

CREDIT RATING AGENCIES' DECISIONS AND I.S.D.A.'S CREDIT EVENTS: EFFECTS ON BANKING LIQUIDITY AND LEGAL CONTRACTS

Athanasios G. Panagopoulos¹, Thomas Chatzigagios²

Abstract

This paper aims the research whether involving Credit Ratings Agencies (CRAs), regarding the provision of credit risk rating for the banking structured products, as well as the credit clauses of ISDA (International Swaps and Derivatives Association) agreements between banks, could affect the banking liquidity. The research work focuses on the existing regulation and the literature for CRAs and on whether a proposed set of regulation reforms could aim in manipulating future crisis in the finance environment. The ISDA operation, the legal framework of its proposed contracts (for banking products transactions) and the decisions of its committees are factors, which can also influence the operation of these products and the banking liquidity. The paper reviews the current European legislation of CRAs, as well as the policy of ISDA through its contracts. We examine the procedure with which the activation of hedging instruments is decided, when a “credit event” takes place. The research effort is based on the study of ISDA contracts as legal tool protecting the banks, bilaterally, from credit event risks. Under this reasoning, we have examined the liquidity effects concerning banks and how this is involved with the changes of the credit ratings. Among our conclusions and results, we present a clear explanation of how an ISDA credit event affects banking liquidity and we suggest specific legislative interferences and changes in ISDA agreement clauses wording, to preserve the banking liquidity. Under these changes, EU-certified CRAs, certainly, have to interfere in circumstances of downgrading the credit ability of banking institutions.

Keywords: CRAs, Credit Events, CDS, ISDA, Master Agreement, CSA

JEL Classification: G240, G280

¹ Corresponding author: PhD candidate at University of Macedonia, dep. of Accounting and Finance, 64 Anatolikos Romilias str., GR16562, Glyfada, Attica, Greece, thpanag@uom.edu.gr.

² Associate Professor at University of Macedonia, dep. of Accounting and Finance, 156, Egnatia str., GR54636, Thessaloniki, Greece. chatzig@uom.edu.

1. Introduction

I.S.D.A. (International Swaps and Derivatives Association) organization represents various members in the area of the bilaterally negotiated derivatives (Over-The-Counter OTC derivatives). ISDA was founded in 1985 and today has over 850 institutional members from 57 countries from all continents. Between these members are included some of the most important financial institutions, businesses, government entities and others, that rely much of their investing business, on OTC derivatives. ISDA has a leading role in coordinating the discussion and promotion practices for efficient and more law-codified functioning of the financial market participants, in the area of OTC derivatives.

ISDA has a group of committees, that decide on various issues (ie credit events, various protocols, etc.). Its relationship with the interbank market and the corresponding authorities is important. ISDA uses several means for this, such as advisory participation in legislative changes, proposals on contractual documentation, coordination and views statements, etc.

ISDA contributes to the smooth transaction activity of banking products and OTC derivatives, among other things, by providing the *ISDA Master Agreement* (MA) and the *Credit Support Annex* (CSA). This is, essentially, a mutually recognized contract between two counterparties or entities covering legal transactions and clearance of products (OTC derivatives) traded on a non-regulated market (under no law rules) providing clauses, for all default cases and post-trading risk.

This contract (MA), operates under the principles of the English Corporate Law (mainly for credit and financial institutions based in the EU). It is consisted of two main parts: the standard clauses part (which is nonnegotiable) and the variable (the “Schedule”) part (which is negotiable between the counterparties). Some key negotiation points are: the currency, the payment threshold (“Threshold Amount”), the minimum credit guarantees transfer amount (“Minimum Transfer Amount”), etc. As Harding et al. (2002) say, the CSA (Credit Support Annex), guarantees the transfer, on either side of counterparties, of the credit guarantees (“Collaterals”), in cases where for specific banking transactions and for credit risk purposes, the parties have provided payment guarantees (Nye, 2014). However, this guarantee varies depending on the dynamic changes and market conditions and on the rating of products included in the underlying transactions.

