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The Central clearing of Over the Counter Derivatives
and the potential risks: The need for international
coordination for supervising and regulating clearing
houses

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Dissertation

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1. Introduction

In the recent past the financial markets landscape have considerably changed. From the early 80s onwards, the technological advances, the deregulation of national laws and the need of hedging risks that were emerging due to monetary instability, led to the development of a complex financial infrastructure of several levels of intermediaries, clearing houses and settlement banks, that structured, traded and managed complex financial instruments. Market participants realized on the one hand that they had easy access to different geographical and monetary markets which gave them the opportunity to reduce their portfolio risk and on the other that the existing, then, national regulations were inadequate to control their international investment activities. Regulations have remained a step back from the subject they were supposed to regulate. The magnitude of the risks entailed to the form that the financial markets have taken was revealed by the Global Financial Crisis 2007 (GFC), the aftermath of which we are now experiencing. The complex and customized financial instruments, the Over The Counter (OTC) Derivatives, which were meant to hedge risks, have become gambling tools in the hands of speculators worldwide and have connected the markets participants globally in a way that nobody and especially national supervisors could tell who was exposed and to what extent.

Better late than never the international community reacted to the contemporary historical event of the crisis and decided to target OTC derivatives products and equalize them, to the extent possible, with the less risky and more transparent exchange traded products. The way it chose to do that was, inter alia, to combine the risky OTC derivatives with the member of the financial markets infrastructure that its main function is risk

management. Clearing houses and central clearing are becoming an essential part of OTC derivatives trading.

Using as an example the regulatory initiatives in the United States (US) and the European Union (EU) this paper focuses on the risks that the international initiatives, in their current form, fail to combat or the new risks that arise. This paper first gives a general understanding of the types of OTC derivatives, explains their pre-crisis regulatory background and the role they played to the crisis and the hidden risks that the crisis revealed. Second, it explains the regulatory framework of clearing houses as central counterparties for OTC derivatives transactions and sets, in a comparative way, the relevant national regulations in the EU and the US. Third it examines the risks that the international initiative entails per se but also those deriving from the inconsistencies among the nationally adopted regulations. Finally, it proposes as solutions to these risks the international coordination of the national competent authorities, both in their capacity as regulators and as supervisors, and highlights the additional need for the coordination of substantive national laws.

2. Derivatives and their Distinctions

2.1. What are Derivatives?

A derivative product is a financial product, in a contractual form, the value of which is derived from another financial product¹ also known as “the reference asset”. The “reference assets” are usually shares, bonds, commodities securities or even the interest in an existing loan. The kind of obligations that these contracts create for their counterparties is the element on which the distinction of the type of derivatives is based. The basic types are options, futures, forwards and swaps. Any other, more complex, derivative product adopts its main characteristics

¹ Hudson Alastair, “The Law of Financial Derivatives” London Sweet & Maxwell, 2006, p. 13; Wood, Philip “Set off and Netting, Derivatives, Clearing Systems”, London: Sweet and Maxwell 2007, p. 197; D’ Souza, Frank, “Illuminating the Need for Regulation in Dark Markets: Proposed Regulation in the OTC Derivatives Market” 12 U.Pa.J.Bus.L 473 2010-2011, p. 479.

from these basic types². More specifically, an option is a contract which gives the right to one party to choose whether to buy (call option) or sell (put option) the reference asset on a specific date in the future and at a specific price, determined at the time of the contract, whereas obliges the other party to sell (call option) or buy (put option) should the other party decide to exercise its right. A future on the other hand does not give an option. It creates the obligation to a counterparty to buy and the other to sell at a specific future date and at a specific price³. Finally, a swap is an exchange of preexisting obligations between two parties. The most common swap agreement is the interest rate swap, in which, for example, a party that has entered a loan agreement with a floating interest rate and its counterparty has entered a loan agreement with a fixed interest rate, while maintaining their obligations towards their lenders, swap their interest rate with each other so that the one that had originally the floating rate, usually an entity with low creditworthiness, unable to borrow at a fixed rate, ends up paying a fixed interest rate. In that way it mitigates the risk of paying a high interest rate. The payable amount to the counterparty is equal to the fixed rate plus an additional amount⁴. Although the interest rate swap agreements are the most common due to the fact that interest rate concerns businesses of any sector, the most popular swaps nowadays are the credit swaps and particularly the Credit Default Swaps (CDS). Their relation to the GFC has made them known to people outside the investment industry. CDSs are similar in their functions as insurance contracts. A protection buyer, who usually owns an asset, pays a fee to the protection seller in order for the latter to pay the former in the case of a credit event, usually a default, concerning the owned asset. Under a CDS contract, a bond holder,

² Schwartz Robert F, "Monitoring a Game of Winks Nods and Risk: Derivatives Regulation in the EU and Poland, 2Int'l & Mngm Rev.233 2005-2006, p. 239

³ See note 2, p. 240

⁴ See note 1 Wood Philip p. 199; Scott, Hal, "International Finance: Transactions, Policy and Regulation", New York, Foundation Press 2010, p. 835

for example, insures his investment, should the bond issuer, i.e. the “reference entity”, defaults⁵. The amount of the paid periodic fee to the protection seller is an indication of the creditworthiness of the reference entity.

The description of derivatives products makes clear that they give the opportunity to investors to mitigate the risks that their original investments may pose. It is a fact that all derivatives types can play a significant role in hedging and transferring risks and thus promote the orderly function of the financial markets since they help financial entities and investors to manage their risks conferring this way balance to investments, liquidity to the market and access to more capital. Derivative products can also be used to hedge risks deriving from other derivative contracts⁶. Although the choice of the derivative product used, the form that it will finally take in order to adequately hedge the specific risk, each time, depends on several market factors, such as the current price and its volatility, that help predict future markets movements, events that can trigger a change to the anticipated course of the market cannot always be foreseen. It seems then that there is always a degree of speculation when entering a derivative contract for hedging risks which shows that derivatives can be risky themselves and thus confer losses. Speculation is an inevitable element in the process of constructing a derivative product and even when there is no underlying risk to hedge it is proven useful because without speculators investors would not find counterparties willing to absorb their risks. It becomes problematic, though, when it becomes a betting game with no rules that allows speculators to take excessive risks, as was the case with the GFC.

Moreover, derivatives give the opportunity to investors to evade national regulation by issuing for example a bond in a market with a favorable regulatory regime but in a non

⁵ See note 1 Wood Philip p. 206

⁶ See note 1 Wood Philip p. 211; Hudson Alastair p. 18

preferential currency and then swap to the desired currency by entering into a currency and interest rate swap⁷.

2.2. Exchange Traded and OTC Derivatives

Derivatives contracts are also divided in exchange traded and OTC derivatives. The distinction lies upon the standardization of the contracts. Futures and options, in their simplest form, as it was described above are traded in exchanges. The terms of such contracts are predetermined, leaving to the parties to negotiate the price and the quantity of the underlying asset⁸. Counterparties to exchange traded derivative contracts have to comply with both stricter regulation and the rules of the particular exchange⁹, which restrict the flexibility of the contractual negotiations, set limits on the number of investment positions, impose costs such as the margin requirements, set reporting requirements and clearing obligations. Although the exchange traded derivatives seem very restrictive, they have advantages that could be of significant importance for the financial market as a whole.

By contrast, derivatives which are not accepted for trading in exchanges, due to their complexity, are traded over the counter¹⁰. This practically means that they are bilaterally negotiated contracts that allow their counterparties to customize them and thus accomplish a more efficient risk management strategy, targeted to their specific needs. At the same time, though, the parties are being exposed to the counterparty credit risk, since on one hand there is no transparency, fact that prevents the accurate estimation of the creditworthiness of the

⁷ See note 1 Wood Philip p 211; Hudson Alastair p. 22

⁸ See note 2 Schwartz Robert, p. 241

⁹ Rulebook NYSE LIFFE US, 31/5/2011, available at https://globalderivatives.nyx.com/sites/globalderivatives.nyx.com/files/liffeus_rulebookmar29.pdf (cited on 4/8/2012)

¹⁰ See note 1 D' Souza Frank, p 483

counterparty, and on the other no or inadequate collateral deposited to act as a safety net in the event of default¹¹.

The main characteristics of OTC derivatives markets that differentiate them from the securities and the exchange traded derivatives markets are that the total quantity of OTC derivatives contracts traded daily is very high, they have long maturity dates, they are mostly traded by large financial institutions, the vast majority of interest rate swaps is traded in four currencies, US dollar, euro, yen and sterling and specific contracts, mostly credit swaps are not traded frequently¹².

3. Regulatory History of Derivatives at Nationals (EU/US) and International Levels

Examples of derivatives laws from the recent history are in the UK and the US the Barnard's Act of 1977 and the Anti-Gold Futures Act of 1864, respectively. The former outlawed a practice followed when trading with equity derivatives that now would have been called an option and the latter, as its name reveals, prohibited future contracts on gold¹³. Relevant laws on derivatives followed in the US but what could be described as a regulatory predecessor of the pre GFC 2007 was initiated after the Great Depression of 1929, when in the US a number of laws were enacted on securities trading in general but also on derivatives in particular. The most important ones were the Securities Act 1933, the Securities Exchange Act 1934 and the Commodity Exchange Act (CEA) 1936 which had as a main goal to protect US investors. Disclosure of information related to first issues of securities and to those traded on the secondary markets, as well as liability for

¹¹See note 1 D' Souza Frank, p 483

¹² Sidanius, Che et al, "Thoughts on Determining Central Clearing Eligibility of OTC Derivatives", Financial Stability Paper No 14, March 2012 at p. 5,6 available at http://www.bankofengland.co.uk/publications/Documents/fsr/fs_paper14.pdf

¹³ Gogel Jeremy, 'Shifting the Risk to the Dumbest Guy in the Room' Derivatives Regulation after the Wall Street Reform and Consumer Act, 11 J Bus. & sec L. 1 2010-2011, p. 12,13

fraudulent behavior and misleading information were the main objectives of the first two. Similarly, the CEA 1936 adopted registration requirements for brokers, measures for restricting the manipulation of trading and gave the relevant authority the right to set position limits on trading¹⁴. Especially on the first two Acts amendments were made but not only did these two objectives remain the same; they have also become the core of national or regional capital markets regulation worldwide¹⁵. Although on an international level the main purpose of financial regulation was to protect investors, it seems that in the 1980s, albeit never admitted, and with the excuse that markets can be efficient and rational¹⁶, regulators gradually started to take another direction towards becoming competitive in the international financial markets arena that has been formed in the 1960s with the emergence of euromarkets. The opportunity of holding dollars or issuing dollar denominated bonds outside the US was really appealing since one could benefit from the advantages of the dollar currency avoiding at the same time unpleasant US regulation. After 1973, when the Euromarkets expanded due to the abandonment of the fixed exchange rate, the international competition of deregulation began.

