

# Department of Finance: Master's Degree in Financial Economics Financial Market Law and Regulations

Central Counterparties and Trade Repositories in Post-Trading Infrastructure under EMIR Regulation on OTC derivatives

## **SUPERVISOR**

Prof. Paola Lucantoni

## CANDIDATE

Domenico Provino Reg. No. 649951

## **CO - SUPERVISOR**

Prof. Concetta Brescia Morra

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### Abstract

This thesis is proposed to evaluate CCP clearing under EMIR, providing an overview of the OTC derivatives markets, the provisions of EMIR in practice, and then a cost-benefit analysis of the Regulation. Centralized clearing of OTC derivatives gives important advantages such as lower systemic risk, effective default management, and the mitigation of counterparty risk, lower complexity, and higher efficiency and transparency. But, these benefits must be weighed against potential structural weaknesses in the centralized management that relate potential costs (as the financial failure of a central counterparty), moral hazard, adverse selection, increased regulatory arbitrage, and increased costs of trading and controlling. The document will then focus on how to optimize the allocation of risk under the EMIR, in order to increase the probability that the overall objectives of the EMIR can be achieved in practice, and the other obligations introduced by the Regulation. The Regulation has to guarantee the optimization of allocation of risk for CCPs. It will require the determination and the proper balance of clearing eligibility for OTC derivatives, and it will also be necessary to ensure rigorous compliance to CCP risk governance and harmonisation practices, and more efforts made to reaching interoperability of CCPs in the near future. The financial crisis has generated a major renovation of the regulation of securities and derivatives markets. The debated and long-awaited Commission Proposals to review the keystone Markets in Financial Instruments Directive 2004 (MiFID I) were presented in October 2011. In this work, I studied the level to which the ongoing reforms, and Markets in Financial Instruments Directive (MiFID II) and Regulation (MiFIR), will expand the market of derivatives and public securities, although similarly reducing the field application of private markets (which are essentially the "unregulated" OTC markets). This paper also examines the latest developments and the costs and benefits of MiFIR and MiFID II, considering how these reforms reshape the EU share trading marketplace. Both the European Union (EU) and the United States (US) have adopted primary legislation that aims to meet the commitments of the G20 that all standardized over-the-counter (OTC) should be cleared through a central counterparty (CCP) and that OTC derivative contracts should be reported to trade. European Securities and Markets Authority (ESMA) in Europe and the Securities Exchange Commission (SEC), as well as the Commodities Futures Trading Commission (CFTC) in the United States decide which derivatives are eligible and, when applying the clearing obligation. This work, after a deeper study of the Dodd-Frank Act (passed in July 2010), focuses on the analysis between EU and USA Regulations. There is a significant commonality of approaches between EMIR and Dodd-Frank in relation to the regulation of OTC derivatives markets, but there are also some significant differences.

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### **INTRODUCTION**

"I'm probably not going to be popular for saying it, but I think almost all derivatives, as many as you can physically get to, should be on clearinghouses and should be on exchanges."

These are the exact words of Vikram Pandit, former CEO of Citigroup, at the annual meeting of the Securities Industry and Financial Markets Association (SIFMA) in 2011.

It's not often that a banker of his level, until a short time ago at the head of one of the biggest financial institutions in the world, relies on the transparency of the immense derivatives market where banks make real money. Nowadays Pandit is no longer at the helm of the bank, and most of his colleagues think differently. Too bad, 5 years after the outbreak of the crisis caused by the reckless use of derivatives, these financial instruments continue to increase in the opacity: now, according to BIS, amounts into the world to 638 thousand US billion dollars. It is about 9 times more than the GDP of the entire world. That is 7% higher than 2007 levels. But now rules, in Europe and in the U.S., begin to change.

These financial instruments are very useful because they serve to businesses and banks to cover various risks: for example, from fluctuations in interest rates or exchange rates. But in the last decade there has been a real abuse: derivatives have proliferated like mushrooms, too often losing their original vocation (hedging of risks) to assume a new one (instruments to speculate). They became, as the financier Warren Buffett said, tools "of mass destruction."

Currently, there are many more companies on credit default swaps (insurance against default on debt) which debts themselves. The group Alcoa, to give just one example, had gross debt of 8.8 billion dollars (according to the 2012 budget) but credit default swaps to \$ 26 billion<sup>1</sup>; insurance on the debt held by investors, in fact, they are almost three times greater than the debt itself. It is as if a person would ensure three cars for fire and theft, while having one.

But there is more. There are banks that have so many derivatives in the financial statements to be overcome, by themselves, the GDP of the world. JP Morgan, according to data from the *Office of the Comptroller*, has belly derivatives for 70 billion US dollars. Bank of America for 65 thousand billion. Citigroup to 51 thousand. Not to mention the countless scams against local authorities or "holes" that occasionally find themselves here and there in the balance sheets of banks. So this is a huge market that needs to be regulated, but should be treated, also, under special surveillance.

Instead derivatives exchanges take place, in the age of a pushing digitalization, still on the phone through a trader; few derivatives are bought and sold on technology platforms. The reason seems to be that the big banks earn a lot of money from this opacity, because they are market makers (those who make the market and decide the bid-ask prices). And being the big banks lending policy (in 2012 the financial sector in the U.S. has been the second most generous American parties), they are pushing for the rules do not change.

But the first steps are moving forward. The hope is that, sooner or later, the derivatives come back what they were: tools to reduce risk not increase them.

<sup>&</sup>lt;sup>1</sup> Source: DTCC



#### Valori nominali di tutti i contratti esistenti. In miliardi di dollari

Figure 1. Nominal Value of all existent contracts (US\$ billions), Source: BIS, 2012

## European Framework: Overview

The consideration of politicians and regulators on financial markets has changed after the 2008 crisis and, also, it highlighted the vulnerability of OTC markets to systemic shocks and revealed the failure of self-regulation for the financial sector to effectively evaluate systemic issues relating to their activities.<sup>2</sup> The intervention of governments and international policy makers was triggered by the opacity of the OTC markets, resulted from a lack of transparency on the positions and exposure, and the subsequent uncontrolled spread in a systemic dimension of counterparty risk. Regulators accused the markets and their actors for being driven by purely selfish private interests and excessive moral hazard; for externalizing the costs of their activities to society; and for free riding on their systemic position and role ("Too Big To Fail").<sup>3</sup>

Derivatives markets have been the battleground of an international post-crisis regulatory intervention. The derivatives pre crisis scenario was characterized by the coexistence of derivatives markets, public and private. Both in the United States and the European Union, commodities

<sup>&</sup>lt;sup>2</sup> There is a vast debate around the role of OTC derivatives in the financial crisis. No doubt, OTC derivatives contributed to the spread of the crisis at systemic level, due to the intricate web of interconnections among the biggest derivatives dealers. 'Derivatives and CDSs did play a part in the global financial crisis, but they did not cause it': see MASTERS B., 'Derivatives in Crisis – Safeguarding Financial Stability' (2009); see also European Commission *Commission Staff Working Document – Impact Assessment Accompanying document to the Proposal for a Regulation of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories (2010) . On the role of credit derivatives and CDSs in the financial crisis see RM STULZ, 'Credit Default Swaps and the Credit Crisis' (2010) 24 J of Eco Perspectives.* 

<sup>&</sup>lt;sup>3</sup> Expression from the intuitive meaning which sets out the principle that the monetary authority does not allow to fall into a state of insolvency (and fail) to a bank or other financial intermediary of such dimensions as to generate potential systemic adverse effects. The expression is entered in the official usage of the USA in 1989 on the occasion of the crisis of Continental Illinois National Bank of Chicago, the seventh bank in the country, who had gone to great losses. The Federal Deposit Insurance Corporation (FDIC) did not allow the opening of bankruptcy proceedings of the Continental, "too big to fail" and protected for the entire capital also deposits not covered by insurance. The FDIC subsequently allowed the failure of other large banks, but always protected depositors (nine banks in Texas in 1987-89, Bank of New England in Boston, New York Bank for Savings and National Bank of Washington in 1991 defined this , too special to fail).

derivatives, futures and options were traded mainly on public markets, such as the Chicago Mercantile Exchange (CME)<sup>4</sup> and Eurex.<sup>5</sup> Buyers and sellers then operated in regulated and supervised markets, where they traded standardized contracts in a lit environment. Since the 2000, a group of global financial institutions (referred to as G15) have created a huge OTC market for financial derivatives, built upon bilateral transactions highly customized. The financial crisis was most severe and widespread through the OTC markets, so that the media blame derivatives for causing the whole financial collapse, while regulators have decided to intervene with force to restore stability, trust and confidence in financial markets.<sup>6</sup>

Because of the cross-border and international dimension of the OTC markets, the G20<sup>7</sup> and the FSB, which represents the major economies of the world, adopted international guidelines to provide a common framework, also harmonized for national regulators to reorganize their financial systems.<sup>8</sup>

The new architecture of derivatives markets is balanced on four pillars:

1. promotion of OTC derivatives standardization;

<sup>&</sup>lt;sup>4</sup> www.cmegroup.com

<sup>&</sup>lt;sup>5</sup> www.eurexchange.com

<sup>&</sup>lt;sup>6</sup> See G P MILLER, Trust, Risk and Moral Hazard in Financial Market, Il Mulino, 2011.

<sup>&</sup>lt;sup>7</sup> See Leaders' Statement: The Pittsburgh Summit at *http://www.g20.org* 

<sup>&</sup>lt;sup>8</sup> The document the G20 Leaders agreed on expressly states: '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. We ask the FSB and its relevant members to assess regularly implementation and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse.'

2. transparency through trade reporting to centralized trade repositories;

3. establishment of a central clearing system;

4. trading on exchanges and electronic platforms.<sup>9</sup>

These are the four pillars of the EU regulatory action. To implement these guidelines, the European Union decided to follow two paths: first, by adopting a new regulation on the financial infrastructure to build new structural elements of derivative markets; secondly, the revision of the existing MiFID, to adapt the existing rules on trading venues.

The European debate around the reforms after the crisis began in October 2008, when the Commission appointed a 'High Level Group on Financial Supervision', chaired by Jacques de Larosière. The High Level Group published its recommendations in early 2009, with the objective of investigating the causes of the financial crisis in Europe and to set a new regulatory program 'to take the European Union forward'.

Mr. de Larosière, in his introductory speech, stressed the importance of establishing mechanisms to challenge systemic financial risks, to reduce the cyclical amplifiers and to enhance transparency. Following this initiative, the Commission adopted two communications in July<sup>10</sup> and October<sup>11</sup> 2009 taking a position on the OTC market. On 15 September 2010, after a consultation phase highly participatory, the European Commission published a draft regulation on the "OTC derivatives, central counterparties and trade repositories' implementation of the recommendations of the de Larosière group and the guidelines

<sup>&</sup>lt;sup>9</sup> See FSB, Improving Financial Stability, Report of the Financial Stability Board to the G20 Leaders (2009).

<sup>&</sup>lt;sup>10</sup> See http://eur-lex.europa.eu/LexUriServ.do?uri=OJ:C:2011:236E:0017:0024:IT:PDF

<sup>&</sup>lt;sup>11</sup> See http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0563:FIN:IT:PDF

FSB. The Council of the European Union, the European Commission and the European Parliament reached a political agreement on the final text of 9 February 2012 and the text was approved by the European Parliament in plenary session March 29, 2012. In the end, July 4, 2012 the European Parliament and the Council adopted the Regulation on OTC Derivatives, Central Counterparties and Trade Repositories (known as EMIR), which came into force on August 16, 2012.

According to the provisions of EMIR, the European Securities Market Authority (ESMA) proposed to the Commission nine additional delegate regulations and implementing regulations, approved on December 19, published in the Official Journal on February 23, 2013 and entered into force on March 15, 2013.