The ISDA MA provides, also, processes and issues concerning : trading, clearing, cash transfers, valuation, bankruptcy, *credit events*, corporate events that might affect the transactions, transaction confirmation ways, etc. The ISDA MA is, essentially, the “umbrella” agreement which governs all individual transactions of the parties. For each OTC derivative transaction, parties sign, also, the “transaction confirmation”, which follow the standards of the ISDA. The integrated logic of the institutional area of Capital Market is diversified, as around of the transactional system of credit institutions, there are bilateral relationships and not commonly accepted rules of statutory law, at all levels. However, the ISDA Master Agreement as long as the “transaction confirmations” constitutes a single legal entity.

There are certain clauses in these contracts, which are related to the ratings of the CRAs. Essentially, these clauses contain the concepts of “credit events” and “credit downgrade” from a CRA. In such cases, these clauses may provide the termination of some or all transactions whether the counterparty’s credit rating, falls at lower levels due to a worsening of its financial position. Then, the other party which is not affected by this change has the right to terminate and close the current transactions with the affected member whose condition was worsened. Therefore, under this legal act, the liquidity of both parties (mainly for the affected party), clearly, can be influenced. Similarly, the same situation can be occurred (because it is a *right*, not an *obligation*) not only with the specific affected counterparty, but also with all other counterparties, which have entered into a such agreement (ISDA MA) and have incorporated clauses for “credit downgrade”.

A Credit Rating Agency (CRA), in the financial world, has remarkable influence. The bond issuers are based on ratings as an independent certification of their own credibility and their issues. A major bond issue must have at least one (if not three) rating from a respectable CRA to be considered, as successful.

Moreover, CRAs and Special Purpose Vehicles (SPVs) (established by financial institutions), have a dynamic relationship. The function of CRAs correlates, additionally, to the objective assessment of the creditworthiness of *Government Financial Institutions* (BIS, 2010, 2011; BIS, 2006; BIS, 2001). Consequently, bank supervisor authorities allow banks to use CRAs (or *External Credit Assessment Institutes, ECAIs*) to assess the requirements in bank’s net reserves.

CRAs, also, evaluate “structured financial products”, as a group of loans with different characteristics. Simultaneously, their issuers consult a CRA on how they can structure these

products (“tranches”), in order to obtain the desired evaluation. In structured products, CRAs report that their evaluations are, actually, “opinions on the issue” in general (there is always a possibility, a particular issue cannot serve the cash outflows for a period), instead on the product volatility and certainly not as an investment proposal.

However, structured transactions have the trend to concentrate the same risk in such a way that a very slight change in volatility in any of its components, to lead to a significant influence of the price of the structured product. This has an impact on the rating, which may be i.e. AAA, but its price collapsing rapidly. This fact has led regulators and state authorities to introduce a new framework legislation, since normally high ratings are, typically, associated with low volatility and high liquidity.

CRAs answer that their analysis and ratings, constitute an opinion “point in time” and do not subject to a guarantee or an investment proposal. They, also, make clear that any change in the risk factors of a financial product issue will bring the non-validity of the analysis and the evaluation, as long as a different credit rating.

2. Literature Review

The market of CDOs (Collateralized Debt Obligations) has been criticized for large losses (worth over \$340.7m CDOs from Credit Suisse, top rated, losses were \$125m despite their high rating from S&Ps) (BIS, 2010, 2011; Gooch & Klein, 2002).

The most important source of revenue for the majority of the CRAs is the subscription fees by those who are interested in studying the ratings of several companies (model “subscriber-based”). Larger CRAs (S&Ps, Fitch, Moody’s, Japan Credit Ratings, etc.) receive their revenues from the same issuers of their products, who require a rating (model “issuer-pays”). However, there are concerns of conflict of interest in both revenue models of the CRAs (Harding & Johnson, 2002).