At the same time, in the EU, as far as derivatives are concerned there was not a specific regulation or directive in the EU. Especially the OTC derivatives market was not regulated. There are only specific provisions contained in other European laws, such as Directive 92/49/EEC about direct insurance, which permitted insurance companies to engage to derivatives trading only for

¹⁴ See note 13 Gogel Jeremy p. 18,19

¹⁵ Mollers, Thomas M.J., Investor Protection in the System of Capital Markets Law: Legal Foundation and Outlook N.C.J. Int'l L. & Com.Reg. 57 201-2011, p.59

¹⁶ The Turner Review, March 2009: A Regulatory Response to the Global Banking Crisis, p. 39
http://www.fsa.gov.uk/pubs/other/turner_review.pdf

the purpose of hedging¹⁷ or the 2002/47 Directive on financial collateral agreements which mandates for exchange traded derivatives to use a CCP, or a settlement agent¹⁸.

Finally, in 1999, following the EU's model¹⁹, the US Financial Services Modernization Act gave the right to banks to underwrite securities and brokerage firms to acquire banks²⁰. Additionally, the CEA 1936 was amended by the Commodities Futures Modernization Act which allowed sophisticated investors to trade OTC derivatives without being regulated. Bilateral contracts, negotiated individually by eligible participants that are not traded on a trading facility were excluded from the CEA's reach,²¹ completing this way the deregulatory picture that had started in the 1980s.

4. The Role of OTC Derivatives in the Global Financial Crisis

The financial crisis of 2007 arose in the US and spread globally, and particularly in the EU where the consequences were much more severe than anywhere else, since the eurozone sovereign debt crisis was triggered. The connection of OTC derivative products with the crisis and its magnitude has several dimensions. The most apparent one was the CDS connection both with the housing bubble in the US and the sovereign debt in the EU.

4.1. The US Housing Bubble and the EU Sovereign Debt Crisis

US banks, taking advantage of the bubble in the housing markets, started minimizing their mortgage lending standards, approving loans to people who could never repay them. This practice

¹⁷ See note 2 Schwartz Robert p. 250

¹⁸ See note 2 Schwartz Robert p. 254

¹⁹ Foster, Sharon E. "Too Big to Fail – Too Small to Compete: Systemic Risk should be Addressed through Antitrust Law but such a Solution would only Work if it is applied on an International Basis", 22 Fla. J. Int'l L.31 2010

²⁰ Stoltenberg Clyde et al., "The Past Decade of Regulatory Change in the US and EU Capital Markets Regimes: an Evolution from National Interests towards International Harmonization with Emerging G 20 Leadership", 29 Berkeley J.Int'l L. 577 2011, p. 582,583

²¹ See note 13 Gogel Jeremy, p24

was based on the fact that they could legally structure loans and the default risks deriving from them into collateralized debt obligations (CDOs) and sell them as financial investment products²². Moreover, CDO investors insured the default risk these instruments entailed through CDSs. When, inevitably, the house market failed and the time for the CDS's sellers had come to pay, they did not have the capital to do so, since CDSs do not have mandatory collateral requirements²³, fact that gave the freedom to the industry to insure the same risk more than once. At this point, many "too big to fail" financial institutions that had made investments in the housing market and the OTC derivatives connected to them were asked by investors, due to their credit downgrading, to add further collateral for which they did not have the capital. Lehman Brothers was one of these companies and its default in September 2008 froze the markets worldwide, revealing the interconnectedness of the financial industry and the systemic risk entailed in the failure of such a company. Only then did it become clear how much European banks were exposed to US and EU mortgage connected OTC derivatives, the deregulated nature of which made it impossible to know who and to what extent was involved with them²⁴. The simultaneous effort of the financial institutions to sell their mortgage linked assets in order to meet their collateral requirements and the lack of buyers, reduced prices and consequently threatened exposed banks with insolvency, forcing governments to bail them out, in the expense of their tax payers²⁵.

²² EU High-Level Group on Financial Supervision (de Larosiere Group), p. 7, available at http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf

²³ Sharma, Seema G., "Over – The – Counter Derivatives: A New Era of Financial Regulation", 17 Law & Bus. Rev. Am. 279 2011, p. 291

²⁴ See note 23 Sharma Seema, p. 293

²⁵ Carlin, Wendy, "10 Questions about the Eurozone Crisis and Whether it Can Be Solved", UCL European Institute, September 2011 p. 2, available at http://www.ucl.ac.uk/european-institute/comment_analysis/eurozone/2011_09_WCarlin_Eurozone_layout.pdf

In the EU and particularly in the Eurozone the bail out of banks caused the additional problem of the sovereign debt of certain member states, such as Ireland²⁶, for which the bailout cost was excessive in comparison with their economic size creating, a fiscal deficit²⁷. The GFC exposed the danger that derives from the national fiscal autonomy of the member states, that of insolvency. The perception market participants had for euro denominated bonds changed. They stopped considering them as bonds backed by the creditworthiness of the Eurozone as a whole. Instead, they regarded them as bonds backed by the member state that issued them. Government bonds were downgraded by the Credit Rating Agencies (CRAs) and thus it became expensive for the issuing countries to borrow money²⁸. Similarly to the mortgage backed securities, CDSs that had as reference assets bonds issued by eurozone countries with sovereign debt problems have become high risk and high yield financial instruments. Regulators worldwide are left in the dark about which financial institutions and banks, based at their countries, are exposed to the Eurozone sovereign debt and would potentially need to be bailed out again in the case of a default within the Eurozone.

Moreover, derivatives' connection with the crisis in the EU has an additional dimension. It has been revealed that in 2001 Greece, which was then exposed to foreign currency debt that had to be converted into euros, in compliance with EU rules, entered into currency swap contracts with Goldman Sacs. These transactions gave Greece the opportunity to reduce its debt in a plasmatic way and consequently to borrow even more money since the obligations which were created by the swaps were no longer considered liabilities²⁹. Once again, the deregulated

²⁶ Country that did not have government deficits before the global financial crisis, see note 25 Carlin Wendy, p. 3

²⁷ See note 25 Carlin Wendy, p. 3

²⁸ See note 25 Carlin Wendy, p. 4

²⁹ Louise Story, Landon Thomas and Schwartz Nelson, "Wall Street Helped to Mask Debt Fueling Europe's Crisis" N.Y. Times, February 13 2010 available at http://www.nytimes.com/2010/02/14/business/global/14debt.html?_r=1&pagewanted=all;

derivatives market kept the EU as well as investors in the dark about Greece's actual debt and thus creditworthiness. According to Goldman Sachs EU countries used that kind of transactions to cover their debts³⁰.

It is apparent, that the deregulated OTC derivatives market facilitated the uncontrolled risk taking, creating at the same time connections among market participants as well as the coverage of the sovereign European debt misinforming investors on the creditworthiness of their counterparties. The revelation of that debt gave the final hit to the already shaken Eurozone.

4.2. Risks Revealed

The GFC revealed in the cruelest way the interconnected risks entailed in the deregulated financial market in general and of the OTC derivatives in particular. The most apparent one, due to its catastrophic effect, is the systemic risk, the fact that financial institutions were interconnected to such an extent that the failure of one institution could trigger the failure of others. The reason for that was that the failing institutions were too big and too exposed. The "too big" part was facilitated by allowing commercial banks to offer investment business. Investment banks started merging with commercial banks acquiring that way tremendous size. The implications of the failure of such a financial institution reached not only investors but simple depositors and finally the society as a whole. The "too exposed" part was facilitated by the deregulated OTC derivatives market. The inevitable exposure to the counterparty credit risk, to the risk that the other party will default before

Chambers Alex, "Goldman Sachs Details 2001 Greek Derivative Trades", Reuters February 22 2010 available at <http://www.reuters.com/article/2010/02/22/goldman-sachs-greece-derivatives-idUSLDE61L1KH20100222>

³⁰ See note 29 Reuters

fulfilling its duty to pay, poses to the non defaulting party replacement costs³¹. The degree of the replacement cost risks that were present, although not identified, before the GFC would have been mitigated if it had not been for the concentrated CDS market. The fact that in the US in 2009 exposures to credit derivatives were concentrated to five large banks and that 10 large banks were counterparties of the 72% of the credit derivatives³² shows, not only that the risks of those financial instruments is concentrated in few large market participants but also that the failure of one affects the terms of the derivative contracts of the others.

Furthermore, the crisis exposed the corporate governance failure of the major market participants. Their management employed high risk practices, engaging to complex financial structures, the risks of which they were usually aware of, even though the flow of information was inadequate for the board of directors to be updated and monitor these practices effectively³³. The adoption of such policies are linked to the practices of remuneration of the board of directors but also the bonuses of other, lower to the corporation's hierarchy, employees. Boards of directors failed to align the shareholders' interest with the corporations'. Short term, excessive risk - excessive profit strategies were preferred due to fast profit but also to the personal gain they entailed for individuals.

The exposed risks have shown the international character of the financial market and the inadequacy of national regulatory initiatives to protect their national markets and their national market participants. A credit event in an internationally linked institution can trigger the failure of another institution established in a different jurisdiction. It is irrelevant

³¹European Central Bank (ECB), "Credit Default Swaps and Counterparty Risk", August 2009, p. 20 available at <http://www.ecb.int/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf>

³² See note 31 ECB

³³ Kirkpatrick Grant, "The Corporate Governance Lessons from the Financial Crisis", OECD 2009, p.11 available at <http://www.oecd.org/finance/financialmarkets/42229620.pdf>

whether the latter's regulatory regime is robust or not. It has become apparent that national laws and national authorities are inadequate to deal with an internationally integrated financial market. This realization has initiated an international regulatory action taken by the G20. In September 2009 the G20 stated: "All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements"³⁴ and in 2010 emphasized the need of those measures to be taken, in order to "improve transparency and regulatory oversight of over the counter derivatives in an internationally consistent and non - discriminatory way".

