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Evaluation of the US and EU Regulation on OTC  
Derivatives Markets

LLM 2010-2011  
**International Corporate Governance, Financial Regulation and  
Economic Law (ICGFREL)**

**DISSERTATION**

*Evaluation of the US and EU  
Regulation on OTC Derivatives Markets*

S3001 LLM ICGFREL

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## **Chapter I**

### **Introduction**

Financial innovation which is the process of creating new financial Securities, is a natural outcome of a competitive economy that basically is constructed on liberalism and market economy. Liberalism accentuates the fact that individuals in a society can choose what is good or bad. Liberalism in the economic sense is a state that producers, distributors and workers pursue their own ends. This ideology strengthens competitive market demands and adjusts its operation.

Economic liberalism stress is on the individual ability to promote efficient allocation of resources and maximizing society and individual benefits. The legal infrastructure of the market economy is not independent of the socio-economic of the society, in other words, legal rules are reflection of prevailing ideology in the society.<sup>1</sup>

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<sup>1</sup> Mahmood Bagheri, " *Contracts and National Economic Regulation: Dispute Resolution Through International Commercial Arbitration* ", Institute Of Advanced Legal Studies (2000) P 10

The basis on which economic liberalism protects and facilitates economic activities. The law of contracts within which market economy operates and provides the legal form of property rights and the market Economy (which is based on contractual obligations) cannot operate properly without an efficient contract law and regulatory form.<sup>2</sup>

Liberalization succeeded in boosting competition across sectors and borders.<sup>3</sup> The competitive impulses led to changes in the intermediation process as part of the development of financial system, which expanded from more straightforward credit intermediation to risk intermediation.

In the light of increasing competitive forces in financial markets, financial innovation process of creating and producing financial instruments is inevitable. Innovation exploits the imperfections and inefficiencies of markets and gives rise to extra profits.<sup>4</sup> Financial innovation has the potential to facilitate allocation of resources and thereby, a higher level of capital productivity and economic growth. New instruments also improved risk management techniques which lead to a more optimal distribution of risks throughout the system.

A well functioning financial system helps to produce fair and efficient outcomes leading to more stable markets, but markets are complex and imperfect and erosion within them tends to occur periodically. The innovative policies during boom periods which change

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<sup>2</sup> Mahmood Bagheri, *Ibid* P 12

<sup>3</sup> The modern liberalization and innovation go back to the demise of the Bretton Woods exchange rate system which led to increasing flows of capital.

<sup>4</sup> Chiara Oldani, " *Governing Global Derivatives: Challenges and Risks* ", Global Finance Series (2008) p.1



the adjustment and stability between market competitors, alter the nature of competition and give rise to systemic risk.<sup>5</sup>

The self-interested policy in market does not ensure always collective interests and private rights in market economy may conflict with the public interest. This is market failure.<sup>6</sup> There are several market failures such as negative externalities and informational asymmetries. When market failures exist, markets may not allocate resources efficiently and may not effectively manage risks and thus will become unstable. Importantly, market failures allowing risks to the systems become mispriced.

Financial development depends on the liberalization and on innovations that improve the flow of information. Even sophisticated market players need sufficient information to protect themselves from risks related to new products.<sup>7</sup>

The excessive heterogeneity, complexity and opacity of products generate risks in the financial markets. It is important to note; that although one of the main objectives of innovation is risk mitigation (hedging), the high degree of complexity increases the possibility of mistakes in using them and thus, the associated higher amount of leverage magnifies the problem in the market.<sup>8</sup> Therefore a positive

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<sup>5</sup> Stephen A. Lumpkin, "Regulatory Issues Related to Financial Innovation", 2 OECD Journal: Financial Market Trends (2009)

<sup>6</sup> In welfare economics, the concept of market failure is evaluated with regard to distributive justice concept. See S. Breyer "Analyzing Regulatory Failures: Mismatches, Less Restrictive Alternatives and Reform", 92 Harvard Law Review (1979), see also Mahmood Bagheri, Ibid

<sup>7</sup> Fredrcs Mishkin, "Leveraged Losses-Lessons from the Mortgage Meltdown", US Monetary Forum (2008)

<sup>8</sup> Lawrence J. White, "Technological Change, Financial Innovation and Financial Regulation", Paper Presented at Financial Institutions Center's Conference on Performance of Financial Institutions, New York University

innovative policy addresses following issues: information asymmetries, risk mitigation, minimizing transaction and market costs.

The existence of natural imbalances in globalized financial markets have attributed to regulatory measures to prevent private and social costs of financial instabilities. Imperfections are inevitable ingredients of financial instability which usually has disruptive effects. Financial instability connotes the presence of market imperfections or externalities in the financial system which is real and significant risk to the economic performance.<sup>9</sup>

Derivatives as the ultimate financial innovation emerged in unprecedented size and precipitous growth in the current global financial crisis. Emergence of modern derivatives markets during the 1970 sparked by changes in financial theory and fuelled by the forces of globalization<sup>10</sup>, the demise of the Bretton Woods exchange rate system, bank deregulation<sup>11</sup> and advances in technology.<sup>12</sup>

Over-the-Counter (OTC) derivatives have some important financial functions. On the one hand, they enable end-users to hedge their underlying risk exposures

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<sup>9</sup> R. W. Ferguson, "The Role Of Central Banks In Fostering Efficiency and Stability in the Global Financial System", Speech at the National Bank of Belgium Conference on Efficiency and Stability in an Evolving Financial System, Brussels (17 May 2004)

<sup>10</sup> Due to abolition of obstacles in the international flow of capital, the business activities of many firms became increasingly international, thus, firms exposed to an huge degree of foreign exchange risk, Therefore raising a demand for financial instruments capable to manage this risk.

<sup>11</sup> Bernard Karol, "An Overview of Derivatives Risk Management Tool", Stanford Journal of Law, Business and Finance (1995) pp. 197-198

<sup>12</sup> Modern derivatives have three characteristics: First, the underlying vast majority of the modern derivatives are financial assets such as equity, debt and currencies. Second, the structure of modern derivatives shows an increasing diversity and frequently complexity. Credit derivatives and other securitizations are the proof of limitlessness of modern derivatives. Third, many modern derivatives markets, particularly OTC derivatives markets take place in a world without jurisdictional boundaries.

and reduce or eliminate risk in customized manner. High flexibility of derivatives helps to spread and mitigate risk throughout the market that provides stability.<sup>13</sup> On the other hand, they enable banks and other financial intermediaries make profit from exposure to risk (speculation). Speculation is implemented for gain and corresponds to a risk-interested attitude.

The financial crisis of 2007-2009, however, highlighted some aspects of the OTC derivatives markets that deserve reform. The first aspect is in the innovative OTC derivatives pace; Banks and other intermediaries can tailor their own risk-taking and leverage build up since some of these positions are not reflected on the balance sheets.<sup>14</sup> The second aspect concerns the opacity of OTC derivatives. Since they have not been exchange-traded or centrally cleared, neither regulators nor market participants have accurate knowledge of the extent of exposures. For example, uncertainties on counterparty risk management in OTC derivatives web in the case of Bear Stearns, Lehman Brothers and AIG presented a massive turmoil in financial system. This lack of transparency in important segments of financial markets was aggravated by extreme complexity of structured financial products which sometimes involving several layers of collateralized debt obligations, made proper risk assessment challenging for even the most sophisticated market participants.<sup>15</sup>

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<sup>13</sup> Chiara Oldani, Ibid p30

<sup>14</sup> Regulatory capital requirements are not suitably adjusted to reflect all aspects of OTC exposures such as illiquidity, counterparty and systemic risks. The lack of such adjustment led to risk-taking policies on OTC derivatives transactions.

<sup>15</sup> The High-level Group on Financial Supervision in the EU Report ( de Larosiere report ), Brussels ( 25 Feb. 2009 ) p.8

Several regulatory responses were aimed to abolish the credit crunch which emerged by OTC derivatives deficiencies and also to prevent its occurrence. US responded by legislation of 'the Dodd-Frank Wall Street reform and Consumer Protection Act' which was signed into law by President Obama in July 2010 and on 15 September 2010 the European Commission adapted a Regulation on OTC derivatives, central counter parties. This dissertation in the next chapters addresses issues and features of new regulatory responses.

## Chapter II

### Risks and Backwards of OTC Derivatives

There are some features for derivatives which perception of them is the requisite step to get insight over other aspects such as risks and backwards. Here we discuss some general features of this instrument.

A derivative is a financial contract and asset the value or performance of which is derived from another financial instrument (underlying asset).<sup>16</sup> The basic derivatives which all other forms of derivatives are engineered from are option.<sup>17</sup> Options represent a contingent right to acquire or dispose of an asset in the future at a pre-determined price.

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<sup>16</sup> Schuyler K. Henderson, "Henderson on Derivatives", Lexis Nexis, 2<sup>nd</sup> Edition (2010) p 3, There is one underlying principle that a derivatives is first and foremost a contract between parties and thus all of laws with respect to contracts in general should be presumed to apply to derivatives, See Ibid

<sup>17</sup> Ibid, p 9; others regard forwards as a separate origin of derivatives, but it can be broken down into mutual put and call option with the same basic but reverses terms and exercisable only on the expiration dates. See Bernard Karol, Ibid p 195 and see Schuyler K. Henderson, Ibid p 8

In other words, initial performance by one party and contingent future performance by the other.<sup>18</sup>

The modern derivatives markets emerged during the 1970s after the Demise Bretton Woods's exchange rate system and vast financial deregulations.<sup>19</sup> The structure of modern derivatives shows an increasing diversity and complexity. They are tailor-made products which meet particular needs of end-users. Credit derivatives and other securitizations are the proof of limitlessness of modern derivatives. The main players of derivatives are dealers and end-users (by side and the sell side). While within exchange-traded derivative markets brokers take and place orders on behalf of their clients, in OTC derivatives markets dealers perform a market-making function (engineering and marketing new instruments).<sup>20</sup>

One of the challenging aspects of derivatives is risks and their risk management. Most investors tend to be risk-averse (risk connotes the danger of a negative outcome), for speculators it promises the possibility of either a profit or loss. Derivatives transactions are more vulnerable to criticism when they are used as vehicles for speculation to increase profits. In other words where information is scarce and costly, rational traders may acquire different subsets of imperfect information that may lead them to form differing expectations for the future.<sup>21</sup>

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<sup>18</sup> Ibid

<sup>19</sup> Generally there are three main groups for derivatives: 1- over-the-counter derivatives 2- debt obligations (securitized derivatives) 3- exchange-traded derivatives

<sup>20</sup> International Monetary Fund, "Modern Banking and OTC Derivatives Markets", Occasional Paper No 203 (2000)

<sup>21</sup> See Report of the president's working group on financial markets, " Hedge Funds, Leverage and the Lessons of Long-term Capital Management "(1999) pp 686-688, See also Lynn A. Stout, " Why the Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives ", 48 Duke Law Journal (1998-1999), p784, See

## **A) Risks in OTC Derivatives Markets<sup>22</sup>:**

Inherent characteristics of derivatives improve economic efficiency by parceling risks out in the financial markets to the parties who are willing to bear them.<sup>23</sup> But one should note that effective risk breaking is when risk-bearers are capable to take risk and effectively spread into market. Although, derivatives transfer risks, they do not eliminate it. Moreover, they have their own particular risks too.