ISDA definition for the “credit events” (which also concerns Greece’s case and the PSI-Private Sector Involvement program for the exchange of bonds) on the basic concept of the proposed “restructuring” (“debt restructuring”), could be, by itself, a “credit event” and that would trigger the hedging CDS, particularly for those who had signed ISDA contracts (Harding, 2010; Panagopoulos, 2012).

Under ISDA, definitions, “restructuring”, it is a group of events for a financial transaction (Harding, 2004):

- if there is a reduction to the nominal amount or the rate of interest or the amount of accrued interest, or
- if there is a reduction in the principal amount or the amount which would be payable on expiration, or
- if there is any date rollover for the payment of interest or principal amount, or
- if there is any change in the classification in the priority of payments, or
- if there is any change to a “non-permitted” currency for the payments. “Permitted Currency”, means a currency of: (i) a G7 Country, or (ii) any Country of OECD (Organisation for Economic Co-operation and Development) with the highest rank by any CRA in the long-term debt in this currency.

If therefore appears one of these incidents cases, we refer to a “restructuring” (i.e. in the case of Greece, no. 2 and 3).

As Murphy (2013) and Hudson (2002) acknowledge, banks worldwide apply various policies in terms of this agreement. Kiff and Morrow (2000), initially and then Firth (2005) concluded, that the worldwide market for OTC derivatives is not considered as “regulated”. Actually, there is no commonly accepted rules of law from an authority – as the listed derivatives which are traded in organized markets and Exchanges), the ISDA Master Agreement, covers (as a common acceptable legal document between financial institutions) the full range of trading activity for the OTC products.

3. Methodology of Research

The present study aims to research, whether the existing regulations have contributed to strengthen the market, regarding the negotiation of agreements for bilateral traded structured financial products. Johnson (2005) proposed a method of negotiating OTC derivatives based on the bilateral signed agreements. According to this, it is wise to negotiate clause by clause, taking under consideration a group of risks: clearing, legal, currency and collateral. Additionally, we studied the terms “credit event” and “restructuring” for clarification, from the literature and from ISDA’s definitions. All negotiations between European Union, International Swaps and Derivatives Association (ISDA), credit institutions and CRAs, have also been studied. The need for additional regulation has already been examined, whether it is required and what could be additionally imposed and at what level for CRAs, legislative speaking.

Additionally, we investigated what prevails, for the time being, in Europe and the US. The key questions we used as a guide, of the research work are: CRAs should be restricted under further regulation and what will happen to the banking liquidity and their legal contracts (ISDA Master Agreements)? Should these legal contracts contain specific credit event clauses, which will prevent the lessening of banking liquidity, in case of credit rating downgrade? How is this connected with the banking liquidity? What kind of legal wording should be included in these agreements? The conclusions of the research, led us to a series of proposals, in order to clarify what is considered as a “credit event” and how we can strengthen the ISDA MA. We studied the necessity of existence and registration of “certified CRAs” by EU. In addition, we examined whether this is important to prevent the uncontrolled credit rating by CRAs.

The research effort was based on the study of ISDA MA (Gooch & Klein, 2002) as the legal document to prevent, initially, from legal risk the banking counterparties (Satyajit, 2005). Banking activities (Prime Brokerage, structured products trading), as described in the International Bibliography, have been taken under consideration. European and international developments have been taken into account, regarding the regulation of credit products (Moloney, 2002; England, 1991). Jankowitsch et al. (2011) proposed a new measure for liquidity risk, due to OTC price dispersion, so, the risks faced by investors and banks (OTC derivatives, risks of Prime Brokerage, structured products), were analyzed and studied, as well as the current situation of the recent efforts to regulate OTC derivatives and CDS, at European level.

As far as concerns the last issue, studies and surveys of International Organizations (ISDA, Bank for International Settlement (BIS), etc.), aimed our research paper, as well as, EU Directives and Regulations. The obtained results, conclusions and recommendations enriched, with our arguments regarding proposals for the “credit events” clauses contained in the ISDA MA, as well as with the impact of our suggestions on the banking liquidity.