5. Central Clearing

Before proceeding to the adopted regulations of two important jurisdictions, the US and EU, it is important to explain what is clearing and how it works. In relation to exchange traded derivatives or securities the trading process starts with the orders of two customers, the one who wants to buy a product and the one who wants to sell it, to their brokers, who in turn enter the order to a trading system and then the trade is executed on the exchange. After that, all the relevant information about the trade is collected, such as price and quantity, the trade is matched and several other functions occur. Finally, the deal is settled, i.e. the securities are delivered to the buyer and the fund to the seller. In this process "clearing" consists of all the functions that occur after the trade is executed and until is settled. These may include trade matching, the settlement of legal issues, reporting

³⁴ G20 Leader's Statement the Pittsburgh Summit, September 24 – 25 2009, p. 9 available at <http://www.g20.org/images/stories/canalfinan/docs/uk/02pittsburgh.pdf>

requirements of the trade, setting off and netting, collateral and margin management, becoming a central counterparty through novation³⁵.

Clearing services are provided by CCPs – clearing houses, which are separate legal entities usually owned by banks or exchanges³⁶. The main and probably most important function of the clearing process is when the CCP enters into two different contracts with the initial counterparties and becomes “the seller to every buyer and the buyer to every seller”³⁷. The buyer and the seller cease to have any obligations between them, since the clearing house takes that responsibility and absorbs the counterparty risk, making the trading of the transaction safer for the initial counterparties³⁸. In the event one of the counterparties defaults, the CCP will still have the obligation to pay the other. Consequently the main concern of a CCP is risk management. Only with adequate risk management are they able to fulfil their purpose and make trading more safe and efficient. There are certain techniques that help them accomplish that. First, the CCP should control the creditworthiness of its counterparty, which means that they should specific standards for accepting a clearing member (CM), method which both protects them from their risk exposure and promotes competition³⁹. These standards could be thresholds of capital requirements which vary depending on the type of traded products. Furthermore, CMs are required to deposit margins immediately after the execution of the trade and later on according to the value of the trade in the market. There is a requirement for clearing members to provide capital to a

³⁵ Bank Of International Settlement, Committee on Payment and Settlement Systems(CPSS), “Market Structure Developments in the Clearing Industry: Implications for Financial Stability” November 2010, p. 5 available at <http://www.bis.org/publ/cpss92.pdf>

³⁶ Johnson, Kristin, “Clearing House Governance: Moving Beyond Cosmetic Reform”, 77 Brook.L.Rev. 681 2011-2012, p. 296

³⁷ CPSS and International Organization of Securities Commission (IOSCO), “Recommendations for Central Counterparties”, November 2004 p. 1 available at <http://www.bis.org/publ/cpss64.pdf>

³⁸ See note 4 Scott Hal p. 554

³⁹ See note 37 IOSCO 2004 p.16

guarantee/default fund and that way the default losses are mutualized⁴⁰. Finally, CCPs have other economic functions that help them manage their risks. They net the amounts deriving from offsetting positions⁴¹, not only positions taken by two initial counterparties but also from their total offsetting positions that they have novated, called multilateral netting. They also have close out netting agreements which become effective after a defined “terminating event” occurs. All these risk management tools will act as buffers in case of a credit event.

5.1. Eligibility for Clearing

In order for the CCP to successfully implement the abovementioned risk management techniques, it is necessary for the relevant products to have certain characteristics. The most important one is standardization both of the contractual legal terms and definitions therein and of the processes. In the case of the former for example it would be almost impossible for the CCP to net positions and exposures of an asset class, such as options, if contractual terms like end and start date were different. Furthermore, the more standardized a derivatives contract is the more automated, faster and efficient the clearing process becomes and thus operational risks of inadequate systems are mitigated. The other prerequisite of product suitability is liquidity, which is interconnected to standardization, albeit not always, and facilitates CCPs’ risk management. Standardized products are preferred by investors and thus are more liquid. Liquidity reduces replacement cost risks and facilitates

⁴⁰ Pirrong, Craig, “The Economics of Central Clearing: Theory and Practice”, ISDA Discussion Papers Series, Number 1 – May 2011, p. 9 available at http://www.google.gr/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CFYQFjAA&url=http%3A%2F%2Fwww2.isda.org%2Fattachment%2FMzE0NA%3D%3D%2FISDAdiscussion_CCP_Pirrong.pdf&ei=MtswUL_NMIWI4gTus4GQCg&usg=AFQjCNFb7hpWPuFDUXv9r5n1QMOTvHX2fg&sig2=MpcaBdtqJBuOtcFfluCPKA

⁴¹ See note 40 Pirrong Graig p. 7; International Monetary Fund, “Making Over-The-Counter Derivatives Safer: The Role of Central Counterparties” Chapter 3 April 2010, p. 4 available at <http://www.imf.org/external/pubs/ft/gfsr/2010/01/pdf/chap3.pdf>

risk hedging for the CCPs because of the availability of counterparties and it allows, due to the frequency of the trades, better valuation of positions and prices⁴².

CCP's functions in relation to exchange traded derivatives and securities, is a fairly straightforward task. The standardization and centralization of exchange traded products, the liquidity of the relevant markets assist CCPs in doing their job right. The questions that arise then are whether the new role of clearing houses to clear OTC derivatives and to become an efficient risk absorber, can be fulfilled, whether they can help mitigate the risks revealed by the GFC and how will this new role affect the risks that a CCP deals with when clearing exchange traded products, such as operational and legal risks. Will the intense international character of OTC Derivatives expose CCPs and the market to additional risks?

6. International Regulatory Initiatives

In accordance with the G20 statement (See 4.2.) its members have already started to adopt and implement relevant laws and market participants have already started clearing OTC Derivatives. As far as the markets initiatives are concerned it is worth noting that 50% of interest rate derivatives and 10% of credit derivatives are already centrally cleared. In both cases substantial standardization of products and automation of processes has been achieved and are still in progress⁴³. The markets are getting ready for the new regulations and when they are finally implemented a substantial part of the work to be done in order to comply with them will have already been fulfilled.

⁴² See note 40 Pirrong Graig p. 17,18; See note 12 Sedanius Chep. 8,9

⁴³ See note 12 Sedanius Che p. 11,12

6.1. Regulatory Reaction in the EU and the US

In the EU the European Markets Infrastructure Regulation⁴⁴ (EMIR) entered into force on August 16, 2012 but its implementation will be gradual, following the finalization of the draft technical standards in the relevant points. In the US the Dodd - Frank Wall Street Reform and Consumer Protection Act (DFA)⁴⁵, which amends the Securities Act 1933, the Securities Exchange Act 1934 and the CEA 1936, was signed in 2010 but the several rules by the CFTC and the SEC will be effective gradually upon finalization.

The two regulations have different approaches. EMIR is more detailed and prescriptive, limiting the task of the regional competent authority, European Securities and Markets Authority (ESMA) to addressing the technical standards to be approved by the European Commission. By contrast the DFA establishes the regulatory framework within which the Securities Exchange Commission (SEC) and the Commodities and Futures Trade Commission (CFTC) can set the final rules. The US system gives more flexibility to the two authorities to respond to the market reactions. In the EU, updating EMIR will require its amendment which is a time consuming process. The same applies to ESMA's technical standards which are subject to the Commission's approval⁴⁶. Another dimension of the different approach is that whereas in the US the DFA deals with all the regulatory initiatives, dictated by the G20, in the EU their application will occur with the cumulative implementation of different directives or regulations, EMIR, MiFid 2 and MiFir, the Market

⁴⁴ Regulation of the European Parliament and of the Council of OTC Derivatives, Central Counterparties and Trade Repositories, 648/2012 of 4th July 2012, OJ L201/1, 27-7-2012 available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:201:0001:0059:EN:PDF> (hereinafter EMIR)

⁴⁵ Dodd - Frank Wall Street Reform and Consumer Protection Act available at <http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf> (hereinafter DFA)

⁴⁶ Council Regulation (EC) 1095/2010 of 24th November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority) OJ L331/84

Abuse Directive and Capital Requirements Directive. These other regulations though relevant are outside of the scope of this paper.

6.1.1. EU and EMIR

EMIR provides that all eligible derivative contracts – sufficiently standardized⁴⁷ - that are not traded on regulated markets are to be cleared in CCPs⁴⁸ and if not to use specific procedures at the bilateral clearing⁴⁹. The regulation also states that the clearing obligation applies even when both counterparties are established in a third, non EU country, if the contract would have been eligible for clearing if they were established in the EU, “provided that the contract has a direct, substantial and foreseeable effect within the Union”⁵⁰.