End-users and dealers are exposed to market, counterparty (default), liquidity and legal risks. Proper use of derivatives as the financial instruments can be a powerful tool to reduce risks in financial market and also improper use may increase risks and hard-bearing losses.

Entering into the derivatives contracts without a clear understanding of the risks involved, as seen before, leads to the huge uncertainty and losses in the financial markets. Indeed, because derivatives present risks and benefits, they have been compared to electricity:

*“Dangerous if mishandled but bearing the potential to do tremendous good”*.<sup>24</sup>

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also Lynn A. Stout, “ Betting the Bank: How Derivatives Trading Under Conditions of Uncertainty Can Increase Risks and Erode Returns in Financial Markets “, 21 the Journal of Corporation Law (1995-1996)

<sup>22</sup> Various dictionaries define risk as an exposure to the chance of injury or loss. Generally risk is an event or action that may have an adverse effect on and prevent an organization from achieving its corporate objectives, because opportunities are not realized, or their materialization is threatened. Base on this definition, the elements that are deemed the most important in definition of risk in a derivative business is that occurs in future, it is uncertain and may have either a positive or negative impact. See Janet Rene Terblanche, “ The Legal Risks Associated with Trading in Derivatives in a Merchant Bank”, University of Stellenbosch (2006) PP 42-45

<sup>23</sup> Adam R. Wallman, “OTC Derivatives and Systemic Risk: Innovative Finance or Dance into the Abyss?”,43 the American University Law Review, P 1038

<sup>24</sup> Roger Fillion, “ Greenspan Warns on Overreaction to Derivatives”, REUTERS (Jan 5 1995)

There are two main risks involved in OTC derivatives: counterparty risk and liquidity risk.

## 1-Counterparty Risk

One of the risks triggered the recent financial crisis is counterparty or default or credit risk. Counterparty risk is risk of loss from default by the counterparty, typically due to its insolvency.<sup>25</sup>

In the context of financial system that includes banks, broker dealers and other non-banking institutions, counterparty risk is enlarged loss to the whole financial system from a failed counterparty to meet its OTC derivatives obligations.<sup>26</sup>

In the OTC derivatives transactions, participants deal directly with each other without intermediation of a clearing house, counterparties have to rely on each other's credit for assurance that contractual obligations will be met.<sup>27</sup>

To assess credit risk at any given time, a contract party must determine the cost of replacing the contract if counterparty's default occurs. The replacement cost is the calculation of the value of all expected future

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<sup>25</sup> Bank for International Settlement, "OTC Derivatives: Settlement Procedures and Counterparty Risk Management", Basel (Sep 1998) P 11

<sup>26</sup> International Monetary Fund, "Counterparty Risk in the Over-the-Counter Derivatives Markets", WP/08/258 (2008) P 5; in order to estimate the potential cumulative loss in the system, two variables have to be quantified: 1- the exposure of the financial system to a particular institution or institutions that would fail to deliver 2- the probability that given that a particular institution (counterparty) fails to deliver, other institutions in the system would fail to deliver. See International Monetary Fund, Ibid

<sup>27</sup> J. Carter Beese, "Risk Management in an International Context: Lessons From Past" (1993), See also Adam R. Waldman, Ibid



Cash flows that were eased by the default.<sup>28</sup> Due to fluctuations in derivatives variable, the value of derivatives contract fluctuates too throughout its life, thus credit risk of them fluctuates too. As group of thirty's report reveals, since the value of derivatives contract fluctuates, evaluating credit risk requires a determination of both 'current exposure' and 'potential exposure'.<sup>29</sup> It is difficult to estimate future credit exposure of derivatives contracts.

*"Future credit exposure, which changes constantly as volatility moves variables involving both the underlying security and derivatives itself, is much more difficult to gauge."*<sup>30</sup>

Credit derivatives among other OTC derivatives have been the most troublesome. What distinguishes them from many other OTC derivatives is that they give rise to dual credit exposures.

*"A credit exposure to a counterparty (as in the other OTC derivatives) and a credit exposure to the reference asset. Notwithstanding, this duality, there are no uniform global standards that specify whether a credit derivatives position should be viewed as being primarily part of the banking book (which would stress the credit risk in the reference asset) or the trading book (which would stress the credit risk of counterparty)".*<sup>31</sup>

## 2-Liquidity Risk

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<sup>28</sup> Group of Thirty Report, " Derivatives: Practices and Principles ", (1993) p 47

<sup>29</sup> Ibid

<sup>30</sup> Adam R. Waldman, Ibid P 1048

<sup>31</sup> International Monetary Fund, " Modern Banking and OTC Derivatives Markets", Occasional Paper No 203 (2000) P 39

There are two kinds of liquidity: market liquidity and funding liquidity. A security has good market liquidity if it is easy to trade in the market. A bank or investor has good funding liquidity if it has enough available funding from its own capital or from collateralization.<sup>32</sup>

Market liquidity risk is the risk in which a position cannot be sold or closed out quickly. Funding liquidity risk is the risk that the financial institutions cannot fund the position and are forced to unwind.<sup>33</sup>

There are two grounds for determining liquidity in the market: 1-quickly and, 2-at a reasonable price.<sup>34</sup> deep, broad and resilient are characteristics of a liquid market.<sup>35</sup>

Dealers have the main role in maintenance of liquidity in the OTC derivatives markets. They create and sell products in addition to holding unmatched derivatives positions in their inventory.<sup>36</sup>

OTC derivatives in global financial crisis experienced extreme market liquidity risk in which dealers shut down (no bids), which happened in a number of markets such as asset-backed securities and convertible bonds. Extreme funding liquidity risk have been experienced too, since banks were short on capital due to taking risky policies in OTC derivatives transactions. So, when they could not fund themselves, they could not fund their clients.

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<sup>32</sup> Lasse Heja Pederson, "Liquidity Risk and the Current Crisis", (15 Nov 2008) available at <http://www.voxeu.org/index.php?q=node/2566>

<sup>33</sup> Ibid

<sup>34</sup> Robert A. Schwartz, "Equity Markets: Structure, Trading and Performance", (1988) p 534

<sup>35</sup> Ibid, Depth of market is multiple orders to purchase at both above and below current trading value of asset in question. Breadth of market is one in which orders are sufficiently large. Resiliency in one in which temporary price changes caused by order imbalances quickly lure buyers into market because of attractive price, See Ibid P 36

<sup>36</sup> Kevin Winch and Mark Jickling, "Derivatives Financial Markets", Congressional Research Service (1993) PP 34-35

The two forms of liquidity risks are interrelated and reinforce each other.<sup>37</sup>

## **B) The OTC Derivatives Backwards**

### 1) Asymmetries of Information:

Market arrangements produce just and efficient allocation of resources if market participants such as end-users and dealers have sufficient information about the costs and benefits of their choices.<sup>38</sup>

OTC derivative market revolves around uncertainty. The informational requirements and costs of obtaining information are huge.<sup>39</sup> Many of the inefficiencies in the derivatives markets are attributed to information shortage and high transaction costs.<sup>40</sup> as seen in the current crisis, lack of sufficient information of borrower complicated the assessment of counterparty risks.

Due to the price-dependent and time-varying nature of credit exposures, OTC markets are more vulnerable to instability.<sup>41</sup> a counterparty's risk profile changes very quickly in OTC contract which can be more destabilizing because they can quickly lead intermediaries and market makers to radically scale back

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<sup>37</sup> Lasse Heja Pederson, *Ibid*

<sup>38</sup> Alan Schwartz and Louis L. Wild, "Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis", 127 *University of Pennsylvania Law Review* (1979) P. 630

<sup>39</sup> Frank Partony, "Financial Derivatives and the Costs of Regulatory Arbitrage", 22 *the Journal of Corporation law* (1996) P. 244

<sup>40</sup> *Ibid*

<sup>41</sup> International Monetary Fund, *Ibid* P 49

exposures, risk taking and amount of capital committed to intermediary and market-making function.<sup>42</sup>

Trading base on imperfect information leads to mispricing of risk as triggered the current financial crisis. as the information requirements associated with derivatives transactions are extraordinary and complex, even the most sophisticated purchasers often have engaged in essentially uninformed trading.<sup>43</sup> OTC derivatives transactions require end-users to formulate opinions over future circumstances which are risky and uncertain.<sup>44</sup>

This complexity represents at least two main species of informational asymmetries. The first is asymmetry of information between dealers and their end-users clients. The complex derivatives markets require trading expertise which cannot be obtained easily. This prevailing condition led to superiority of dealers as the informed and expert party in the derivatives transactions against end-users. For instance, asymmetries in the securities such as CDOs, the complex instruments which end-users

Due to lack of expertise and information are constrained and compelled in term of their negotiating power. The ever-changing nature of financial markets compels end-users to face ever-increasing of complexity of instruments engineered by dealers.<sup>45</sup>

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<sup>42</sup> Ibid

<sup>43</sup> Peter Blackman, " Dealing in Derivatives: Is a Sophisticated Investor a Suitable One? ",5 New York Law Journal (1994) p. 6

<sup>44</sup> Dan Awrey, " The Dynamics of OTC Derivatives Regulation: Bridging the Public-Private Divide ",11 European Business Organization Law Review (2010) P 175

<sup>45</sup> Christine Cuccia, " Informational Asymmetry and OTC Transactions: Understanding the Need to Regulate Derivatives ", 32 Delaware Journal of Corporate Law (1996) P 205

The second asymmetry of information is between end-users and their investors, particularly house holders have no expertise to obtain and analyze firms' activities. Serious losses aware investors form of involvements.<sup>46</sup>The complexity and the constantly changing nature of the OTC derivatives risk profile (thus, fundamental value) make difficult for shareholders to have accurate information over OTC transactions.<sup>47</sup>For example, end-users of OTC derivatives markets in the midst of the liquidity crisis can obscure the picture by employing mark-to-model as opposed to mark-to-market accounting methods and this asymmetry is exacerbated by informational lag imbedded within financial reporting requirements.<sup>48</sup>

The efficient and just allocation of resources in the society will be obtained if market participants act base on perfect information. Maximization of private welfare of the parties to a contract will be procured if their actions be both voluntary and informed.<sup>49</sup> In addition to resulting inefficient allocation of resources, asymmetric information can result in unjust transactions in which investor has No sufficient information.

The retrospective and private-orientated nature of contract law remedies cannot tackle arising problems from complexity and customized nature of OTC transactions, thus unable to maximize private welfare. It is noteworthy that private information failures undermine the whole net social welfare that in the end ruins social

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<sup>46</sup> Ibid

<sup>47</sup> Dan Awrey, Ibid P 176

<sup>48</sup> Ibid

<sup>49</sup> Milton Friedman, " Capitalism and Freedom ", University of Chicago Press (1962) P 13

benefits of derivatives in terms of absorbing systemic risk and completion of asset markets. Accordingly, they could contribute to the inefficient allocation of risk and capital<sup>50</sup> that consequently undermine integrity and soundness of financial market and reduce net social welfare.<sup>51</sup>

The other face of asymmetry of information is lack of transparency. The word transparency carries positive connotation. The problem is that the positive connotation of the word can lead policy makers to view transparency as an end in itself instead of as a means to an end.<sup>52</sup>

Transparency illustrates the degree to which prices and volumes information of transactions is made publicly available.<sup>53</sup> Transparent markets offer pre-trade transparency (refers to the information on prospective trading) and post-trade transparency (refers to information on pricing and settlement of completed transactions).<sup>54</sup>

Transaction transparency and its information requirements are market characteristics that vary in respect with market demands and situations.<sup>55</sup> The primary function of the OTC derivatives market is transferring of risks. The quality and the quantity of required information due to size and volume of the transactions is not equal to all exchange-traded one, thus transparency measures for OTC derivatives markets are not equal to other types. In the low

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<sup>50</sup> Dan Awrey, Ibid P 177

<sup>51</sup> Ibid

<sup>52</sup> International Swaps and Derivatives Association, "Transparency and Over-the-Counter Derivatives: The Role of Transaction Transparency", ISDA Research Notes, No1 (2009) P1

<sup>53</sup> Council of Securities Regulators of the America, "Principles of Transaction Transparency" (1993)

<sup>54</sup> Larry Harris, "Trading and Exchanges: Market Microstructure for Practitioners", New York, Oxford University Press (2003) p 101

<sup>55</sup> International Swaps and Derivatives Association, Ibid P2

transparent OTC market, the primary form of information is private. The risks and exchanged products in these markets are large and complex or heterogeneous. The lenders and dealers in such markets attempt to profit from investing in information. Since all borrowers and end-users do not have such ability, they suffer a non-balanced and unjust position in the contract.

