies take into account risks related to internal factors, as well as institutional conditions. Our agencies or Chinese are often limited to purely quantitative indicators. Representatives of the "big three" can be understood, because they have no guarantees of transparency and compliance with the procedures adopted in their countries. As a result, Western agencies put us lower ratings, because they rank all according to Western models. But where is the guarantee that these samples will be effective here? "- the interlocutor of" Lenty.ru "

According to him, practices that in Europe or the United States are considered a major shortcoming of a company may be an advantage. "Many things that are dubious for foreign observers, for example, informal ties, ties with the state, in Russia and China often go to plus companies, and not to the minus. There are cultural differences in doing business between countries, this is a separate area of economic science. But while fair ratings for representatives of different business cultures are difficult to exhibit, "- concludes the expert.

2.1.4. The role of credit rating agencies in financial crises of 2007-2009 years

Credit rating - assessment of the issuer's ability and readiness to fulfill its financial obligations in full and on time. The issuer can be a sovereign government, regional and local authorities, corporations, financial institutions, infrastructure facilities, insurance companies, managed funds. Credit ratings can also be assigned to certain types of debt (for example, bonds, notes and other debt securities).

The credit rating is an assessment of the issuer's creditworthiness, on the basis of which market participants can make sound financial decisions. This may entail a decrease in the issuer's costs of raising borrowed funds. For those issuers that raise funds under the guarantees of third parties, a credit rating may reduce the cost of such a guarantee or with greater efficiency raise funds without obtaining a guarantee.

The credit rating is often used by banks and other financial intermediaries to make decisions on lending, money market transactions, insurance, leasing and in any other situations where an assessment of the creditworthiness of a business partner is required.

In the world there are about 100 rating agencies. They are divided into international and national. The most influential international rating agencies: Standard & Poor's, Moody's, Fitch Ratings - the so-called "Big Three".

In addition to international rating agencies, there are regional and sectoral rating agencies that, as a rule, specialize in a particular geographic region or industry.

Each agency applies its own methodology for assessing creditworthiness and expresses the result of this measurement using a special rating scale. Usually an alphabetic scale is used that allows you to show ratings reflecting the agency's view of the relative level of credit risk in the range, for example, from "AAA" to "D".[19]

The international rating agency Standard & Poor's (S & P) was founded in the USA in 1860. It is a subsidiary of the American corporation McGraw Hill Financial Inc (formerly McGraw-Hill Cos.), Whose main business is providing financial information and analysis.

Income in 2014 - 2.45 billion dollars.

Headquarters is in New York.

S & P assigns two types of ratings: international and national.

The long-term rating of Standard & Poor's evaluates the ability of the issuer to timely fulfill its debt obligations.

Long-term ratings range from the highest category - "AAA" to the lowest - "D". Ratings in the range from "AA" to "CCC" can be supplemented with a plus sign (+) or a minus sign (-), indicating intermediate rating categories in relation to the main categories.

A short-term rating is an estimate of the likelihood of timely repayment of liabilities that are considered short-term in the relevant markets. Short-term ratings also have a range - from "A-1" for obligations of the highest quality to "D" for obligations of the lowest quality. Ratings within the category "A-1" may contain a plus sign (+) to highlight more reliable obligations in this category.

In addition to the letter designation, S & P ratings are accompanied by so-called forecasts, which indicate the possible direction of the rating movement from the agency's point of view in the next two to three years. The standard is four comments:

"positive" - the rating may go up; "negative" - the rating may drop;

"stable" - the change is unlikely; "developing" - it is possible both to increase or decrease the rating.

The national scale of S & P ratings uses the prefix xx: "xxAAA", "xxAA", "xxA" and so on.

Standard & Poor's also has special rating definitions for preferred shares, money market funds, mutual bond funds, solvency of insurance companies and companies that work with derivatives.

Moody's Corporation was founded in the USA in 1900.

Moody's Corporation is the parent company, which includes Moody's Investors Service (credit ratings) and Moody's Analytics (research and analysis on loans and financial risk management).

Income in 2014: 3.3 billion dollars.

Headquarters - in New York.

Moody's assigns international and national ratings, which are officially called issuer default ratings. The main event, the probability of which is shown by Moody's rating, is not the default itself, but the fact that investors will incur losses when it comes.[6]

Moody's ratings have a number of features. The category "D", which denotes default, does not exist. To each evaluation from "Aa" to "Caa" instead of pluses and minuses, the numbers 1, 2 and 3, which are called modifiers, are added. Modifier 1 indicates that this obligation is at the top of its overall rating category, 2 - in the middle of the range, and 3 - at the bottom of the rating category.

National rating agency assigns on the same scale, adding the prefix of the country at the end, for example "AAA.az".

The international rating agency Fitch Ratings was founded in the USA in 1913. Fitch Ratings Inc. is part of the Fitch Group, which belongs to the French holding company Fimalac and American media corporation Hearst Corporation.

Income Fitch Group in 2014: about 1.12 billion dollars (840.9 million euros).

Headquarters are located in New York and London.

Fitch Ratings assigns international and national ratings, which are officially called issuer default ratings.

The scale of the international rating varies from the highest category - "AAA" to the lowest - "D". The national rating is set out the same way, but in the format "AAA (xx)", "AA (xx)", etc. The suffix denotes the country in which it is assigned. The international rating of the organization cannot be higher than the country's rating. The national rating is relative, for it the highest rating scale is the most reliable borrower in the local market, that is the state.

In addition, Fitch has an additional graduation for national ratings - a rating of "E (xx)", which indicates that there is not enough information for the assignment. This category is used if the rating was previously suspended due to lack of documentation from the issuer, which is necessary for observations and data support.[1]

Both international and national ratings can be supplemented with a rating watch ("on control"), and also a so-called forecast - a possible revision within a year or two. The forecast for the rating can be "positive", "stable" or "negative".

To indicate an intermediate estimate, the plus (+) or minus (-) signs are used.

2.2. METHODOLOGY OF ACTIVITY OF RATING AGENCIES IN FINANCIAL CRISES

2.2.1. The World Economic Crisis (2007-2009)

In 2008, the financial and economic crisis began in the world, which manifested itself in the form of a strong decline in the main economic indicators in most countries with developed economies, which later developed into a global recession (slowdown) of the economy.