So, in light of the proclamation of the G20 leaders<sup>12</sup>, the European Market Infrastructure Regulation (EMIR) came into being in order to transpose these political commitments into practice across the EU.

<sup>&</sup>lt;sup>12</sup> "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" [G20 (2009)].

## **OTC Derivatives Markets: Overview**

Historically the OTC derivatives markets developed on a bilateral basis, which means that OTC derivative contracts have been negotiated and settled bilaterally between counterparties. Typically this meant that counterparties to an OTC derivatives contract negotiated contractual and economic terms under the standardized International Swaps and Derivatives Association, Inc. (ISDA) Master Agreement architecture documentation, and put in place settlement procedures to monitor for changes in margin requirements and counterparty creditworthiness and contractual compliance.

The nature of this relationship meant that each counterparty to an OTC derivative contract was exposed to counterparty risk, i.e. the risk that the other party would be unable to meet its payment obligations under the OTC derivatives contract. The techniques that have been developed by market participants to reduce counterparty risk are netting of bilateral positions (aggregate close-out netting of all OTC derivatives exposures between two counterparties); collateralization of net remaining exposure (the posting of collateral to cover potential risks); and operations of compression and tear-up that eliminate redundant and reduce counterparty risk.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> Such as TriOptima's triReduce tear-up service or compression services run by Creditex and Markit [IMF (2010)].



Figure 2. Growth in value of collateral (US\$ billions), Source: ISDA, 2012

However, the bankruptcy of Lehman Brothers has shown serious operational weaknesses, including the under collateralization of OTC derivatives positions<sup>14</sup>, the non-transparency present in bilateral OTC derivatives and the increased risk of infection or "daisy chain" effect, for which the default of a counterparty triggers the default of a long chain of other counterparts. It may be noted that while there has been significant growth in the value of reported and estimated collateral in uncleared OTC derivatives markets (**Figure 2**).

<sup>&</sup>lt;sup>14</sup> See SINGH, M. and J. AITKEN, 2009, Counterparty Risk, Impact on Collateral Flows and Role for Central Counterparties, in IMF Working Paper 09/173

	All, average		Large dealers, average	
	2012	2011	2012	2011
All OTC Derivatives	71.4	69.8	83.7	80.2
Fixed Income Derivatives	78.1	78.6	89.7	87.9
Credit Derivatives	93.4	93.2	96.1	95.8
FX Derivatives	55.6	58.2	70.6	65.2
Equity Derivatives	72.7	72.1	85.3	73.2
Commodities, Including Precious Metals	56.3	59.6	62.9	62.9

Figure 3. Percentage of trades subject to collateral agreements, by OTC derivative type, *Source:* ISDA, 2012

There still exists a significant portion of undercollateralized OTC derivatives across the major OTC derivatives classes, and 28.6% of undercollateralized OTC derivatives overall (**Figure 3**).

### European Market Infrastructure Regulation: Overview

The EMIR is an EU Regulation, and thus its provisions are "directly effective" in all 27 EU Member States, which means that it is not necessary for the transposition of legislation into national law. EMIR applies to "financial counterparties" (FCs), such as banks, investment firms, fund managers, and insurers, as well as the "non-financial" (NFCs), which includes all entities that are not defined as FCs. Basically, the EMIR requires among other things that all OTC derivative contracts nominated as subject to mandatory clearing by the European Securities and Markets Authority (ESMA), be centrally cleared by an authorized central clearing counterparty (CCP), and that all outstanding counterparty derivatives contracts be reported to an authorized trade repository (TR).



Figure 4. Percentage of notional OTC derivatives amounts outstanding of \$US638,928 billion, *Source:* BIS, 2012

This requirement covers the five major classes of derivatives, particularly credit, equity, interest rate, commodity and foreign exchange (FX) OTC derivatives. From the outset it should be noted that the CDS actually represent only 4.22% of the total notional amounts outstanding for OTC derivatives, with the majority made up of contracts on interest rates probably simpler structured and transparent (77.32%), and foreign exchange contracts (10.43%) (**Figure 4**).

Furthermore, the type of OTC contracts remaining, which includes equity-linked contracts (0.99%) and commodity contracts (0.47%), only represent a minute part of the OTC derivatives markets and are difficult to standardize. Consequently, despite public pressure for reform in the wake of the recent financial crises, from one point of view it could be argued that this initially calls into question the current need for the introduction of CCP clearing of OTC derivatives.

The EMIR also requires the implementation of new standards of risk management, including higher requirements on capital and monitoring, for all bilateral OTC derivatives not subject to mandatory CCP clearing. CCP will be authorized by the national financial regulators, but will be subject to legal oversight by new Domestic Supervisory Colleges (DSC) which are to be specifically established. In the UK, for example, the controller is the Bank of England (BoE) since April 1, 2013.

The global financial system has to support up to \$ 6.7 billion in compliance costs, to be in line with the provisions of the anti-crisis laws that are coming into force in the United States than in Europe, and they're going to regulate especially derivatives markets over-the-counter, until now known not only to have the same rigidity of regulated markets. According to CEB TowerGroup, a consulting firm which published some researches, the various regulations introduced by the two sides of the Atlantic to reduce counterparty risks in operational transactions with derivative contracts excluded from regulated markets, in particular, the European Market Infrastructure Regulation (EMIR) in the European Union and the Dodd-Frank Act in the United States, will have an important role in varying the competitive scene of the major financial centres.

The main detail of costs incurred by banks, corporations, asset management companies and hedge fund investments will focus on the technological front. These progresses require new systems for risk management, for connectivity between the clearing houses, banks and customers, and for the registration of the trade in specialized databases. A front on which banks and brokers are gearing up, with significant investments made in 2011.

According to CEB in particular, 40% of the more than 6 billion will be spent by banks and 27% by funds and institutional investors. At the same time, all these investments are making the fortune of many consulting firms that have specialized exclusively on the implementation of new regulations, and are preparing for an increase in profits in England, the United States and Canada.

An example is Rule Financial, an independent provider of consulting services in particular in the areas of technology, which recently announced a 15% increase in revenues and a growth strategy for the future. Rule Financial has decided to recourse to a strategy of relocation "nearshoring" in Poland, where 178 employees could be 200 by the end of the year.

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The firm launched a software application managed services from its headquarters in London and expects further growth in the United States. As described by Chris Potts, CEO of Rule Financial, "this new wave of new regulations that followed the financial crisis of 2008 is driving the strategies of those who work in the financial market with regard to the technology front. Dodd-Frank, EMIR and Basel III are just some of the regulations on which we follow our customers. The decision to open in Poland further supported the demand for our services. "

Potts added that Rule Financial aims to exploit this process of implementation of legislation to expand the business.



Figure 5. EMIR Implementation Timeline, Source: ESMA, 2012

Moreover, although the EMIR came into force on August 16, 2012, its full implementation will be gradual and will happens over a number of different stages (**Figure 5**). Mainly, because the first level legislative requirements under EMIR will be implemented in practice through a series of technical standards which are still in process of being finalized,

although nine regulatory and implementing technical standards were adopted by the European Commission on December 19, 2012. EMIR's requirements will apply to Central Counterparties, Financial Counterparties, Non-Financial Counterparties, and Trade Repositories.

Financial Counterparties are defined to include investment firms, credit institutions, authorized insurance undertakings, assurance and reinsurance undertakings, undertakings for collective investment in transferable securities (UCITS), occupational retirement institutions, and alternative investment funds; and Non-Financial Counterparties including all other businesses established in the European Union that are not Financial Counterparties.

Derivatives take in consideration all derivatives listed under the Markets in Financial Instruments (MiFID), including financial derivatives (physically or cash settled); commodity derivatives (cash settled); commodity derivatives traded on a regulated market or MTF, multilateral trading facility (physically settled); and commodity derivatives which have characteristics of other derivative financial instruments (physically settled).

The main obligations under the EMIR will be:

• the mandatory centralized clearing of certain standardized classes of OTC derivatives through CCPs;

• the application of risk mitigation techniques (including timely confirmation, portfolio reconciliation and compression, contract valuation and dispute resolution) for non-centrally cleared OTC derivatives;

• the reporting of all OTC derivatives to Trade Repositories<sup>15</sup>;

<sup>&</sup>lt;sup>15</sup> For a first comment to EMIR, see FERRARINI and SAGUATO, "Reforming Securities and Derivatives Trading in EU: from EMIR to MIFIR" (2013) 13(2) Journal of Corporate Law Studies 319;

• the application of organizational, conduct of business and prudential requirements for CCPs;

• the application of requirements for Trade Repositories including a duty of public disclosure.

ESMA will be the central body that mandates which classes of OTC derivatives<sup>16</sup> will be considered for mandatory clearing, and it will use both a "top-down" and a "bottom up" to do this.

The top down approach involves the choice of ESMA, which on its own initiative, must assess CCP clearing obligations should apply to a certain class of OTC derivatives. This will involve the holding of a public hearing and consultations, with the subsequent development and presentation of technical standards for the approval by the European Commission. In particular, ESMA, on its own initiative and after conducting a public consultation and after consulting ESRB, notifies the Commission the classes of derivatives that should be subject to the clearing obligation but for which no CCP has obtained an authorisation, yet. However, the European legislator sets out guidelines to determine the suitability for OTC derivative contract clearing. Said guidelines are

ACCETTELLA, "L'accordo di Basilea III: contenuti e processo di recepimento all'interno del diritto dell'UE" [2013] Banca, borsa, tit. cred., I, 484 s; SASSO, "L'impatto sul mercato dei derivati OTC" [2012] Giur. comm., I, 899 ss.; SCALCIONE, "La nuova disciplina dei derivati OTC: un prodotto di importazione" in Santoro (ed),La crisi dei mercati finanziari: analisi e prospettive, I, (Milano, 2012), 407; The Derivatives Revolution: A Trapped Innovation and a Blueprint for Regulatory Reform (2011) at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2031554.; LANOO and VALENTE, Prospects and Challenges of a Pan-European Post-Trade Infrastructure (2012) at http://ssrn.com/abstract=2174367; BAFFI, LATTUCA and SANTELLA, Extending the EU Financial Regulatory Framework to AIFM, Credit Derivatives, and Short Selling, (2011) at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=.

<sup>&</sup>lt;sup>16</sup> Second-level legislation, namely Delegated Regulation 149/2013 art.7, further specifies the elements that contribute to identify the relevant standardisation requirements, and tasks ESMA to assess: (a) whether the contractual terms of the relevant class of OTC derivative contracts incorporate common legal documentation, including master netting agreements, definitions, standard terms and confirmations which set out contract specifications commonly used by counterparties; (b) whether the operational processes of that relevant class of OTC derivative contracts are subject to automated post-trade processing and lifecycle events that are managed in a common manner according to a timetable which is widely agreed among counterparties.

based on the observation of features that can already be found in the markets under consideration.<sup>17</sup>

The bottom up approach consists of national regulatory authorities authorizing central counterparties to clear certain types of OTC derivatives classes followed by public consultations and the development of technical standards for those OTC derivatives highlighted by ESMA<sup>18</sup>. In particular, the process starts with the CCPs filing an authorisation application to clear a given class of derivatives with the competent national authority (CNA); the CNA then notifies the decision made by ESMA that—after conducting a public consultation and after consulting the European Systemic Risk Board (ERSB)—can confirm the decision and harmonise it Europe-wide. Non-Financial Counterparties which use OTC contracts exclusively for commercial hedging purposes and which are "objectively measurable as reducing risks directly relating to the commercial activity or treasury financing activity of a nonfinancial company or its group" will be excluded from the OTC central clearing obligation. In addition, when a Non-Financial Counterparties surpasses one of the thresholds on the basis of a 30-day rolling period, then it will be subject to mandatory OTC central clearing. The clearing thresholds are based on a gross notional of  $\in$  1 billion (credit and equity OTC derivatives) and  $\notin$  3 billion (interest rate, FX, commodities, and other OTC derivative contracts).