## 2-Overinvestment:

The widespread use of OTC derivatives as a low-cost instrument for managing various risks led to overinvestment in underlying assets.<sup>56</sup> more specifically, the use of OTC derivatives by financial institutions to shift credit risk off the balance sheets and thus free up capital for reinvestment contributed to the systemic under-pricing of credit risk. For example, overinvestment on credit default swaps represented a major cause of financial markets collapse. Credit default swap is an exchange of fee in exchange for a payment if a credit default event occurs.<sup>57</sup> If a default occurs, then the buyers receive the difference between par value of a reference asset and its market value.<sup>58</sup>

The interest rate, currency and credit default swaps were designed to allow market participants to hedge credit risk and open more places for reinvestment.<sup>59</sup> The systemic underpricing risks of these securities

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<sup>56</sup> Dan Awrey, Ibid

<sup>57</sup> Viral Acharya, " *Restoring Financial Stability: How to Repair a Failed System* ", New York University, Stern School of Business (2009) p25

<sup>58</sup> Ibid

<sup>59</sup> Most of outstanding CDSs derive from the investment grade and high yield corporate bond markets. As defaults in the corporate bond market occur, exposure to these CDSs becomes an issue. But the main CDSs that have contributed to the current financial crisis are those referencing residential mortgage-backed securities, commercial mortgage-backed securities and collateralized debt obligations. These securities backed by pools of debt. See Ibid

ultimately contributed to the asset bubble which generated negative externalities.

*“ this example punctuates the broader reality that, to the extent this pricing does not reflect the social costs of such negative externalities, OTC derivatives will continue to manifest the potential to stimulate society sub-optimal overinvestment”*.<sup>60</sup>

### 3-Excess Leverage:

Arguably fundamental concern over OTC derivatives is that they facilitate highly leveraged speculation.<sup>61</sup> Leverage is the magnification of the rate of return (positive or negative) on a position or investment beyond the rate obtained by a direct investment of own funds in the cash market.<sup>62</sup>

Leverage creates and enhances risk of default by market participants

And it increases the potential for rapid developing-the unwinding of leveraged positions-which causes disruptions by exaggerating market movements.<sup>63</sup> The inherent leverage in OTC derivatives encouraged

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<sup>60</sup> Dan Awrey, Ibid P178; With overinvestment and overproduction firms tend to borrow more to finance their productions. As a result, banks will borrow more from abroad. In the bad state over-produced firms will get a bigger loss. They may not be able to get more loans. Thus firms have to declare bankruptcy. Due to their inability to repay their loans, banks may not have resources to repay their terms. In this way, the trouble spread over the market and the economies. See Sweta C. Saxenge, “ Economic Growth, Over-investment and Financial Crisis “ (July 10 2002) available at [www.faculty.washington.edu/karyiu/papers/invest-crisis.pdf](http://www.faculty.washington.edu/karyiu/papers/invest-crisis.pdf)

<sup>61</sup> Jonathan Macey, “ Derivatives Instruments: Lessons for the Regulatory State “, 21 Journal of Corporation Law (1995) P 82

<sup>62</sup> International Monetary Fund, Ibid P 44

<sup>63</sup> Ibid; Leverage has the capacity to increase risk. For a given equity base, leverage allows the borrower to build up a larger investment position and thus higher exposure to market risk. Since leverage increases the potential loss triggered by a given adverse price movement, leverage investors are likely to adjust their positions sooner than pure equity investors. The simultaneous unwinding of large leveraged positions may in turn trigger for their price movements and therefore increase risk. See Ibid



speculative risk taking policies by end-users while employing disproportionately little capital.<sup>64</sup>

Leveraged speculation utilizing OTC derivatives increases the level of risk by creating opportunities for end-users to employ leverage where no such opportunity previously existed.<sup>65</sup>

*“Looking at the leverage effect, they can provide and at potential profits, losses can be perceived as “less probable”, accordingly to the wrong perception of risk by investors, known as overconfidence”.*<sup>66</sup>

*“It is important to bear in mind that leverage, in and of itself, is inherently neither positive nor negative from a societal perspective. It is only where the leverage inherent in OTC derivatives contributes to the fragility of end-users and by extension the financial system through sub-optimal risk taking (effectively by magnifying initial pricing errors) that the negative societal implications come front and centre “.*<sup>67</sup>

#### 4-Systemic Risk:

Risks and enormous size of derivatives markets present a serious source of systemic risk in the context of OTC derivatives refers to the

Risk that the costs will not be internalized by the market participants and instead will spread to financial market and either institutions that are not in position to benefit from trading or to avoid loss.<sup>68</sup>

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<sup>64</sup> Frank Partnoy, “ Financial Derivatives and the Costs of Regulatory Arbitrage “, 22 Journal of Corporation Law (1996-1997) PP 225-226

<sup>65</sup> Ibid

<sup>66</sup> Chiara Oldani, Ibid P 39; Overconfidence is the excessive confidence investors have in their own judgment which influences investment decisions, regardless of market signals on the security. See Ibid

<sup>67</sup> Dan Awrey, Ibid P 178

<sup>68</sup> Jonathan R. Macey, Ibid P 84

Systemic risk is a kind of negative externality which leads to wrong allocation of resources in the society and generates inefficiencies market outcome.<sup>69</sup> The complexity of modern derivatives, especially credit derivatives, and the lack of transparency have made knowing the true nature of systemic risk difficult.<sup>70</sup> Even if the issues of complexity and transparency were solved, the problem of systemic risk would not be solved.<sup>71</sup> Because every single financial institution acts in their own interest to hedge risks or manage returns regardless of risks spill over throughout the system.<sup>72</sup>

There is no consensus over systemic risk definition and there is a great deal of confusion about what types of risks are truly systemic. Alan Greenspan has summed up that:

*“it is generally agreed that systemic risk represents a propensity for some sort of financial system disruption, one observer might use the term “market failure” to describe what another would deem to have been a market outcome that was natural and healthy, even if harsh”.*<sup>73</sup>

As a result, the very definition of systemic risk is still unsettled.<sup>74</sup>

A common factor in the various definitions of systemic risk is that a trigger event causes a domino effect which has a chain of bad economic consequences.<sup>75</sup> Banks and other Financial Institutions are the main

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<sup>69</sup> Mahmood Bagheri, Ibid P 21

<sup>70</sup> Dan Awrey, Ibid

<sup>71</sup> Viral Acharya, Ibid

<sup>72</sup> Ibid

<sup>73</sup> George G. Kaufman, “ Bank Failure, Systemic Risk and Bank Regulation “, 16 CATO J. 17,21 n.5 (1996) quoting Alan Greenspan, Remarks at Conference on Risk Measurement and Systemic Risk, Board of Governors of the Federal Reserve System (Nov. 16 1995) available at <http://www.cato.org/pubs/journal/cj16n-2.html>

<sup>74</sup> Ibid

<sup>75</sup> Steven L. Schwartz, “ Systemic Risk “, Duke Law School Legal Studies Research Paper No 163 (March 2008) P 198

sources of capital, thus their failure can deprive society of capital. Decreases in availability of capital are the most serious direct consequences of systemic risk.<sup>76</sup>

OTC derivatives transactions are unsecured and the failure of one significant market participant to make payments would result in counterparties' defaults and causing rapid and global transition of defaults to OTC derivatives contracts.<sup>77</sup> The concentrated OTC markets and interconnections of swap obligations among players and the long-term nature of the transactions would exacerbate the occurrence of systemic risk.<sup>78</sup>

OTC derivatives are widely used for unhedged and proprietary speculation, which a failure of a major participant creates systemic breakdown.<sup>79</sup> The issue of systemic risk within derivatives markets is best viewed as bifurcated: derivatives use for speculation and for hedging.<sup>80</sup> Derivatives use for hedging reduces the potentiality of systemic risk. Hedging intended to protect market participants from risk

By using derivatives to diversify risks<sup>81</sup> such as credit default swaps to shift credit risk in the market. Hedging is also affected through risk securitization, in which a company or bank transfers the credit risk of portfolio of corporate loans and other debt obligations to a special

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<sup>76</sup> William J. Mc Donough, President, Fed. Reserve Bank of New York, Statement Before the United States House of Representatives Committee on Banking and Financial Services (Oct. 1 1998) available at <http://newyorkfed.org/newsevents/speeches/1998/mcd981001.html>

<sup>77</sup> Adam R. Waldman, *Ibid* P 1055

<sup>78</sup> *Ibid*, also see William Glasgall and Bill Javetski, "Swap Fever: Big Money, Big Risks", *BUS.WK* (June 1 1992) p 105

<sup>79</sup> *Ibid*

<sup>80</sup> Steven L. Schwarcz, *Ibid* p 219

<sup>81</sup> Frank Partnoy, *Ibid*

purpose vehicles (SPV) and SPV raises funds by issuing securities to support the assumption of the risk.<sup>82</sup>

The lack of transparency and the increasing complexity of OTC transactions also contribute to the systemic risk.

*“A lot of institutional investors bought mortgaged-back securities substantially based on their ratings [without fully understanding what they bought], in part because the market has become so complex”.*<sup>83</sup>

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<sup>82</sup> Steven L. Schwarz, *“Structured Finance: A Guide to Principles of Asset Securitization”* 3<sup>rd</sup> Edition (2007) PP 12-14

<sup>83</sup> Aaron Lucchetti, “Credit and Blame: How Rating Firms’ Call Fueled Subprime Mess”, Wall Street Journal (Aug 15 2007)

## **Chapter III**

### **Public and Private Regulatory Treatments**

The regulatory treatment of derivatives lies between full regulation and non-regulation. The ever-changing nature of financial markets and their products with the technological advances introduce new boundaries and requirements for regulating derivatives, particularly OTCs. Associated uncertainties about regulatory issues and the dynamic area of derivatives markets, introduced legal uncertainty.

Historically there have been public and private regulatory treatments for derivatives.

## **A) Public Regulatory Treatment:**

There have been two public classifications for derivatives: exchange-traded and over-the-counter.