4. Analysis of Current Developments

CRAs have been accused that they do not downgrade companies, in time (Enron case). They have also been accused of developing special relations with the management of the companies, or that they are unwilling to accept criticisms from companies. CRAs have also been accused that “blackmail” companies (Moody's & Hannover Re case). CRAs have received criticism as oligopolies (having high barriers to entry in this market, while their operation itself is

based mainly on their reputation). CRAs have demonstrated a “narrow-minded” view for state bankruptcies (Greece’s case).

The “rating triggers”³ and downgrades of companies, create sometimes a domino of bad events concerning, financial ratios influence, contract terms influence, fully callable obligations influence, refinancing and new borrowing, possible additional downgrading due to the lack of fulfilment of the new obligations, etc., that may lead to a bankruptcy (“death spiral”).

The US legislation (Sarbanes-Oxley act 2002, US SEC reports) for “CRAs’ operation in securities markets” requires that CRAs should describe in detail the use of credit ratings, as well as the “Code of Conduct of the International Organization of Securities Commission (IOSCO) for the CRAs”, in order to avoid conflicts of interest (Murphy, 2013).

The affection of the banking transactions validity of financial institutions, essentially, concerns the power of their reliability, as institutions. In today’s global financial world, this reliability is passing through the way of CRAs’ valuation models. The greatest proof of this, it is that in all their transactions regarding OTC derivatives, which produce the highest turnover and profits in their trading portfolios but bring the higher counterparty risk, the key factor is the coverage of these transactions by the ISDA Master Agreement, which in turn contains termination clauses for cases of credit downgrades, by a CRA.

The obligations of the financial institutions as counterparties clearly are influenced by any related downgrades, which may either be provided by contractual commitments or be imposed, indirectly, by the market practice. Bratanovic and Hennie van Greuning (2003), proposed, a context for managing the banking financial risk, additional credit guarantees of obligations transfer from the downgraded party to another. It is a natural consequence, that the liquidity of the downgraded party to be adversely affected, even it has been foreseen up to a point and therefore must this party invent new sources of self-financing.

The proposal for the regulation of CRAs, which was originally adopted in November 2008, became an EC Regulation (EC 1060/2009) and recently (October 2011) implemented by a decision of ESMA (European Securities and Markets Authority). This decision certified the first four CRAs in the European area (Moody’s, S & P’s, Fitch, DBRS).

³ Rating trigger: It is a term used, mainly, in these kinds of contracts (ISDA M.A.), in which there are specific clauses, which describe an event, and the actions should be followed, whether a change of the current rating of the company, by a CRA, takes place and falls below a specific level. If this happens, then the clause is “triggered” and some actions take place, which sometimes are very harmful, for the downgraded company.

The concept of a “certified” CRA by the European Commission (ESMA), is an effort with which it controls major issues: Transparency, Governance, Registration and Supervision. This concept will contribute to the institutional protection of the European institutions from arbitrariness in credit ratings by CRAs. This will become a reality, because it will provide them, with a kind of “passport”. Under this new regulatory reform, ESMA introduces the concept of “registration” and monitoring by the supervisory authority of the Member State, in which the CRA has its registered office. The new ESMA’s Regulation, stipulates requirements for the evaluation activities of a CRA, to be demanded at least the same to creditworthiness ratings issued outside the EU, in third countries.

5. Research Results, Suggestions and Discussions

In our research, we’ve found that the CRAs, sometimes, make mistakes during the evaluation and rating of structured and complex financial instruments, assigning “AAA” rating on debt and structured products (ie guaranteed debt issues, Collateralized Debt Obligations, CDOs), which in turn (the majority of them), are downgraded later or collapsed. It has often criticized that the Moody’s Assessment Model for CDOs, it is biased to include *speculative data* and therefore the factors that affect the expected bankruptcy are less. Thus, the expected mean bankruptcy estimators do not reflect the normal distribution bankruptcy of the model.

