Hedge Funds and Credit Derivatives Regulatory Reforms and Suggestions – How the International Financial Environment will be Affected

Thomas Chatzigagios and Athanasios G. Panagopoulos

Abstract—**This paper aims to research whether the use of complex financial products by Hedge Funds, and the Over-the-Counter (OTC) derivatives by Banks, should be additionally regulated. The research work is focused on the existed regulation of Hedge Funds and of credit derivatives and whether a proposed set of regulation reforms could aim in the manipulation of future crisis in the finance environment. The research effort was based on the study of Hedge Funds as a source of investment opportunities for capital markets and economy and of Banks, as described in the literature, as well as the international developments in the regulation of CDS (Credit Default Swaps). The risks faced by investors and banks, studied and analyzed in parallel with the recent efforts to regulate OTC derivatives in European level. The findings and proposals concluded that the impending regulation of the EU, should differentiate the Hedge Funds and redefine their systemic relevance. The findings for the standardized (and non-standardized) OTC derivatives concluded the necessity of the establishment of Central Counterparties, Regulated Reporting Platforms and of a single supervisory authority, responsible for monitoring the regulation and activities of Hedge Funds and the use of CDS by Banks.**

Index Terms—**Banks, CDS, hedge funds, prime brokers, short selling.**

I. Introduction

Hedge Funds have been developed more than 50 times in terms of managing their assets since 1990, although it is estimated, by themselves that their development is 5-10% of managed assets, in the global market. In recent years, 2007-2013, the volume of transactions of Hedge Funds has been estimated at 50% of the daily trading volume of the equity markets. Despite, however, the great participation of Hedge Funds in the financial system, different opinions have been expressed on the adequacy of the legal framework.

Hedge Funds have also been exposed to markets turmoil, resulting in declining yields and profits, for their investors. Given that they had traditionally relied on high levels of leverage, as well as other borrowers, they are embarrassed to gain leverage, in order to finance their investment policies, especially as traditional sources of leverage, as they are. And this happens, because brokers and investment banks have considerably restricted the *back lending*. Hedge Funds have already realized the difficulty of addressing the problem of large outflow of their assets from investors, resulting in a pressure in their prices.

Credit Default Swaps (CDS), which are Over-the- Counter (OTC) derivatives (these are traded bilaterally in non-regulated markets), are also the main part of the credit derivatives market and their use, by credit institutions and banks, is enormous. A CDS is an exchange agreement, between two contracting parties which operates, as follows: one party (protection buyer or risk seller) makes periodic payments, in return of receiving predetermined payment from the other contracting party (risk buyer or seller protection), in case when a credit event occurs.

Credit derivatives are products with many important uses, most important of which are to hedge the credit risk. In the market, there are many non-standard products (bilaterally arranged), so every individual risk and fund manager can choose what best suits his own needs. In the near future, the market of credit derivatives is expected to show even greater growth and increase its share of the total derivatives. Additionally, new, structured and more complex credit derivatives may appear.

The research is focused on whether Hedge Funds themselves, as well as the use of CDS and OTC derivatives by Hedge Funds and Banks, should be additionally regulated, due to their participation to the recent financial crisis. The remainder of the paper is organized as follows: the next section overviews the relevant literature. Next, we discuss the methodology used in the study. Then, an analysis follows, of the current developments on risks and legislation, regarding the Hedge Funds and the use of CDS by Banks. The results of the research are presented in the following section. The paper closes with some concluding comments.

II. Literature Review

Hedge Funds are a form of mutual fund, which originates from many investors with the purpose of simultaneous multiple investments, in order to achieve risk diversification, as well as positive performance and return to its investors [1]. Although, there is no official definition, we can consider them, as a private equity fund, with investors who have tendency to risk, with high economic prosperity and who primarily seek high returns from their investments.

We could also consider them as "*Sophisticated Alternative Investment Schemes*", including many other types of investment funds, which are not covered by the "*Undertakings for Collective Investments in Transferable Securities*" (UCITS).

Regarding their strategies on the investment products, we mention, initially the "*short selling*," which has been quite

Manuscript received November 19, 2014; revised January 3, 2014.
The authors are with the University of Macedonia, Thessaloniki, Greece (e-mail: thpanag@uom.edu.gr, chatzig@uom.gr).