The emergence of the crisis is associated with a number of factors: the general cyclical nature of economic development; overheating of the credit market and the resulting mortgage crisis; high prices for commodities (including oil); overheating of the stock market.

The precursor of the financial crisis in 2008 was the mortgage crisis in the US, which in early 2007 affected high-risk mortgage loans. The second wave of the mortgage crisis occurred in 2008, extending to the standard segment, where loans issued by banks are refinanced by state mortgage corporations.

Due to a 20% fall in property prices, US homeowners have impoverished by almost five trillion dollars.

The most significant result of the first wave of the crisis was the collapse in May 2008 of the fifth-largest US investment bank Bear Stearns, which was the second-largest underwriter of mortgage bonds in the United States.

The mortgage crisis in the US triggered a liquidity crisis in the world banks in September 2008: banks stopped issuing loans, in particular loans for the purchase of cars. As a result, sales volumes of auto giants began to decline. Three auto giants Opel, Daimler and Ford reported in October on a reduction in production in Germany. From the sphere of real estate, the crisis spread to the real economy, recession began, production decline.

On September 15, 2008, the American bank Lehman Brothers, owed by that time $ 613 billion, applied to the court for bankruptcy and a request for protection from creditors. The bankruptcy of Lehman Brothers became the largest in US history. Never before had such a powerful financial institution gone bankrupt. The ruin of the fourth largest US investment bank negatively affected the main stock quotes in many countries and negatively affected the cost of energy. Oil prices fell from $ 147 per barrel to less than $ 40. The collapse of the stock market in October 2008 was a record for the US market in the previous 20 years, for the Japanese market - for the whole history.

For two years of the crisis (2008-2009), the largest respectable investment banks with a hundred-year history burned down. Bank of America was swallowed up by Merrill Lynch, and Solomon Brothers and Morgan Stanley changed their status: the investment activity was replaced by a commercial one. For help to their governments turned the pillars of business - the company General Motors, Chrysler and others. In fact, the private debt was nationalized: the largest financial institutions - Fannie Mae and Freddie Mac (USA), holders of private mortgage debts of 14 trillion dollars, were bought by the state. [6]

Immediately after the United States, the European economy suffered a severe impact of the financial crisis.

Iceland is heavier than other countries in Europe experienced the onset of the global financial crisis and in 2008 was on the verge of bankruptcy. The collapse of the three largest banks of Iceland - Kaupthing, Landsbanki and Glitnir. The country's authorities were forced to nationalize these banks, as well as to seek financial assistance from the International Monetary Fund (IMF). As a result, Iceland was the first Western country since 1976 to receive an IMF loan ($ 2.1 billion). Against the background of mass protests, the government was forced to resign. The economy of the country for more than a year has slipped into a recession and was able to withdraw from it only in the third quarter of 2010.

In Britain, the first step towards the actual nationalization of large banks was made in October 2008, when the government recapitalized Royal Bank of Scotland and Lloyds for $ 62 billion in exchange for large stakes in banks. Earlier, in September, two small banks were nationalized - Northern Rock and Bradford & Bingley. By March 2009, under the control of the government, half of the country's banking system.

In Germany, the first company in the most important German stock market index DAX, which was on the verge of bankruptcy as a result of the global financial crisis, was the Munich Hypo Real Estate, the leading German bank operating in the real estate market. Initially, the bank was allocated assistance of 35 billion euros under state guarantees, but this amount was not enough. To prevent HRE bankruptcy, the German stabilization fund SoFFin proposed to buy out depreciated shares from the bank's shareholders and until May 2009 he managed to acquire 47.3% of shares.

The German government has adopted an anti-crisis package of measures totaling about 500 billion euros, which until the end of 2009 envisaged not only state guarantees for interbank loans, but also direct financial injections to increase the banks' own capital. To finance the anti-crisis package, a stabilization fund of 400 billion euros was created.[9, p.304]

The government of France, within the framework of supporting the country's banking system in the conditions of the global financial crisis in October 2008, allocated 10.5 billion euros to the six largest banks of the country. Among the banks that received the loan are Credit Agricole, BNP Paribas and Societe Generale.

Against the backdrop of globalization, the crisis spread to all regions of the world.

In early December 2008, the Bank of Canada reduced the refinancing rate to its lowest level since 1958, and recognized that the country's economy has entered a recession. The Government of Canada has created a special fund of $ 3 billion to stimulate the economy in times of crisis.

Japan's deterioration in all economic indicators began with the second quarter of 2008, at the end of November 2008, the statistical office of the Japanese government fixed the recession officially. For July-September, the GDP decline was 0.4% (year-on-year basis), according to official data updated in early December - by 0.5% compared to the previous quarter, the annual growth rate of the economy fell by 1.8%.

Emergency assistance to the banking sector by the state in some EU countries subsequently became one of the causes of the sovereign debt crisis that swept the euro area in 2010.

The first victims of the crisis among Russian banks in September 2008 were KIT Finance and Svyaz-Bank. To repay the debt to counterparties, Gazprombank issued a loan of 22.5 billion rubles to KIT Finance. In September 2008, Sviaz-Bank sold 98% of its shares to Vnesheconombank.

VTB Bank, among other Russian banks, received state support. In the midst of the crisis, a 10-year subordinated loan of VEB for 200 billion rubles was attracted. Then, approximately a year later - in the fall of 2009 - VTB placed an additional issue, which was almost completely redeemed by the state, by 180 billion rubles. In addition, VTB attracted funds from the Bank of Russia on bail and on unsecured auctions.

The crisis quickly spread to the real sector of the economy. The capitalization of Russian companies declined by three quarters in September-November 2008; gold and foreign exchange reserves fell by 25%. The financial crisis has reduced public confidence in banks and led to outflow of deposits. In September 2008, the balances on accounts of individuals in the 50 largest Russian banks fell by 54 billion rubles, or 1.2% of the total. The flight of depositors from the banking system reduced the financial stability of banks, which led to the bankruptcy of several large investment and commercial banks.(Moiseev, S., 2009)

In the pre-bankruptcy state there were many companies. Workers were dismissed, they were sent to administrative leave, wage rates were reduced.