Lastly, Trade Repositories that are currently authorized or registered in the EU must re-apply for registration under EMIR in six months from

<sup>&</sup>lt;sup>17</sup> Pursuant to Regulation 648/2012 art.5 para.4, the basic criteria whereby ESMA shall identify the relevant OCT derivative classes include: the degree of standardisation of the contractual terms and operational processes of the relevant class of OTC derivatives; the volume and liquidity of the relevant class of OTC derivatives; and the availability of fair, reliable and generally accepted pricing information in the relevant class of OTC derivatives.

<sup>&</sup>lt;sup>18</sup> Regulation 648/2012 art.5

the date of entry into force of relevant technical standards, and central counterparties currently authorized EU must apply for EMIR authorization within six months of the entry into force of the technical standards.

## **1. THE CENTRAL COUNTERPARTY CLEARING HOUSE**

A key risk attached to financial market transactions is counterparty credit risk — the risk that one party to a contract defaults and cannot meet its obligations under the contract. This can lead to a loss for the counterparty on the other side of the contract. If those losses are severe enough, they may cause the affected parties financial distress which, in turn, can have a knock-on effect for their creditors<sup>19</sup>.

In this way, counterparty credit risk is an important channel for contagion and can be a potential source of systemic risk.

CCPs are financial market infrastructures that can reduce and 'mutualise' — that is, share between their members — counterparty credit risk in the markets in which they operate<sup>20</sup>.

<sup>&</sup>lt;sup>19</sup> CCPs face the risk of loss from default by a participant, typically as a consequence of its insolvency. This counterparty credit risk may have two dimensions: pre-settlement or replacement cost risk, which is the loss from replacing open contracts with the defaulting participant, and settlement or principal risk, which is the risk of loss on deliveries or payments to the defaulting participant. If a participant were to default, a CCP typically would terminate the defaulter's contracts. But a CCP still has an obligation to other participants, and it thus would need to take steps to avoid assuming market risk. A CCP would enter the market and purchase or sell contracts identical to those held by the defaulting participant at current prices. Replacement cost risk arises because the contracts may be sold at prices lower than the original traded prices or purchased at prices higher than the original traded prices. The magnitude of this replacement cost risk depends on the volatility of the contract prices, the amount of time that has elapsed between trade dates and default, and the size of the positions being replaced. In addition to replacement cost risk, CCPs also face settlement risk. CCPs can incur large credit exposures on settlement days when the full principal value of transactions may be at risk. This occurs when contracts are settled through delivery, but delivery versus payment (DVP) is not achieved. If an instrument is delivered prior to receipt of payment, the deliverer risks losing its full value. If payment is made prior to delivery, the payer risks losing the full value of the payment.

<sup>&</sup>lt;sup>20</sup> Typical examples of CCPs in the United States include the clearing houses for the derivatives markets in Chicago – the Chicago Mercantile Exchange Clearing House, the Options Clearing Corporation and the Clearing Corporation. The Clearing Corporation, formerly known as the Board of Trade Clearing Corporation, was the clearing house for the Chicago Board of Trade until the creation

Their origins as clearing houses can be traced back to the late 19th century, when they were primarily used to net payments in commodities futures markets. Clearing via CCPs initially grew through exchange-traded products including bonds, equities, futures and options contracts<sup>21</sup>. During the first decade of this century, clearing became important for OTC products as well as those traded on exchanges.

### 1.1 History

CCPs have their origins in 19th century futures exchanges.

«The trade of futures includes long-dated and, also, credit-risky positions, and it led to an evolution of credit risk management structures coming into a climax in the modern structure of the central counterparty. Initially, exchanges were simply forums for negotiating. Risk taking and settlement was handled on a bilateral basis. Membership served to provide some certification of the counterparties (members) and, since membership was valuable, provided disincentives to default. The next step in the evolution of CCPs was the development of clearing "rings", collections of members that agreed to accept each other's contracts. This development arose, less for credit risk reasons than for liquidity; joint acceptance of ring members' contracts created for the members the ability to more easily close out contracts, and thus enhance their usefulness. Rings did not however eliminate the essential counterparty specific nature of contract credit risk in the event of default. Exchanges

of the "common clearing link" for the Board of Trade and the Chicago Mercantile Exchange. Examples in the European Union include LCH. Clearnet Ltd and Eurex Clearing AG.

<sup>&</sup>lt;sup>21</sup> NORMAN P., The risk controllers: central counterparty clearing in globalised financial markets, Wiley, 2011.

and rings gradually evolved mechanisms for mitigating credit risk margins, member transparency requirements, and by the late 19th century member-funded exchange-controlled pools to insure losses due to member default<sup>22</sup>. It was not however until the founding of the (Chicago) Board of Trade Clearing Corporation (BOTCC) in 1925 that the central counterparty with contract novation was developed. This innovation, combined with the previously developed methods for reducing member credit risk (dynamic margining, daily mark-to-market, and loss mutualization) has proven highly successful. By the late 1990s almost all US derivatives exchanges had affiliated central counterparty clearing arrangements<sup>23</sup>».

OTC derivatives markets did not grow up until the 1980s, in part due to regulation, and in part due to the benefits in terms of liquidity and credit risk management provided by exchange traded derivatives.

However, technological advances in financial engineering and regulatory gaps have since led to the rapid growth of OTC derivatives. These markets are now far larger (in terms of notional amounts outstanding, if not numbers of individual transactions per day) than the exchange/CCPbased markets. Credit risk on OTC derivatives markets remains primarily a bilateral matter. There appears to be no analogue to the clearing rings of the late 19th century.

Bilateral clearing serves the interests of major dealers. It protects their market power by raising barriers to entry and by reducing the ability for cross-counterparty offset, thus locking in client counterparties.

<sup>&</sup>lt;sup>22</sup> KROSZNER R., Can the Financial Markets Privately Regulate Risk: The Development of Derivatives Clearing Houses and Recent Over-the-Counter Innovations, 1999

<sup>&</sup>lt;sup>23</sup> BLISS R., PAPATHANASSIOU C., *Derivatives clearing, central counterparties and novation: The economic implications*, available at www. ecb.europa.eu, 8 march 2006.

The size of the major dealers and their own risk management practices provides them with considerable diversification protection against enduser market and credit risk. Inter-dealer exposures are managed through offset and close out of redundant contracts, occasionally on a multilateral basis, and nearly complete collateral protection of remaining exposures. This suggests that for the dealers the cost/benefit trade-off of these mechanisms outweighs those of the more cooperative approaches of rings and mutualization. This may be due to the absence of a welldefined membership organization with attendant collective interests. Or it may be due to the international nature of the OTC derivatives market with attendant legal obstacles to collective solutions.

Instead, OTC markets evolved the derivatives product corporation <sup>24</sup> to mitigate credit risk. These are bankruptcy remote subsidiaries of major dealers, structured to minimize market and credit risk by requiring the parent to provide offsetting contracts to ensure that the DPC remain market neutral, and for the parent to fully collateralize its exposure to the DPC. Restrictions are also imposed on (external) counterparty credit quality and activities (position limits, collateral, etc). This structure allows the DPC to obtain an AAA credit rating, even if the parent is not AAA rated.

The DPC structure provides external counterparties a degree of protection against credit risk, but it does so by making their bilateral counterparty more credit worthy, rather than by mutualizing credit risk across a broader set of market participants. If a DPC fails, the only support is the parent company. This may or may not protect the counterparties. What the DPC structure does do is protect the DPC's

<sup>&</sup>lt;sup>24</sup> See KROSZNER R., op. cit.

counterparties against the failure of the DPC parent. However, should the parent become financially distressed or fail to meet its obligations the soundness of the DPC will be called into question. This could have serious consequences.

Failure of a futures exchange member to meet a margin call will result in that member's positions being unwound. Failure of a DPC's parent to meet its collateral call could result in all its positions being unwound simultaneously. While no major derivatives dealer has failed, the bilaterally-cleared dealer-dominated OTC market remains inherently more vulnerable to credit risk than the mutualized member-backed CCPs.

The proposition of appropriate financial regulatory rules should engage a rigorous cost-benefit analysis in order to justify their imposition, and to determine the probability of the overall success of their objectives. So considering the EMIR, the main aims are to increase market stability and and reduce market transparency, to interdependencies and the counterparty and systemic risks associated with the OTC derivatives markets. How? The first step is the introduction of centralized clearing of OTC derivatives through CCPs across the EU. «According to the Bank for International Settlements (BIS), a CCP is defined as an entity that interposes itself between counterparties to contracts in one or more financial markets, becoming the seller to the buyer and the buyer to the seller. The EMIR essentially takes in consideration the same definition and defines a CCP as "a legal person that interposes itself between the counterparties to the contracts traded on one or more financial markets, becoming the buyer to every seller and the seller to every buyer<sup>25</sup>».

On September 23, 1998, a group of fourteen banks and brokerage firms invested \$3.6 billion in Long-Term Capital Management L.P. (LTCM) to prevent the firm's imminent collapse. The capital infusion forestalled a fire sale of LTCM assets into already turbulent markets and instead allowed for an orderly liquidation of the hedge fund's holdings. While the Federal Reserve brought the market participants together and oversaw the refinancing, it did not put its own funds at risk. Rather, creditors of LTCM-who had the most to lose from its bankruptcy arranged and financed the rescue. The effort thereby addressed the nearterm concerns of a possible fire sale of LTCM assets, while mitigating long-term moral hazard concerns that might have arisen from the use of public funds.

Led by a team of market experts including two Nobel laureates, LTCM was a hedge fund well known for using sophisticated mathematical models to make impressive profits. Founded by former Salomon Brothers Vice Chairman John Meriwether in February 1994, LTCM exploited temporary price differences between similar types of securities. Its "market-neutral" design meant it expected to make profits regardless of whether prices were heading up or down. LTCM generated above-normal returns of 20 percent in 1994, 43 percent in 1995, 41 percent in 1996, and 17 percent in 1997<sup>26</sup>.

<sup>&</sup>lt;sup>25</sup> BLISS R., PAPATHANASSIOU C., op. cit. [(see also EMIR, Article 2 (1)].

<sup>&</sup>lt;sup>26</sup> See SICONOLFI M., RAGHAVAN A., PACELLE M. All Bets Are Off: How the Salesmanship and Brainpower Failed at Long-Term Capital, in Wall Street Journal, November 16, 1998.

By the nature of its strategy, LTCM earned low returns on each dollar invested. In order to earn high rates of return on its capital, the fund borrowed considerable money to leverage its positions. At the end of 1997, LTCM returned capital to its investors, without reducing the scale of its investments, thereby further increasing its already high leverage<sup>27</sup>. As of the end of 1997, LTCM was holding about \$30 in debt for every \$1 of capital<sup>28</sup>. Using its high leverage, LTCM sought profits in a broad range of markets – including those for government bonds, mortgage-backed securities, and equities – and entered into derivatives contracts extensively, including those for swaps, forwards, and options.

In 1998, the financial markets crisis that had started in Southeast Asia the previous year intensified. In August, Russia suddenly devalued its currency and stopped payments on its debt, spurring investors to seek safer and more liquid investments. LTCM had largely been betting on the spreads in its portfolios to converge, but in almost every case, they diverged<sup>29</sup>. The fund lost 44 percent of its value in August alone. In late August, shortly after suffering huge losses on August 21, LTCM began seeking additional capital. The fund's need for capital became broadly known when LTCM disclosed its August losses in its September 2 letter to investors (Siconolfi 1998).

<sup>&</sup>lt;sup>27</sup> DEPARTMENT OF THE TREASURY, Board of Governors of the Federal Reserve System, Securities and Exchange Commission, Commodity Futures Trading Commission, *Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management*, Report of the President's Working Group on Financial Markets, Washington, DC, April 1999.