DOI: 10.7763/JOEBM.2015.V3.349

criticized, given that the borrower seeks to gain profits from the decline of the valuation of the creditor portfolio. Widely known strategies are also the so-called "*hedging through long and short positions*" and the "*statistical arbitrage*" [2].

Numerous strategies - risk neutral - are implemented in the fixed income markets ("*Fixed Income Arbitrage*") having as objective to identify and then to exploit the price disharmony in structured products (Term Structures), the liquidity spreads and the credit spreads, which often occur in the fixed income markets. Besides, the investment strategy of "*structured capital arbitrage*" aims to make a profit without risk, benefiting from the imbalance associated with the value of a debt instrument and of the company's stock [3].

The next investment strategy is the "*convertible arbitrage strategy*" (concerning convertible bonds), which is the conversion of a security to another one with a specific profit and with a very low risk. Essentially, involves complex conversions of exchangeable bonds to others. Another, also, complicated self-funding strategy, where capital flow generated by shorting the debt created by the market position (long position), is the "*alpha transport*" [4]. Hedge Funds are among the largest buyers and sellers between the most traded credit derivatives and other structured products, which have found in the centre of the recent financial crisis [5].

Although credit derivatives offer many benefits, in case which they are not used properly, they can increase some of the risks usually faced by the market participants. Moreover, the use of credit derivatives from Hedge Funds may pervert the existing incentives of monitoring and management of risk [6].

Additionally, banks which avoid monitoring the credit quality of the borrower get a bad name, which in turn, can be proven very costly when carrying out transactions, in the credit derivatives market [7]. In general, credit derivatives could increase the liquidity and efficiency of products characterized by risk, through their ability to transfer risk and the separate risk assessment. Credit derivatives may also improve the price discovery process of credit risk [8].

Regarding the standard-type OTC derivatives, the Regulatory Authorities, also, have to ensure that the Central Clearing Counterparties (CCPs) require significant safety margins (margin requirements) as well as other necessary risk controls. They have, also, to ensure that the bilateral OTC derivatives are not used solely as a mean to avoid the settlement through CCPs. For example, if an OTC derivative is accepted for clearing by one or more CCPs, should be considered as a part of standard-type contracts and therefore a central clearing is required [9].

As the International Monetary Fund (IMF) argues [10], there are plans for upcoming changes in the "*US law on Derivatives Exchanges*" and for the associated legislation to the transferable securities. The ultimate goal regarding the OTC derivatives, is to regulate them, further.

With the use of OTC products (traded in a Regulated market, within the Market Abuse Directive's-MAD limits) and without the use of non-acceptable trading practices affecting the prices of securities, the perception of many investors, can be indirectly affected by the trend of these products. This is, mainly, due to the execution of derivative contracts with such products underlying, which include clauses much "unreasonable" for the market logic and the trend of these products. Therefore, the European Community legislation is somehow "forced" in every regulatory arrangements, to include with teleological sense, measures, which are related to both markets, (OTC derivatives Market and Secondary Regulated Market) [11].

III. Methodology of Research

The present study aims to research, whether the existing regulations have contributed to strengthen the market, regarding the bilaterally traded structured financial products (CDS especially). All negotiations between European Union, International Swaps and Derivatives Association (ISDA), credit institutions and Hedge Funds, 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 Hedge Funds, legislative speaking. Additionally, we investigated what prevails, for the time being, in Europe and the US. The key questions of the research work are: Credit derivatives can be put under further regulation and what will happen to the banks and Hedge Funds? Should Hedge Funds been additionally regulated? How this is coped by the current European and global legislation? The conclusions of the research, led us to a series of proposals, in order to strengthen the legislation system.

The research effort was based on the study of Hedge Funds as a source of investment opportunities for the capital markets, the economy and the banks. 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 and Hedge Funds. Then, 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, as well as, EU Directives and Regulations. The obtained results, conclusions and recommendations will be enriched, with our arguments regarding Hedge Funds' best practices, as well as with the impact of our suggestions for these products and Hedge Funds, in the European Market.