- Exchange-traded Derivatives

Exchange-traded derivatives are standardized contracts (primary options and futures) that are transacted on centralized trading platforms such as CBOT, Eurex or NYSE.<sup>84</sup> End-users of exchange traded derivatives are presented with a limited menu of underlying assets.<sup>85</sup> Terms and contracts are set by the relevant exchange, for instance, settlement amounts and maturity dates must be accepted by end-users.<sup>86</sup>

The uniformity of contracts on an exchange allows a contract to be traded many times before expiration and more on, derivatives exchanges typically provide a consistent level of credit support to end-users by absorbing counterparty credit and settlement risks.<sup>87</sup>

An exchange bears the risks of counterparty default via a clearing house and margin mechanism.<sup>88</sup> Derivatives exchanges provide more transparency for investors. The public nature of trading requires and

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<sup>84</sup> Dan Awrey, *Ibid* P 161; In a limited sense, exchange-traded options and futures do not differ much from OTC options and forwards. See Norman Menachem Feder, "Deconstructing Over-the-Counter Derivatives", 3 *Columbia Business Law Review* (2002) P 731

<sup>85</sup> Norman Menachem Feder, *Ibid*

<sup>86</sup> *Ibid*

<sup>87</sup> Dan Awrey, *Ibid*

<sup>88</sup> Norman Menachem Feder, *Ibid* PP 732-734

maintains transparency in transactions. Bids are available for all investors and they have access to the same information.

Derivatives exchanges perform a self-regulatory role through the enforcement of dealer membership, trading qualifications, order execution, clearing, settlement and other trading practices rules and also they set rules on approval of new derivatives products.<sup>89</sup>This

role generally discharged under the supervision of national securities regulators such as the US Securities and Exchange Commission (SEC) and UK Financial Services Authority (FSA).<sup>90</sup>

- Over-the-Counter Derivatives

OTC derivatives are made-to-order or individually tailored instruments which are outside of a regulated exchange. OTC contracts are either on a bilateral basis (e.g. swap) or as structured instruments such as collateralized debt obligations (CDOs). An important result of the OTC contract's tailored nature is that parties can trade the risk of unique underlying the unlimited and extra flexible OTCs allow market participants to structure terms individually such as price, settlement amount, maturity date. Thus, each OTC transaction can have unique terms and conditions.<sup>91</sup>Moreover, customized OTC derivatives allow parties to tailor derivatives to specific exposures. In other word, OTC derivatives afford opportunity for market players to structure their

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<sup>89</sup> Ibid

<sup>90</sup> In the US, the SEC and CFTC possess the authority to require the registration of exchanges and contracts and establish and enforce rules of conduct, standards and disclosure measures, monitoring transactions. Within the EU, derivatives exchanges constitute under the Markets in Financial Instruments Directive (MiFID) and (EMIR).

<sup>91</sup> Norman Menachem Feder, Ibid

portfolios which more accurately reflect risk management requirements.<sup>92</sup>

Despite the lack of secondary market liquidity, market players prefer OTC markets more than exchange-traded ones. Before the recent regulatory responses following the financial crisis, OTC derivatives reside outside the scope of regulatory regimes. While some market

Participants such as banks and public firms were subject to prudential banking requirements and mark-to-market accounting rules, OTC derivatives operated largely within a regulatory vacuum.<sup>93</sup>

## **B) Private Regulatory Treatment:**

One of the pillars of institutional development of OTC derivatives market is the International Swaps and Derivatives Association (ISDA). Established in 1985, ISDA is the de facto trade association of the global OTC derivatives industry. ISDA's mandate is encouraging the prudent and efficient development of OTC derivatives markets through the promotion of practices conducive to the efficient business, the development of sound risk management practices and high standards of commercial conduct.<sup>94</sup> ISDA works on three areas: reducing counterparty credit risk, increasing transparency and improving the industry's operational infrastructure.<sup>95</sup> ISDA contributes at least in two

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<sup>92</sup> Dan Awrey, *Ibid* P 162

<sup>93</sup> *Ibid*, Mark-to-market or fair value accounting refers to a widely employed accounting methodology pursuant to which financial assets as OTC derivatives are ascribed a value base on the current market price of the asset.

<sup>94</sup> See ISDA mission statement, available at <http://www.isda.org>

<sup>95</sup> *Ibid*



important areas: 1-developing standardized legal documentation and, 2-doing legal research and analysis of OTC issues.<sup>96</sup>

The ISDA master agreements are widely used by market participants. The initiatives in the netting and collateral have helped firms to reduce credit and legal risks significantly.<sup>97</sup>

Prior to ISDA the majority of OTC derivatives contracts were mainly ad hoc agreements.<sup>98</sup> The absence of standardized legal documentation represented a significant barrier to the growth of the OTC markets.<sup>99</sup>

In the early years of OTC derivatives markets, interest rate and currency swaps were the main contracts.<sup>100</sup> ISDA published the first code of standard wording, assumptions and provisions for swaps in 1987.<sup>101</sup> Master agreements have been expanded to equity, commodity and energy swaps. ISDA has developed a number of protocols enabling counterparties to amend existing master agreements in order to rectify deficiencies.<sup>102</sup> for example big bang protocol (2009) with the objective of improving contractual standardization within CDs markets.<sup>103</sup>

ISDA's standardized legal documentation led to lower transaction costs and efficient contracting. ISDA also targeted some industry wide legal

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<sup>96</sup> Ibid

<sup>97</sup> Ibid

<sup>98</sup> Norman Menachem Feder, Ibid P 736

<sup>99</sup> Ibid

<sup>100</sup> Allen and Overy, "An Introduction to the Documentation of OTC Derivatives", pp 3-5 available at [www.isda.org/educat/index.html](http://www.isda.org/educat/index.html)

<sup>101</sup> Ibid

<sup>102</sup> Dan Awrey, Ibid PP 163-164

<sup>103</sup> Commission of the European Communities, "Ensuing Efficient, Safe and Sound Derivatives Markets" (July 3 2009)

and operational issues, such as its influential role in the design of netting and collateral agreements and liability for misrepresentations.

Certainly ISDA has been the main private regulatory actor to promote institutional development of OTC derivatives, but other private actors have been participated in this process. For instance, ad hoc group of market participants, so called “group of fourteen” derivatives dealers

have converged to address some perceived deficiencies in OTC markets.<sup>104</sup> Some other private actors help to stabilize OTC markets. For example, some by providing trade execution (e.g. creditex, Tradeweb, BBG), by confirmation (i.e. Market wire and Swift and CLS), by clearing and settlement (i.e. ICE, Swapclear and LCH). Generally ISDA with these private actors make up the backbone of OTC derivatives markets private regulation.

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<sup>104</sup> John Lynch, “Credit Derivatives: Industry Initiative Suppliers Need for Direct Regulatory Intervention-A Model for the Future of US Regulation?”, 55 Buffalo Law Review (2008) p 1371

## **Chapter IV**

### **Various Regulatory Approaches to the OTC**

#### **Derivatives Regulation: The US and the EU**

##### **Regulatory Responses**

The recent financial crisis revealed the necessity of an urgent regulation for OTC derivatives as a major source of systemic risk. The usage of OTC instruments to construct highly leveraged speculative positions without regarding the macro economic issues of markets generated enormous losses which led to bankruptcy of most firms' creditors and trading partners.

OTC markets are dealer-made which failure one major of them would have resulted in the nullification of trillions of dollars worth of contracts. Thus, stability of OTC markets is highly interrelated to the dealers.<sup>105</sup>

Various types of derivatives are used for the same purposes: hedging and speculating, but they were traded and developed in an unregulated environment. The primary focus in derivatives markets (mainly swaps) was on documentation and enforceability. In the late 1980, the legal focus expanded to risks. Despite of many liberalized domestic monetary systems and developments of derivatives, as a major business, there had been no regulation for them. In the recent credit crunch, the regulation of OTC derivatives, particularly swaps, came under scrutiny and major participants (US and EU) have introduced restrictive regulatory regimes.

*“The credit crunch, in which derivatives played only a secondary role, if that and certainly not a causative one, has led to the introduction of a heavy handed and restrictive regulatory regime for derivatives. In the US it is part of a broader effort to micromanage the US economy. In Europe, it is a means of reasserting the role of the state, so beloved of eurocrats, in the financial markets with the added attraction of hobbling competition from London and New York. In neither is there any nexuses established between derivatives and the crisis other than incessantly reiterated conclusory statements that with their repetition become the Orwellian substitute for truth”.*<sup>106</sup>

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<sup>105</sup> Congressional Research Service Report for Congress, “The Dodd-Frank Wall Street Reform and Consumer Protection Act: Title VII” (Aug 30 2010) P 2

<sup>106</sup> Schuyler K. Henderson, Ibid P 530

## A) The US Regulatory Approach

### 1-Pre Dodd-Frank Act Market Structure and Regulation:

Prior to the Dodd-Frank Act, derivatives were traded on various markets. For example, futures contracts were traded in exchange under supervision of Commodity Futures Trading Commission (CFTC), options on exchanges regulated by the Securities and Exchange Commission (SEC) and all swaps were traded over-the-counter and were not regulated.<sup>107</sup>

Exchanges as centralized markets were retail-based and tend to be much smaller on their average transactions' size. Exchange-traded markets were almost always subject to some form of statutory regulation.<sup>108</sup> Exchanges were the only providers of margining of unrealized losses.<sup>109</sup> In the OTC markets, all contracts were individualized and between dealers and end-users and there were no requirement for disclosing price and terms of contracts to a regulatory authority.

- Market Structure for OTC Derivatives:

The OTC markets, traditionally has been organized around dealers who played "make a market" role by maintaining bid and offer quotes to market participants.<sup>110</sup> The net work of these dealers takes long and short positions and makes money on spreads and fees.

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<sup>107</sup> Congressional Research Service, *Ibid*

<sup>108</sup> Rasiah Gengatharen, "Derivatives Law and Regulation" 20 *Kluwer Law* (2001) P 36

<sup>109</sup> *Ibid*

<sup>110</sup> Randall Dodd, "The Structure of OTC Derivatives Markets", *Derivatives Study Centre*, 9 *The Financier* (2002) p1

The credit risk of customers default was absorbed by dealers, while there was no solution to absorb the risk of dealer default. In fact the OTC markets were dominated with few and very large institutions like Goldmansachs and Citigroup,<sup>111</sup> thus, the creditworthiness of these institutions was the fundamental apprehension of all market participants. There was no standard in contracts and all terms were negotiable. The best standards of practice were published by ISDA for collateral, but compliance was voluntary. Collateral and margin requirements were only in some OTC contracts and not in all. Due to lack of universal and mandatory system of margin, large, uncollateralized losses did build up in the OTC markets.<sup>112</sup> For instance, AIG had trillions worth of credit default swaps guaranteeing payment if certain mortgage-backed securities defaulted. Many of AIG's contracts required it to post collateral, but AIG did not, because the firm was triple A rating. At the subprime crisis, AIG faced margin called that it could not meet.<sup>113</sup>

A key reform in Dodd-Frank Act is margin requirements for many OTC swaps (in the clearing houses) and this will combine features of exchange-traded and OTC derivatives markets structures.<sup>114</sup>

## 2-The Dodd-Frank Act's Clearing and Reporting Requirements:

The new regulatory regime imposed by the Dodd-Frank Act on OTC derivatives, requires new changes. The primary goals of the legislation and related rulemaking are to increase transparency of OTC markets and also reduce the potential for counterparty and systemic risks. The main mechanisms of the Act are: centrally clearing and exchange

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<sup>111</sup> Congressional Research Service, Ibid P 4

<sup>112</sup> Ibid

<sup>113</sup> Ibid

<sup>114</sup> Ibid

trading of most OTC derivatives. Therefore, traders in new regime are required to post margin, public reporting of transactions and pricing data on both cleared and uncleared swaps.<sup>115</sup> Despite exclusion of some types of OTC derivatives from being exchange-traded positions, they

Are under broader power of regulators to obtain information and impose margin and capital requirements on them.