Eligible derivatives contracts that have a non-financial institution as counterparty are exempted, as long as, that counterparty’s positions, which are not used to hedge risks connected to its commercial activity, do not exceed the clearing threshold⁵¹. According to ESMA’s Consultations, the clearing threshold is to be set by reference on the one hand to the notional amount of the OTC derivative contracts, rather than to the net exposure, and on the other to the asset class, which will subject the relevant counterparty to the EMIR for its contracts to all asset classes. So if, for example, the counterparty exceeds the notional amount threshold of the equity derivatives then its clearing obligation will expand to the interest rate contracts it has entered⁵². There is no clearing obligation for intra - group

⁴⁷ See note 44 EMIR art. 5 (2), 5(4), 2(6)

⁴⁸ See note 44 EMIR art. 4(1)

⁴⁹ See note 44 EMIR art 11

⁵⁰ See note 44 EMIR art. 4 (1) a (v)

⁵¹ See note 44 EMIR art 10(1)

⁵² European Securities and Markets Authority (ESMA), Consultation Paper “Draft Technical Standards for the Regulation on OTC Derivatives, CCPs and Trade Repositories, 25/6/2012 , p.16 available at <http://esma.europa.eu/system/files/2012-379.pdf> (visited on 19/7/2012) (hereinafter ESMA Consultations)

transactions⁵³. According to the regulation, financial or non financial institutions that are either exempted from the clearing obligations or enter into non eligible for clearing contracts need to implement stricter risk mitigation techniques, such as to daily mark to market the relevant contracts, to make arrangements for higher collateral and to follow higher capital thresholds in relation to these contracts⁵⁴. The counterparties of such contracts should report the important details of these contracts to a trade repository or, if this is not possible, directly to ESMA⁵⁵. When ESMA makes an eligibility assessment of a particular class of derivatives it should take into account the degree of standardization of the contractual terms and operational processes⁵⁶, its volume and liquidity, the accessibility and accuracy of pricing information⁵⁷, and all these factors under the light of, among other things, the expected volume of the specific class, whether the class has already been cleared, whether the relevant CCP can adequately manage the entailed risks, the risk management, legal and operational capacity of the counterparties that are already active in the relevant class of derivatives⁵⁸. Furthermore, in order for the market participants to be constantly informed on their obligations and choices concerning their OTC derivative exposures, a public registry will be established. Relevant information will be, for example, which products are subject to a clearing obligation and which CCPs are authorized to clear which products.

These provisions will transform the OTC derivatives markets in transparent ones, protecting the relevant counterparties from exposing themselves to unidentifiable risks, due

⁵³ See note 44 EMIR art. 4(2)

⁵⁴ See note 44 EMIR art 11

⁵⁵ See note 44 EMIR art 9

⁵⁶ By reference to “the automation of post – trade processes and management of lifecycle events” See note 52 ESMA Consultations, p. 12

⁵⁷ See note 44 EMIR art. 5(2)

⁵⁸ See note 44 EMIR 5(5)

to the insufficient practices used to assess them⁵⁹ and facilitating the flow of information and thus the prevention of systemic risks.

Moreover, CCPs will be authorized by Member States' competent authorities⁶⁰, which retain the right to adopt additional requirements. The authorization will be restricted to the functions and to the specific contracts for which it was granted, giving at any time the opportunity to the CCP to apply for extension⁶¹. It is also possible for an authorized CCP in a third country to be authorized in the EU as long as, inter alia, the third country has an equivalent relevant legal framework⁶². Once authorized, the CCP will be able to operate within the internal market and it will be obliged to offer clearing services to all the relevant contracts, wherever they are traded, unless there are operational and technical incompatibilities, which would pose liquidity fragmentation⁶³ and thus distort the orderly function of the market or trigger a systemic reaction⁶⁴.

Articles 26 to 39 EMIR provide in detail for corporate governance and conduct of business issues of CCPs. EMIR's approach towards CCPs' governance organizational structures, procedures and policies is more outcome and principles based rather than rules based, since it sets specific targets that should be met without defining, most of the time, how to accomplish them^{65,66}. At the same time, though, EMIR gives competent authorities

⁵⁹ EC Impact Assessment Accompanying Document to Proposal for a Regulation of the European Parliament and of the Council on OTC Derivatives, Central Counterparties and Trade Repositories, p. 18, http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/20100915_impact_assessment_en.pdf

⁶⁰ See note 44 EMIR art 16

⁶¹ See note 44 EMIR art 15

⁶² See note EMIR art 24

⁶³ See note 52 ESMA Consultations, p. 14. ESMA proposes, in order to avoid liquidity fragmentation, participants in a trading venue should have access to one common CCP or clearing arrangements established by the CCPs

⁶⁴ See note 44 EMIR art 8

⁶⁵ See note 44 EMIR art 26 1-2

⁶⁶ See note 52 ESMA Consultations p.25,26,27

rights either of participation in committees in a non-voting capacity or of full access to information⁶⁷. A similar approach is adopted for the shareholders and clearing members holding rights and their limitations⁶⁸, where again all the relevant information should be given to the competent authorities for approval. There are no limits in membership as long as it does not prevent the sound and prudent management of the CCP. In case the competent authority finds that prudent management is distorted then it may not approve the CCP's license or if the assessment is on a change of holding rights withdraw it. EMIR does not impose specific thresholds in ownership. Instead it follows a case by case approach by mandating the disclosure of information and by assessing each time the relevant factors that could lead to the conclusion that a holding right or the acquisition of it could impose risks to the specific CCP, its other members, a product market and other market participants.

It is apparent that the EU has strictly regulated the OTC derivatives markets according to the G20 statements. For these regulations to be effective, though, and to serve their social and macro - economic scope, they need to be adopted internationally, since they apply to international transactions. For that reason it would be useful to examine Title VII of the Dodd Frank Act as well as the Commissions' proposed and final rules, with emphasis on CFTC's initiatives, and point out the main differences of the two regulatory regimes.

6.1.2. US and the Dodd Frank Act

The DFA makes a distinction between swaps and security based swaps. The first are regulated by the CFTC and the second by the SEC⁶⁹. Although these distinctions are not made by the EMIR, they do not seem to make the two regulations incompatible. Furthermore, it

⁶⁷ See note 44 EMIR art 28,29

⁶⁸ See note 44 EMIR art 30

⁶⁹ See note 45 DFA sec 723, 763

classifies market participants in swap – dealers and security swap – dealers, swap participants and security swap participants and finally to major swap participant and major security swap participants⁷⁰. All these categories of markets participants have to be registered to either of the two Commissions⁷¹. The CFTC final rules on registration of swap dealers and major swap dealers do not specify whether non US entities falling under these definitions will be subject to the registration requirement⁷².

By contrast to EMIR there is an ambiguity in the US whether foreign exchange swaps and forwards will be considered “swaps” under the DFA⁷³ and thus will not be covered by the Act and should not be cleared. According to the recently published rules⁷⁴ and the DFA, the Treasury Department will decide on the matter. Until the Treasury Department makes such a determination these products will be covered under the relevant definitions and be subject to clearing⁷⁵. The only certain thing is that differences like that in mandatory clearing for specific products may become the basis for regulatory arbitrage.

In relation to the market participants who are exempted from clearing the OTC contracts they conclude, the “end user exemption”, the two regulations have different provisions and approaches. In the US the exemption of the non financial entity, which uses

⁷⁰ CFTC and SEC, Joint Final Rule, “Further Definition of “Swap Dealer”, “Security Based Swap Dealer”, “Major Swap Participant”, “Major Security Based Swap Participant” and “Eligible Contract Participant”, 77 Fed.Reg.May 23 2012 available at

<http://www.cftc.gov/ucm/groups/public/@Irfederalregister/documents/file/2012-10562a.pdf>

⁷¹ CFTC Final Rules, “Registration of Swap Dealers and Major Swap Dealers”, 77 Fed.Reg. No 12, 19 January 2012 available at

<http://www.cftc.gov/ucm/groups/public/@Irfederalregister/documents/file/2012-792a.pdf>

⁷² See note 7 p. 2619,2620

⁷³ See note 45 DFA sec 721 (47)

⁷⁴ CFTC and SEC, Joint Final Rules, “Further Definition of “Swap”, “Security Based Swap” and “Security Based Swap Agreement”; Mixed Swaps, Security Based Swap Agreement Recordkeeping, 77 Fed.Reg no 156, 13 August 2012 available at

<http://www.cftc.gov/ucm/groups/public/@Irfederalregister/documents/file/2012-18003a.pdf>

⁷⁵ See note 70 p. 48349

OTC contracts to hedge its risks, is subject to the CFTC's or SEC's approval⁷⁶ and there is no exception for speculating hedges. The DFA differed itself from EMIR by adopting the extension of the end user exception to financial entities with 10 billion or less of total assets.⁷⁷ On the other hand it proposed rules for exempting certain affiliated entities⁷⁸ similar to the intra - group transactions exception of EMIR.

As far as the criteria that should be assessed for the eligibility of OTC derivatives for clearing are almost the same for both jurisdictions. The additional criterion for the US is the "effect on competition"⁷⁹.

Another difference between the two regimes seems to be in the governance of the CCPs. Although final rules haven't been issued by the two Commissions, the proposed rules of the SEC are headed in a different direction than EMIR's, although that is not the case of the CFTC proposed rules⁸⁰. According to sections 725(d) and 765(a) of the DFA the Commissions should adopt rules mitigating conflicts of interest arising from a material debt or equity investment of a swap dealer (SD) or major swap participant (MSP) or securities based swap dealer (SBSD) or a major securities based swap participant (MSBSP) in clearing agency or a Derivatives Clearing Organization (DCO), respectively. The SEC proposed two alternatives in governance issues, the "The Voting Interest Focus Alternative", which amongst other things

⁷⁶ See note 45 DFA sec 723 (7) A

⁷⁷ CFTC, Final Rule, "End – User Exception to the Clearing of Requirement for Swaps", 77Fed.Reg no 139, 19 July 2012 available at

<http://www.cftc.gov/ucm/groups/public/@Irfederalregister/documents/file/2012-17291a.pdf>

⁷⁸ CFTC, Proposed Rule, "Clearing Exceptions for Swaps Between Certain Affiliated Entities" 77 Fed.Reg. No 162, August 2012 available at

<http://www.cftc.gov/ucm/groups/public/@Irfederalregister/documents/file/2012-20508a.pdf>

⁷⁹ Stan Cerulus "Central Clearing For CDS: A legal Analysis of the New Central Clearing Regulations in Europe and the US, J & FRC 2012 p. 8; DFA 723 a(3), 763 a (3C)

⁸⁰ CFTC, "Proposed rules on Governance Requirements on Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities; Additional Requirements Regarding the Mitigation of Conflicts of Interest" Federal Register, Vol 76 No 4, 6/1/2011 available at <http://www.cftc.gov/ucm/groups/public/@Irfederalregister/documents/file/2010-31898a.pdf>

provides for participants (clearing members) specific thresholds of beneficiary ownership of interests with voting rights in the CCP or of causing the voting of any interest that exceed that specific threshold. Moreover it sets a higher threshold for aggregated actions of two or more participants while at the same time for a 35% of independent directors⁸¹. The other option the SEC gives is “The Governance Restrictions Focused Alternative” which sets much lower thresholds for beneficiary ownership of the relevant interests but mandates a Board the independent Directors of which have the majority⁸². It is premature to say what the US approach is for governance but it seems that it is aiming for a more rules based and restrictive regulatory approach. It also has to be noted that up to now there is a great difference between the CFTC’s and the SEC’s proposals which could cause problems to the US market and the direct or indirect market participants.