<sup>&</sup>lt;sup>28</sup> See LOOMIS C. J., A House Built on Sand, in Fortune 138, no. 8, October 26, 1998, pp. 110-18.

<sup>&</sup>lt;sup>29</sup> See LOWENSTEIN R., *When Genius Failed: The Rise and Fall of Long-Term Capital Management*. New York: Random House, 2000.

On September 18, LTCM officials contacted Federal Reserve Bank of New York President William McDonough about its financial problems. A team from the New York Fed visited LTCM two days later. While the Fed had been aware of LTCM's situation through its usual market monitoring activities, the dangerous scale and scope of LTCM's positions became apparent only upon closer inspection. The Fed came to be concerned that if LTCM's extensive list of counterparties tried to exit their positions at the same time, it would create a rapid and widespread sale of assets, a fire sale, which could potentially impair the economy.

On September 22, the New York Fed invited a core group of three firms to a meeting to discuss the LTCM situation. The core group, later expanded to a fourth firm, formed three working groups to consider possible solutions, one of which came up with the idea of a consortium approach. A broader group of thirteen firms was invited to the New York Fed that evening to discuss the approach. The firms disagreed over how much each firm should contribute to a rescue package and could not commit to such an effort on such short notice<sup>30</sup>.

The talks on a combined rescue reconvened on the morning of September 23, but were soon halted by news that an investor group led by Warren Buffet had made an independent offer to buy out the firm's partners for \$250 million and subsequently inject \$3.75 billion capital into the fund<sup>31</sup>. This appeared a clean solution to both the creditors and the Fed, and McDonough advised Meriwether that it was likely his best

<sup>&</sup>lt;sup>30</sup> SICONOLFI M., RAGHAVAN A., PACELLE M. op. cit.

<sup>&</sup>lt;sup>31</sup> LOOMIS C. J., op. cit.

bet<sup>32</sup>. By the 12:30 p.m. deadline, however, the offer was not accepted due to reported legal issues.

With no other solution in sight, the talks resumed with more haste inside the New York Fed. The consortium ultimately came to an agreement at about 6:00 p.m. on September 23. Together, fourteen firms put up \$3.625 billion in capital in exchange for 90 percent of the fund's ownership (two firms included in the talks declined to participate). Under the arrangement, LTCM's partners were required to run the dayto-day operations of the company with no bonuses and limited salaries, and they had to report closely to an oversight committee made up of representatives from the consortium (Lowenstein 2000). Under this new leadership, LTCM sold most of its remaining positions and returned the last of the group's \$3.6 billion investment by the end of 1999 (US General Accounting Office 2000). LTCM's partners and other investors suffered substantial losses when their claim was reduced to 10 percent, on top of the market-driven declines before the recapitalization.

The LTCM episode represents an instance where the Federal Reserve was able to facilitate the rescue of a failing financial institution without lending its own funds. Creditors of LTCM put up the funds, thereby mitigating the moral hazard concerns that might have arisen had public funds been used. At the same time, uncertainty about the fate of LTCM led to significant market disruptions including high volatility, low liquidity, and price discrepancies among similar securities. This suggests the need for an established mechanism to address the risks of fire sales arising from failing financial firms, rather than relying on the Fed to coordinate ad hoc private sector solutions at the last minute.

<sup>&</sup>lt;sup>32</sup> SCHLESINGER J., SCHROEDER M., Greenspan defends Long-Term Capital Plan - More Threats Lurk in Market, Fed Chairman Testifies; Lawmakers Are Critical, in Wall Street Journal, October 2, 1998.

OTC derivatives are bilateral, privately negotiated contracts that derive their value from some underlying commodity or asset price, reference rate, or index. They may be settled in cash or physically and include a wide range of commercial contracts like forward purchase agreements. Indeed, commercial OTC derivatives have been documented going back for centuries<sup>33</sup>.

Swaps are widely regarded as the first modern example of OTC financial derivatives. In 1981, for example, the World Bank and IBM executed a swap agreement arranged by Salomon Brothers<sup>34</sup>. That transaction was typical of other swaps executed in the early 1980s – viz., mostly one-off deals arranged by banks for their corporate finance customers.

Soon thereafter, dealers began to intermediate OTC derivatives transactions to reduce counterparty search costs for their customers. Unlike brokers or advisors, dealers were principals in the transactions they arranged.

Nearly all OTC derivatives today are still negotiated between a dealer and end user or between two dealers.

Inter-dealer brokers (IDBs) also play an important role in OTC derivatives by helping dealers (and sometimes end users) identify willing counterparties and compare different bids and offers. In addition, various

<sup>&</sup>lt;sup>33</sup> See DE ROOVER R., *Money, Banking and Credit in Mediaeval* Bruges, Cambridge: The Mediaeval Academy of America, 1948; DE ROOVER R., *The Rise and Decline of the Medici Bank*, Washington, D.C.: Beard Books, 1963; SWAN E. J., *Building the Global Market: A 4000 Year history of Derivatives*, London: Kluwer Law, 2000.

<sup>&</sup>lt;sup>34</sup> PARK Y.S., *Currency Swaps as a Long-Term International Financing Technique*, in Journal of International Business Studies Vol. 15 (No. 3), 1984, p. 47-54; FLAVELL R., *Swaps and Other Derivatives*, Wiley, 2005.

forms of electronic trading systems have also been developed to facilitate the negotiation of OTC derivatives.

The July 2009 Treasury Plan stated that the "the market for OTC derivatives has gone largely unregulated<sup>35</sup>". Although no federal or state agency has ever been designated as a regulator of OTC derivatives as a product, virtually all systemically important financial institutions are regulated – including oversight of their OTC derivatives activities<sup>36</sup>. For example, the Fed's Trading and Capital-Markets Activities Manual for examiners is 675 pages long and includes sections on OTC derivatives like forwards, forward rate agreements, interest rate and currency swaps, credit derivatives, OTC equity derivatives, OTC options, and commodity swaps<sup>37</sup>.

Admittedly, the resources available at some regulatory agencies may have been too limited to facilitate their consolidated supervision and regulation of large financial institutions involved in multiple areas of financial activity.

And there are other problems in the current institutional regulatory regime, including overlaps across institutional regulators (within the US and cross-border), definitions of primary consolidated institutional regulators, and the like.

<sup>&</sup>lt;sup>35</sup> Department of the Treasury, 2009, Financial Regulatory Reform – A New Foundation: Rebuilding Financial Supervision and Regulation (June 30).

 $<sup>^{36}</sup>$  Certain end users of derivatives are subject to little or no direct regulation – e.g., non-financial corporations that use OTC derivatives to hedge, or hedge funds that enter into OTC derivatives for position-taking.

<sup>&</sup>lt;sup>37</sup> Federal Reserve System, 1998, Trading and Capital-Markets Activities Manual.

Yet, these problems are not caused by OTC derivatives per se. Consider, for example, AIG. When the Office of Thrift Supervision (OTS) approved AIG's request to form AIG Federal Savings Bank in 2000, the OTS became the consolidated supervisor of the AIG conglomerate. As Acting OTS Director Scott Polakoff explained to the Senate Banking Committee, OTS did not take its supervisory responsibilities lightly:

OTS's primary point of contact with the [AIG] holding company was through AIG departments that dealt with corporate control functions, such as Enterprise Risk Management (ERM), Internal Audit, Legal/Compliance, Comptroller, and Treasury. OTS held monthly meetings with AIG's Regulatory and Compliance Group, Internal Audit Director and external auditors. In addition, OTS held quarterly meetings with the Chief Risk Officer, the Treasury Group and senior management, and annually with the board of directors. OTS reviewed and monitored risk concentrations, intra-group transactions, and consolidated capital at AIG, and also directed corrective actions against AIG's Enterprise Risk Management. OTS also met regularly with Price Waterhouse Coopers (PwC), the company's independent auditor<sup>38</sup>.

Approximately 85% of AIG (measured by allocated capital), moreover, was regulated by some other regulator in addition to  $OTS^{39}$ .

<sup>&</sup>lt;sup>38</sup> POLAKOFF, S. M., 2009, "Statement Regarding American International Group: Examining What Went Wrong, Government Intervention, and Implications for Future Regulation," Before the U. S. Senate, Committee on Banking, Housing, and Urban Affairs (March 5, 2009).

<sup>&</sup>lt;sup>39</sup> POLAKOFF, S. M, cit.

## **1.2 Bilateral Clearing**

In the 1980s and early 1990s, firms managed and controlled their bilateral counterparty exposures primarily through the use of "credit enhancements" that either reduced the likelihood of dealing with a relatively high-risk counterparty or reduced the potential loss exposure if a default did occur. Popular credit enhancements included collateral, periodic marking to market and cash resettlement of positions, and third-party performance guaranties<sup>40</sup>.

Attention by market participants to credit risk management techniques and credit enhancements was heightened between 1989 and 1992 when five companies failed with relatively substantial amounts of outstanding OTC derivatives: Development Finance Corporation of New Zealand (1989), Drexel Burnham Lambert (1990), British & Commonwealth Merchant Bank (1990), Bank of New England (1991), and Olympia and York (1992).

Regulators and legislators were also paying significant attention to OTC derivatives credit risk management around the same time – e.g., specific sections on managing the credit risk of swaps were included, for example, in the Financial Institutions Reform, Recovery, and Improvement Act (FIRREA) of 1989, the 1990 amendments to the US Bankruptcy Code, and the Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991. The Bank for International Settlements (BIS), moreover, analyzed swap counterparty credit risk

<sup>&</sup>lt;sup>40</sup> Global Derivatives Study Group, 1994a, Derivatives: Practices & Principles – Appendix III: Survey of Industry Practice (Washington, D.C.: The Group of Thirty, March); Global Derivatives Study Group, 1994b, Derivatives: Practices & Principles – Follow-Up Surveys of Industry Practice (Washington, D.C.: The Group of Thirty, December).

management in its 1989 Angell<sup>41</sup>, 1990 Lamfalussy Report<sup>42</sup>, and 1992 Promisel Report<sup>43</sup>. The BIS has continued to focus considerable attention to this issue since then, as well<sup>44</sup>.

Two important forms of credit enhancements that began to enjoy widespread used by OTC derivatives participants are bilateral netting and collateral.

Most OTC derivatives are negotiated under pro forma agreements known as master agreements that specify a set of commonly used definitions and contract terms. Any particular transaction can be customized, but the use of master agreements provides contract language that is generally accepted amongst OTC derivatives participants. The most popular such master agreements are the ISDA Master Agreements.

Among the standard terms of the ISDA Master Agreements is the bilateral netting of periodic cash flows and close-out netting in the event of a counterparty default or early termination event. Bilateral netting significantly reduces counterparty credit exposures by distilling the gross

<sup>&</sup>lt;sup>41</sup> Bank for International Settlements, 1989, Report on Netting Schemes by the Group of Experts on Payment Systems of the Central Banks of the Group of Ten Countries (Basel).

<sup>&</sup>lt;sup>42</sup> Bank for International Settlements, 1990, Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries (Basel).

<sup>&</sup>lt;sup>43</sup> Bank for International Settlements, 1992, Recent Developments in International Interbank Relation, Report Prepared by a Working Group Established by the Central Banks of the Group of Ten Countries(Basel).

<sup>&</sup>lt;sup>44</sup> Bank for International Settlements, 1998, OTC Derivatives: Settlement Procedures and Counterparty Risk Management (Basel); Bank for International Settlements Committee on Payment and Settlement Systems, 2007, New Developments in Clearing and Settlement Arrangements for OTC Derivatives (Basel).

payments due to change hands into smaller net payments, both over the life of a transaction and following a termination.