- Regulatory Responsibility for Derivatives Markets:

The Act establishes regulation over OTC derivatives by distinguishing between contracts for the sale of a commodity for future delivery and swaps which is subject to CFTC jurisdiction and security-based swaps subject to SEC jurisdiction.<sup>116</sup>

The division between categories is not entirely clear, however the Act mandates consistency and comparability between SEC and CFTC rules and regulations governing functionally similar products and entities.<sup>117</sup>

The SEC and CFTC have been handed joint responsibility to flesh out many technical details such as definitions of “swaps” and “security-based swaps”.<sup>118</sup> The president Obama administration requested for a joint plan for harmonizing the regulation of the OTC markets.<sup>119</sup> However, there are some pressing issues which have not been harmonized, such as the necessity to ensure that counterparty clearing houses (CCPs) can adequately discharge their systemic protection function.

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<sup>115</sup> The Dodd-Frank Wall-Street Reform and Consumer Protection Act, Title VII

<sup>116</sup> The Dodd-Frank Act, ss 712,722 and 761-763

<sup>117</sup> The Dodd-Frank Act, s 712

<sup>118</sup> Ibid

<sup>119</sup> See “A Joint Report of the SEC and the CFTC on Harmonization of Regulation” (Oct 16 2009)

Finally, the concern over commissions' jurisdictions' overlap has not been solved. Particularly on the investor protection roles of SEC and CFTC, this overlap will create new jurisdictional squabbles.<sup>120</sup>

- Scope of Derivatives Covered:

The Dodd-Frank Act covers a broad range of derivatives, including swaps, options and some forwards on financial and non-financial assets (generally classified as swaps and security-based swaps). 'Swaps' definition includes most types of OTC derivatives.<sup>121</sup> the definition is closely based on section 206A of the Gamm-leach-Bliley Act, as amended, specifies a number of categories such as 1-puts, calls, caps, floors, collars or similar options based on the value of one or more interest or other rates, currencies and etc.<sup>122</sup> 2-interest rate, currency, total return, equity, credit default and etc are listed as examples of a broadly described category of risk transfer instruments.<sup>123</sup>

Security-based swaps means any swaps based on: 1-an index that is a narrow-based security index, 2-a single security or loan, 3-the occurrence, non occurrence or extent of the occurrence of an event relating to a single issuer of a security or the issuers of securities in a narrow-based security index.<sup>124</sup>

- Registration and Regulation of Market Participants:

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<sup>120</sup> Hal S. Scott, "A General Evaluation of the Dodd-Frank US Financial Reform Legislation", 477 Journal of International Banking Law and Regulation (2010) P 3

<sup>121</sup> The Dodd-Frank Act, s 721(a)(21) (codified at 79 U.S.C. s(1)(a); Swap is an agreement between two parties to pay each other a series of cash flows, base on fixed or floating interest rates in a single currency or different currencies. Each party agrees to pay the other an amount of interest calculated by the calculation agent on a monetary amount in respect of a series of calculation periods during the term of the transaction. The term commences on the effective date and ends on the termination date, both of which terms will be agreed by the parties. See Schuyler K. Henderson , Ibid P 41

<sup>122</sup> Ibid

<sup>123</sup> Ibid

<sup>124</sup> The Dodd-Frank Act, s 751 (a)(6) (Codified at 15 U.S.C. S 78 c(a)



Under the Act a person who engages in significant swap activities may be regulated as ‘swap dealer’ or ‘major swap participants’ (MSP).<sup>125</sup>

The Act requires swap dealers and major participants generally to comply with: 1-significant financial reporting, 2-record keeping requirements, 3-business conduct standards, and 4-documentation and back office standards.<sup>126</sup>

Swap dealers and major participants are required to perform certain duties: 1-monitoring duties, 2-establishing risk management procedures, 3-disclosing certain information to regulators, 4-establishing systems and procedures to obtain necessary information, 5-implementing conflicts of interest procedures, 6-avoiding anti-competitive practices.<sup>127</sup>

- Clearing and Trading Requirements:

As noted before, the main objective of the Act is to bring transparency to the OTC derivatives markets. The primary means for enhancing transparency is to require OTC transactions be cleared and settled in CCPs.<sup>128</sup> the Act requires swaps to be cleared (if they must be cleared) and they are accepted for clearing by a ‘derivative clearing organization’ (DCO) (in the case of swap) or a clearing agency in the case of a security-based swap.<sup>129</sup>

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<sup>125</sup> The Dodd-Frank Act, s 731 (Codified at 7 U.S.C. 1 et seq) and s 764 (Codified at 15 U.S.C. 78)

<sup>126</sup> The Dodd Frank Act, s 731 (Codified at 7 U.S.C. (1) et seq) and s 764 (Codified at 15 U.S.C. 78 (a) et seq)

<sup>127</sup> Ibid

<sup>128</sup> OTC derivatives contracts oblige counterparties to make certain payments over the life of the contract or following and early termination event. ‘Clearing’ is the process by which payment obligations between two or more firms are computed and ‘settlement’ is the process by which those obligations are discharged. The means by which payments on OTC derivatives are cleared and settled affect how the credit risk is managed. See Christopher L. Culp, “OTC Cleared-Derivatives: Benefits, Costs and Implications of the Dodd-Frank Wall Street Reform and Consumer Protection Act”, 2 Journal of Applied Finance (2010) P5

<sup>129</sup> The Dodd-Frank Act, s 723 (Codified at 7 U.S.C.) and 763 (Codified at 15 U.S.C. 78 (a) et seq)

Swaps subject to the clearing requirement must be traded on a board of trade designated as a contract market or a swap execution facility in the case of swaps or on a security-based swap execution facility or a national securities exchange in the case of a security-based swap.<sup>130</sup>

Entering into cleared transactions requires counterparties to post initial margin. Under the Act a swap transaction must be exempted from clearing requirements, if one of the counterparties is an end-user that is hedging its own commercial risk. This counterparty must: 1-not be a financial entity, 2-using swaps to hedge or mitigate financial risk, 3-notifies the CFTC or SEC.<sup>131</sup>

- Registration and Regulation of Central Counterparties:

Base on the Act, the CFTC will be the regulator for derivatives clearing organizations (DCOs) of swaps. The SEC will be the regulator for clearing agencies for security-based swaps. CDOs regulatory requirements are provided under 'core principles' which include rules on margin, financial resources, risk management and organizational requirements.<sup>132</sup>

- Trade Repositories:

To provide transparency and also providing regulators with the tool for monitoring derivative trading, the Act requires swap's data be reported to electronic storage facilities known as 'swap data repositories'. The repositories accept data from swap counterparties and confirm the accuracy of that data and maintain them.<sup>133</sup> Repositories are required to

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<sup>130</sup> Ibid,

<sup>131</sup> The Dodd-Frank Act, s 723 (a)(3) (Codified at 7 U.S.C.) and 736 (a) (Codified at 15 U.S.C. 78 (a) et seq)

<sup>132</sup> Ibid

<sup>133</sup> The Dodd-Frank Act, s 728 (Codified at 7 U.S.C. (24) ) and s 763 (l) (Codified at 15 U.S.C. 78 (a) et seq)

register with the CFTC and SEC and confidentially make available all data obtained by them, such as individual counterparty trades and position data to all authorities that SEC and CFTC determine, For example, foreign financial supervisors and foreign central banks.<sup>134</sup>

Repositories should be the ones that make adequate processes to ensure the reliability of the data provided.<sup>135</sup>

- The Volker Rule:

One of the most controversial parts of the Act is the so-called Volker Rule.<sup>136</sup> section 619 of the Act prohibits an insured depository institution and its affiliates from engaging in ‘proprietary trading’ or acquiring, trading any equity, partnership or other ownership interest in a huge fund or private equity.<sup>137</sup>

‘proprietary trading’ is defined as engaging as a principal for the trading account of a banking organization or supervised non-bank financial company in any transaction of security, derivatives, contract of sale of a commodity for future delivery, option on any such security, derivative or contract of any other security or financial instrument that the appropriate federal banking agencies, the SEC and the CFTC may determine by rule.<sup>138</sup>

Banking entity includes not only the U.S. banks and banks holding companies, also non-U.S. banks with a branch in the U.S. and their affiliates.

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<sup>134</sup> Ibid

<sup>135</sup> Ibid

<sup>136</sup> Named after Paul Volker

<sup>137</sup> The Dodd-Frank Act, s619 13(a) (Amended the Bank Holding Company Act of 1956, 12 U.S.C.A.S 1841)

<sup>138</sup> Ibid

The Volker rule would also apply to securities transactions outside of the U.S. if they comprise security offering to the U.S. residents.<sup>139</sup> It also requires additional capital requirements and other restrictions to be imposed on systemically important non-bank financial firms supervised by the Federal Reserve, that engage in such businesses.<sup>140</sup>

The Financial Stability Oversight Council (FSOC) has done study over Volker rule, to provide greater definition for it.<sup>141</sup> The FSOC study provides a general idea of what they are likely to address. The FSOC

Does so through ten recommendations, including recommendations that regulators: 1-require banking entities to sell or wind down impermissible trading desks, 2-perform a supervisory review of trading activities to distinguish between proprietary trading and permitted activities, 3-requiring banking entities to implement mechanism to identify to regulatory which trades are customer-initiated and which are not.<sup>142</sup>

Implementation of the Volker rule is not a straightforward task. Regulators must account for differences in assets, markets, banks and traders.<sup>143</sup> this rule should take account of changes in the financial market, otherwise it may not be successful to meet its principals goals (minimizing risky trading by banks).

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<sup>139</sup> Ibid

<sup>140</sup> Charles K. Whitehead, "The Volker Rule and Evolving Financial Markets", Cornell Law School Research Paper No 11(2011) p 47

<sup>141</sup> Financial Stability Oversight Council, "Study and Recommendation on Prohibitions on Proprietary Trading and Certain Relationship with Hedge Funds and Private Equity Funds" (Jan 2011) ; FSOC is the united states federal government organization, established by title I of the Dodd-Frank Act with broad authorities to identify and monitor excessive risks in the U.S. financial market arise from the inter connected bank holding companies or non bank financial companies or from risks that could arise at side of the financial system, to eliminate expectations that any American financial firm is 'too big to fail' and also to respond to emerging threats to U.S. financial stability. See The Dodd-Frank Act, Title I

<sup>142</sup> Ibid, P 3

<sup>143</sup> Charles K. Whitehead, Ibid P 69

As a result of the rule, many prohibited activities have moved to the hedge fund industry.<sup>144</sup> However the fluid financial markets present new relationships. In many cases hedge funds and other participants of shadow banking system, have begun to perform bank-like function which cause a new source of risk for stability of markets.

## **B) The EU Regulatory Approach:**

The global financial crisis has brought the OTC derivatives market to forefront of the EU regulation. The collapse of Bear Sterns and Lehman Brothers in 2008 and other giants of financial markets highlighted shortcomings of OTC markets. Since October 2008 European Commission has been working on regulation of OTC market, particularly focused on credit default swaps (CDSs). The fundamental and key factor in the EU regulatory approach is the material role of CCPs in the mitigation of counterparty exposures and preventing systemic risk occurrence.