ISDA has committees that deal with solving issues related to legal and other financial cases concerning the contractual obligations of its members. The Credit Derivatives Determination Committee (actually there are five such committees, depending on the geographical region of the world) which is consisted of 15 representatives elected by its members (10 from Primary Dealers and 5 from portfolio managers), works to deliver an opinion (if requested) on matters concerning primarily *credit events, triggering of CDS* and their effects on contracts.

We’ve found, that, in the most cases of interbank contracts, there is a provision for the activation of credit risk premiums of a counterparty (CDS), (whether a “credit events” occurs), and premiums which are directly related to banking products (repos, swaps, etc.) and with which counterparties dealing each other. These are called “hedging CDS”.

Since there is no restructuring, the following conditions must however apply simultaneously, for an event to be considered as a “credit event”. This event should:

1. Be referred in liabilities arising from the issuance of debt.

2. Be constituted by a number of the aforementioned *restructuring events* to be occurred (one or more, anyone of the aforementioned events).
3. Binds all holders of the debt.
4. Be agreed between the issuer and a significant number of debt holders binding them (or to communicated in such a way as to bind all debt holders).
5. Be not expressly referred in the of this debt issue, that *it is* “in force” (at least until the date of issue).

We entail that the following are NOT “restructuring” events:

- The payment in EUR (interest or principal) of a debt issued in a currency other than a EU member state, which has recognized the EU Treaty.
- The realization of any of the above events 1-5, due to a management event, tax event , accounting or technical event (or adaptation), which belongs to the boundaries of the normal business activity.
- The realization or the agreement (or notice) any of the above events 1-5, in circumstances, where such event does not directly or indirectly result from a downgrade of the creditworthiness or the financial condition of the Issuer.

It should be noted that regarding the total set of the conditions for considering the *restructuring*, as a *credit event*, the voluntary participation of the debt holders (the number of them is irrelevant) and whether does not bind all debt holders, then, does not meet the requirements of the above case no. 4. Therefore, in the example of Greece for the Private Sector Involvement restructuring, it is not considered as a “credit event” that will, in turn, trigger any hedging CDS.

On the part of Banks, the proposal of the final regulation contains a number of improvements to the original:

- Narrowing the scope of credit ratings use of the Regulation, only for regulatory purposes.
- The twelve-month transitional period before the credit rating of the share capital could be affected.
- Several transitional provisions where the credit ratings can be used for some time, even if the license of a CRA is revoked, and

- The regulatory framework to require several organization and supervision issues for the CRAs.

For the already complied CRAs to the IOSCO Compliance Code Requirements, the requirements for the compliance with the European regulatory framework will be fewer. Regarding CRAs registered outside EU, which wishes to provide credit ratings to EU companies and to European banks, the requirements due to the regulatory framework will be much greater. This occurs, for these Banks, especially, when wish to acquire company shares which classified by CRAs outside the EU.

Registering CRAs either as nationally recognized rating agencies or as external institutional credit management centres, defines them as a kind of “authority”, especially as a source of information about the creditworthiness for structured finance products, mainly.

We have also found that, the today's reality, especially with credit institutions which they are not in a strong bargaining position in the interbank market due to their low credit rating, has impact on the whole transaction volume of the products of this (non-organized) market. In contracts with standard clauses (issued by international organizations) for OTC derivatives transactions and other banking products, there are provisions (or imposed by the strongest party) for “credit event” clauses that terminate these transactions. These clauses are based mainly on credit ratings of counterparty banks, whether and whenever fall below specific ratings thresholds, downgraded by particular CRAs. These CRAs are based outside EU and are not governed by a specific regulatory framework, such as those based in EU.

We suggest that the international organizations (ISDA, IBF, ISMA, ICMA, etc.) which produce agreements for financial products trading, in the interbank market, constructing them with standard clauses. They also could propose counterparties to adopt compulsory clauses for events related to credit rating (“credit events rating”) in the contracts signed between counterparty (banks, credit institutions). These clauses will lead to termination of the transactions when these events occur. They could also propose the mandatory reference in the credit events clauses from “change in the credit rating” of the counterparties that their activation is necessary to come from the combined rating change. This rating change, is important to have been issued by CRAs registered and certified by a European regulatory authority (given that the counterparty credit institution has its registered office in the EU).