Furthermore, under section 716 DFA, Swap Entities cannot receive federal assistance. This provision in combination with the fact that all institutions, active in the retail banking services have access to the federal assistance, means that these entities should either push out their non exempt swap activities to an affiliated entity or completely separate their retail banking function from their swap oriented activities⁸³. There is no such provision under EMIR.

Maybe the most important issue that arises by the two acts is their extraterritorial application. EMIR’s relevant provision was examined above. Under sec 722 DFA the act shall apply to activities outside the US if they have a direct and significant connection with

⁸¹ SEC, Proposed rules on “Ownership Limitations and Governance Requirements for Securities Based Swaps Clearing Agencies, Securities Based Swaps Execution Facilities and National Securities Exchanges with respect to Security Based Swaps and Regulation MC” Rel. No 34-63107, 27/7/2010 p. 46,49,53 available at <http://www.sec.gov/rules/proposed/2010/34-63107.pdf>

⁸² See note 81 SEC Governance p. 68, 71

⁸³ Weadon, Benjamin, “International Regulatory Arbitrage Resulting From Dodd Frank Derivatives Regulation”, 16 N.C. Banking Inst. 249 2012 p.261-264

activities in, or effect on, commerce in the US and if they contravene rules that the CFTC prescribes as necessary for the prevention of the evasion of the Act. If these provisions of the EMIR and DFA apply then the possibilities of dual regulation arise. There is some ambiguity on whether regulators want to cooperate. On the one hand ESMA, in its Consultations, did not define what constitutes “direct, substantial and foreseeable effect”, stating that it is in discussions with third country supervisors in order to avoid international regulatory overlaps and on the other the CFTC published guidance on the matter⁸⁴.

6.2. Benefits of the New Regulations

The soon to be effective regulations, not only in the US and the EU but internationally, are tools for supervisors – regulators to manage systemic risk. The central clearing obligation accomplishes that in two ways. On the one hand by the mitigation of counterparty credit risk by the risk management techniques followed by CCPs (See part 5) and on the other by achieving a high level of transparency for the market. At this point the important role of informational concentration through the record keeping by the CCPs, the authorities’ obligation to keep a public register with information on cleared derivatives asset classes and on the CCPs authorized for each class⁸⁵ and finally the trade repositories data collecting function should be highlighted. Especially trade repositories can play a significant part both in the battle against the systemic risk and in the international coordination of the market. Without prejudice to confidentiality restrictions, access to timely and accurate information on the counterparties of a trade, the type of the relevant financial instrument,

⁸⁴ CFTC “Cross Border Application of Certain Swaps Provisions of the Commodity Exchange Act” 77Fed.Reg. No 134, 12 July 2012 available at <http://www.cftc.gov/ucm/groups/public/@lrfederalregister/documents/file/2012-16496a.pdf>

⁸⁵ See note EMIR art. 6

the underlying maturity, the notional value, the price and the settlement date⁸⁶, allow supervisors and regulators to adequately oversee the market, identify behaviors and situations with the potential to threaten the system and intervene before the materialization of the threats. Similarly, market participants acquire a clearer picture of the market and their obligations when entering into a contract and can make better investment decisions.

Unfortunately, whereas the new regulations will benefit the financial market, it seems, as it is discussed below, that they will not manage to eliminate risk and particularly systemic risk. Although internationally regulations have as a starting point the G20 guidelines, they take different directions on the way that in combination with other differences between national laws don't allow for an integrated regulatory system to be formed.

7. The Risks Specific to Central Clearing of OTC Derivatives

Central clearing for any financial instrument is a business based on risks. These risks not only remain when clearing OTC derivatives, but they are exacerbated. The main reasons are the inevitable linkages between service providers that the OTC derivatives force market participants to create, their global dimension, their illiquidity and the long term exposures of the counterparties. CCPs new role will turn them into systemically important institutions. The materialization of any type of risk could affect the CCP, its direct members, the counterparties of its direct members, sovereigns and ultimately the real economy and non market participants.

7.1. Systemic/Credit Risks

Using CCPs in the huge market of OTC derivatives, exposes them to the counterparty credit risk of their clearing members (CMs); inter alia, large financial institutions, which

⁸⁶ See note EMIR art. 9

themselves are exposed to other financial institutions and to other CCPs. Moreover the CCP becomes a link connecting its CMs⁸⁷.

A CM's default, could lead to the potential default of the CCP itself. The replacement costs that the CCP would have to bear in such circumstances are high, since the market will not be willing to buy, as is the case in periods of distress, and consequently the clearing house will have to liquidate its assets fast, in an illiquid market⁸⁸. The result of that is that the other, non-defaulting members, face higher credit and liquidity exposures⁸⁹. Although these are real potential dangers, the truth is that with the initial and ongoing risk management techniques that CCPs employ, they are highly unlikely to materialize. The problem with OTC derivative products, though, especially the newly eligible and cleared, is that in that initial stage the risks embedded to them are unknown and unpredictable. The situation is even worse when considering the nature of derivatives, which are not transparent and are illiquid⁹⁰.

Moreover, in the light of sovereign debts, interconnectivity in the financial markets can affect the real economy. Specifically, if a CCP clears OTC Derivatives products with an underlying asset the debt of a specific country and that CCP fails then the banks of that country will be severely affected. Consequently, depending on the damage done to the banks and the need for a bail out, the sovereign debt will increase⁹¹.

That being said, there is the potential issue, of bailing out CCPs, since they are becoming the bearers of all the counterparty credit risk, as banks were in 2007. That would mean, once again, that their failure will have social consequences, since the bail out money

⁸⁷ See note 40 Pirrong Craig p. 35

⁸⁸ See Pirrong Graig p. 37

⁸⁹ CPSS and IOSCO, "Principles For Financial Markets Infrastructure", April 2012, p. 18 (hereinafter IOSCO FMI)

⁹⁰ See note 89 IOSCO FMI p. 13

⁹¹ Faissola, Michele, Vice Chairman of ISDA, "Tentative on G20 Timelines", Risk magazine webinar, April 2012 available at <http://www.risk.net/risk-magazine/webinar/2166383/tentative-timelines-otc-derivatives-clearing/page/2>

would be paid by tax payers. Another concern is that the CCPs may rely on this option and ease their risk management policies and engage in more aggressive business decisions⁹². This time regulators in alignment with central banks do not seem willing to give CCPs the lender of last resort solution without on the other hand proposing an alternative solution, which eventually came from the market itself and may reduce the probability to turn to lenders of last resort and mitigate the systemic reaction. CCPs⁹³ start to adopt a resolution plan to which they will resort in the unlikely event of exhaustion of every other risk management tool, namely the initial and ongoing margin and the default fund etc. This resolution mechanism will distribute to the clearing members with profitable positions the remaining losses preventing that way the disorderly insolvency of the CCP and increase the possibility of it remaining active⁹⁴. This would have the additional benefit of mitigating conflicts of interest, since participating to the losses will act as a disincentive from engaging into excessive risk taking⁹⁵.

Particularly important for the systemic implications of central clearing is the internationally followed approach on the number of CCPs. Although, the dominant theory on the matter is that a small number of global CCPs is more effective and safer for the markets⁹⁶ and that ideally there should be one CCP per asset class⁹⁷ the global community seems to go

⁹² See note 40 Pirrong Graig p. 39

⁹³ CDSClear which is LCHClearnet's credit default swap clearing service and Japan Securities clearing corporation for CDS, Risk Magazine, "CCP Resolution Plans Start to Take Place", by Matt Cameron, 4/6/2012 available at <http://www.risk.net/risk-magazine/news/2181952/ccp-resolution-plans-start-shape>

⁹⁴ See note 93

⁹⁵ ISDA, "CCP Resolution", Letter to the Bank of England, 30 April 2012, p. 3 available at <http://www.google.gr/url?sa=t&rct=j&q=&escr=s&source=web&cd=2&ved=0CEYQFjAB&url=http%3A%2F%2Fwww2.isda.org%2Fattachment%2FNDM2MA%3D%3D%2FFinal%2520CCP%2520resolution%2520letter%252030%252004%252012.pdf&ei=qRExUlvLqBR4QS6m4DABQ&usg=AFQjCNFD6njnieLUYGGQj4bl2yQT0I58v5Q&sig2=vQeTMUYT9rK4XwSoQbfFzg>

⁹⁶ Bank of International Settlements, "Central Counterparties for Over-The-Counter Derivatives" Quarterly Review 2009 at p. 56 available at http://www.bis.org/publ/qtrpdf/r_qt0909f.pdf

⁹⁷ See note 91 Risknet Tentative

to the different direction⁹⁸, requiring that currency related products should be cleared by CCPs domiciled by the country of the currency. This happens mostly because they perceive it as a way to control their monetary stability.

Moreover, as it will be discussed in the relevant parts of the paper the systemic risk the interconnectivity of the services providers may be the source of systemic risks, due to mismanagement of the operational systems or the legal risks.