### **1-Pre-financial Crisis Market Structure of OTC Derivatives:**

OTC market In the Europe has been alike to the US market. Opaque, privately and customized transactions generated a trading market where information was only available to the dealers and contractual parties. This lack of information prevented regulators from a timely

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<sup>144</sup> Ibid P 92

detection of risk building up at individual institutions and in the system as the whole.<sup>145</sup>

The lack of CCPs during the OTC contracts' lifetime (to manage payments and settlements) the counterparty credit risk was much higher than regulator thought. The amounts of collateral used to mitigate counterparty risk were insufficient.<sup>146</sup> The main reason lies in inadequate regulatory requirements for all market participants to collateralize their contracts.

## 2-The New EU OTC Derivatives Regulatory Regime:

On September 15, 2010 the European Commission published a legislative proposal on OTC derivatives regulatory issues (known as the European Market Infrastructure Regulation or EMIR). The general policy objectives of this proposal are to reduce the systemic risk by increasing the safety and efficiency of the OTC derivatives markets.<sup>147</sup> The proposal presents the solution for OTC derivatives problems through the use of post-trading market infrastructure, in this manner, the proposal main requirements are: 1-complacence of the OTC derivatives positions, 2-use of CCPs, 3-improving bilateral clearing practices and, 4-increasing the standardization of OTC derivatives contracts.<sup>148</sup>

- Regulatory Responsibility for Derivatives Markets:

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<sup>145</sup> European Commission, Summary of Impact Assessment, Accompany Document to the proposal for Regulation of the European Parliament and of the Council on the OTC Derivatives, Central Counterparties and Trade Repositories, SEC(2010)105 P 2

<sup>146</sup> Ibid, P 3

<sup>147</sup> EMIR, P 32

<sup>148</sup> Ibid

The new European Securities and Market Authority (ESMA) would have various new roles under the new EU proposed regulatory regime.<sup>149</sup> The prominent role of the ESMA is the identification of contracts that will be subject to the clearing obligations by authorized CCPs. The ESMA is responsible to ensure common and objective application of the regulation and also to develop a number of draft technical standards in correct application of the regulation and to facilitate the adoption of a joint opinion by the College of Supervisors. ESMA will have responsibility to recognize CCPs from equivalents third countries to present services in the EU.<sup>150</sup>

Separately, derivatives trading will continue to be regulated at a national level under the Markets in Financial Instruments Directive (MiFID).<sup>151</sup> Under MiFID, EU member states are required to provide comprehensive legislation for financial services activities related to derivatives. National regulators are responsible for implementation and enforcement of regulation to protect the overall integrity of the EU market and ensure a fair competition, MiFID requires member states to cooperate with each other as well as with European Commission.

- Scope of Derivatives Covered:

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<sup>149</sup> ESMA is an independent EU authority that contributes to safeguarding the stability of the European Union's financial system by ensuring the integrity, transparency, efficiency and orderly functioning of securities markets as well as enhancing investor protection. In particular ESMA fosters supervisory convergence both among securities regulators and across financial sectors by working closely with the other European supervisory authorities competent in the field of banking (EBA). See ESMA functions available at [www.esma.europa.eu](http://www.esma.europa.eu)

<sup>150</sup> Ibid

<sup>151</sup> MiFID 2004/39/EC as subsequently amended, is a European Union law that provide harmonization in regulation of investment services across EU member states borders. The main objectives of directive are to increase competition and consumer protection in investment services. As its name states, it does not focus on securities only, but on all financial instruments that can be negotiated on or off exchange. See MiFID 2004/39/EC, See also Rent Giraud, "MiFID", Risks Books (2006) P 45

EMIR covers all OTC derivatives transactions regulated under MiFID. Instruments covered by MiFID are defined in section C of Annex II of the Level 1: 1-transferable securities, 2- money-market instruments, 3- units in collective investment undertakings, 4-options, futures, swaps, forward rate agreements and any other derivatives contract relating to securities, interest rates or yields, or other derivatives instruments, 5- options, futures, swaps, forward rate agreements and any other derivatives contracts relating to commodities that must be settled in cash, 6-option, futures, swaps and any other derivatives contracts relating to commodities that can be physically settled, provided that they are traded on regulated market and/or on MTF, 7-options, futures, swaps, forwards and any other derivatives contracts relating to commodities that can be physically settled not otherwise mentioned in s6, 8-derivatives instruments for the transfer of credit risk, 9-financial Contracts for differences, 10-options, futures, swaps, forward rate agreements and any other derivatives contracts relating to climatic variables, freight rates, emission allowances, or inflation rates.<sup>152</sup>

- Registration and Regulation of Market Participants:

Under MiFID, persons who provide the investment services and/or perform investment activities such as swap dealers (who execute orders on behalf of clients or engage in professional proprietary trading) are required to be authorized by national supervisors and are subject to capital, business conduct and regulatory reporting requirements.<sup>153</sup> Providers (including swap dealers) which only engage

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<sup>152</sup> Ibid

<sup>153</sup> Ibid Article 17 and 7



in treasury activities or commercial hedging for their account are not covered by the directive.<sup>154</sup>

- Registration and Regulation of Central Counterparties:

The competent authorities of EU member states are currently the regulators or registrars for CCPs. Under the EMIR draft, CCPs would continue to be authorized and regulated by national regulators, but would be subject to supervision of College of Regulators for authorization, extension of activities undertaken, stress testing and interoperable arrangements.<sup>155</sup>

The college will be comprised of ESMA, the European central bank and various relevant national regulators (including CCPs national regulators and supervisors of clearing members which making the largest contribution to the CCPs default fund).<sup>156</sup> Therefore, ESMA will have the a central role in the authorization of CCPs by vigorous supervision that the provisions of proposal consistency applied.

The proposal set out some regulatory requirements for CCPs such as organization, conduct of business and prudential obligations. Due to different regulatory requirements at national levels, the proposal seeks to establish equilibrium across member states.

There are various authorization requirements for CCPs under the EMIR, such as rules on margin, financial resources, risk management, settlement and organizational issues.<sup>157</sup>

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<sup>154</sup> Ibid, Articles 11 and 12

<sup>155</sup> Ibid

<sup>156</sup> Ibid

<sup>157</sup> Ibid

CCPs established in non-EU countries (if the EU commission determines that the legal arrangement of the non-EU country is equivalent to the EMIR requirements) would be recognized by ESMA.<sup>158</sup>

- Clearing and Trading Requirements:

Under the EMIR, all trades of financial derivatives which are made in the OTC markets, as listed in annex I, section C, paragraphs (4)(10) of MiFID, are required to be cleared. There is an exemption for 'non-financial counterparties'<sup>159</sup> of OTC derivatives with volumes below a clearing threshold.<sup>160</sup> Commercial hedging exemption applies to

positions of non-financial counterparties used for example for hedging business risks and manage commercial price.<sup>161</sup>

EMIR requires both financial and non-financial counterparties subject to the clearing obligations to have risk mitigation arrangements in place for any OTC derivatives contracts not centrally cleared.<sup>162</sup>

- Trade Repositories:

EMIR requires financial counterparties to report the details of any OTC derivatives contract entered into, and modification or termination of them to trade repositories which are equivalent to swap data repositories under the Dodd-Frank Act.<sup>163</sup> the data reported to a trade repository would be accessible by regulators and if a trade repository

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<sup>158</sup> Ibid

<sup>159</sup> Financial Counterparty is defined in the EMIR as including investment firms, credit institutions, insurers, undertakings for collective investment in transferable securities and alternative investment fund managers.

<sup>160</sup> EMIR, Article 7

<sup>161</sup> Ibid

<sup>162</sup> Ibid, Article 8

<sup>163</sup> Ibid

were unable to record those details of an OTC contract, the report would need to be made directly to the relevant national regulator.<sup>164</sup>

## **Chapter V**

### **Comparison of the US and the EU Regulatory**

#### **Approaches**

##### **A) Advantages of the US and the EU Regulatory Requirements:**

The recent experience of credit crunch led to the search for a new market mechanism that is able to prevent and minimize the probability of occurrence. At the crisis time, almost all policy makers and regulators of major financial markets identified common deficiencies in OTC

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<sup>164</sup> Ibid

derivatives markets and have adopted similar regulatory policies. These proposals are embedded in various pieces of legislations, as mentioned before, such as the Dodd-Frank Wall Street Reform and Consumer Protection Act and the new European Market Infrastructure Regulation (EMIR).

These similar regulatory approaches have some common advantages and backwards. To advance understanding of them, this chapter addresses the essence of the new institutions and then discusses their effects.

#### 1-Central Clearing:

Clearing is a post-trading process by which transactions are processed in preparation for the transfer of ownership of the product and the fulfillment of all obligations. Central counterparties (CCPs) aim is to increase the likelihood that payment of contracts will be made.

Derivatives payments depend on some market price such as interest rate and bankruptcy. There is always the risk that counterparty will be unable to meet its payment obligations (default risk). The CCP stands between the parties and takes on their respective counterparty risk.<sup>165</sup>

Widespread defaults on derivatives contracts harm more than the counterparties on the default contracts and the losses of original default may be so severe that force them into financial distress, thus

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<sup>165</sup> Daniel Heller and Nicholas Vause, "Expansion of Central Clearing", Bank for International Settlements quarterly Review (June 2011) P 67

will harm other counterparties to derivatives on which they owe money.<sup>166</sup>

### 1.1 Functions of Central Clearing:

- Mitigating Default Risk

The principle risk that the OTC derivatives contracts which CCPs seek to address is counterparty credit risk. The CCP's intermediation between OTC contracts and becoming seller to every buyer and the buyer to every seller and face substantial counterparty risks. This is partially mitigated by collateral (margin) which CCPs demand from counterparties through the netting of positions.<sup>167</sup> Netting, generally, is settlement of mutual obligations between OTC parties with a third party (clearing house). In other word, parties to the OTC contracts enter into off-setting transactions. In the default case, off-setting contracts and amounts are typically netted. The CCP replaces these bilateral agreements between buyers and sellers, then net out these off-setting transactions.<sup>168</sup> This netting can be across positions and exposures of default, thus derivatives counterparties lose less in the event of default.<sup>169</sup>

Collateral (margin) is used to cover some or all of the credit risk of the counterparty.

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<sup>166</sup> Craig Pirrong, "The Economics of Central Clearing: Theory and Practice", ISDA Discussion Papers Series (May 2011) P 6

<sup>167</sup> OTC derivatives CCPs affect and reallocate default losses in a variety of ways, including, netting, collateralization, insurance, equity and mutualisation. Netting of positions, exposures and cash flows reduce the potential magnitude of default losses. Collateral, equity and mutual risk sharing arrangements allocate default losses among various participants in the clearing system. These are typically referred to as the elements of CCP's default risk 'waterfall' which default losses absorbed sequentially by the different stages of the waterfalls. See Ibid

<sup>168</sup> Ibid

<sup>169</sup> Ibid

*“The value of derivatives contracts vary with market conditions and prices. Changes in market conditions subsequent to the creation of a derivatives contract tend to cause the contract to become an asset to one party and liability to the other. If the party for whom the contract is a liability defaults, its counterparty is at risk to losing some or all of the value of the contract. Parties can reduce the losses they suffer in the event of default by posting collateral....., the victim of a default can seize the collateral posted by the defaulter to cover some or all of the*

*Amount owed by the latter”*.<sup>170</sup>

The level of OTC derivatives contracts’ collateralization determines the likelihood the credit losses arising from default.