Also, the financial crisis provoked a fall in oil prices. There were problems with investing in this sector, and there was a risk of slowing down the implementation of projects to increase production and construction of energy pipelines. There was a reduction in the growth rate of the Russian economy. For example, with the economy growing in 2007 by 8.7%, for 9 months of 2008 the growth was 4.9% against the corresponding period of the previous year. 2008 was the last year of growth of the able-bodied population. As a result of the financial crisis, state projects in the field of infrastructure and construction.

The world economy continues to decline. At the meeting of the financial G20 in July 2013, the finance ministers recognized that it continues as a slowdown in some major emerging economies, as well as a recession in the eurozone. The recovery of the world economy remains fragile and uneven, unemployment continues to be high in many countries.

International organizations review their forecasts for the development of the world economy in the direction of deterioration.

2.2.2. The impact of credit ratings on the bank's stability

In recent years, the impact of credit ratings has increased significantly.In this section, we look at how credit ratings affect the banking sector.The impact of credit ratings can be viewed from several positions.

The ratings have a significant impact on the evaluated entities when they are changed. At the same time, investors and risk managers should evaluate the systemic effects of credit ratings, as they can increase systemic risk and be pro-cyclical, helping to stimulate investments in "good time" and develop losses for market participants in "bad".

As studies show, a significant negative reaction is produced by a decrease in the credit rating.Consider this point in more detail.

Let us dwell on the effect of lowering the rating in terms of access to financial resources.

Banks that experience a decrease in the credit rating suffer simultaneously from a deterioration in access to non-main sources of deposits and wholesale financing. This, in turn, leads to a significant reduction in both domestic and foreign (foreign) loans. Investors switch to assets of higher quality, so it becomes more difficult for banks to receive reliable financing. However, the transmission of liquidity shocks to the supply of financial resources is moderate if the bank in the original (before the decline in the rating) position was held by a large buffer of liquid assets.

Most of the forms of deposits and wholesale financing are sensitive to a decline in the rating, with the exception of state funds (that is, unsecured interbank financing). Note that foreign deposits are significantly reduced for banks that are downgraded.

Restriction of access to external financing associated with a downgrade of the credit rating is shifting into a significant decline in domestic borrowing for banks that did not insure themselves by retaining more liquid assets [17].

In addition, a decrease in external lending is more pronounced for foreign branches that do not rely heavily on funding from the host country.

Thus, a reduction in the credit rating is associated with a reduction in uninsured deposits and wholesale financing, especially when the domestic market is in a stressful situation.

In turn, limited access to financial resources has consequences in the ability of the bank to provide loans to individuals and legal entities. Without access to financing from private sources, banks will have to sell assets and reduce the provision of loans.

On the lifting cycle, the opposite situation is observed[6, p.41]

Credit ratings support the growth of the valued markets, where deals are concluded with valuated securities. However, the growth of ratings, as the crisis of 2008 showed, can become a factor in the development of crisis phenomena.

Changes in the ratings of securities in the bank's portfolio also affect the bank itself. Note that the portfolio of securities of the bank is a means invested in securities of third-party legal entities, with the purpose of incrementing the profit of the bank and maintaining its liquidity.

A change in the rating brings changes in the value of assets and thus affects the requirements for capital. The ratings also have an impact if these assets can be used as collateral. Such changes can affect the degree of risk and the price of assets. Change can lead to unforeseen destabilization, increased volatility and / or lead to losses in the event of a decrease in the value of an asset.

In addition, according to the studies of the International Monetary Fund (IMF), a reduction in the rating from the investment to the speculative level leads to a statistically significant increase in the difference between the interest rate of the yield of the instrument being valued and the risk-free rate.

According to the Department of Research and Information of the Bank of Russia, banks, with a ramified branch network and high credit ratings, are least affected by the money market conditions. In addition, it is noted that the dynamics of rates for one-day ruble interbank loans (IBC) does not affect the interest rate policy of banks in this group.

However, banks with an extensive branch network and high credit ratings influence the interest rate policy of all other banks. The index of influence of interest-rate policy of banks-competitors for banks with a small branch network and with a low credit rating exceeds 55%.

We also note that banks with a high credit rating, as a rule, enjoy great attention from the media and market analysts. The lending rates of these banks are known to a wider range of potential borrowers and, accordingly, affect the base rates on loans from other banks.[2, p.229]

As a result, these banks, less prone to the impact of changes in the money market, have a stabilizing effect on the Russian credit market.

As of 2010, banks with a high credit rating (investment rating) accounted for up to 50% of the total volume of transactions in the domestic money market.

Consider the share of loans attracted by banks with investment credit ratings in the total volume of interbank loans for up to 1 year table 29).

Table 29

The average share of loans attracted by banks with an investment credit rating in the total amount of interbank loans for a period of up to 1 year in percentage terms

Year	Average share
2010 г.	37
2011 г.	40
2012 г.	56

According to the data presented, it can be seen that banks with a high credit rating have increased their share in the total volume of borrowed interbank loans over the past three years, and banks with a lower rating, respectively, have reduced.

Thus, it was revealed that the change in credit ratings has a significant impact on the stability of banks, namely:

- affects the access of banks to financial resources (and their value) from internal and external sources;
- affects the interest rate policy of banks;
- affects the ability to provide loans to individuals and legal entities;
- affects the ability to make profit on securities in the bank's portfolio.

The above negative factors negatively affect the stability of banks. It should be noted that if the majority of institutions face the same difficulties, then it can be said that negative factors affected the entire banking system. Therefore, if banks cannot independently provide protection from the presented risks, then regulatory control is required.

2.2.3. Regulation of the activity of rating agencies

Credit rating agencies play an important role in financial markets. Credit ratings assigned by international and national rating agencies have a significant impact on the stability of the bank being valued and on the banking system as a whole. At the same time, the activities of the rating agencies are not without problems, such as the conflict of interests and the objectivity of the rating assessment. In modern conditions, to maintain the stability of financial markets, the regulation of the activity of rating agencies.

The existing rules for regulating the activities of rating agencies have passed a long period of formation. The main reasons for the emergence of such regulations were crisis phenomena: the Great Depression, bankruptcies of large companies in the early 2000s (Enron, Parmalat, Worldcom) and the financial crisis of 2008.

The existing regulation can be divided into two levels: international and national (Figure 38).