7.2. Operational risks

The operational risks that a clearing house has to manage, along with the credit and liquidity risks that derive from operational failures⁹⁹, can be internal or external. Failure of information systems and controls, personnel errors or incapacity that distort the timely and accurate flow of information either within a CCP itself or between the CCP and a linked service provider, could lead to the inadequate estimation of risk exposure and consequently to inadequate risk management¹⁰⁰. Firstly, internal sources of operational mismanagement connected with the OTC derivatives markets could be identified both to the continuous introduction of new products to the clearing obligation and to the longer duration of exposures that is a characteristic of OTC derivatives. These market characteristics raise issues of capacity of the systems and controls of a CCP to follow¹⁰¹. Before accepting a product for clearing a CCP should adjust its systems and prepare its employees to ensure that it has the necessary information about the product market and to apply suitable and sometimes

⁹⁸ Financial Stability Board, "OTC Derivatives Markets Reforms: Progress Report on Implementation" 11 October 2011, Table 7 available at http://www.financialstabilityboard.org/publications/r_111011b.pdf

⁹⁹ Risk institute, "Clearing arrangements for Exchange Traded Derivatives" ch 4 par. 4.5 available at <http://riskinstitute.ch/138700.htm>

¹⁰⁰ See note 89 IOSCO FMI p. 95

¹⁰¹ CPSS and IOSCO, "Guidance on the Application of the 2004 CPSS-IOSCO Recommendations for Central Counterparties to OTC Derivatives CCPs, May 2010 p.21 (hereinafter CPSS – IOSCO 2010)

customized operational processes in order to maintain its operational and risk reliability¹⁰². The unique character of OTC derivative products cannot let CCPs to rely on the fact that regulators find a product eligible for clearing or that they were given approval to clear a product. If they do not know with absolute certainty that they have the compatible to a product system, they put at risk their risk management procedures and consequently their credit and liquidity exposures.

The most important source of operational risks that CCP face are those deriving from the inevitable interdependencies, the CCP's links to other service providers of the financial markets. Managing and constantly assessing its own operational framework is already difficult for a CCP. With all the external relations it has to create, the task becomes challenging, since the risks are greater and the control over the linked entities' operational systems is indirect, if any. The CCP relies for the input of the information, necessary to secure its functions, to exchanges, other trading venues or trade repositories. For that reason it builds certain systems and makes targeted arrangements in order for the communications with these linked entities to be precise and undistorted. In that case the CCP could take the adequate precautions and ensure in advance, to the extent possible, the operational reliability of its links¹⁰³, but still could be exposed to a potential failure, i.e. poor quality of information, delays in its transmission, dependant on the third party's operations, the management of which it has limited or no control of.

Additionally, the global character of OTC derivatives and the increasing number of eligible for clearing derivatives will make the links between CCPs and the other market participants and service providers more international in scope than they already are, fact that

¹⁰² See note 101 CPSS-IOSCO 2010 p.21;

¹⁰³ See note 101 CPSS-IOSCO 2010 p.21

enhances another operational issue that needs to be addressed. The time difference and the difference of business days can cause problems related to the availability and reliability of pricing data¹⁰⁴ and the margining procedures, for which the market conditions of the participant's location should be considered and evaluated¹⁰⁵. It should be noted that the problems arising from the abovementioned local characteristics may also be relevant to linked entities. The current multinational form that corporations, as CCPs are, allows them to disperse their operational departments and for cost efficiency reasons have, for example, their IT department in a different jurisdiction than the rest of their functions.

Finally, similar operational risks can be identified when two CCPs make interoperability arrangements. As it is discussed below, the potential consequence of an operational failure within such an arrangement could be severe.

7.3. Corporate Governance Risks

As it was mentioned above, one of the reasons that the GFC 2007 crisis took such extended dimensions was the excessive risk taking of large financial institutions' directors and employees, the failure to align shareholder's interests with the management's interests or even shareholder's interest with the institution's, though the relevant guidelines and laws on governance were complied with. Since CCPs under the new regulatory obligations will become as systemically important as these institutions of 2007, the risks of self interested governance should be addressed and mitigated. Both EU's and US's regulatory initiatives address the issue, but at least until today in a different way. This difference expresses a theoretical dilemma that derives from the unique conflict of interests that CCP governance

¹⁰⁴ See note 101 CPSS-IOSCO 2010 p. 13

¹⁰⁵ See note 101 CPSS-IOSCO 2010 p. 14

entails to its function and membership requirements and status. More specifically, in the light of the fact that CCPs are legal entities held by either exchanges or their clients, i.e. financial institutions, the power granted to them to make decisions like which eligible contracts would be accepted for clearing or which market participant qualifies to become a member otherwise the shareholders-members will act as its intermediaries, is a source of conflict of interest issues. Members can influence either directly or through the Board's Directors, on the risk management policies¹⁰⁶. These powers along with the incentives CMs have, as autonomous profit making entities could lead to contradictory interests and problematic governance.

Firstly, the ability to set the membership criteria confers them the power to restrict access to membership. By holding the number of members low they have more concentrated power and they eliminate competition in a specific market, since non members will not be able to trade and thus expand their own business and ensure for themselves higher profit margins¹⁰⁷ and higher profits from fees and commissions as intermediaries¹⁰⁸.

Moreover, since the initial CMs are usually large systemically important financial institutions (SIFIs) the self oriented blocking of membership can also have systemic implications. A CCP controlled by few and large institutions may not handle a shock in the markets as efficiently as a CCP is also controlled by smaller more product or geographically oriented institutions, that would give the CCP a more diversified character making it more flexible and balanced to deal with a market turmoil. In addition the fewer and more powerful the members are the more a potential default of one of them would affect market liquidity

¹⁰⁶ See note 81 SEC Governance 2010 p. 14; See note Johnson, Kristin N. p. 697

¹⁰⁷ See note 81 SEC Governance 2010 p. 16

¹⁰⁸ See note 36 Johnson Kristin at p. 698

and consequently a systemic reaction would be more possible¹⁰⁹. Secondly, members' power to block a product from being cleared, may serve the business incentive to keep a contract bilaterally cleared so that the pricing data will not get public and thus the spreads will be higher and so will be their profits¹¹⁰. By keeping a product traded on the OTC derivatives bilateral market and being active on them they keep all the profits to themselves.

Finally, members can jeopardize the risk management of clearing houses by reducing collateral and margin requirements in order to maintain capital for their own businesses. The fact that a potential default is highly unlikely and it needs really stressed market condition incentivizes them to act like that¹¹¹.

It is apparent that conflicts of interest in CCP governance could have serious implications for the financial system and need to be dealt with. The US model has been criticized, and rightfully so, for being unfair and discouraging in the sense that those who use their capital in order to mitigate the risk of a default of a CCP and who would actually be the direct recipient of the consequences, should the risk materialized, have no participation to the management of that risk. Even if that kind of regulation applies there is no guarantee that conflicted interests will not affect the market¹¹². It was proven by the crisis that the letter of the law regarding governance was abided. The problem was spotted to the lack of supervision and that authorities were kept in the dark, facts that allowed financial institutions to find ways to circumvent the law in their efforts to reach their goals. For that reason a more principles based approach with a more intense presence and participation of supervisors and

¹⁰⁹ Silve Joshua et al, "Access to Central Clearing for Over-The-Counter Derivatives" Bank of Canada, Financial System review, June 2011 at p. 42 available at <http://www.bankofcanada.ca/wp-content/uploads/2011/12/fsr-0611-slive.pdf>

¹¹⁰ See note 81 SEC Governace 2010 at p. 19

¹¹¹ See note 81 SEC Governace 2010 at p.

¹¹² Committee on Capital Markets Regulation, "Centralized Clearing and Exchange Trading of Derivatives Contracts" Letter 10 March 2010, at p. 23,24

regulators in the decision making process could be more effective. That way authorities have a clearer picture of each CCP's ownership and become capable of assessing the risks of followed policies and procedures and intervene only when and if needed, leaving at the same time the CCP to conduct its business as a profit making entity.

7.4. Legal and Regulatory Risks

Mandatory central clearing of OTC Derivatives entails risks deriving either from the relevant national or regional regulations or from the national substantive laws which cannot be circumvented by bilateral contractual agreements. The fact that the national substantive laws which can be connected with the functions of the financial markets in general and the clearing houses in particular were not a subject of the international regulatory reaction to the crisis will transfer to the trading of OTC derivatives the legal risks that CCPs dealt with initially, when clearing securities and exchange traded derivatives. These risks are more crucial now that CCPs will concentrate on them the counterparty credit risk and have become systemically important.

7.4.1. Regulatory Risks

The differences in the nationally or regionally adopted regulations may lead market participants to prefer or avoid a specific jurisdiction due to their lax or strict provisions in certain aspects of the new regimes, respectively or due to the extraterritorial reach which makes participation in the financial markets complex and more costly.

Although EMIR and DFA follow the same international guidelines on central clearing, differences in key provisions threaten the financial stability with regulatory arbitrage. First of all, the division of swaps and security based swaps in two authorities may itself be a disincentive for market participants to become active in the US derivatives market. The

possibility of a dual registration requirement, the different approaches that the two Commissions may follow could subject market participants to double compliance operations and thus double costs.

Additionally, the same effect in the US may come as a result of the push out rule, which is not provided by other jurisdictions. Setting up an affiliate entity on which US banks will push out all their swap activities or only the non exempted ones bears additional costs, such as the replacement and transfer of existing contracts, the deprivation from clients, of the benefits deriving from dealing with one legal entity and the exclusion from the discount to the cost of capital which is provided for banks with access to the Federal Reserve¹¹³. Moreover the extraterritorial regulatory reach of this rule is not clear yet. The implication of that could be the competitive disadvantage of US banks' branches worldwide. Entering into a transaction with a US branch may be avoided by international investors. Furthermore, US branches of non US banks may prefer to leave the US derivative market because they will no more have the privilege of the discount of capital. If they decide to maintain their US activity and divide their functions in compliance with the rule, it is possible, but unlikely¹¹⁴, that the rule may extend to the entire financial entity¹¹⁵.

The point is that differences like that and more, such as differences in the uncleared swaps margin requirements or in the end user exception, among national regulations are incentives for market participants to choose other jurisdictions' participants that will not subject them to their home - country's regulations to conduct their business with.

¹¹³ See note 83 p. 264

¹¹⁴ See note 84 CFTC proposals -extraterritoriality

¹¹⁵ Lawton, David, Financial Services Authority's Acting Director of Markets at risknet.com available at <http://www.risk.net/risk-magazine/news/2187093/extraterritoriality-remains-major-issue-fsa-s-lawton>

The status of the risk of regulatory arbitrage is not confirmed yet. It remains to be seen what the final extraterritoriality rules will be for the EU, the US and the other jurisdictions. In the event that a third country would adopt a more lax and less costly regulation, the fear of a race to the bottom regulation will come to the surface and OTC derivatives markets will be governed by inadequate regulations and weak supervision.