Bilateral netting, moreover, is not limited to single types of contracts or products. The ISDA Master Agreements also facilitate cross-product bilateral netting. Two counterparties with significant bilateral credit exposures across several products (e.g., interest rate swaps and credit default swaps) thus can bilaterally net their payment obligations across all their asset classes and transactions, provided they are covered by a single master netting agreement.

## 1.3 CCP and Systemic Risk

To provide some context, we begin by describing the three main benefits traditionally associated with CCPs.

First, a CCP can facilitate the management of credit risk for its clearing members. Through novation (**Figure 6**), the credit risk of the original transacting parties is transferred to the CCP. This does not imply that credit risk is eliminated; rather, it is managed by the CCP and redistributed according to a predefined set of rules as to who incurs losses if a clearing member defaults<sup>45</sup>. A well-managed CCP can prevent excessive concerns about counterparty credit risk from affecting markets in times of crisis. It can also reduce the informational costs and asymmetries associated with managing credit risk, since each participant

<sup>&</sup>lt;sup>45</sup> RIPATTI K., *Central Counterparty Clearing: Constructing a Framework for Evaluation of Risks and Benefits*, in Bank of Finland Discussion Paper No. 30, 2004.
can rely on the CCP, which has a clearer overall view of the interconnections and exposures in the system<sup>46</sup>.

The enhanced transparency of markets arising from the introduction of a CCP can also facilitate the monitoring and mitigation of systemic risk by regulators.

A second important benefit offered by CCPs is the enhanced efficiency of netting<sup>47</sup>. A clearing member may have offsetting contracts; i.e., buyer and seller positions on the same product. After novation to the CCP, the offsetting contracts are netted against each other, thereby minimizing the outstanding contracts and the exposures arising from these contracts in the form of payment or securities obligations.

In addition, the payment and securities obligations associated with these reduced outstanding contracts can be netted. By netting contracts, as well as payment and securities obligations, the CCP simultaneously reduces the counterparty and liquidity risks faced by each individual clearing member. This multilateral netting can result in collateral savings to the members, since they are required to pledge against a smaller net exposure. It may also provide participants with balance-sheet relief. Allowing participants to simultaneously offset liabilities and assets associated with these contracts enables them to manage their balance sheets more efficiently. In times of stress, this may alleviate the pressure

<sup>&</sup>lt;sup>46</sup> BLISS R., STEIGERWALD R. S., Derivatives Clearing and Settlement: A Comparison of Central Counterparties and Alternative Structures, Federal Reserve Bank of Chicago Economic Perspectives (Fourth Quarter), 2006, pp. 22–29.

<sup>&</sup>lt;sup>47</sup> Moving from bilateral settlement arrangements to CCPs may not improve netting in all cases - for example, if there is too much fragmentation of clearing activity across separate CCPs. See D. DUFFIE, H. ZHU., *Does a Central Clearing Counterparty Reduce Counterparty Risk?*, Stanford University Graduate School of Business Research Paper No. 2022, 2010.

for disruptive deleveraging, as witnessed in some markets during the financial crisis.

Third, in the event that a clearing member defaults, if the CCP has a robust default-management mechanism, there is a reduced likelihood of contagion spreading to the other members and to broader markets. If the resources pledged to a CCP by the defaulting member are insufficient, residual losses are shared among the survivors in accordance with prearranged loss-sharing agreements, which helps to reduce uncertainty in times of stress.

#### **The Novation Process**



Figure 6. The Novation Process, *Source:* Chande N., Labelle N., Tuer E., *Central Counterparties and Systemic Risk*, Bank of Canada financial system Review, December 2010

By distributing losses across the entire membership, the impact on any individual institution is reduced, mitigating the potential for contagion<sup>48</sup>.

To maximize these benefits, CCPs must be well managed and have robust risk-management mechanisms and effective oversight. This

<sup>&</sup>lt;sup>48</sup> BLISS R., PAPATHANASSIOU C., op. cit.

is because, by definition, a CCP concentrates into one entity the risks that are decentralized in bilateral settlement<sup>49</sup>. For example, as the counterparty to all clearing members, credit risk is concentrated within the CCP and, as a result, it may incur losses if a clearing member were to default. Valuation risk is also concentrated within the CCP, which calculates counterparty credit exposure using market prices and a pricing model.

Moreover, a CCP faces liquidity risk since, in the event of a default; it must continue to fulfill its obligations to non-defaulting members in a timely manner. In addition, operational risk is particularly relevant for a CCP because system deficiencies, human errors or disruptions from external events can have wide-ranging impacts. A CCP also faces settlement banker risk if a commercial bank that provides the CCP with an account for cash settlement is no longer willing or able to provide it with those services<sup>50</sup>. Given the concentration of these risks within the CCP, it must be designed to effectively mitigate their impact.

Overall, CCPs have tremendous potential to reduce systemic risk and reinforce financial stability by addressing the deficiencies associated with existing bilateral settlement arrangements.

# 1.4 Costs – Benefit Analysis of Centralized Clearing of OTC Derivatives

1. <u>Reduced Counterparty Credit Evaluations and Ongoing Credit</u> <u>Exposure Monitoring</u>. By interposing a single counterparty between all

<sup>&</sup>lt;sup>49</sup> See CPSS-IOSCO, *Recommendations for Central Counterparties*, available at www.bis.org, 2004.

<sup>&</sup>lt;sup>50</sup> To mitigate this banker risk, CCPs often maintain settlement accounts with central banks rather than with commercial banks

buyers and sellers, a CCP facilitates "counterparty anonymity" and reduces the need for credit evaluations if numerous different trading counterparties on an ongoing basis. That separation of price and credit risks has long been recognized as a significant benefit of organized futures exchanges and CCPs<sup>51</sup>.

2. <u>Transparency and Consistency of Pricing for Margin and Funds</u> <u>Settlements</u>. OTC-cleared derivatives are subject to margin requirements and cash resettlements that are based on mark-to-market prices determined by the CCP. The prices used by the CCP for calculating clearing balances and payment obligations, moreover, are applied in a consistent manner across firms – i.e., the same contract price is applied to all like positions and accounts.

CCPs establish standard procedures for marking contract prices to market and reduce operational risks by establishing efficient mechanisms for monitoring and ensuring compliance with margin requirements.

The aggregation of pricing information in the clearing house also enhances financial safeguards by reducing disputes about collateral valuation. Similarly, clearing house standardization of OTC-cleared contracts facilitates the establishment of collateral requirements by reducing the scope of idiosyncratic contract terms.

In bilateral OTC markets, by contrast, collateral requirements are based on mark-to-market prices that sometimes differ significantly across market participants. In the event of a dispute between counterparties, the "calculation agent" in the OTC derivatives contract

<sup>&</sup>lt;sup>51</sup> TELSER L. G., *Why There are Organized Futures Markets*, in Journal of Law and Economics Vol. 24 (No. 1), 1981, pp. 1-22.

usually gets to determine the price used for determining collateral and settlement values.

Given the non-transparent and decentralized nature of the OTC market, significant disagreements can occur about collateral requirements, often arising from disputes over the prices used to calculate current mark-to-market values. The lack of transparency in CDS pricing, through 2007 was lamented by many market participants<sup>52</sup>. During 2007 and 2008, a lack of pricing transparency and market liquidity contributed to disputes among CDS market participants about the valuation of CDS positions for the purpose of enforcing or disputing collateral calls. Such disputes were in some cases highly disruptive and led to significant unexpected liquidity shocks.

As discussed above, several clearing and settlement infrastructure providers have begun to provide exposure and collateral reconciliation services for OTC derivatives portfolios. Those services provide competition to CCPs for realizing this particular benefit of centralized clearing and settlement.

3. <u>Monitoring of Multilateral Exposures and Correlation Risks</u>. CCP clearing facilitates the monitoring of market participants' aggregate activity within the CCP across products, thereby enabling the clearinghouse to evaluate more effectively the risks faced by individual market participants. In other words, the CCP can function in part as a "delegated risk manager" for its clearing member participants<sup>53</sup>. This

<sup>&</sup>lt;sup>52</sup> See CREDIT SUISSE, *Financial Exchanges and Market Structure*, September 29, 2008.

<sup>&</sup>lt;sup>53</sup> CULP C. L., NEVES A.M.P., *Risk Management by Securities Settlement Agents*, in Journal of Applied Corporate Finance Vol. 10 (No. 3), 1997, pp. 95-103.

delegated monitoring capability is, of course, limited to the positions cleared through the CCP and does not take into account non-derivatives positions. As such, CCP risk monitoring is not a substitute for internal or outsourced enterprise-wide risk monitoring.

4. <u>Default Resolution</u>. Because OTC-cleared derivatives are negotiated with a CCP, the transactions can be more easily offset or unwound following a clearing member default. As explained above, the CCP inherits the remaining open positions of any defaulting clearing member and then typically proceeds to liquidate or hedge them as quickly as possible in a non-destabilizing manner. For OTC-cleared derivatives that are converted into futures inside the CCP, the offset, liquidation, or hedging of those positions is relatively straightforward (as long as the market itself is reasonably stable).

OTC-cleared derivatives that remain OTC contracts subject to master agreements once inside the CCP, however, are non-fungible and cannot be offset against exchange traded positions<sup>54</sup>. Indeed, OTC derivatives documented under the standard terms of an ISDA Master Agreement can only be unwound or assigned/novated to another party with the permission of the original trading counterparty<sup>55</sup>.

<sup>&</sup>lt;sup>54</sup> OTC derivatives can be hedged, but unless the hedge is executed with the same counterparty as the original transaction the hedge simply creates a second credit exposure for the firm.

<sup>&</sup>lt;sup>55</sup> Standard master agreements do provide for some events that allow (or force) early terminations of derivatives, but in the absence of one of these events or an event of default the counterparties are stuck with each other unless they both agree to end the contract early.

These restrictions on default resolution in the underlying contractual documentation can pose challenges for CCPs in resolving the positions of defaulted clearing members.

Yet, CCPs are likely to have more success resolving the open positions of defaulted clearing members than the original trading counterparties would have. When a counterparty is experiencing financial distress and needs to get out of a swap or make an unanticipated early termination payment, the non-defaulting party usually has "bilateral monopoly bargaining power" that it can exert to the detriment of the defaulting firm.

Although this issue has received considerable attention in the wake of the credit crisis, the issue itself is hardly new.

When Drexel Burnham Lambert Group, Inc. (DBL Group) filed for Chapter 11 status on February 13, 1990, several of DBL Group's subsidiaries with active OTC derivatives portfolios did not file for bankruptcy. One such subsidiary – DBL Trading Corp. – had a portfolio of about \$50 billion in foreign exchange and commodity derivatives at the time. Not surprisingly, the decision was made to try and liquidate the portfolio as rapidly as possible. Although a large portion of the portfolio had been closed out by the end of February 1990, not all of DBL Trading's counterparties were cooperative and some attempted to extract above-market spreads and prices for early termination payments (Culp and Kavanagh, 1994).

Similarly, the failure of the Bank of New England N.A. (BNE) on January 6, 1991, was widely anticipated in the market, and BNE's traders had spent nearly a year trying to reduce the bank's \$36 billion (notional) OTC derivatives portfolio before the actual bank closure. Traders reported numerous counterparties trying to extract "nuisance fees" from BNE, which reportedly led to millions of dollars of losses for the bank.