Regarding the aforementioned proposal and by assuming the following:

- There is a certified CRA based in the EU by the regulatory framework (lets symbolize it as CRCER).
- There is under negotiation an agreement (ie. ISDA Master Agreement with standard clauses) for OTC and bilaterally negotiated banking products (between financial institutions as counterparties).
- The notch (rating grades of the long-term debt) for the counterparties are given by Moody's, S&P's, Fitch and CRCER.
- The notches 'Baa3' by Moody's, 'BBB-' by S&P's and 'BBB-' by Fitch represent the same level, with the notch (lets symbolize it) '123' by CRCER (which level, we assume that it is a threshold level for a credit event, for the long-term debt), then we suggest a provision in the Schedule of the MA for a "credit event due to credit rating change", which has to be included with the following wording, in order to prevent the activation of clause for the termination of the transactions: "... in case that a fall in the credit rating of any party occurs, below 'Baa3' by Moody's or below 'BBB-' by S&P's or below 'BBB-' by Fitch and simultaneously below '123' by CRCER, then the non-affected party has the right to terminate the active transactions...".

Under this provision, it is not adequate a credit rating change (actually, a fall below a specific threshold by a well-known CRA to trigger the termination of the open transactions but additionally by a EU-certified CRA). This is quite important for the affected party and for its liquidity, especially because of the termination of such transactions. In other words, the credit event clause, which provides transactions' termination because of a credit rating downgrade, it will not be activated, easily.

We have to notice that the aforementioned idea could be irrelevant to the bargaining power of the counterparty (or its market position) to impose it or to prevent it, whether it has been foreseen by a European Regulatory Directive, or by the recent Basel III or by the similar to ISDA MA and provided by EU, the *European Master Agreement*.

Under this way, we consider that the arbitrary and uncontrolled downgrades of credit institutions of the European area will be more restricted. This, will be considered, at least, *more objective*, since this downgrade will occur under a combined decision by a certified CRA complied with European Regulation. Additionally, by providing this tight activation of

termination clauses for the transactions between counterparty, due to credit rating change, there will not create any effects, influencing the banking liquidity.

6. Concluding Comments and Further Research

This paper aims the research whether involving Credit Ratings Agencies (CRAs), regarding the provision of credit risk rating for the banking structured products, as well as the credit clauses of ISDA (International Swaps and Derivatives Association) signed agreements between banks, could affect the banking liquidity. The research work focuses on the existing regulation and the literature for CRAs and on whether a proposed set of regulation reforms could aim in manipulating future crisis in the finance environment. The ISDA operation, the legal framework of its proposed contracts (for banking products transactions) and the decisions of its committees are factors, which can also influence the operation of these products and the banking liquidity.

Throughout this system, there is a procedure occurs which decides the activation of hedging instruments (as Credit Default Swaps), when a “credit event” takes place. The research effort is also based on the study of ISDA contracts as legal tool protecting the banks, bilaterally, from credit event risks. Under this reasoning, we have examined the liquidity effects concerning banks and how this is involved with the changes of the credit ratings. The paper reviews the current European legislation of CRAs, as well as the policy of ISDA through its contracts and from the results ended, suggests specific legislative interferences and changes in ISDA’s agreement clauses, to preserve the banking liquidity.

Therefore, as a conclusion about negotiation proposals, in order to handle a “credit event” from a credit downgrade between credit institutions, we suggested a special clause introduced in ISDA contracts. This clause provides that a counterparty downgrade is required, simultaneously by a certified CRA. Under this provision, an institution can prevent the arbitrary and uncontrolled downgrade by a CRA, with significant consequences in its liquidity.