Some CCPs provide insurance that covers losses which are in excess of the defaulter margins. Most CCPs have insurance against some operational risks too.

Some CCPs members agree to absorb default losses. The CCP requires its member firms to contribute to a default fund. Default fund is a mechanism for mutualizing counterparty risk and losses excess of defaulter margin and default fund contribution are drawn from the general default fund.<sup>171</sup>

- Managing Default:

One of the major roles of CCPs is managing counterparty default. In the event of default, the defaulter’s counterparties need to replace the

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<sup>170</sup> Ibid, P 7

<sup>171</sup> Ibid, P 9

defaulted contract. Hence, every CCP has a detailed set of procedures on how to manage the defaulted state. Default of sophisticated trader may lead to large price moves, thus impacts prices adversely. In OTC markets, these large price movements may occur during struggle for the replace the defaulted positions, therefore causes large market moves.<sup>172</sup>

*“Since stress is often caused by significant economic shocks (such as Russian default) these replacements of defaulted contracts often occur*

*when markets are already liquid. This in turn, makes the replacement process more difficult and can exacerbate the price impacts of replacement trades.”*<sup>173</sup>

By netting of positions across multiple parties, CCP reduces the total positions that need to be replaced. In this manner, CCP reduces the disruption of replacement of defaulted positions. Also, CCP can transfer customer position from unsafe CCP to financially sound member firms. This helps parties to trade unhindered by default of their clearing.<sup>174</sup> Moreover, CCPs’ auctioning-facilities facilitate replacement of defaulters’ contractual obligations. This auction mechanism helps to maintain liquidity of the CCP than uncoordinated replacement of positions during periods of pronounced uncertainty.<sup>175</sup>

## 1.2 Effects of Central Clearing:

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<sup>172</sup> Ibid

<sup>173</sup> Ibid, P 1

<sup>174</sup> Ibid, P 11

<sup>175</sup> Bruce Greenwald and Jeremy Stein, “Transactions Costs, Market Crashes and the Role of Circuit Breakers”, 64 Journal of Business (1991) P 443

Historically, CCPs were not designed as macro-prudential institutions to improve the stability of the financial system. It was created by some exchanges to save members by managing default risk.<sup>176</sup> The importance of CCP will be more revealed and exposed as a result of the Dodd-Frank and EMIR regulating initiatives that mandate clearing of large number of OTC derivatives. So, there will be more clearing houses.

The new regulatory approaches explicitly made CCPs as macro-prudential institutions with an impact to the safety of the financial markets.<sup>177</sup>

- Transparency:

The prime objective of any financial regulatory institution is to preserve financial stability and maintain confidence in the system and protect customers from exposures. Disclosure of information and transparency have very vital role to meet these primary goals. CCPs have a significant role on disclosure of information and providing transparency for the financial system.

Transparency is a prerequisite for good governance and sound financial regulation.<sup>178</sup> The movement of the OTC contracts data to CCPs facilitates disclosure of positions and risks to regulators.<sup>179</sup> By knowing holders of the positions in the OTC derivatives contracts and also

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<sup>176</sup> Craig Pirrong, *Ibid* P 11

<sup>177</sup> *Ibid*

<sup>178</sup> Ralf H. Weber and Christine Kaufman, "The Role of Transparency in Financial Regulation", 179 *Journal of International Economic Law* (2010) P 1

<sup>179</sup> Information disclosure and transparency serve a variety of very important purposes in modern market economics. For this reason can be argued that transparency constitutes public good. See Milions Avgouleas, "Market Accountability and Pre- and Post-trade Transparency: The Case for the Reform of the EU Regulatory Frameworks" Part 1, 162 *Company Lawyer* (1998) P 1



knowledge about contractual terms, CCPs assist regulators in preventing and managing risk exposures.

The opacity and individualization of OTC markets has led to recent financial crisis. Regulators did not know the amount and parties of the contracts to understand the implications of the collapse of financial entities, therefore they were not able to respond to the crisis timely and properly.<sup>180</sup>

Transparency cannot be achieved only through the information available to a given CCP, because it does not give a comprehensive and genuine picture of the risk in the financial system as a whole. The multiple CCPs information must be obtained to construct a real picture of risk exposures and presenting resolutions. Moreover, due to use of cleared and non-cleared derivatives together by some investors, CCPs cannot provide complete information on positions of all derivatives and the risk exposures. Thus, they should establish a cooperative mechanism with repositories to complete regulatory data.

- Reducing Probability of Systemic Risk:

As mentioned, lack of liquidity and transparency are important sources of systemic risk. Lack of liquidity results in halted credit and infeasible trading markets, while lack of transparency, due to unsafe and trustless market leads to fragile contractual relations. Both can pave the way to huge failures and systemic risks. Transparent and liquid financial markets are less prone to such systemic threats. The shift of OTC derivatives trading from customized and individualized state to

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<sup>180</sup> Craig Pirrong, Ibid p 20

standardized and more centralized one helps to reduce the possibility of systemic risk exposures.<sup>181</sup>

CCP is able to monitor the riskiness positions of OTC derivatives counterparties. CCP is counterparty to all contracts and can review whether partners are taking large positions on one side and building up risk. Thus, the concentration of default risk is transparent and helps to monitor and prevent triggering of contagious collapse of financial system. CCP as counterparty has incentive to monitor and assess all counterparties. It protects itself by risk premium for trading with a risky counterparty.<sup>182</sup>

CCP may have large economic of scale. And most of them that conducted trades can be off-set against one another. Thus, the Volume of net payments that must occur on any given day are only a fraction of the gross value of the trades.<sup>183</sup>

## 2-Supervision:

The triggers of current financial crisis are multi and complex. Global macro-economic imbalances and excess financial innovations in financial products with failures in regulations and supervisions combined and result in the mess in the financial industry.

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<sup>181</sup> As mentioned earlier, disclosure as a primary market regulatory mechanism can provide more transparent market. In the context of systemic risk, market participants are motivated to protect themselves, but not the system as a whole. Requiring non-public entities such as hedge funds to disclose their contracts terms individually would do relatively little to deter systemic risk. Therefore, requiring all financial entities to centralize their OTC contracts and details of them on a central clearing house as a public entity, would be a positive mechanism to reduce probability of systemic risk exposure. See Steven L. Schwarzl, Ibid p 218

<sup>182</sup> Ibid

<sup>183</sup> Ibid PP 34-36

The terms regulation and supervision are used interchangeably, but they are conceptually different. Supervision has to do with monitoring and enforcement, but regulation with rulemaking.<sup>184</sup>

*“Regulation as actual hard rules that are written down and supervisions as the application of those rules to a particular firm or group of firms*

*And governing there making sure that they are following those rules”<sup>185</sup>*

It is submitted that the crisis is as much as about the supervisors’ imperfect understanding and enforcement of the existing rules as it is about these defective rules.<sup>186</sup> However, it is suffice to recall that the financial system was stringently regulated and if the reason of financial system predicament cannot have been the lack of regulation, the answer could be in adequate supervision.<sup>187</sup> Even the most vigilant supervisors were unsuccessful at detecting signs of systemic risk.

The modern financial system main deal is with risk taking issues, thus an efficient supervisory system should sufficiently focus on risk and systemic risk exposure. The notion of systemic risk has great deal with financial stability as the common goal of regulators and supervisors. Supervision should ensure that financial institutions follow rules correctly and uniformly, which they efficiently manage their risks and adhere to minimum standards.<sup>188</sup> The work of supervisory body consists of:

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<sup>184</sup> House of Lords, European Committee, “The Future of EU Financial Regulation and Supervision”, 14<sup>th</sup> report (2008-9) p 11

<sup>185</sup> Ibid

<sup>186</sup> Phoebus Athanassiou, “The Role of Regulation and Supervision in Crisis Prevention and Management: A Critique of Recent European Reflections”, 501 Journal of International Banking Law and Regulation (2009) P 2

<sup>187</sup> Ibid

<sup>188</sup> House of Lords, Ibid

*“1-Licensing-the granting of permission for a financial institution to operate within its jurisdictions, 2-oversight-the monitoring of asset quality, capital adequacy, liquidity, internal controls and earnings, 3-enforcement-the application of monetary fines, penalties to those institutions which do not adhere to the regulatory regime, 4-crisis management-including the institution deposit insurance such as, lender of last resort assistance and insolvency proceedings.”<sup>189</sup>*

A distinction is now made between macro- and micro-prudential supervision. Financial stability requires the implementation of macro-prudential supervision alongside the micro-prudential supervision of financial institutions.<sup>190</sup>

Macro-prudential supervision aim is to clarify the risks of the system and define corrective measures. This mission naturally falls into central banks and other macro-economic institutions.<sup>191</sup> Macro-prudential supervision also should assess the practices of unregulated markets, such as OTC derivatives to prevent systemic risk occurrence.<sup>192</sup>

The efficient supervisory policy implements macro- and micro-prudential supervision mechanisms together.<sup>193</sup>

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<sup>189</sup> Ibid, P 12

<sup>190</sup> Macro-supervision is the analysis of the trends and imbalances in the financial system and the detection of systemic risk that these trends may pose to financial institutions and the economy. Micro-supervision is a day-to-day supervision which evaluates each institution independently. The focus of micro-prudential supervision is safety and soundness of individual institutions and consumer protection.

<sup>191</sup> The need and methods to improve macro-prudential supervision, Euro Finance available at [www.eurofi.net/pdf/2008/feb2009/eurofi\\_report\\_3\\_macropru-dential\\_04.0202.pdf](http://www.eurofi.net/pdf/2008/feb2009/eurofi_report_3_macropru-dential_04.0202.pdf)

<sup>192</sup> Ibid

<sup>193</sup> As the De Larosiere report included: *“The present EU supervisory arrangements place too much emphasis on the supervision of individual firms, and too little on macro-prudential side. The fact that this failing is duplicated elsewhere in the world makes it a greater, not a lesser, issue. The group believes to be effective macro-prudential supervision must encompass all sector of finance and not be confined to banks, as well as the wider macro-economic context. The oversight also should take account of global issues”*. See High Level Group on Financial Supervision, Chaired by Jacques De Larosiere (Feb 25 2009) PP 39-40

As mentioned before, at the EU level, on September 15, 2010 the commission published legislative proposal on OTC derivatives (EMIR) which envisages a key role for ESMA.<sup>194</sup> ESMA will be responsible for

Identification and supervision of contracts that will be subject to the clearing obligation and also will be responsible for supervision of trade repositories and will be a member of the college supporting national authorities supervising CCPs operating in several member states. The ESMA also will produce a large number of specific technical standards for the application of regulation, such as clearing and information thresholds.<sup>195</sup>

About fiscal responsibility of a failure of a CCP was established and work in a member state, the national supervisors retain responsibility for CCPs supervision. But EMIR foresees that if CCPs offer services in several member states, the national supervisors will be supported by a college of relevant supervisors.<sup>196</sup>

At the US context, title I of the Dodd-Frank Act addresses the issue of financial stability and systemic risk by establishing the Financial Stability Oversight Council (FSOC) to broadly oversee the financial services industry, monitoring systemic risk and promote market discipline.<sup>197</sup> it has broad duties including, monitoring risk, domestic and international regulatory proposals and facilitating information sharing.<sup>198</sup> it has also broad power to collect information from all financial institutions.