At the international level, credit rating agencies are subject to the requirements set forth in the following documents:

1. Basic principles of conduct for credit rating agencies published in 2004 by the International Organization of Securities Commissions. In 2008, amendments to the IOSCO Code were introduced.[19]

2. The document of the Basel Committee on Banking Supervision "International Convergence of Capital Measurement: A New Approach".

3. Principles on reducing the dependence of economic counterparties' decisions on credit ratings, developed in 2010 by the Financial Stability Board (FSB) and approved by the leaders of the G20 at the summit in Seoul .

Rating agencies must be officially registered. In the USA, such agencies are called Nationally recognized statistical rating organizations (NRSRO), in Europe - by Institutes of External Credit Estimates (ECAI). In order to be registered, it is necessary to meet the requirements set by the regulatory authorities.

The main regulatory provisions in the US are disclosed in documents such as:

- Securities Exchange Act of 1934 (1934), which regulates the registration of credit rating agencies.

- Law on the reform of credit rating agencies (2006). This law defines the term NRSRO and the standard procedure for the recognition of the rating agency by the national. In addition, the law guarantees the Securities and Exchange Commission (SEC) the right to be a regulator over rating agencies, to establish requirements and supervise.

- The Wall Street Reform Act and the protection of Dodd-Frank consumers (2010).

This law expands the powers of the Securities and Exchange Commission in respect of supervision, including for rating agencies. The provisions of the law are aimed at increasing transparency, establishing requirements for corporate governance in the RA, addressing the conflict of interest and improving the rating processes [6].

- According to the provisions of this law, credit rating agencies should:
- give explanations to the assigned ratings, while they should be understandable to investors;
- when determining the rating, use qualitative and quantitative indicators;
- Disclose information about the ratings assigned and their changes;
- must submit an annual report to the SEC, as well as carry out attestation of the CEO;
- create an effective internal control structure;
- about half of the board of directors should consist of uninterested members, etc.

In addition, under the Dodd-Frank law, control over the activities of rating agencies should be carried out by a special credit rating office, which is a structural division of the SEC and monitors the methodology and procedures of rating agencies.

In Europe, regulations are disclosed in the following documents:

- Regulations on the rating agencies (Regulation on Credit Rating Agencies). This act has three editions, the last of which dates from May 2013. The Regulation establishes such requirements as revocation of authority for rating in case of non-compliance with requirements, establishment of strict standards of corporate governance, operational standards, independence of employees and their relocation, compensation policies, prohibition of insider trading, requirements for elimination of conflicts of interest in rating and disclosure of potential conflict of interest.

Note that the main regulatory body in Europe is the European Commission on Securities and Financial Markets (ESMA).

In addition, in Europe, the rating agencies were regulated by the Financial Operations Directives, namely:

- The Market Abuse Directive (MAD). If credit ratings prove to be false and will mislead their consumers, then the rating agency will be sanctioned based on market manipulation.
- Capital Requirements Directive (CRD). This directive establishes standards that will determine the rating agencies whose ratings can be used to calculate capital adequacy.[10]

Since the activities of rating agencies are subject to various problems, the main goal of regulating their activities is to neutralize negative aspects.[6]

Consider the options for solving the identified problems proposed by Russian law (Table 41).

Table 41

Solving the problems of rating agencies, proposed by

The problem that is typical for credit rating agencies	**The existing solution of the problem in Russian legislative acts**
Conflicts interests	- it is forbidden to combine rating activity with other types of activities, namely consulting services. - a credit rating agency should ensure the prevention, detection of conflicts of interest, management and disclosure of information about them. in RA, the number of employees of which exceeds twenty people, at least one third, but not less than two members of the board of directors, and in the absence of a board of directors in the rating agency - at least one third, but not less than two members of the collegial executive body of RA should be independent members , not carrying out rating actions, advertising services of a credit rating

	agency and other actions to attract customers. - the remuneration of members of the Board of Directors (or members of the collegial executive body) of the RA should not be related to the results of the activities of the RA and should be established in such a way as to ensure the independence of their judgments. - in case of revealing a conflict of interests, the RA is obliged to immediately determine whether there are grounds for revising the existing credit rating or forecast on the credit rating and to take appropriate actions with respect to the credit rating or the credit rating forecast in case of such grounds. - The RA should not allow the participation of rating analysts in the discussion of information on the payment of RA services to the rated person, persons exercising control over him or having a significant influence over him.
Absence of competition	- in late July, the Central Bank decided to establish in Russia an analytical credit rating agency (ACRA)
Increased use of credit ratings for regulation financial institutions	- Credit ratings, agencies operating as separate units can be used for regulatory purposes within 12 months from the date of entry into force of Federal Law No. 222-FZ. - in October 2010, the Financial Stability Board (FSB) published the Principles on reducing dependence on ratings of rating agencies.
Objectivity and correctness of assigned ratings	- when applying the national rating scale, accredited rating agencies may not refuse to assign credit ratings and revoke assigned credit ratings on the basis of and (or) in connection with decisions of authorities of foreign states and other international public and legal entities. - leading rating analysts are prohibited from participating in rating actions related to the same rating object for more than four consecutive years, and for sovereign ratings for more than five consecutive years. Leading rating analysts who have ceased to participate in rating actions related to the object of the rating, in connection with rotation, are not entitled to participate in rating actions in relation to this object

Thus, the review of regulation in the rating market showed that after the crisis, active work was carried out to strengthen supervision and introduce new legislation. For the US and European rating services market, the regulation became tougher in 2009-2010, for the Russian - at the end of 2015. The main regulatory bodies are: the Securities and Exchange Commission in the United States, the European Commission on Securities and Financial Markets and the Central Bank of Russia.

The main goal of the regulatory acts is to eliminate the identified problems that are typical for rating agencies. However, the existing regulation can not eliminate negative effects. Therefore, it is necessary to nominate and apply new measures aimed at improving the rating activity.[17]

3. RESULTS OF IMPACT OF CREDIT RATING AGENCIES TO 2007-2009

3.1. Study of the dynamics of credit ratings of CDO

First, it is worthwhile to consider the factors explaining the percentage of CDOs that were initially assigned to the AAA rating by each of the three main agencies.