The fact that the Banks are required to use the ratings of registered CRAs only for regulatory purposes and not for wider use, it is something desirable for the credit institutions. There was a thought of broadening the scope of banking activities, already, from previous regulatory efforts. These thoughts would require the credit ratings to become by registered CRAs. From now on, clearly, the use of ratings issued, is linked with the legal framework, under regulatory purposes (i.e. Compliance with Community law).

We concluded, that in the finance arena of the competition between banking institutions, there are many classifications regarding their market position and therefore their negotiation power differentiates. Since, there is a weakness for some banks to impose their policy over other counterparty banks, we acknowledge a limitation to our research, in ISDA agreements. We cannot adequately suggest any standard negotiation process, for including clauses in these agreements, regarding credit events due to a credit rating downgrade. This of course, could affect their banking liquidity.

As a result, the counterparties have to apply individual negotiation processes for changing contracts' clauses and controlling the possible legal commitments (mainly on the deposited collaterals) to the existing ISDA agreements and thus, a further research is needed, on it.

References

1. Basle Committee on Banking Supervision, BIS. (Dec 2010, rev. June 2011). *Basel III: A global regulatory framework for more resilient banks and banking systems*.
2. Basle Committee on Banking Supervision, BIS. (June 2006). *Basle II: International Convergence of Capital Measurement and Capital Standards (revised framework, comprehensive version)*.
3. BIS (Bank for International Settlements). (2001). *Marrying the Macro- and Micro-Prudential Dimensions of Financial Stability*. *BIS Papers*, no. 1, Basel: Bank for International Settlements.
4. Firth, S. (2005). *Derivatives Law and Practice*. Sweet & Maxwell.
5. Gooch, A., Klein, L. (2002). *Documentation for Derivatives*. *Euromoney Books*, vol. 2.
6. Harding, P., Johnson, A. (2002). *Mastering Collateral Management and Documentation*. FT/Prentice Hall.
7. Harding, P. (2010). *Mastering the ISDA Master Agreements (1992 and 2002): A Practical Guide for Negotiation*. Financial Times – Prentice Hall.
8. Harding, P. (2004). *A Practical Guide to the 2003 ISDA Credit Derivatives Definitions*. Euromoney Books.
9. van Greuning H., Brajovic Bratanovic S. (2003). *Analyzing and Managing Banking Risk: A Framework for Assessing Corporate Governance and Financial Risk*. Washington DC: The World Bank.

10. Hudson, A. (2002). *The Law on Financial Derivatives*. Sweet & Maxwell.
11. Jankowitsch R., Nashikkar A., Subrahmanyam M. (2011). Price dispersion in OTC markets: A new measure of liquidity. *Journal of Banking & Finance*, 35, 343-357.
12. Johnson, C. (2005), *The Guide to Using and Negotiating OTC Derivatives Documentation*. Institutional Investor Book.
13. Kiff J., Morrow R. (Autumn 2000). Credit Derivatives. *Bank of Canada Review*, 3-11.
14. Moloney N. (2002). *EC Securities Regulation*. Oxford: Oxford University Press.
15. England, C. (ed.) (1991). *Governing Banking's Future: Markets vs. Regulation*. Boston: Kluwer.
16. Murphy D. (2013). OTC Derivatives, Bilateral Trading and Central Clearing: An Introduction to Regulatory Policy, Market Impact and Systemic Risk (Global Financial Markets). *Global Financial Market Series*.
17. Nye, R. (2014). *Understanding and managing the Credit Rating Agencies*. Euromoney Books.
18. Panagopoulos, A. (2012). ISDA organization, Credit Rating Agencies (CRAs) and the Banking Liquidity effectiveness, research study published on the Internet site of the electronic economic magazine *Epsilon-7 (Epsilon-NET e-magazine*, vol. 2, 1 Feb 2012).
19. Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on "Credit Rating Agencies".
20. Satyajit, D. (2005). *Credit Derivatives, CDOs, and Structured Products*, 3d edition. Wiley.