7.4.2. Legal Risks

In relation to legal risks the bilateral relationships between CCPs and clearing members can be agreed by the parties. The enforceability of such agreements, though, could be challenged in two circumstances. Firstly, in the case of a litigation dispute and secondly when third parties' rights are involved, as is the case of insolvency proceedings. Equally important is the legal relationship between a non clearing member (NCM), who uses the CM as an intermediary in order to get access to clearing.

7.4.2.1. Litigation Risks

In the case of a litigation procedure, although the situation may seem safe since the parties choose the applicable law to cover the between them transaction, including the netting or novation agreements, the chosen law may be rejected due to the applicability of mandatory rules of the lex forum. Issues of investor protection, financial stability and public interest may prevent the agreements' enforceability¹¹⁶. This could occur due to the non eligibility of one of the contracts of the bundle that is to be netted or the recognition by the lex forum of set off instead of netting that could forbid the termination of the unperformed

¹¹⁶ Gkoutzinis, Apostolos Ath., "Internet Banking and the Law in Europe: Regulation, Financial Integration and Electronic Commerce", Cambridge University Press, 2006 p. 305,306

contracts and exclude them from the netting calculations¹¹⁷. Thus, there is always a degree of unpredictability even when third parties' rights are irrelevant.

7.4.2.2. Insolvency Law Issues

7.4.2.2.1. Close Out Netting

The greater legal risk for a CCP and market participants is the status of enforceability of the bilateral agreement when one of the parties becomes insolvent. In an insolvency situation the applicable law is the *lex sitae* of the insolvent party, which it may not be the bilaterally agreed law. Close out netting may not be recognized by the relevant national law allowing insolvency administrators to “cherry pick”, i.e. to unbundle the financial contracts and to enforce only those in favor of the insolvent party¹¹⁸. Moreover, the fact that the “terminating event” in a close out netting agreement may not be the same as the initiation of insolvency proceedings but defined as an event prior to that, may cause further problems. Under certain jurisdictions the period between the materialization of the bilaterally agreed “terminating event” and the actual insolvency may be characterized as a “suspect period” and give the right to the insolvency administrator to block transfers that took place during that period¹¹⁹. Furthermore, the form that the CCP market takes, that is the multiple and local CCPs, the use of which in some cases will be mandatory¹²⁰, will oblige market participants, who want to make specific investments, to transact with CCPs established in underdeveloped, in terms of close out netting recognition, and thus risk the chance of

¹¹⁷ Paech, Philipp, “Systemic Risk, Regulatory Powers and Insolvency Law – The Need for an International Instrument on the Private Law Framework for Netting”, Institute for Law and Finance, Working Paper Series No 116, 2010 p. 19

¹¹⁸ See note 117 Paech, Philipp, p. 20

¹¹⁹ See note 117 Paech, Philipp p. 20

¹²⁰ Financial Stability Board, “OTC Derivatives Markets Reform: Progress Report on Implementation”, 11 October 2011, table 7 available at http://www.financialstabilityboard.org/publications/r_111011b.pdf

unenforceability of the relevant agreement. These CCPs are major risk bearers both for themselves, since they are deprived from the beginning of a necessary management tool and for their CMs who can choose between taking the entailed risk or to avoid participating to that market and probably miss a profitable investment opportunity. Things can become more complicated if a third jurisdiction gets involved, when for example the margins are held in a foreign country¹²¹. Similar issues may arise regarding the recognition of pledge on collateral or other security interest, novation and the access to collateral. It is really important for CCPs and CMs to set in advance the legal framework that governs their function and research its counterparties' legal framework as well¹²².

7.4.2.2. Non Clearing Members and Segregation

The assessment of legal risks becomes more complicated when non clearing members (NCMs) use CMs as intermediaries to access CCPs. The choice between the principal and the agent model, which will define the relationship between the NCM and the CCP, becomes relevant, especially in relation to the segregated account held by the CCP and in the event of a default either of the CCP or the CM.

In the case of the principal model, although there are two matching agreements between the NCM and the CM – the Client Agreement - and the CM and the CCP – the Associated Agreement, there is no direct contractual relationship between the NCM and the CCP fact that prevents the NCM from retrieving collateral if the CM defaults¹²³. The legal solutions of a deed of assignment between the NCM and the CM or the grant of a pledge over

¹²¹ See note 99 Risk institute Chapter 8 available at <http://riskinstitute.ch/138740.htm>

¹²² See note 37 IOSCO 2004 p. 13

¹²³ Zafar Rasheed Tariq, Zebregs Bas. "Can a House Divided Between Itself Stand? Segregation in Derivatives Clearing", Butterworths Journal of International Banking and Financial Law, May 2012, at p. 296

the close out claim from the CM to the NCM are subject to the recognition of the lex sitae of the CM. In relation to the agent model, according to which the NCM and the CCP have a direct relationship, and the case where a custodian is used, through which the margin exchanges with the CCP are conducted, the recognition of the rights of the CM to the collateral becomes an issue.

The abovementioned cases are relatively simple when each party of these contractual agreements has a national establishment. The truth is, though, that market participants rarely have this national character in the current financial market. In particular, CMs are usually subsidiaries or affiliates of international group of companies. In that case, the CM's insolvency may be a part of the international group's insolvency following the insolvency laws of the establishment of the head quarters of the group. But this will be subjected to the choice of the national authorities of the subsidiary's country of incorporation to protect their local creditors¹²⁴. Similarly, the insolvency law of the subsidiary's location may be open or not to the extraterritorial provisions of the insolvency law of the group's establishment¹²⁵ or to the enforceability of relevant foreign court's decisions.

7.4.3. Conflict of Laws

Conflicts of laws issues may either be relevant to an ongoing insolvency or not. The chain of bilateral relationships between parties which have international dimension and their operational connections is defined by computerized and automated accounts. Any dispute brought by a third party claiming rights on the bilateral relationship, raises issues of the applicable substantive law which will judge the validity of the contract. That is because in

¹²⁴ Bank of International Settlements, "Cross Border Aspects of Insolvency" p. 9 available at <http://www.bis.org/publ/gten06c.pdf>

¹²⁵ See note 124 Cross border p. 20

whichever jurisdiction the claim is brought, the court will first apply its forum's private international laws in order to identify the applicable substantive law. The third party's freedom to choose the applicable private international law gives it an advantage of certainty that the initial parties do not have. Thus the relationships between NCM – CM – CCP may be at risk and the relevant parties will not be able to control that risk because the conflict of laws rules differ in each country.

Conflicts of laws problems also affect the collateral arrangements. The pledges and guarantees on collateral once disputed maybe subject to private international laws rules that can point to any substantive law.

Consequently, no matter how much a CCP invests in safeguarding its exposure to legal risks through research and documentation there is always a degree of unpredictability that can jeopardize its legal rights at any time.

7.5. Costs Risks

The central clearing of OTC derivatives products obligation is a complex process in terms of risk management and the conditions it requires to be effective. New or adapted operational systems both for CCPs and their clearing members but also of other market participants, requirements for margins and default funds contributions and even collateral requirements for non eligible – non cleared products, incur costs that will be transposed to the end users. These costs may be even higher due to the extraterritorial reach of the national regulations, which may mandate double registrations or to the multiple CCPs and thus multiple memberships, multiplying that way the costs. Another exacerbating factor for costs will be Basel's III new collateral obligations for banks that will in addition to CCPs'

financial contributions they have to restrict even more capital. That kind of costs will make transacting in the OTC derivatives market so expensive that it might incentivize end users-investors to look towards other solutions to hedge risks. In turn this will not only make the derivatives market more illiquid but the economy in general. The banks will be drained out of money and not finance the real economy. The cost of uncleared derivatives could lead 2nd tier firms to avoid that market and invest on standardized, eligible products that may not adequately hedge their risk and thus contribute to the creation of a volatile and illiquid market which will set constrains to the accurate estimation of prices and market conditions, characteristics of non cleared and non standardized markets and on the other hand because of the untailed products risk hedging will become more speculative. The result of that might be that instead of reducing systemic risk the new conditions may end up going to the opposite direction¹²⁶.

The other dimension of costs risk is the operational costs for implementing the functions of daily evaluation of net values and margin requirements. These functions mandate specialized human resources and software. The relevant costs may be reduced by the increased level of standardization which will mitigate the demanded level of sophistication of the systems but they will still be high¹²⁷. They could even reach a point that they will make clearing membership a privilege of the large financial institutions with all the consequences that this may have for the systemic risks as described above (See under governance 7.3.).

¹²⁶ See note 91

¹²⁷ Financial Times, Bryan Bollen, "OTC Derivatives: Big challenges from central clearing", 19 September 2011 available at <http://www.ft.com/cms/s/0/35103e2c-d7b4-11e0-a06b-00144feabdc0.html#axzz241XUXUvX>

It seems that the applicable costs may trigger a chain reaction from investors' behavior to the financial and real economy markets that may shake the balance between the costs and benefits that the new regulations should have as an aim in order to succeed on their ultimate goal to reduce systemic risk.

7.6. Interoperability Risks

The proponents of multiple and local CCPs propose the solution of interoperability, of the interaction of CCPs. This could take place when the initial counterparties of the trade, the buyer and the seller, enter into two contracts with two CCPs and the CCPs enter into a contract with each other, becoming that way counterparties of the initial agreement (peer to peer interoperability) or one becomes a clearing member of the other (participant interoperability)¹²⁸. Although this practice can be beneficial because it facilitates market access, avoids multiple memberships in CCPs, enhances competition and exhaust the netting potentials¹²⁹, it incurs substantial risks.