The main problem arising in this analysis is that for most CDOs, each CRA estimated only a fraction of the tranches; based on this, the UBS study uses in its regressions only those CDOs in which one agency valued 75% or more tranches. The results of the regressions show that most of the change in the AAA rating can be explained by the original credit rating of the collateral assets.

Here, the effect of "serifs" is manifested - the practice of including ratings of other agencies in their own models. It was rare for one credit rating agency to evaluate all CDOs and because the revaluation of collateral assets was quite expensive, the CRA used, instead, the ratings of its competitors. To correct the shortcomings of the methodology of other rating agencies, they created the practice of "notching", which represented a simple fall in the rating of securities that they did not assess themselves, one step (serif).

In other words, if S & P valued CDOs consisting of collateral assets with BB + rating from Fitch, S & P would use the BB rating for its own model, simply because it was not their rating. They never returned to reassessing the rating of other agencies, constantly assuming that a reduction of one "serif" compensates for any shortcomings in the initial risk analysis.

Moreover, it became clear that equally priced bonds from various sectors (for example, ABS and corporate bonds, RMBS and CMBS) had a different history of probability of default, and agencies began to systematically adapt their understandings and models to correct previous estimates. In version 3.0 of the CDO evaluation model from S & P, issued in 2005, the agency published full probability tables for defaults for LB8 / MB8, corporate bonds and OBOs with conflicting definitions depending on the assets on the basis of which they were assessed.

In addition to problems with the accuracy of ratings, investors were faced with the fact that the ratings by themselves ceased to be a meaningful indicator of the risk assessment of the portfolio. As Coval et al (2009) notes, credit ratings essentially reflected a risk assessment of expected security payments, but not information about the potential for default of the paper itself during a market downturn or a global economic recession. Moreover, ratings are static indicators created in order to give an understanding of the expected losses at a certain point in time with certain.[11]

However, investors believed that the ratings of the OBOs corresponded to the same probability distributions as the commercial bonds, which supported the already high demand. Finally, the structure of the OBE became more and more complex, including such characteristics as super-senior tranches, promises of in-kind payment and a different number of triggers that changed the priority of payments.

In addition to problems with the accuracy of ratings, investors were faced with the fact that the ratings by themselves ceased to be a meaningful indicator of the risk assessment of the portfolio. As noted by Koval (Dovada, January 1, 2009), credit ratings essentially reflected a risk assessment of expected security payments, but not information about the potential possibility of a default of the paper itself during a market downturn or a global economic recession. Moreover, ratings are static indicators created in order to give an understanding of expected losses at a certain point in time with certain assumptions. In the rating, it is impossible to reflect all available information to estimate the probability distribution necessary for the risk assessment by investors. Investors most often try to overcome these problems with the help of rating history, filling in the missing information with data on defaults for this rating level. Since a very limited amount of information was available for the OBE, investors paid attention to data on corporate bonds. However, as noted above, it was proved that LB8 had different probability distributions of default than corporate bonds, which led to incorrect estimates.

Strong dependence on CDO credit ratings has led to even worse consequences, when problems with models and evaluation processes became apparent. The Bank for International Settlements (BIS) issued a report summarizing the main problems in the sub-prime assessment of RMBS. They found that credit rating agencies underestimated the seriousness of the decline in the US residential property market, which in turn caused a sharp increase in the correlation of defaults among mezzanine subprime tranches and the total number of defaults that occurred, while reimbursements in case of default fell sharply. In addition, the sub-prime ratings of RMBS relied on historical data in relatively favorable economic conditions with a relatively small number of periods when prices for residential buildings declined.

CRA created a huge amount of CDO with AAA rating from collateral assets with a lower rating, confirming one of the reasons for such a high CDO yield in 2005-2007. - the possibility of transforming a large number of low-quality assets into high-rating securities. This practice had serious consequences, which led to a massive decrease in the ratings of the tranches of the CDO, as it became clear that the rating agencies were overly optimistic. In the years 2005-2007. The original rating assigned to the CDO tranches was on average better than the rating of collateral assets. The current rating of CDO tranches issued in those years is significantly lower than the rating of the collateral pool. [9, p.304]

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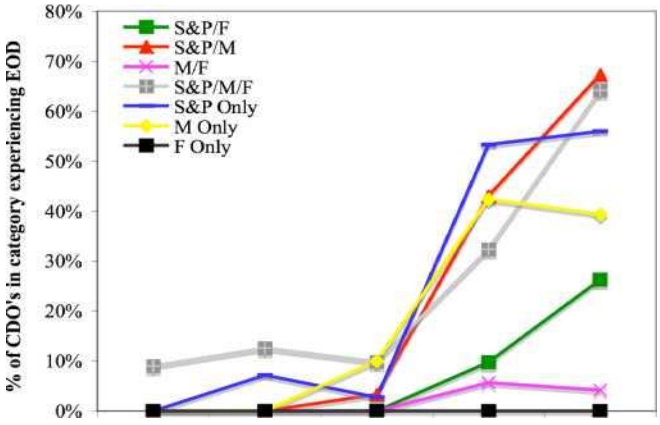
While all three rating agencies have significantly underestimated the true risk of CDOs, it is possible to observe some differences in the subsequent characteristics of CDOs evaluated by various rating agencies. Figure 1 shows the percentage of CDOs estimated by various combinations of agencies that were in the default state for June 2008. You can see that the CDO, valued by Fitch, depreciated much less than the CDO without the Fitch rating. However, this is not a general rule, since a large number of other factors could affect the lower default rate for the estimated Fitch CDO.

Figure 1

Frequency of default on various combinations of rating agencies that rated them



Before 2004 2004 2005 2006 2007

This could explain why the CDO was assigned a large number of AAA ratings, if the collateral assets were valued by the agency itself, because it did not need to be corrected. This also confirms that CDOs could receive the largest amount of AAA if they were evaluated by an agency that valued most of the collateral of this CDO. Perhaps, because of this fact, Fitch was almost completely excluded from the CDO evaluation market by 2005; Fitch had a significantly smaller market share in the rating of residential mortgages, which were the main type of collateral for CDOs.[2]

Finally, it is worthwhile to observe the effect of various combinations of rating agencies and the total number of AAA ratings assigned. The regression results are confirmed by the fewer agencies on the CDO leading to a more generous assignment of AAA. However, this effect may be due solely to the influence of the Fitch rating; while a CDO with Fitch + Moody's or Fitch + S & P ratings was assigned less than AAA, a CDO with Moody's + S & P ratings received more AAA. A possible explanation for the "Fitch effect" is that Fitch's rating reduced "The effect of revised ratings." Given that Fitch estimated the relative small number of assets used as collateral for CDOs, it was undesirable for banks to receive a rating from Fitch because of the "serif" effect. CDO underwriters used the Fitch rating only if: 1) Moody's or S & P did not come to a common rating; or 2) most of the assets were not rated, and Fitch needed to assess these assets at a lower cost than would competitors.