When Development Finance Corporation of New Zealand (DFC) failed in 1989, by contrast, the derivatives portfolio was resolved in a manner that managed to avoid problems resulting from bilateral monopoly bargaining power. DFC (with the approval of the Reserve Bank of New Zealand) engaged JPMorgan as an advisor which sent then-ISDA Chairman Mark Brickell of Morgan's Derivatives Strategy group to New Zealand to shepherd counterparty negotiations during the resolution of the portfolio. Although DFC was itself defunct, counterparties were concerned about preserving their reputations with JPMorgan (at that time one of the largest swap dealers) and the New Zealand government. As a result, the portfolio was resolved with minimal problems<sup>56</sup>. CCPs that inherit the open OTC positions of defaulting clearing members will be in a situation much more similar to DFC than to Drexel or BNE. Assuming the counterparties wish to continue doing business with the CCP, it will likely experience fewer problems in unwinding OTC-cleared swaps at fair prices or assigning/novating them to non-defaulting clearing members. The experience of LCH. Clearnet's SwapClear provides support for this notion. Indeed, some CCPs may choose to require that clearing members utilizing OTC-clearing features of the CCP pre-agree to participate in any assignments or auctions of swap portfolios from defaulting clearing members. Nevertheless, especially for illiquid products or derivatives in

<sup>&</sup>lt;sup>56</sup> Indeed, only one counterparty – Security Pacific – was un cooperative during the DFC resolution. Some reports suggest, moreover, that DFC eventually recovered what Security Pacific owed following Security Pacific's acquisition by Bank of America.

markets experiencing ongoing disruptions, CCPs may find it timeconsuming and difficult to hedge open positions, and that could be the source of potentially significant losses until the portfolio is ultimately resolved.

5. <u>Default Risk Mutualization and Loss Allocation</u>. If a derivatives dealer or large end user incurs losses on an OTC derivatives contract in excess of any collateral posted, the remaining financial resources of the firm are all that remain to cover the open payment obligation. In other words, dealers backstop their obligations with their own capital. If the swap participant incurs correlated losses that erode its capital base rapidly, the firm itself could default.

Losses in excess of margin at a defaulting CCP clearing member are absorbed by the risk capital structure of the CCP. As noted earlier, this may include some of the CCP's own financial resources, external risk capital (e.g., clearinghouse guaranties), and a mutualized risk capital layer in which other clearing members cover losses arising from defaulted clearing members.

Clearing default funds financed by clearing members are economically equivalent to "industry mutuals" in the traditional insurance arena <sup>57</sup>. In such mutuals, all participants make initial contributions. A large loss by any individual member in excess of its margin (i.e., deductible) is then covered by payments from the mutual.

As long as risk exposures are imperfectly correlated across clearing members and positions, a smaller amount of total risk capital must be collected from individual members to achieve a given desired level of

<sup>&</sup>lt;sup>57</sup> CULP C. L., Structured Finance and Insurance, New York: Wiley, 2006.

risk coverage *vis-à-vis* a situation when all members had to provide their own risk capital to cover each of those potential losses in isolation<sup>58</sup>.

## Costs Imposed by OTC Clearing through a CCP

## 1. Margin and Liquidity Risk

During normal market conditions, the cost of posting margin or collateral is relatively low for large financial institutions with easy access to debt markets. Because margin and collateral can be posted in interest-bearing assets, the main cost of margin and collateral is the opportunity cost of possibly holding more low-risk bonds or cash than the firms might otherwise want<sup>59</sup>.

The cost of margin and collateral can be much higher during periods in which derivatives participants are liquidity constrained. In that sense, the most significant cost of margin and collateral is the potential for firms to face margin or collateral calls at a time when their liquid assets are already heavily depleted and their access to short-term margin loans is limited.

A crucial distinction between OTC collateral and CCP margin is the frequency with which mark-to-market collateral calls occur and what triggers them. In CCP regimes, positions are marked to market and resettled at least twice daily. In OTC derivatives, mark-to-market

<sup>&</sup>lt;sup>58</sup> The cost to clearing members of the mutualized risk capital backstopping losses in excess of margin at a CCP thus is the sum of (i) the cost of any external risk capital (e.g., clearinghouse guaranties) plus (ii) the weighted cost of capital for clearing members contributing to the default fund. Whether or not that cost exceeds the cost of capital for a firm backing a bilateral OTC derivatives contract is an empirical question.

<sup>&</sup>lt;sup>59</sup> TELSER L. G., *Margins and Futures Contracts*, in Journal of Futures Markets Vol. 1 (No. 2), 1981, pp. 225-253.

resettlement intervals are determined by the counterparties to individual transactions, but are in general less frequent than twice a day.

Collateral movements on OTC derivatives, moreover, can be triggered by credit events (e.g., downgrades) that accompany increases in exposure. If the contract is not re-settled frequently and subject to those kinds of discrete collateral calls, the resulting collateral movements could be significantly larger than twice-daily CCP margining.

The timing of margin and collateral flows has both costs and benefits for different derivatives market participants.

For OTC derivatives dealers, the more frequent and often smaller margin flows probably expose these firms to lower risks of precipitous liquidity shocks of the kind seen in 2008.

Yet, for end users of derivatives with limited debt capacity and high leverage, the cash flow volatility of futures and other CCP-cleared products can be disruptive to treasury and cash management operations. At the other extreme, well-capitalized and highly-rated corporate end users with easy access to unsecured borrowing may find mandatory margin requirements to be unnecessarily burdensome<sup>60</sup>.

2. <u>Netting and Reliance on Short-Term Funding</u>. During the financial crisis of 2007 and 2008, the reliance of financial institutions on short-term debt made them particularly vulnerable to the outbreak of problems in the subprime mortgage and leveraged loan markets.

<sup>&</sup>lt;sup>60</sup> See MURPHY T., Statement for the Record, Before the House Financial Services Subcommittee on Capital Markets, Insurance, and Government-Sponsored Enterprises – Hearing on the Effective Regulation of Over-the-Counter Derivatives Markets, June 9, 2009; BRICKELL M. C., In Defense of Over-the-Counter Derivatives, in Wall Street Journal May 14, 2010.

Indeed, excessive reliance by dealer banks on short-term funding markets has been cited by many as an important contributor to the severity of the financial crisis<sup>61</sup>.

Assets pledged as collateral in OTC derivatives and as margin in OTC-cleared derivatives often must be financed in short-term funding markets. Even if not, pledging assets as collateral or margin prevents the institution from using those assets as collateral for other short-term borrowings. Especially with the heightened sensitivity of market participants to overreliance on short-term funding markets, the total collateral and margin requirements faced by institutions across their OTC, OTC-cleared, and exchange-traded derivatives activities is of great importance for liquidity risk management purposes. The liquidity risk of collateral on OTC derivatives is significantly reduced by bilateral netting. Cross-product bilateral netting under a single master netting agreement, moreover, can encompass a wide range of financial transactions between dealers, thus potentially adding to these efficiency gains and reducing overall collateral requirements.

Whether or not netting efficiencies within a CCP regime are riskreducing and efficiency enhancing *vis-à-vis* bilateral netting for OTC derivatives is an empirical question. If OTC derivatives on a single asset class (e.g., CDSs) are moved into a CCP, the loss of bilateral netting efficiency must be compared with the gains from multilateral netting efficiency.

<sup>&</sup>lt;sup>61</sup> See, *e.g.*, DIAMOND D. W., R. G. RAJAN, *The Credit Crisis: Conjectures about Causes and Remedies*, in American Economic Review, Vol. 99 (No. 2), 2010, pp. 606-610; DUFFIE D., *The Failure Mechanics of Dealer Banks*, in Journal of Economic Perspectives, Vol. 24 (No. 1), 2010, pp. 51-72.; FINANCIAL CRISIS INQUIRY COMMISSION, *Shadow Banking and the Financial Crisis*, in Preliminary Staff Report, May 4, 2010; GORTON G. B., *Slapped by the Invisible Hand: The Panic of 2007*, Oxford University Press, 2010.

Netting efficiency, moreover, is not simply a question of bilateral versus multilateral – it is also an issue of cross product netting efficiencies. The comparable gains from netting margin requirements for CCP-cleared derivatives depend on the exact mechanism by which portfolio margin requirements are calculated by the CCP. The Standard Portfolio Analysis of Risk (SPAN®) margin system used by many futures exchange clearinghouses, for example, allows margin offsets and reductions for certain offsetting positions.

Long Eurodollar futures and short Eurodollar futures in the same expiration month, for example, are offset so that total margin required is based only on the net position. Additional offsets may be permitted for other contracts depending on the degree of correlation between products - e.g., long Eurodollars and short Eurodollars with different maturities.

For some market participants, CCP clearing of OTC derivatives will represent a potential efficiency enhancement in collateral utilization. For others, CCP clearing will increase total collateral and margin requirements. The total net effect on a firm's collateral, liquidity, and reliance on short-term funding markets depends on the specific product mix and number of counterparty relationships that the firm has.

3. <u>Excessive Standardization</u>. CCP clearing requires at least some degree of standardization in the clearing process. Yet, OTC clearing initiatives to date have shown a capacity to provide coverage for a wide range of products. The more than 600 OTC-cleared energy swaps offered by the CME through its ClearPort facility, for example, far exceeds the number of listed exchange-traded energy derivatives.

Nevertheless, customized OTC transactions – the original raison d'etre of the OTC derivatives market – may pose too many practical problems for CCPs to clear.

Some pundits, moreover, have obscured some of the issues here by confusing "customized" with "complicated." A grain elevator that wants to manage the risk of grain price fluctuations at specific delivery points on specific dates, for example, may be unable to do so through OTC-cleared agricultural products – not because the grain elevator's exposure is particularly complex, but just because it is date and location-specific. Being forced to use an OTC-cleared swap with standardized dates and delivery points thus would give rise in this example to basis risk, and the grain elevator might well opt to do a customized OTC transaction offshore in lieu of taking the basis risk in the OTC-cleared swap.

4. <u>Adverse Selection</u>. To the extent that CCPs try and provide clearing and settlement services for non-standard or complex OTC derivatives, CCP risk managers are likely to be at a serious informational disadvantage to clearing members <sup>62</sup>. That will complicate risk management and make it more difficult for the CCP to police the market and preserve the financial integrity of the clearinghouse.

Consider, for example, a large clearing member participating in one of the recent CDS clearing initiatives. Now imagine the clearing member is clearing customer and proprietary positions on CDSs based on its own debt. CCPs will likely have to institute rules and procedures to deter such activity.

<sup>&</sup>lt;sup>62</sup> PIRRONG C., *The Clearinghouse Cure*, in Regulation Vol. 31 (No. 4), 2009, p. 44-51; PIRRONG C., *The Economics of Clearing in Derivatives Markets: Netting, Asymmetric Information, and the Sharing of Default Risks Through a Central Counterparty*, in Working Paper, January 8, 2009.

Even when the information clearing members have does not pertain to their own financial condition, however, dealers likely have much better information about the pricing and risk of complex OTC transactions, and the CCP knows that. The CCP, thus, will be (or at least will perceive itself as being) at an informational disadvantage to clearing members. In a classic adverse selection sense, the CCP will essentially be forced to assume the worst case information asymmetry and will have to compensate with excessively conservative margin requirements, capital requirements, and other risk management policies and procedures. Added up, all those extra costs could make OTC clearing uneconomic for certain dealers and products.

## 2. OPTIMIZING RISK ALLOCATION UNDER EMIR

It has been seen that in principle the EMIR can offer significant and substantial benefits over the current bilateral traded OTC derivatives markets. These benefits include an overall reduction in systemic risk; reduction of counterparty informational asymmetries and associated costs; more effective centralized mitigation and management of counterparty risk; a reduced complexity and increased efficiency in the workings of OTC derivatives markets, leading to increased transparency in clearing within the OTC derivatives market; and an improved CCP default risk management systems and practices.