IV. Analysis of Current Developments

Hedge Funds undertake risks, as any other fund, but there is evidence that Hedge Funds are not particularly risky, as shown in the following Table I

For example, 73.7% of the funds have lost more than 50% of their value, while only 10.2% of Hedge Funds have lost the equivalent. These figures, also, apply when we use volatility or other risk parameters. However, under absolute terms, Hedge Funds are less risky than shares. The first type of risk that is often mentioned, is the risk for investors. The sense of risk we have for Hedge Funds, probably results from their operational and fraud risk. However, the lack of a clear institutional framework creates more and general restrictions

on Hedge Funds, regarding their operational practices (such as valuations, reports, risk management, etc.). The *lack of transparency*, also, creates risks for investors. We do not argue, however, that Hedge Funds are a threat to the entire global financial system. This is because the market itself is able to produce protective solutions. Studies have shown that operational risks can be reduced, by the use of electronic platforms.

TABLE I: PERCENTAGE OF FUNDS, WHICH HAVE LOST OVER A SPECIFIC PERCENTAGE OF THEIR VALUE

Type of Funds	Loss > 10% of value	> 25% of value	> 50% of value	> 75% of value
Hedge Funds				
Funds of Hedge Funds	30.5	7.6	0.4	0.0
Single Funds	77.0	40.4	10.2	2.1
Mutual Funds				
Funds of Funds	100.0	93.1	69.6	4.9
Single Funds	99.7	97.1	73.7	5.1

The figures concern the period 2007 - 2013 on a monthly basis. Derived from the Database CISDM and Europerformance. The allocation of Funds in the table is the most common way to measure the risks of Hedge Funds. The table illustrates the worst possible loss an investor would invest in a fund in the worst possible moment, when he had the view of how dangerous the fund may be.

The *arbitrage*, regarding the funds that banks must hold, may lead to a better allocation of capitals, but there is always a risk, that this activity can lead to an increasing risk profile of the bank. This is because banks are exempt from low-risk assets and hold more risky assets. The net effect of this activity (whether a bank holds much more or much less funds than it should) depends on how well the risk assessment model of each bank, works. Essentially, that means how accurate the model reflects the real risks of the entire loan portfolio, in relation to the fixed rate of the eight per cent on the book value of loan portfolio that should have to retain.

More specifically, if the risk model of a bank can assess more accurately, how much capital the bank should maintain compared to the simpler risk model proposed by the regulations, then the bank through arbitrage, can achieve a better risk-return balance, without any adverse effects.

CDS products are the main part of the credit derivatives market. Since 1992, ISDA has designed a standardized agreement (ISDA's Master Agreement), which includes CDS and allows the counterparties of the agreement to determine in detail the exact clauses of the agreement and the transactions (for example, what would be considered as "default") among alternative definitions. Then (in 1999), issued a revised agreement for further standardization of terms and clarity and a more enriched agreement in 2002. However, there is not a single global standard agreement, but there is an agreement for the European market, one for US and one for the Asian. For the time being, banks and Hedge Funds execute these contracts/agreements bilaterally, in order to protect themselves legally, due to the lack of a single legislation framework, regarding the transactions and settlement of CDS.

This development in the standardization of the terms in the credit derivatives market, can be considered as quite important, as reduces uncertainty in legal terms, which was, initially, a barrier to the CDS market development. This uncertainty had been emerged due to the fact that credit derivatives, unlike other derivatives, depend on a *credit event* and not on a share price or on interest rates movements, which (the credit event) requires a fully covered legal documentation.

The rest legal risks are associated to risk of impossibility of handling or liquidation of the guarantees (collaterals). Client bankruptcy is one of the highest risks, too. In addition to the international securities law and the conventional securities' offset procedure, Prime Brokers use modern techniques to pass the legal risk, in cases, where their customers go bankrupt. They use very special contracts ("*close-out-netting*" type) or other more generalized settlement contracts, even at the level of collateral management, so that, all extremely specific transactions to have a reduced risk exposure. We remind that we make the research in non-regulated market environments, which do not operate under commonly accepted rules of law. The existence of a bilateral (or trilateral) type of contracts offers the minimum legal support to counterparties.