A possible explanation for the discrepancy between the observed changes in the CDO and the downgrade is that the rating falls with some time lag, as rating agencies want to see the trend in the dynamics before changing the rating. The second possible explanation for this is that rating agencies conduct a second analysis of previously evaluated securities with some frequency. Perhaps these transactions were not recently revised or the degree of revision depended on public information and concerns of investors surrounding a particular type of CDO or individual CDO.

In order to assess the accuracy of credit ratings, it is worth looking at the relationship between ex ante credit rating and ex post dynamics. S & P data show that the same rating leads to different levels of default, based on the observed characteristics of assets, reflecting that the credit rating did not include this information. In particular, a lower rating led to a smaller increase in default, if this applied to a commercial mortgage, and residential mortgages with a floating rate generated a higher default rate.

Using the default matrix of the S & P CDO Evaluator ver. 3 (Appendix B), we find that the failure in the accuracy of credit ratings depends on the availability of collateral assets in 2006 and 2007. This observation confirms the assertion that the quality of collateral has significantly decreased in these years, and, moreover, shows that credit rating agencies did not identify this deterioration in quality. However, it's hard to compare the accuracy of Fitch's ratings from S & P and Moody's due to Fitch's lesser involvement in the CDO valuation business. The apparent superiority of Fitch's rating may be the result of the fact that Fitch had fewer opportunities to make mistakes in assessing the CDO's rating. They were no longer a significant participant in the CDO market, when the most significant decline in the quality of collateral assets occurred, and the complexity of the CDO securities themselves increased. (EU rating Agency Buried (2013))

Inclusion of dummy variables in regression in order to assess the influence of underwriters on the erroneousness of assigned ratings shows that the degree of errors depended on the underwriter's personality. However, this does not mean that certain underwriters received any privileged position from rating agencies; on the other hand, this proves that the underwriters did not have a differentiated position - the lack of differentiation became a problem in itself. It is worth noting that the degree of errors in rating ratings directly reflects the quality of CDO underwriters, where the "best" underwriters like Goldman Sachs were associated with fewer mistakes, and the "worst" underwriters with greater. This shows that the rating agencies did not distinguish underwriters, in spite of the fact that some did their work better than others.

Since the rating agencies received the commission depending on the face value of the securities they valued, a conflict of interests suggests that they would assign the desired ratings to the papers of the largest underwriters to increase their profits. The results for Moody's and S & P confirm the conflict of interest issue: the largest underwriters were assigned the highest number of AAA ratings, which led to more errors and, correspondingly, to higher ratings losses for these securities. However, these results could just as easily become the reason for the fact that the most prolific underwriters produced CDO of lower quality, and did not receive the preferential ratio of rating agencies, but the same as all the others, although in reality they produced CDO of inferior quality. Given the striking uniformity of the original CDO ratings and the fact that the predictive characteristics of the credit ratings of assets depended mainly on the quality of the underwriter, the latter explanation seems more plausible, suggesting that the conflict of interest is nothing more than the inability of the rating agencies to distinguish the quality of underwriters.[6]

1.1.1. Development of recommendations for improving regulation activity of rating agencies

Economists note that any regulation of the rating industry should contain the following important aspects:

- eliminating or significantly reducing the power and influence that existing rating agencies exert on the functioning of world capital markets;
- Providing important and reliable information to investors, issuers, regulators and other market participants on the probability of default, the level of possible losses on debt securities, and derivative financial instruments in order to restore confidence to rating agencies in financial markets;
- elimination or reduction of potential conflicts of interest that are part of the existing business model of rating agencies (the "pays the issuer" model).

Thus, improving the regulation of the activities of rating agencies implies changing or supplementing existing norms.

Taking into account these aspects, it is possible to propose the implementation of a program to create an official unified database on credit ratings of banks and their financial obligations.

The control over the database should be entrusted to the Central Bank. The regulator can compare the collected information on credit ratings with the data on mandatory standards and financial stability of the bank. This comparison will allow:

- to reveal overestimation or underestimation of a credit rating. This will additionally control the conflict of interest;
- increase the responsibility of rating agencies.
- An important point is the openness of the database to other users of credit ratings. This will enable:
- track the history of ratings for each particular bank;
- Investors track the accuracy (correctness) of the rating for each type of asset over an extended period of time;
- comparison of ratings of international and domestic rating agencies, which will create in the future a single scale in relation to which all other ratings will be combined.

In today's economic conditions, the quality of the rating plays an important role. As a result of increasing the responsibility of rating agencies, the quality of ratings will also improve. However, the achievement of such a goal should be carried out on the basis of complex work both on the part of the regulator and on the part of the rating agencies themselves. From this point of view, the Central Bank has already reflected in its normative acts the following aspects:

- requirements for knowledge and professional experience of rating analysts;
- Conducting an assessment of the compliance of candidates for the position of the sole executive body and the position of the head of the internal control service;
- requirements to the applied methodology (error detection and disclosure).

Thus, the rating agency should bear the so-called cost of quality.

The total cost of quality in the rating agency is determined on the basis of the amount of costs for compliance and non-compliance.[19]

Costs of compliance consist of the costs of preventing the occurrence of defects, that is, costs associated with activities that reduce or completely prevent the occurrence of defects or losses. An example of such costs is the cost of planning and implementing the quality system of the rating process.

The second component of the cost of compliance is the cost of control, which is necessary to determine and confirm the achieved level of quality. This type of costs include:

- costs associated with the work of personnel evaluating the rating methodology. That is, the RA should conduct a check on the conformity of the rating methodology to the current economic conditions and whether this methodology is able to determine the default of the rated person in these conditions;
- costs for checking rating analysts, their professional experience and knowledge.