However, these benefits must be weighed against the anticipated and actual costs of implementing the EMIR, which include the real and significant risks of concentrating OTC derivatives risk within a smaller number of CCPs, and which might lead to the failure of one or more CCPs. Further anticipated costs include the risks of continuing moral hazard and adverse selection by a number of OTC derivatives market participants such as large banks or hedge funds, increased potential for regulatory arbitrage, and the sheer magnitude of increased trading and regulatory costs experienced, or to be experienced, by market participants. Indeed, from an end-user perspective it might be difficult to justify the huge increase in costs of clearing OTC derivatives, especially as it is unlikely that these users will immediately experience or participate in tangible benefits. For instance corporations, financial institutions and end-users will have to invest huge amounts of financial and other resources into implementing new EMIR compliant systems, and will additionally be subjected to increased margins, much higher collateral requirements and loss of re-hypothecation opportunities. They might also choose to become CCP members in order to "self-clear" trades at a cheaper cost, but which will require significant additional financial investment.

Additionally, the mutualization of counterparty risk and losses is a private benefit that will be shared by relevant market participants, but it is not a direct social benefit that will be experienced by citizens across the UK. It is true that an orderly default and auction process will lessen the fiscal impact of any CCP default on the UK financial system and financial institutions, thereby ensuring continuing economic development as opposed to the triggering of an economic recession. Nevertheless, it might be argued that this is an indirect social benefit whose cost cannot be accurately gauged. Moreover the establishment of CCPs and default procedures, whilst in principle aim to put in place appropriate default risk sharing mechanisms, in practice and over time, the high concentration and likely future consolidation of CCPs may lead to CCPs becoming de facto "too Big to Fail" institutions which ultimately may have to be bailed out by the EU taxpayer. Thus it may be the case that CCPs do not actually reduce systemic risk but may actually increase it in the long term. Added to this, a conceptual study undertaken by Duffie and Zhu (2011) demonstrated that whilst the central clearing of derivatives offered substantial reductions in counterparty risk in principle, benefits may be lost through a fragmentation of clearing services and the exacerbation of counterparty credit risk by a multiplicity of CCPs. Their netting efficiency model was stated to be biased in favour of clearing because of non-explicit modelling of indirect CCP exposure (i.e., new contributions by clearing participants to the CCP guarantee fund).<sup>63</sup>

However, this bias is neutralized because of the CCP default procedure under the EMIR requiring CCP financial resources to be used prior to utilization of CCP non-default member funds, thereby effectively removing the bias from their operating model and upholding the validity of their conclusions. Singh (2011) also contends that the adoption of end-user OTC derivatives exemptions (e.g. FX OTC derivatives), together with the offloading of only standard contracts thereby unbundling netted positions, means that overall OTC derivatives reform objectives will not be achieved and may be sub-optimal relative to the status quo. For instance Singh (2011) believes that a key incentive for moving OTC derivatives to CCPs is higher multilateral netting, but if multiple CCPs are not linked, the benefits of netting are reduced, as cross-product netting will not take place. In light of these propositions taken together, it is therefore contended that if the overall objectives of the EMIR are to be substantially achieved in practice, it is essential for risk allocation for CCPs to be optimized, i.e. that the correct balance of secondary requirements in ESMA technical standards is achieved. What this means in practice is that the correct and appropriate balance of OTC derivatives must be signed off for clearing, meaning that the ideal clearing eligibility must be correctly deduced; that CCP risk governance and harmonization procedures must be strictly adhered to and enforced; and that interoperability arrangements between CCPs must become a

<sup>&</sup>lt;sup>63</sup> For a quantitative analysis of the effect of multilateral netting on lowering counterparty exposure, see D. DUFFIE and H. ZHU, "Does a Central Clearing Counterparty Reduce Counterparty Risk?" April, 2011,forthcoming, Review of Asset Pricing Studies.

reality sooner rather than later, meaning greater frontloaded EU regulatory efforts are required.

## 2.1 Determining Effective Clearing Eligibility for OTC Derivatives

The first level clearing obligation requires that counterparties clear all OTC derivatives contracts pertaining to a class of OTC derivatives that has been declared subject to the clearing obligation in accordance with procedures set by the EMIR.<sup>64</sup> All the five OTC derivatives asset classes (equity, credit, interest rate, FX, commodities) have been included in the clearing obligation. EMSA develops regulatory technical standards taking into consideration: (i) the degree of standardization of the contractual terms and operational processes; (ii) the volume and liquidity; and (iii) the availability of fair, reliable, and generally accepted pricing information, for or in the relevant class of OTC derivatives.<sup>65</sup> The regulatory technical standards prepared by ESMA also consider the interconnectedness between counterparties using the relevant classes of OTC derivatives, the anticipated impact on the levels of counterparty credit risk between counterparties, and the impact on competition across the EU.66 Furthermore, the regulatory technical standards also take into consideration: (i) the expected volume of the relevant class of OTC derivatives; (ii) whether more than one CCP already clears the same class of OTC derivatives; (iii) the ability of the CCPs to handle expected volume and manage the clearing risk arising; (iv) the type and number of active counterparties, and expected to be active within the market for the

<sup>&</sup>lt;sup>64</sup> The EMIR, Articles 4 and 5(2).

<sup>&</sup>lt;sup>65</sup> The EMIR, Article 5(4).

<sup>&</sup>lt;sup>66</sup> The EMIR, Article 5(4).

relevant class; (v) the period of time a counterparty subject to a clearing obligation needs in order to put in place arrangements to clear through a CCP; and (vi) the risk management, legal and operational capacity of the range of counterparties that are active in the market for the relevant class and would be captured by clearing obligation.<sup>67</sup> The criteria to be assessed by ESMA in practice have been further stipulated in regulatory technical standards.<sup>68</sup> Under Article 7 of these regulatory standards the criteria include, in relation to the degree of standardization of contractual terms and operational processes, (i) whether the contractual terms of the incorporate of OTC derivatives relevant class common legal documentation, including master netting agreements, definitions, standard terms, and confirmations which set out commonly used contract specifications by parties; and (ii) whether the operational processes of that relevant class are subject to automated post-trade processing and lifecycle events that are managed in common manner, according to a timetable widely agreed among counterparties. In relation to the volume and liquidity of the relevant class, (i) whether the CCP's margins or financial requirements would be proportionate to the risk that the clearing obligation intends to mitigate; (ii) the stability of the market size and depth for the particular OTC derivative product over time; (iii) the likelihood that market dispersion would remain sufficient in the event of a clearing member default; and (iv) the number and value of transactions. Also, in relation to the availability of fair, reliable, and

<sup>&</sup>lt;sup>67</sup> The EMIR, Article 5(5).

<sup>&</sup>lt;sup>68</sup> Commission Delegated Regulation (EU) No 149/2013 of 19.12.2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on indirect clearing arrangements, the clearing obligation, the public register, access to a trading venue, non-financial counterparties, risk mitigation techniques for OTC derivatives contracts not cleared by a CCP.

generally accepted pricing information in the relevant class, whether the information needed to accurately price OTC contracts is easily accessible to market participants on a reasonable commercial basis, and whether it would continue to be easily accessible if the relevant class became subject to the clearing obligation.

From the outset it should first be noted that ESMA's regulatory technical standards only include a degree of standardization, volume and liquidity, and availability of pricing information as criteria to be assessed. This therefore excludes "risk characteristics" as criteria of the product that have additionally been put forward by the BIS (May 2010, 27) in its Recommendations for Central Counterparties to OTC derivatives CCPs. The BIS recommends all the ESMA criteria, but in addition for risk characteristics criteria it stipulates issues such as: whether the risk characteristics of the product can be properly understood and measured; whether the product involves any unique or difficult-to-measure risks; if the product can be accurately represented in a stress test portfolio; can stress testing scenarios be developed to specifically measure risks associated with the product and its portfolio interdependence; and if there are similar products being cleared and what has been the experience with those products [BIS (May 2010)]. It is therefore crucial to ensuring the comprehensiveness of the OTC derivatives clearing eligibility process that these risk criteria are adequately addressed in other implementing technical standards.

A second point is the very high degree of discretion afforded to ESMA by the EMIR and by the technical standards criteria, which means it is essential for ESMA to adopt an open and transparent working methodology or criteria matrix which can be applied in practice. This would allow market participants to become conversant with ESMA's methodology and would afford a greater degree of financial and legal certainty for OTC derivatives market participants going forwards for the development of new products.

From a macro perspective, what is needed is a "critical mass" of between 60–85% of OTC derivatives products that will be sufficient to support market liquidity, CCP operations, and will ensure that the majority of OTC derivatives risk is protected by CCP clearing mechanisms. This

means including as many OTC derivatives products for clearing as possible, but ensuring that those highly customized derivatives which are not standardized, or which lack liquidity, or which cannot be accurately margined or stress tested are excluded from mandated clearing. From the data given above, it can be seen that although the foundation for product automation and straight-through-processing is generally in place across all OTC derivative product classes, the degree of standardization for interest rate derivatives varies significantly across subasset classes. Consequently, it might be said that for products such as swaps, overnight indexed swaps, basis swaps, and forward rate agreements with large notional amounts of outstanding, high degrees contractual and high liquidity and volume, the decision standardization, to clear will be much easier to make. However, for cross currency, exotic, inflation and callable swaps; multi-name and single-name CDS; equity; commodity; swaptions; exotic options; and debt options, the decision to

clear is that much more difficult, and needs to employ an understandable and transparent underlying methodology and justification. For example, it has been argued that deliverable FX forward contracts be excluded from central clearing because they trade in highly liquid, transparent and

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efficient markets, and because market participants would face a significant performance drag through the requirement to post cash variation margin for products whose tenor is typically less than four months.<sup>69</sup> At the same time as these types of OTC derivatives contracts are generally standardized, high volume, and with availability of pricing information, they are used for active and passive FX overlay strategies to hedge against currency risks, and mandatory clearing would likely deteriorate their hedging viability owing to the high upfront capital commitments.<sup>70</sup> If a Dodd-Frank FX swaps and forwards (not including currency swaps and options) exception was applied under the EMIR it would thereby exclude US\$31,395 billion or 4.91% of notional outstanding OTC derivatives [BIS (2012)]. The justification behind the decision to clear therefore needs to take into account the mischief at which the EMIR is ultimately aimed.

A third point to note is that in order to achieve the optimal balance and because of the bottom up approach, CCPs should resist pressure from market participants to adopt new OTC derivatives products solely on the basis of commissioned legal opinions which support say, contractual and pricing standardization representations. This could allow OTC derivatives products to be cleared which could introduce opaque latent risk onto the clearing market which CCPs may not be able to deal with adequately. Consequently, it is recommended that CCPs adopt stringent and transparent clearing eligibility criteria and processes for all new OTC derivatives products which can be justified to the market.

<sup>&</sup>lt;sup>69</sup> BlackRock, "OTC Derivative Market Reforms: An Investor Perspective," ViewPoint, November 2010

<sup>&</sup>lt;sup>70</sup> BlackRock, supra

A fourth point is that the BoE has argued for the suitability of OTC products for clearing to be defined quite precisely in terms of product access and process standardization first, and market liquidity second.<sup>71</sup> They have also evidenced the current status of these clearing eligibility factors in practice. This approach would require the use of standard legal terms, use of straight-through-processing with an emphasis on electronic confirmation, and standard measures of liquidity such as bid-ask spreads; trading activity; total trading volume and average trade size; and dealer concentration.<sup>72</sup> In practice, this would require the development of standardized liquidity metrics by CCPs which is difficult at present given the absence of widely available data, but would be a real possibility going forwards after central clearing has commenced.

## 2.2 CCP Risk Governance and Harmonization

It might be thought that the use of a regulation legislative instrument which has direct effect across the EU might ensure the comprehensive harmonization and coordination of the provisions of the EMIR. However, this might not be entirely the case in practice for a number of reasons.