Banks set different types of limits, so as to cover all types of risk: limits on denominations, limits on stress tests, even in criteria of monitoring risk derivatives (delta, vega). Additionally, they have set their capital requirements using not only the VaR methodology (the standard banking tool of allocating capital market risks) but also using *stress tests* based on the worst loss case scenarios.

Another risk associated to credit derivatives, and mainly the credit derivatives which has as underlying asset loans, concerns the *incentive of monitoring* bank loans. For every loan a bank gives, it monitors the credit quality of the borrower. But, if the bank buy credit protection using a credit derivative, the monitoring of the loan may not be as efficient as before. If the maturity of the credit derivative is prior to the maturity of the loan, then there will be no incentives for an efficient monitoring of the loan and the bank will being subjected to the risk of a possible credit default after the expiration of the credit derivative.

V. RESEARCH RESULTS, SUGGESTIONS AND DISCUSSIONS

A. Hedge Funds

We argue that Hedge Funds managers should develop a code of best practices in five areas:

- *Disclosure* (investors letters, risk reports, performance updates),
- *Valuation* (under a context in which a Valuation Committee will be included, in order to comply with the policy of the Fund Manager and to written valuation policies),
- *Risk Management* (under a context in which the Fund Manager have to determine the risks of the portfolio and set measurements on the main risk categories),
- *Trading and Business Operations*, and *Compliance, Conflicts and Business Practices*.

For the upcoming regulation by the EU, we argue that, the *differentiation*, the definition and the practical application of Hedge Funds as investment vehicles is required, and whether

it is adequate (this regulation) only at European level or not.

We, also, suggest that the EU regulation should focus on the re-determination of the *systemic relevance* of Hedge Funds. However, even under this "indirect regulation rule" on their leverage (i.e., through increased requirements for the Prime Brokers), the strengthening of the banking system for the risks of collapse, is not guaranteed.

We conclude, further, that the EU should decide on its regulatory agenda, the re-examine on whether the markets' efficiency has been affected due to Hedge Funds' reduced transactions (due to restrictions on *short selling*) and whether *short selling* has greatly affected stock prices. If this is the case, it could be set specific regulations only for Hedge Funds, than more general settings on abused practices.

The next important conclusion, we have reached, is based on the *internal structure* of Hedge Funds, mainly on the issue of risk management. A regulatory authority should design comprehensive codes of conducts and procedures in order to measure this risk. Therefore, this will be an important facility for the investors, concerning the transparency, control and the establishment of rules for the risk exposures of Hedge Funds under specific context and procedures.

We come to the conclusion regarding the relationship between *Prime Brokers* (particularly as credit institutions) and Hedge Funds, that there is no need for further regulation, because the use of the current regulation and technical tools is considered that it can isolate a potential collapsing problem of Hedge Funds together with the banking system. However, in the case of further regulation, we must take into account the additional costs and the potential consequences of reducing liquidity due to Hedge Funds' avert.

Even, in case of questioning of restrictions on the percentage of the leverage of Hedge Funds and on what they can achieve, (on the grounds that the counterparties and investors will manage the risk better), a significant matter of *mass movement* of Hedge Funds from Europe will arise, to other less transparent and regulated environments. What it is only required is that regulatory authorities have to obtain monitoring tools of systemic risk for the Hedge Funds.

B. CDS and Banks

It should be understood that the credit derivatives market is probably the only market which is "open". Practically, in such a market, anyone can probably assess the credit risk. Transparency in risk assessment in the CDS market, has greatly assisted participants, regulators and governments to curb the crisis.

However, we argue concerning the CDS regulation, that a priority should be given to the concept of the real risk associated to the purchase of credit derivatives. While we are referring to the size of the nominal value, this does not reflect the actual risk. The size of the obligations of the credit derivatives market has been estimated on about $4 trillion, approximately 10-15 times less than the size of the bond market. Besides, CDS are "zero-sum" products, because the counterparties have equal and opposite exposes in the changes of the "price" of the credit risk of an entity.