The costs of non-compliance should include:

- the cost of determining the causes of a substandard rating (that is, the occurrence of overstating or understating the credit rating);
- the costs of eliminating the defect (changing the methodology, retraining of

employees, etc.);

- costs of legal disputes and compensation payments (ideally).

Thus, when the rating agency is in a situation with numerous cases of substandard ratings, it means that it incurs insignificant expenses for preventive measures. The overall cost of quality is high mainly because of high defect losses.

The increase in the quality level is due to the increase in the volume of preventive measures. Accordingly, the cost of the defect will decrease as a result of the application of preventive measures.

Thus, it was revealed that the change in credit ratings influences the stability of the bank through various ways. First, there is an impact on access to financial resources, and secondly, on the interest policy of banks. This influence can be both positive and negative, depending on the direction in which the rating changes. However, in recent times, the cases of negative impact of the change in the credit rating have become more frequent. This situation is exacerbated by the existing problems in the rating industry, such as problems with the prediction of the default of the organization and the economy as a whole, a significant change in the credit rating, conflicts of interest, lack of competition in the rating services market, increased use of credit ratings to regulate financial institutions, and correctness of assigned ratings.[10]

To solve these problems, relevant regulations were adopted both at the international and national levels. However, the existing regulation can not eliminate negative effects. Therefore, it is necessary to nominate and apply new measures aimed at improving the rating activity.

For additional control by the regulator over the quality of ratings and conflicts of interest, it was suggested:

1. Creation of an official unified database on credit ratings of banks and their financial obligations.

2. The introduction by the rating agencies of preventive measures and control measures.

Report to the regulator on the annual reviews of the rating methodology and rating analysts, on the results of these inspections and the measures taken in case of defects. The costs of these events are considered expedient, since rating agencies have an incentive in the long run to invest in their reputation for producing high-quality ratings.

1.1.2. Lessons from the crisis

It is shown that without deep institutional and technological changes it is impossible to overcome the global crisis that is cyclical and structural in character and to bring the economy to a qualitatively new level of efficiency and labor productivity. In the last century, the post-crisis transition to the industrial stage of development required the strengthening of the "big state"This led to an increase in taxes, budget expenditures and state property, the use of planning and, if necessary, state pricing. The budgetary burden in some developed countries has reached 60% of GDP. The next post-industrial stage of development (70s of the last century) led to liberalization and deregulation, a reduction in taxes and privatization, development of economic freedoms and competition. The crisis of 2008-2009. actualized the need for global and national regulation of financial markets. Easily moving around the world, finance has become a self-sufficient sphere of the modern economy, acquiring speculative features, dangerously breaking away from its real sector. Hence the need for regulatory financial mechanisms that stimulate investment in new industries and industries.

The main positive result of the anti-crisis economic policy of the government should be considered the prevention of massive bankruptcies of significant corporations and, in particular, banks; maintaining the economy "afloat"; preservation of relative social stability. There was no strengthening of inflationary processes, there was an outlined, albeit unstable, positive dynamics of exchange rate indices in the stock market. Favorable influence is now on the economic development of the significantly increased level of oil prices in the world market. Similar, also, that the economy "groped for the bottom" and next year we can expect a slight increase in GDP (according to government estimates, 1%).

At the same time, the Russian economy also turned out to be among those countries in which the crisis caused the deepest decline in production. The figures are of the order of -10% for GDP and -15% for industrial production, -18% for investments in fixed assets make one recall the beginning of the 90s of the last century. The country lost about a third of its international reserves, mainly during the soft devaluation of the ruble. More than 200 ml. dollars expended for these purposes until February 1, 2009, corresponded, at the then oil price of $ 40 per barrel, to the cost of 800 million tons of oil. This amount of the country produces more than a year and a half.[11]

There are no signs of economic modernization. On the contrary, a number of high-tech industries, in particular, the machine tool industry, were again on the verge of total collapse. The government's plans to limit the financing of science and high-tech projects in the coming years are also pessimistic. In general, there is a very high dependence of economic growth prospects on the dynamics of external demand for our fuel and raw materials products. Of course, the question remains: do we have the means to ensure a more successful functioning of the economy in the current circumstances. It seems to me that there are such opportunities.

Debt problems of the private sector, which played such a negative role in the crisis, became possible only as a result of liberalization of the regime of cross-border capital movements in the country. Therefore, today it is necessary to consider seriously, without ideological bias, the expediency of imposing restrictions on the movement of funds on capital items of the balance of payments, primarily on the transboundary movements of short-term speculative capital. If a positive decision was taken, it would also be necessary to return to compulsory sale of export earnings in the foreign exchange market.

The positive side here is that in this way it would be possible to radically improve the stability of the ruble exchange rate, eliminate the need for large-scale interventions in the foreign exchange market of the central bank, and thereby free up a significant part of the foreign currency funds for the productive use of the state. At the same time, there would be no need to fight the outflow of capital by overstating the level of the refinancing rate, which would allow to lower the rates on which enterprises of the real sector of the economy are credited to a reasonable level.

In connection with the increase in oil prices, the situation with external demand has somewhat improved. But the limitations of economic growth on the part of aggregate demand remain very stringent. At an extremely low level, investment activity remains, consumer demand for domestic goods is narrow. That is why, albeit belatedly, the state should act as a powerful source of final demand, developing and financing major projects aimed at developing infrastructure and technological renewal of production. At the same time, both current problems of stimulating economic activity and long-term problems of economic modernization would be solved. With this approach, of course, it will be necessary to introduce serious changes in the state's financial and budgetary policy.[17]

We will touch upon the issue of mechanisms for financing the federal budget deficit. Here, first of all, it is necessary to stop intimidating each other with figures that characterize the dynamics of the reserve fund of the country. The latter, like the fund of future generations, is part of international reserves and is managed by the central bank in conjunction with its own foreign exchange reserves. Financing the deficit from the reserve fund is technically a transfer of the part of its foreign currency assets to the Central Bank by the Ministry of Finance in exchange for currency issued by the bank. Such financing is 100 per cent emission. Therefore, if the reserve fund is over (that is, the relevant foreign exchange assets will pass from the Ministry of Finance to the Central Bank), the latter can continue to print currencies and transfer them to the Ministry of Finance with the same macroeconomic consequences. The point is, therefore, is not whether there are funds in the reserve fund, but how much currency can be printed without undermining financial stability in the economy.[6]

Of course, there are reasonable scales of emission financing of the budget deficit. Therefore, the state should be ready to deploy debt financing of the budget deficit, that is, to attract the necessary resources in the financial market. At the same time, the monetary policy of the Central Bank should be built in such a way as not to allow excessive interest rate hikes.