It is apparent from the created contractual relationship between the two CCPs that the level of their exposure to risks is expanded. Interoperability acts as an exacerbating factor; it multiplies all of the abovementioned risks and their potential consequences. In particular, the most significant risk of interoperability is the counterparty credit risk and thus the systemic risk. Either model of interoperability exposes each CCP to the counterparty credit risk of the other CCP, of its members and the counterparties of its members, so in the event of a default, of a failure of one CCP to meet its obligations towards the other may be of such magnitude that would threaten the other with default because the volume of the linked

¹²⁸ Garvin Nicholas, "Central Counterparty Interoperability" Reserve Bank of Australia, June 2012 p. 64,65

¹²⁹ See note 128 p. 62

trades would be large¹³⁰. It is a fact that there are risk management reasons why such links cannot be supported by clearing houses. Firstly, as private entities competing in a market, they have different requirements and standards in terms of margins and default funds, which again makes the risk estimation and assessment difficult. A solution to that would be collateral and especially for the participant model, funds for the default fund. But that on the one hand would defeat the purpose of the cost effectiveness that interoperability is supposed to offer and on the other it would enhance interconnectivity, that the new regulations were aimed to reduce and control¹³¹.

Furthermore, interoperability mandates transparency in order for the risk management to be effective. That may be a challenge between entities that are competing and may not want to reveal certain information. But even if this is not the case, the operational problems that they have to face and more importantly the consequences of an operational failure can prove to be catastrophic. By contrast to the links between a CCP and a service provider, which would leave the CCP exposed to its clearing members, an inter-clearing house link would multiply this exposure by the number of the other CCP's clearing members. The perception of the threat of the operational risks in interoperability is more imminent when seen in the light of the newly established local CCPs that are legal entities just being set up and they are just getting acquainted with the new systems which are already hard to manage. Reaching risk free compatibility between their new systems and with those of the linked CCPs is impossible at least for the time being¹³². Similar is the case of the legal risks, since one additional contract is in place, entailing all the risks described above only with more extended consequences.

¹³⁰ See note 128p. 63

¹³¹ See note 91

¹³² See note 91

It is worth mentioning that when interoperability was tried in equity markets, a more organized and transparent market with low risk and short maturity products, it was not successful. The major problem was the wrong evaluation of exposures. This event verifies the opinion that currently, interoperability cannot be effective especially in the OTC derivative markets the clearing of which is just being organized and adapting to the new reality.

8. International Coordination

The above analysis has shown on the one hand that when central clearing, which is already a risk bearer function, is combined with the OTC derivatives market, the risks, if not managed properly, can have systemic implications to the market. On the other, although the nationally adopted regulations are part of an international effort, the examples so far have shown inconsistencies¹³³. National regulators focused on forming and drafting the relevant regulations without taking into account what happens outside their territory. They haven't realized that systemic problems need systemic solutions.

The ideal step to be taken would be for national regulators, even now, to further cooperate and harmonize as much as possible both the national the relevant regulations and the substantive laws, at least those expected to influence the function of the financial market infrastructure.

In particular, harmonized definitions of OTC derivatives – swaps, criteria for eligibility for clearing, end user exceptions, margin requirements, methods of calculating margins and supervisory techniques would eliminate the need for the extraterritorial scope of national regulations and the assessment for the recognition of third countries CCPs. The

¹³³ See note 120 FSB 2011

harmonization of these rules would be beneficial for regulators and market participants. Regulators would not need to assess the adequacy of foreign regimes, if they are identical to theirs. Market participants would not be subjected to dual or more regulations fact that would minimize their compliance and operational costs, confer predictability, certainty and freedom for their investment choices, since the criterion for entering into a transaction or not would be the actual potential benefit of the investment opportunity and not different regulatory factors that would be irrelevant. Full harmonization of regulations, though, is almost impossible due to the different characteristics of the national markets but also due to regulators' fear of losing their territorial rights. That being said the next best possible solution would be the mutual agreement on regulatory minimum standards that once implemented in a national level they would deprive the right of foreign regulations to implement their extraterritorial provisions to that nation and similarly to block, with the excuse of unequal treatment, CCPs established in that nation from functioning in the foreign country. IOSCO's recommendations on matters such as margin requirements¹³⁴ and mandatory clearing¹³⁵ could help in the accomplishment of that.

Even in the case of total harmonization, the adequate implementation and international consistency are not guaranteed. Trust needs to be built between regulators - supervisors. For that to happen, ongoing cooperation and coordination is necessary. Regulators should be open to discussions and even critique. They should both share the information they possess on the market they supervise, especially when a market participant or characteristic of transactions therein is connected with another jurisdiction and make

¹³⁴ Basel Committee on Banking Supervision and Board of the International Organization Of Securities Commissions, Consultative Document, "Margin Requirements for Non-Centrally Cleared Derivatives", July 2012, available at <http://www.bis.org/publ/bcbs226.pdf>

¹³⁵ Technical Committee of the International Organization of Securities Commission, "Requirements for Mandatory Clearing", February 2012 available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD374.pdf>

public the current condition of it, for example what is the progress made in terms of mandatory clearing. To this end IOSCO's recommendation to establish an on-line central information repository could coordinate the needed international reaction¹³⁶. This is the only way the central clearing regulations for OTC derivatives could fulfill their purpose and combat systemic risk, since regulators worldwide would have a clear picture of the global OTC derivatives market and be able to identify systemic threats allowing them to proactively intervene in a global, coordinated way.

That being said, the homogeneity of the kind of data collected by trade repositories and of the degree of sharing it become relevant. Trade repositories should either directly or through their supervisors' approval, in the latter case with fast procedures, share the information they keep. The facilitation of international access to a nationally regulated trade repository would, for example, mitigate the need of national supervisors, in their effort to protect their monetary policies, to demand that derivatives traded in their currency should be locally cleared¹³⁷ and thus local CCPs and the potential risks they entail would not be needed. Restrictions to the free access¹³⁸ on the other hand can fragment the market.

As far as substantive law harmonization is concerned although it would be ideal it is almost impossible mostly due to territoriality issues. For matters like the uncertainty of conflicts of laws that are barriers to legal certainty the practice of reciprocity through agreed conflicts of laws rules¹³⁹ could be followed. That would at least confer some sense of certainty and predictability on the applicable law allowing market participants to assess and

¹³⁶ See note 135, Recommendation XIV

¹³⁷ See note 91

¹³⁸ Such as the indemnification requirement of the SEC, the CFTC and the swap data repositories for any costs that may arise in the case of a litigation based on the information provided, DFA 763i

¹³⁹ Bagheri, Mahmood "International Securities Markets, Diversity of National Regulations and the Relevance of Public/Private law Dichotomy, at p. 19

manage their legal risks. The international initiative of the Hague Securities Convention¹⁴⁰, which covers derivatives, gives a solution like that, setting as a common rule that the applicable law should be the law of the country where the relevant intermediary, i.e. the clearing member, the broker etc, is engaged in an activity relating to securities accounts, but unfortunately is not ratified yet.

The problem is that as it was shown above the implications of the different insolvency law are so crucial for the risk management of the CCP and the other market participants that a substantive law harmonization that will recognize and safeguard close out netting agreements, is necessary. Close out netting is an important managing tool. Even the slightest uncertainty of its enforceability, can be catastrophic for the international financial market, especially now that CCPs have concentrated a big piece of the global counterparty credit risk. To that direction UNIDROIT has been drafting principles for the enforceability of close out netting¹⁴¹ that could give guidance to legislators worldwide on how to incorporate effectively such provisions to their legal systems. If these principles were incorporated to the national legal systems, CCPs would have a substantial degree of certainty on the transactions they enter and the markets would enjoy more standardized documentation.

The abovementioned proposed, regulatory and legislative solutions based on harmonization could be accomplished under the oversight of an international supervisory body, such as the Financial Stability Board, that would coordinate the national supervisors and regulators. This could happen in the form of the EU model which is a microcosm of the

¹⁴⁰ Hague Conference on Private International Law, "Convention on the Law Applicable to Certain Rights in Respect of Securities Held with an Intermediary"

¹⁴¹ UNIDROIT Study Group on Principles and Rules on the Netting of Financial Instruments, "Draft Principles Regarding the Enforceability of Close Out Netting Provisions", April 2012 available at <http://www.unidroit.org/english/documents/2012/study78c/s-78c-13-e.pdf>

global financial market, the coordinating regulations of which can be applied on an international level¹⁴². The European System of Financial Supervision (ESFS)¹⁴³ is a two pillar pan-european system comprised of the European Systemic Risk Board (ESRB) on one level and the three European Supervisory Authorities (ESAs) on the second. The ESAs cooperate with the national competent authorities and ensure homogeneous application of EU Financial Regulation. At the same time they assist the ESRB which gathers the information provided and thus is able to identify systemic risks and to issue remedial warnings and recommendations in an EU level. Although, this is difficult to happen in an international level since national regulators would not want to lose their sovereignty on their laws and to be able to serve if needed their national interests, it could be a method of integrating the financial regulations.

9. Conclusion

There is no doubt that the recent international regulatory initiative has the potential of benefiting both the financial markets and the public interest. For that to happen though, it is essential for regulators worldwide to realize that the minimum degree of cooperation is not enough. The transfer and concentration of the OTC derivatives market's counterparty credit risk to CCPs will turn them into systemically important institutions. A potential failure or default of one CCP is capable of triggering a cross – border domino effect among CCPs and market participants. Differences in key areas of the new regulations show that, once again, although within an international framework, the focus is on the national level. Unilateral initiatives, such as the US push out rule, or provisions that lead to regulatory inconsistencies

¹⁴² Scott, Hal S., *International Finance: Law and Regulation*, 2nd ed

¹⁴³ Council Regulation (EC) 1092/2010 of 24 November 2010 on European Union Macro-prudential Oversight of the Financial System and Establishing a European Systemic Risk Board OJ L 331/1, 15 December 2010

or overlaps not only have the adverse effect than the one intended, the mitigation of systemic risk but also either create new risks or act as exacerbating factors for the risks that are already embedded in the clearing houses' functions and the OTC derivatives market. The only way to avoid that kind of consequences and that CCPs and OTC derivatives can efficiently and safely coexist, is if regulators realize that they are regulating an international market and not a part of it within their borders. It is necessary that the national regulators cooperate and, if needed, give up some of their powers so that timely, coordinated and interconnected regulatory actions can be adopted and thus interconnected problems eliminated. Harmonization of regulations and substantive laws related to the insolvency procedures or to legal instruments that safeguard market participants' rights along with a central supervisory body coordinating their adoption and implementation at national levels could make the OTC derivatives market efficient and safe, since their systemic connections would be centrally regulated.

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