The forthcoming EU legislation should take into account that the credit derivatives market is armed with capable tools for risk management. As ISDA argues, using the mechanisms of the *close-out* and *collateralization* (through ISDA agreements), counterparties can manage their exposure to risk. The aforementioned number of obligations is half-covered by guarantees and mechanisms for credit events manipulation (*ISDA cash settlement mechanism*).

We estimate that, the requirements for further regulation of credit derivatives will result in changes relating to: transactions, technology issues, clearing, overlapping regulator authorities, financial system functional changes and the development of more standardized ISDA agreements (with *standard clauses*). The agreements developed by EU (*European Master Agreements*), regarding the bilaterally traded OTC derivatives will be affected, too.

As far as concerns the standardized and non-standardized OTC derivatives, we argue that, the need for the establishment of CCPs, is inevitable and *regulated reporting systems* should be designed. These reporting systems (platforms) will be able to manage large volumes of data and transactions of open positions, make them available to the public and to the national regulatory authorities. The last, requires the establishment (or the assignment) to a national (or private) body, but with technology, manpower and regulation costs.

Under this way, we argue that, the market efficiency will be improved as well as the transparency of the prices, particularly in derivatives market, because the next step will be the transfer of the standardized contracts of these "OTC" derivatives (since they can be centrally cleared) in Market Exchanges and not only to unregulated electronic trading platforms. Alternatively, these standardized derivatives could be traded in *electronic trading OTC platforms*.

We argue that, such a system can exists, with prime brokers, Hedge Funds and banks as counterparties, where there will be a continuous flow of transactions and reports, as well as direct price references and other information and on-line connection with data vendors and information providers platforms (Reuters, Bloomberg, etc.). We believe, that these systems have to be designed with the logic of a "*price/quantity driven*" logic.

The involvement of financial institutions in these systems should be encouraged under the reasoning, that their competition will be increased, as well as the offer of a higher level of service to their clients.

We, also, conclude that regarding the issue of the *systemic risk regulation*, the establishment of much more powerful systems will be required, in order to measure the risk. To achieve this, more information will be required, by Hedge Funds particularly, in order the identification of credit risk to be more accurate and reliable. Moreover, regarding the risk management performed by banks, many tools will, also, be required, as well as daily reports of the margins and guarantees, and reports on liquidity for wide exposures and significant changes in trading portfolios, (i.e. for large buy-backs of Banking Notes, etc.). These changes will probably affect all market participants (Banks, Hedge Funds, Prime Brokers, etc.). However, it should be noted, that the most important tool regarding the regulation for the excessive leverage and in other areas of risk undertaken in the market, is the *discipline of investors, counterparties and creditors*.

C. Other Reforms

Regarding the "short selling" issue and its forthcoming regulation, we conclude that, it has been shown that the market liquidity has definitely been reduced after recent restrictions (since October, 2008). Therefore, we conclude from our survey that any further regulation should take into account, the special conditions of each market, given that since the beginning of the application of measures (in terms of pricing), the *shares spread* has been affected in each case (on average, has been widen). Additionally, we have to underline that, the use of shares spread should not be confused with the market abuse. ISDA is explicit that no specific restrictions on the application of short selling from Hedge Funds, should be imposed. Besides, Hedge Funds are, in any case, obliged to comply with the short selling technique (for equities or debts) regarding market abuse practices, under the Market Abuse Directive (MAD).

We conclude as a proposal, the *separation* of the responsibility for monitoring of the aforementioned proposed regulation reforms by the respective supervisory authorities. At this point, we must realize that Central Banks of the member states and their respective Capital Markets Commissions will play an important role. For the first time, appears a potential overlap of responsibilities, because credit institutions (supervised by Central Banks) will engage in transactions involving standardized products of a regulated market, in which will be set rules of law (even in alternatives markets, as MiFID (Markets in Financial Instruments Directive), provides). The overlapping responsibilities should be resolved under cooperation between the supervisor authorities and with separate responsibilities. The establishment of a new supervising body (at National and EU level), is a solution to this.