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<sup>194</sup> The EMIR fundamental concepts are in De Larosiere report. In Oct 2008 the Group was asked by commission to make proposal to strengthen supervisory arrangements covering all financial sectors, with the objective of establishing a more efficient, integrated and sustainable European system of supervision.

<sup>195</sup> EMIR, Ibid and ESMA, Ibid

<sup>196</sup> Peter Snowden and Simon Lovegrove, "The New European Supervisory Structure", Compliance Officer Bulletin (2011) p 34

<sup>197</sup> The Dodd-Frank Act, Title I

<sup>198</sup> Ibid

Subtitle B establishes the Office of Financial Research (OFR) as the information gathering and analysis body of the FSOC.

Section 725 that a depository institution or clearing agency must be

Under supervision of CFTC and SEC. under sections 727 and 763 of the Act, all swaps (cleared or nucleated) shall be reported to a registered swap data repository. Under title VII, the CFTC has authority over swaps, swap dealers and major swap participants, swap participants and derivatives clearing organizations. The SEC has authority over security-based swaps and swap dealers and major security-based participants and data repositories and clearing agencies.<sup>199</sup>

## **B) Costs of the US and EU Regulatory Approaches:**

Despite significant advantages and improvements in new regulatory approaches, there are likely due to their significant differences, some costs will be generated. A concern of many market participants is the possibility of comply with both sets of regulations. They will have some inconsistencies in parts and will have extra-territorial impacts.<sup>200</sup> It is possible that a certain amount of regulatory arbitrage may result. The following section examines some costs of new approaches.

### **1-Regulatory Arbitrage:<sup>201</sup>**

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<sup>199</sup> The Dodd-Frank Act, title VII

<sup>200</sup> Antony Brycson, "Clearing OTC Derivatives: The Dodd-Frank Act and The New EU Regulation" (Jan 2011) available at <http://crossborder.practicallaw.com/1-504-8968#a616208>

<sup>201</sup> "Regulatory arbitrage is a perfectly legal planning technique used to avoid taxes, accounting rules, securities disclosure and other regulatory costs. Regulatory arbitrage exploits the gap between the economic substance of a transaction and its legal or regulatory treatment, taking advantages of the legal systems' intrinsically limited ability

Regulatory arbitrage is a professional skill specific to lawyers. Lawyers

Help their clients navigate the complex regulatory schemes that may apply to the transaction. Regulatory arbitrage can take place in one of these three conditions: 1-regulatory regime inconsistency: the same transaction receives different regulatory treatments under different regulatory regimes, 2-economic substance inconsistency: two transactions with identical cash flows receives different regulatory treatment under the same regulatory regime, 3-time inconsistency: the same transaction receives different regulatory treatment in the future than it does today.<sup>202</sup>

The US reform was not negotiated in isolation. It was designed with the G20 partners to promote inter coordination of economic policy and regulatory response to the recent financial crisis. The US reform package hits G20 goals and provides a comprehensive regulatory package that examines all key issues identified at the international level.<sup>203</sup> however, all regulatory goals and tools at the international level are not coordinated and part of the lack of this policy coordination is rooted in the absence of detailed requirements for arriving at legislative solutions in the G20 nations.<sup>204</sup> The Dodd-Frank is in many respects yardstick for individual policy issues.<sup>205</sup>

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*to attach formal labels that track the economics of transactions with sufficed precision.”*, See Victor Fleischer, “Regulatory Arbitrage”, 98 Texas Law Review (2010) p 229; other scholars use a narrow definition: “Regulatory arbitrage consists of those financial transactions designed specifically to reduce costs or capture profit opportunities created by differential regulations or laws.”; See Frank Partony, “Financial Derivatives and the Costs of Regulatory Arbitrage”, 22 Journal of Corporate Law (1997) pp 222-227

<sup>202</sup> Victor Fleischer, Ibid PP 14-18

<sup>203</sup> Deutsche Bank Research, “US Financial Market Reform, The Economics of the Dodd-Frank Act”, (Sep 28 2010) p 17

<sup>204</sup> Ibid

<sup>205</sup> Ibid

Unlike the US, the EU legislative approach is to issue separate legislative proposals on individual measures. The both regulatory approaches are Guided by G20 agenda, but their substances of legislative proposals are different, which raised concerns over non coordination and probability of regulatory arbitrage.<sup>206</sup>

The proposed rules on dealers may force them to comply with daily monitoring requirements and face operational changes and collateral requirements which will impact prices and availability of OTC derivatives. Different regulatory approaches increase costs, therefore dealers and OTC trade participants for avoiding these costs, will try to escape from tough requirements of one and get to easier one.<sup>207</sup>

Another example is section 619 of Dodd-Frank Act, known as Volker rule, prohibits banking entities from engaging in proprietary trading activities. This rule applies to market-making related activities of banks which may:

*“negatively impact liquidity and volumes with the end-users of derivatives ultimately bearing increased costs.”*<sup>208</sup>

This regulatory requirement may open a track for regulatory arbitrage. The European investment banks would be likely the centre of market-

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<sup>206</sup> In contrast to the US which focuses on improving existing structures, the EU pursues a systemic overhaul of its institutional framework. The EU historically has more adherences to international standards and after the crisis the EU has continued to adopt and apply latest international principles. This facilitates cross-border transactions and capital flows within the EU. See Ibid P 20

<sup>207</sup> KPM Gintern, “Dodd-Frank Act: Is It Really Significant? Impact of US Regulation on Foreign Investment Managers and Funds” ,(2011) p 4 available at [www.kpmg.com](http://www.kpmg.com)

<sup>208</sup> J. P. Morgan Cazenore Group, “OW European Over US IBs”, Global Investment Banks, Regulatory Arbitrage Series (March 2011) p 22



making activities of the US investors.<sup>209</sup> The risky activities of banks on OTC derivatives transactions will continue and only the jurisdiction of Activities will change.

Both EMIR and the Dodd-Frank Act rules aim to achieve centralized clearing for standardized contracts, but the Dodd-Frank includes a broad class of activities including any contract that is or becomes commonly known to the traders swap.<sup>210</sup> Under the Act the treasury secretary can exempt some class of OTC derivatives from clearing obligation.<sup>211</sup>

The EMIR also includes a broad class of derivatives, but is limited to derivatives on specified underlying assets. The EU excludes some kind of physically settled commodity transactions, but the exceptions differ from the US.<sup>212</sup>

EMIR does not determine whether or not standardized derivatives contracts which are subject to mandatory clearing are also required to be traded on an exchange or electronic platform<sup>213</sup>, whereas MiFID applies to trading on exchanges or electronic platforms.<sup>214</sup> In contrast, the Dodd-Frank Act requires all derivatives which are eligible for

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<sup>209</sup> Because US banks revenues will be negatively impacted, but will overall benefit European bankers running their market-making and propositions out of Europe, See Ibid

<sup>210</sup> The Dodd-Frank Act, Title VI

<sup>211</sup> Foreign exchange swaps and forwards can be excluded from clearing requirements, but not the reporting and business conduct standards. Moreover, the Act excludes some kind of physically settled commodity, See Ibid

<sup>212</sup> The EU regulation does not cover spot foreign exchange transactions, commercial forward foreign exchange transactions, See EMIR, Ibid

<sup>213</sup> Because it applies only to post-trading systems.

<sup>214</sup> Directorate General for Internal Policies, European Parliament, "Derivatives, Central Counterparties and Trade Repositories", (Feb 2011) P 12

clearing, must be traded on an exchange or one electronic trading platform.<sup>215</sup>

## 2-Systemic Risk and Central Counterparties:

In the aftermath of the recent crisis, clearing has been advanced foremost as means of reducing systemic risk. Given the scale and scope economic, it is likely that the most CCPs will be large.<sup>216</sup> All sophisticated financial institutions will be more interconnected via their linkages and netting to CCPs, thus the failure of a large CCP would have highly adverse consequences. Moreover, the failure of a CCP member would trigger the spread of financial contagion across the financial system.<sup>217</sup>

*“Again, primary effect of clearing is to reallocate default losses: reallocation can be sufficiently enhancing, but it is not the something as eliminating these losses.”<sup>218</sup>*

As noted before, CCPs can mitigate the destabilizing effects of replacement of default positions by: a) position netting, b) transferring trades to solvent CCP members and, c) replacement of all defaulted trades through auctions.<sup>219</sup> On the other side, in time of stress, the rigid collateralization mechanisms and large price moves can exacerbate liquidity problems. Those who suffering large losses may liquidate

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<sup>215</sup> Ibid

<sup>216</sup> Craig Pirrong, Ibid P 35

<sup>217</sup> Ibid

<sup>218</sup> Ibid

<sup>219</sup> Ibid, P 36

losing positions to meet various margin obligations and to reduce exposure to the risk of subsequent margin obligations.<sup>220</sup>

Large variation margins would cause large increases in credit demand in stress market conditions. Under these conditions banks may decline extend credit due to high uncertainty and lack of information about solvency of institutions and thus may lead to closure of clearing houses (Due to failure to obtain credit),<sup>221</sup> and given the systemic nature of CCPs, this would spark systemic crisis.<sup>222</sup>

Moreover, liquidity shocks outside of derivatives markets can make CCPs vulnerable. The clearing and collateralization mandates will make assets immobilized and illiquid.<sup>223</sup> The high demand for liquid assets will increase the probability of liquidity shock world<sup>224</sup> wide and causing another systemic risk.

A CCP default may create a net of defaults. If a CCP's member be unable to meet its margin obligations (due to insolvency or insufficient liquidity), the CCP would have to call up on its equity or default fund and may obliged to additional capital requirements for members.<sup>225</sup> if all of these resources are exhausted, the CCP would default and due to its interconnected nature, would trigger systemic risk.

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<sup>220</sup> Craig Pirrong, "8 Ways Misguide Clearing Regulation can Cause Systemic Risk" (Jan 19 2010) available at <http://seekingalpha.com>

<sup>221</sup> Ibid

<sup>222</sup> Ibid

<sup>223</sup> Because they cannot be rehypothecated, See Craig Pirrong, "The Economics of Central Clearing: Theory and Practice", ISDA Discussion Papers (May 2011) P 36

<sup>224</sup> Ibid

<sup>225</sup> Ibid

In brief, the mandated clearing will have big affects on the allocation and total amount of risk in the financial system, but it will not eliminate risks and may create new risks which can spark another systemic risk.

## **Chapter VI**

### **Conclusion**

Efficient financial development depends on innovative financial policy which improves the flow of information and prevents triggering of systemic risk in the financial system. The excessive heterogeneity and complexity of new financial products, particularly OTC derivatives obscure risks in the financial markets. Complex OTC derivatives increased the opacity of financial markets and following the possibility of mistakes in using them.

Three characteristics of modern OTC derivatives have made establishing a comprehensive regulatory system difficult: 1-the modern Financial assets such as equity and currencies are underlying of the vast majority of modern OTC derivatives, 2-the increased diversity and complexity structure and 3-the boulder less jurisdictional application.

The US and the EU regulatory approaches intend to solve main inefficiencies in OTC markets such as asymmetries of information and expertise. They proposed dual-faced regulatory policies which apply public and private market participants' tools to cover and ameliorate failures. However, this requires a sustainable and cooperative regulatory mechanism by which flow of information be strengthened and helps to predicate and prevent occurrence of banking and financial system in future.

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