In necessary cases, for the effective implementation of projects, along with foreign exchange funds, foreign exchange resources available to the state may be attracted. This may be direct state imports, and private imports, which are based on long-term foreign currency loans provided by the state. Of course, in this case, the aggregate demand for products does not change, but the problem of modernization of the production apparatus is being solved. I would like to conclude my statement as follows. It seems to me that today is a very important moment, which largely determines the future of the country for many years. The question is: will we get out of this crisis with an economy oriented to dynamic innovative development, or will we even strengthen our status of a raw appendage of developed countries, by the way, making enormous efforts to implement a new round of modernization? One thing is clear: the crisis can push us to the formulation and implementation of ambitious tasks; Do it for us, he can not.

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CONCLUSION

As a result of the conducted research, the relevance of credit ratings in the current economic conditions was revealed. To understand the rating process, the theoretical aspects of the rating services were considered, in particular the concept of a credit rating, types of ratings, rating objects and rating assignments. It was noted that the rating assessment is important both for the most rated person, and for its counterparties and authorities. Comparative characteristics of international and national ratings were also made.

The second explored aspect was the breadth of credit rating use by economic entities. International and national credit ratings are recognized by the Ministry of Finance, the Ministry of Economic Development, the Central Bank, the stock exchange, the Deposit Insurance Agency, etc. Thus, the scope of credit ratings is quite broad. The conducted analysis of the ratings of banks showed that in recent years there has been a trend of growth in the number of banks that have received a credit rating. At the same time, the largest number of banks receives rating from rating agencies.

In addition, the impact of credit ratings on the stability of banks was examined. The transmission of this influence begins with a change in the country's sovereign rating and ends with a change in the financial results of banks.

Given the importance of credit ratings for the modern economy, the need to consider their regulation was identified. Although today there are normative acts regulating the activities of credit rating agencies, they still have not eliminated such problems as problems with the prediction of the default of the organization and the economy as a whole, a significant change in the credit rating, conflicts of interest, lack of competition in the rating services market, ratings in order to regulate financial institutions, as well as the objectivity and correctness of the ratings assigned.

1. In modern economic conditions, the quality of ratings, the elimination of conflicts of interest and the provision of reliable information to consumers of ratings are important.

2. Establishment of an official unified database on credit ratings of banks and their financial obligations.

3. The introduction by the rating agencies of preventive measures and control measures.

4. Reporting to the regulator on the annual reviews of the rating methodology and rating analysts, on the results of these inspections and the measures taken in case of defects.

In the research, it was shown that these measures will have positive effects for all the main participants in the process.

Thus, the goal of the work is achieved, the tasks are solved. The results of the conducted research can be used by the regulatory bodies and in the educational process.

REFERENCES:

1. Bamier Considers EU Rating Agency (2010), Financial Times, 4 April

2. Beloglazova, G.N., (2014) Mega-regulator: interaction with credit institutions and financial markets. SPb .: Publishing house SPbGEU. 229 p.

3. CESR's Second Report to the European Commission on the Compliance of Credit Rating Agencies with the IOSCO Code and the Role of Credit Rating Agencies in Structured Finance (2008). Ref: CESR/08-277, Paris: Committee of European Securities Regulators,

4. EU rating Agency Buried (2013), EU Observer. URL: https:// euobserver.com/foreign/120005

5. Ferri G, Liu L.-G, Stiglitz J.E. (1999). The Procyclical Role of Rating Agencies: Evidence from the East Asian Crisis // Economic Notes by Banca Monte dei Paschi SpA, vol.28, no.3. p. 335-355.

6. Hainsworth R. (2009). Regulation of the activity of rating agencies // Money and credit, №7, p. 41.

7. Improvements to the Regulation of the Credit Rating Agencies [Electronic resource]. http://events.whitecase.com/fmd/alerts-Credit-Rating- Agencies.pdf .

8. IOSCO Statement of Principles Regarding the Activities of Credit Rating Agencies' of a Technical Committee of a International Organization of Securities Commissions (2003), 25 September

9. Karminsky A.M., (2015). Credit ratings and their modeling. University Higher School of Economics. Moscow: Higher School of Economics. 304 p.

10. Langhor M. H, Langhor P.T. (2008). The rating agencies and their credit ratings: what they are, how they work and why they are relevant. A John Wiley and Sons, Ltd., Publication, p. 189.

11. Moiseev, S., (2009). Regulation of the activity of rating agencies in the national market.

12. Opening Statement of Senator Carl Levin, U.S. Senate Permanent Subcommittee on Investigations Hearing: Wall Street and the Financial Crisis: the Role of Credit Rating Agencies. (2010). U.S. Senate Press Release, 27 April

13. Proposal for a Regulation of the European Parliament and the Council on Credit Rating Agencies, COM (2008) 704 final. European Commission, Brussels
14. Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies. URL: http://eur-lex.europa.eu/LexUriServ/
15. Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience (2008). Financial Stability Forum, 7 April, URL: http://www.fsb.org/wp-content/ uploads/r_0804.pdf?page_moved=1
16. Report on the Role and Function of Credit Rating Agencies in the Operation on the Securities Markets. (2003) U.S. Securities Exchange Commission, January
17. Roy, L.V., (2008). Analysis of the industry markets: a textbook. M .: INFRA-M. 442 p.
18. Satyajit D. (2005). Credit Derivatives: CDOs, Structured Credit Products Wiley
19. Strier F. (2008). Rating the Raters: Conflicts of Interest in the Credit Rating Firms // Business and Society Review 113 (4), Pp. 533-553.
20. The Financial Crisis Inquiry Report, Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States. (2010). Financial Crisis Inquiry Commission, p. 125-126.
URL:https://www.esma.europa.eu/sites/default/files/library/2015/11/cesr_08_277.pdf