Finally, we have reached to the conclusion that the establishment of *joint committees* or European Supervisory control bodies or other mechanisms is a solution (which in turn requires higher technological infrastructures and clearly high cognitive level personnel). The reasoning for the cooperation of the two markets (OTC and secondary regulated) is dominated by the "unified" logic for the *satisfaction and protection of the investor* and its faithful operation, even at bilaterally market level.

VI. Concluding Comments

Due to the risk management of financial institutions, which does not seem that operate successfully, Central Banks should monitor the exposure of commercial banks to creditors, who lend Hedge Funds. There must be a systematic communication and information between Central Banks, as proposed by the Basel Committee on the basic principles for banking supervision (Core Principles for Banking Supervision).

In several countries (England, USA) Hedge Funds are subjected to special regulations, which have been designed to be able to detect when individual persons involved in the market, try to dominate and twist it, in such a way, as to gain net benefit for themselves. In our opinion, the goal of regulatory policies is to *prevent* the systemic risk in the financial system, among others. In these cases, the policies should include high margin requirements, collateral requirements and risk exposure limits for the private investors.

Regarding USA, Hedge Funds do not operate as registered investment companies (up to this moment) with the Securities Exchange Commission. Investment companies are subject to strict regulations, regarding "short sales" and the leverage of funds. Hedge Funds can not offer guaranteed returns, can not be advertised in major newspapers and their investors must meet certain standards and criteria. The most recent event that has occurred is the mandatory registration with the SEC of their investment managers.

As far as concern the European Commission (EC), it does not include any Hedge Funds Indicators in the category of UCITS and the European Securities and Markets Authority (ESMA) also agrees to it (i.e. Hedge Funds Indicators not to be disclosed to European Commission). While ESMA has proposed to allow derivatives in economic indicators based on eligible assets, as well as indicators to real estate, however, given the complexity of Hedge Funds, does not recommend that the Hedge Funds Indicators to be considered as proper economic indicators for the UCITS.

We argue that, the European Commission should *expand the dialogue* between the EU and US for the aforementioned financial changes, working closely with international organizations (IOSCO, BIS, ISDA, European Banking Authority, etc.) not only for the financial sector, but also with other countries (Japan, Russia, China, etc.). At the same time, EC has to increase its powerful representation in international organizations and fora, through which must be expressed under a single opinion in the fight against financial crime, money laundering, corruption in the financial sector, corporate crime, etc. There is need for collaboration and information exchange, even between offshore financial centers. The solution is on the rationality of the Law for the prevention and combating money laundering and the reintroduction of sanctions in the context which the sober assessment of the worthlessness of the act dictates, based on *the principle of proportionality.*

This paper, finally, recommends and concludes, substantially, the aligning of the national regulatory approaches to a common European and International regulatory system, which represents a real challenge, as it involves significant initial costs for adapting the national law enforcement authorities and market operator bodies. These transitional problems are in themselves a challenge - especially to the extent that focus on a short period. Therefore, there is need for additional research on it.

References

[1] W. Fung and D. A. Hsieh, "Empirical characteristics of dynamic trading strategies: The case of hedge funds," *Review of Financial Studies*, vol. 10, no. 2, pp. 275-302, 1997.

[2] J. Anderson, "Navigating the hedge fund maze in a leveraged world," *New York Times*, April 6, 2007.

[3] W. Goetzmann and S. Brown, "Mutual funds styles," *Journal of Financial Economics*, vol. 43, pp. 373-399, 1997.

[4] W. Fung and D. A. Hsieh, "Extracting portable alphas from equity long-short hedge funds," Working Paper, Duke University and London Business School, 2004.

[5] G. N. Gregoriou, G. Hubner, N. Papageorgiou, and F. Rouah, "Dominating funds of funds with simple hedge fund strategies," in *Fund of Hedge Funds Performance, Assessment, Diversification and Statistical Properties*, G. N. Gregoriou Ed., Elsevier, 2006.
[6] V. Agarwal and N. Y. Naik, "Risks and portfolio decisions involving hedge funds," *Review of Financial Studies*, pp. 63-98, 2004.
[7] M. Klausner and L. J. White, *Structural Change in Banking*, Homewood, Ill., Business One Irwin, M. Klausner and L. J. White Eds., 1993.
[8] J. Kiff and R. Morrow, "Credit derivatives," *Bank of Canada Review*, pp. 3-11, 2000.
[9] D. Murphy, "OTC derivatives, bilateral trading and central clearing: An introduction to regulatory policy, market impact and systemic risk (global financial markets)," *Global Financial Market Series*, 2013.
[10] International Monetary Fund, *Financial Sector Regulation: Issues and Gaps*, LMF, Washington, 2004.
[11] A. Panagopoulos. (2007). The harmonisation of the Hellenic legislation to the European directives and regulations, regarding the capital market abuse. [Online]. Available: http://www.agii.gr/Forum.asp
[12] S. A. Kenyon, "EC Financial market regulation and company law," Sweet @ Maxwell, London, 1993.
[13] Basle Committee on Banking Supervision, BIS, Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems, June 2011-Dec. 2010.
[14] Basle Committee on Banking Supervision, BIS, Basle II: International Convergence of Capital Measurement and Capital Standards, June 2006.
[15] Bank for International Settlements, "Marrying the macro-and micro-prudential dimensions of financial stability," *BIS Papers*, *Basel: Bank for International Settlements*, no. 1, 2001.
[16] Comparative Implementation of EU directives–Market Abuse, *British Institute of International and Comparative Law*, Dec. 2005
[17] C. England, *Governing Banking's Future: Markets vs. Regulation*, Boston, Kluwer, 1991.
[18] EU Directive 2003/6/EC of European Parliament and the Council of 28th January 2003 (L96/16/12-4-2003), Regarding Insider Dealing and Market Abuse Directive – MAD.
[19] EU Directive 2004/72/EC of European Commission of 29th April 2004 (L162/70/30-4-2004) regarding the implementation of the EU Directive 2003/6/EC of the European Parliament and the Council on accepted market practices, the definition of inside information in relation to derivatives on commodities, the drawing-up of lists of insiders, the notifications of managers transactions and the notifications of suspicious transactions.
[20] EU Directive 2004/39/EC of the European Parliament and the Council of 21st April 2004 (L145/1/30-4-2004), Markets in Financial Instruments Directive – MiFID.
[21] H. van Greuning and S. B. Bratanovic, "Analyzing and managing Banking risk: A framework for accessing corporate governance and financial risk," The World Bank, Washington DC, 2003.
[22] R. Jankowitsch, A. Nashikkar, and M. Subrahmanyam, "Price dispersion in OTC markets: A new measure of liquidity," *Journal of Banking & Finance*, vol. 35, pp. 343-357, 2011.
[23] N. Moloney, *EC Securities Regulation*, Oxford, UK: Oxford University Press, 2002.
[24] N. Kefallinaios, "Hedge Funds and their strategies," *Interbooks*, 2008.
[25] A. Panagopoulos. (2006). European directive 2004/39/EC. Markets in financial instruments directive - MiFID. Main effects on European Capital markets and European economic integration. [Online]. Available: http://www.agii.gr/Forum.asp.
[26] A. Tobias, *Federal Reserve Bank of New York Research*, March-April 2007.

Athanasios G. Panagopoulos is a PhD candidate in banking/finance at University of Macedonia, Thessaloniki, Greece. He has a MSc in international & European economic studies, MBA in finance, BSc in mathematics and diplomas in software engineering and HRM from Greek Universities and Colleges. His research appears in the financial press regarding: European financial integration, capital markets legislation, bank's liquidity, credit rating agencies, stock market trading & OTC derivatives. He is a capital market professional, negotiator between financial institutions and he has worked as financial consultant in banks, brokerage firms and stock exchanges, in Greece. Mr. Panagopoulos is an affiliated member of the association of international accountants (AMIA), London and holds a certification in financial services auditing by IIA.

Thomas Chatzigagios is an associate professor of accounting and finance in business administration division, at University of Macedonia, Thessaloniki, Greece. His research focus on European capital markets law, European banking law, private insurance legislation, national and European commercial law, companies' law, labour law and international accounting and finance legislation. Mr. Chatzigagios can be reached at University of Macedonia, 156, Egnatia str., GR54636, Thessaloniki, Greece.