Initially, prior to the EMIR there was no "passporting" of regulated status by CCPs operating within the EU, and therefore CCPs were required to obtain authorization by domestic regulators in each country in which they wished to operate. Not only did this result in market barriers to entry, but this may also mean that in practice differences have come to exist between the standards of the approximately nineteen

<sup>&</sup>lt;sup>71</sup> SIDANIUS, C. and A. WETHERILT, "Thoughts on Determining Central Clearing Eligibility of OTC Derivatives", in Financial Stability Paper no. 14, March 2012

<sup>&</sup>lt;sup>72</sup> SIDANIUS, C. and A. WETHERILT, supra

different "EU" CCPs operating within the EU, excluding third-country CCPs. The EMIR now seeks to impose common CCP operating standards across the EU by ensuring that authorization in a home state is effective across all EU Member States.<sup>73</sup> It also calls for competent authorities to cooperate closely with each other, with ESMA, and the European System of Central Banks where necessary.<sup>74</sup> For instance, BIS (May 2010, 24) technical recommendations for CCPs suggest that divergent practices by CCPs risk undermining market efforts, so that CCPs should aim to evolve governance arrangements to reflect the central role of CCPs, by industry representation on ISDA international committees, and the possible establishment of internal determinations committees (for credit event determination) with broad participant representation.<sup>75</sup> However, this also calls into question the ability of national regulators across EU Member States to ensure sufficiently identical risk governance and operating standards, especially when nonauthorization of say, a CCP in Greece, Hungary or Romania, might stop or impede OTC derivatives business for that EU Member State. Although this might convey a cynical approach to national regulatory authorization, it must be remembered that CCPs are in direct competition with each other for potentially hugely lucrative revenues from OTC derivatives clearing, and at a time when such income might go some way to addressing economic deficits at a time of financial economic recovery. Added to this, recognition of third-country CCPs will be undertaken by ESMA and not national authorities, subject to four substantive

<sup>&</sup>lt;sup>73</sup> The EMIR, Article 14(2).

<sup>&</sup>lt;sup>74</sup> The EMIR, Article 23(1).

<sup>&</sup>lt;sup>75</sup> Guidance 13.4 (CCPs' role in developing industry standards and market protocols, and its adherence).

requirements which differ to the EMIR CCP authorization requirements, and which might potentially restrict EU access for third-country CCPs.<sup>76</sup> What is more, from April 2013, CCPs in the UK are to be governed by the BoE which has to date no experience of financial regulation of CCPs and there will therefore be a period of "transition". The BoE (December 2012, 6) has expressly acknowledged that competitive incentives may result in pressure to lower margin requirements, and will therefore give particular scrutiny to CCPs' modelling methodologies, modelling and assessment of risks, and potentially uncovered exposures such as interoperability links and cross margining arrangements between CCPs. This approach advocated by the BoE should therefore be aimed to be replicated by competent authorities for CCPs within the EU to ensure strict adherence to CCP risk governance and harmonization practices. At the same time increased international coordination and cooperation among competent authorities and with ESMA is required in order to ensure the roll-out of common operating standards.

## 2.3 Interoperability

The EMIR defines an "interoperability arrangement" as meaning "an arrangement between two or more CCPs that involves a crosssystem execution of transactions."<sup>77</sup> Interoperability essentially allows firms trading OTC derivatives to choose which CCP they would like to clear their trades with, thereby allowing a client of one CCP to execute and clear a trade with a counterparty that has chosen another CCP. Interoperability therefore covers the technological, operational, legal,

<sup>&</sup>lt;sup>76</sup> The EMIR, Article 25(2).

<sup>&</sup>lt;sup>77</sup> The EMIR, Article 2(12).

and financial arrangements that must be in place to allow CCPs to interconnect with each other. Although simple in theory, in practice the detail is complex and that is the problem that CCPs are currently facing. Nevertheless, the benefits of achieving full interoperability would mean the increased efficiency of multilateral netting across the EU and a more effective OTC derivatives clearing system overall. The EU's Single Market rests on the free movement of services and capital between Member States, the approximation of EU laws and regulations, and an effective EU-wide competition policy. Achieving full interoperability between CCPs would support freedom of choice and the free movement of services and capital; lay the groundwork for possible future consolidation of CCPs; and increase competition between CCPs which would ultimately lead to lowered clearing fees (from high volume discounts) and better quality services. Full CCP interoperability would also allow the consolidation of clearing volumes and risk exposures into a single virtual clearing system; lower operational risks; eliminate market fragmentation and the need for multiple margin calls; and lower funding and back office costs, and liquidity needs via multilateral netting lowered margining requirements. Principle criticisms and of interoperability include that it would increase the potential for contagion risk by the CCP which is the "weakest link" in the CCP chain; lead to liquidity risks from collateralization "exposures" to multiple CCPs; and lead to increased credit, liquidity, and legal risks because CCPs may be required to provide default fund or margin contributions to each other. Nevertheless, it is submitted that the last two criticisms are technical challenges which could be collectively solved. Moreover if the EU is really committed to achieving a harmonized clearing framework and level playing field for CCPs under the EMIR, it must strive to ensure common operating standards which would obviate contagion risk arguments. The difficulty is that the EMIR states that currently interoperability arrangements only apply to securities and money-market instruments and not OTC derivatives, and that ESMA has to submit a report on the possible extension of interoperability arrangements to OTC derivatives.<sup>78</sup> CCPs also need to have been authorized for clearing for at last three years before being able to apply for authorization for interoperability, and a CCP needs to have put in place appropriate risk management provisions and margining provisions which have been approved by national authorities.<sup>79</sup> ESMA is currently in the process of consulting on establishing guidelines for consistent, efficient, and effective assessments of interoperability arrangements. The lack of mandated interoperability is a real obstacle to the complete harmonization of central clearing of OTC derivatives across the EU. Indeed if the EU is legislating at this level it makes little sense to pull back at the last obstacle, potentially opening up the doorway for market fragmentation to enter. It is therefore submitted that in light of the objectives, the non-mandatory nature of the EMIR's overall interoperability provisions presents a missed opportunity for achieving a fully harmonized EU CCP clearing network sooner, rather than later. Moreover the stringent nature of the risk management requirements, the commercial barriers to interoperability, and the lack of a common mandated multilateral legal agreement which is transparent, are all impediments that must be removed in order to facilitate full interoperability and reduce market fragmentation in the long term.

<sup>&</sup>lt;sup>78</sup> The EMIR, Recital 73

<sup>&</sup>lt;sup>79</sup> The EMIR, Articles 51 to 54.

## 3. THE OTHER OBLIGATIONS: REPORTING, RISK MITIGATION, PENALTIES

### 3.1 The Reporting Obligation

This legislation aims to achieve a greater level of transparency and to achieve a reduction of systemic risk in the derivatives market negotiations allowing the European Authority and all the National Authorities to access data of all transactions carried out on the territory of Europe.

A few months away from implementation in the corresponding obligation of reporting in the United States, falls so in Europe one of the biggest taboos of international finance and is finally lifted the veil from a market that until now was not in any way visible by the regulators, the market of OTC derivatives whose value globally has been estimated at about 700 trillion dollars.

After the authorization by ESMA of the first Trade Repositories, it became applicable, the Article 9 of the EMIR which provides that: "Counterparties and CCPs shall ensure that the details of any derivative contract they have concluded and of any modification or termination of the contract are reported to a trade repository registered. The details shall be reported no later than the working day following the conclusion, modification or termination of the contract."

From this arrangement we can see new important elements:

• first, it should be noted that the reporting obligation is imposed on both sides of the derivative contract. Both the broker that the customer are therefore subject to the penalty for any non-compliance;

• about the differences with the reporting burden under the MiFID Directive, reports of operations under EMIR will not only cover the execution of operations but will have to be made against "any modification or termination of the contract." The events related to transactions reported, such as the achievement of a barrier or a strike, will also be reported;

• the time to make such reports are very narrow and the complexity of certain structured derivative products, such as chains composed of options on different underlyings or swap mechanisms based on complex mathematical formulas, it will not be easy for banks to comply with this burden.

So this Trade Repository is, namely, a third party who has the task of collecting and maintaining a centralized registrations received in order to be accessible to supervisory authorities. One of the main challenges to the reports is the retroactive application of the obligation.

The second paragraph of the first comma of Article 9 stipulates that should be reported not only the transactions concluded since the entry into force forward, but the reporting obligation shall apply to derivative contracts which:

"(a) were entered into before 16 August 2012 and remain outstanding on that date;

(b) are entered into on or after 16 August 2012."

For the reporting of these transactions is a time limit other than that mentioned above, and in fact to make the reporting of transactions referred to in points a) and b) the intermediaries will have:

• 90 days for operations still in existence;

• 3 years for transactions settled by February 12, 2014.

With the Commission Implementing Regulation (EU) No 1247/2012 of 19 December 2012, which lays down implementing technical standards according to Regulation (EU) No 648/2012 of the

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European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories, were introduces rules on credit derivative and interest rate derivative contracts. They shall be reported:

• by 1 July 2013, where a trade repository for that particular derivative class has been registered under Article 55 of Regulation (EU) No 648/2012 before 1 April 2013;

• 90 days after the registration of a trade repository for a particular derivative class under Article 55 of Regulation (EU) No 648/2012, where there is no trade repository registered for that particular derivative class before or on 1 April 2013,;

• by 1 July 2015, where there is no trade repository registered for that particular derivative class under Article 55 of Regulation (EU) No 648/2012 by 1 July 2015. The reporting obligation shall commence on this date and contracts shall be reported to ESMA in accordance with Article 9(3) of that Regulation until a trade repository is registered for that particular derivative class.

The first comma of the Article 9, also reports that "A counterparty or a CCP which is subject to the reporting obligation may delegate the reporting of the details of the derivative contract and they shall ensure that the details of their derivative contracts are reported without duplication."

Let's see how this requirements impact on clients.

As mentioned above, one of the great innovations brought by the EMIR Regulation concerns the fact that the reporting requirement is not imposed only to financial intermediaries but also to the customers who buy these options, swaps, or other derivative instruments. It will be recalled that Article 9 requires that "Counterparties...shall ensure that the details of any derivative contract they have concluded ... are

reported to a trade repository registered". The definition of "counterpart" includes all the companies ("Undertakings") which are resident in the European Union. Except in some questionable cases for example individual enterprises, public institutions and legal persons not engaged in business, and therefore cannot be regarded as undertakings, and also individuals should be regarded definitely excluded from the scope of the legislation.

Given that the majority of non-financial firms do not have the infrastructure or the computer applications to make such reports, it is important to underline that the Regulation, imposes abstractly an obligation to both sides of the derivative contract, but allows clients to delegate the burden of signaling to intermediaries that they use.<sup>80</sup> But with the first obligation, comes also the first complication; because companies will have to adopt a code called LEI (Legal Entity Identifier) to be able to be identified in the communications with the Trade Repository. Such code is issued in Italy by Infocamere.

LEIs<sup>81</sup> are identification codes that enable consistent and accurate identification of all legal entities that are parties to financial transactions, including non-financial institutions. They enable a legal party to a financial transaction to be identified precisely. The LEI links back to a data set of critical information about the transacting entity, which can also include information on the ultimate ownership of the entity. The cost to complete the assignment, the cost allocation and the annual fee for this code are to be paid by the company.

<sup>&</sup>lt;sup>80</sup> EMIR Regulation (EU) No 648/2012 Of The European Parliament And Of The Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, Article 9 comma 1 par 2.

<sup>&</sup>lt;sup>81</sup> The LEI is a unique 20-character alphanumeric code, defined in the ISO 17442 standard which will be assigned to all entities that are counterparties to financial transactions.

Schematically, the reporting practices can be summarized as follows:

• Transactions between market counterparties: both sides have to indicate on its own account;

• Working with individual clients: the customer has not the reporting obligation, but the intermediary yes;

• Transactions with corporate customers: both parties have the obligation to report, but the client can delegate a broker.

Other informations on the Trade Repository are contained in the Commission Implementing Regulation (EU) No 1247/2012 of 19 December 2012, which specifies technical standards with regard to the format and frequency of trade reports

The Regulation is formulated in tabular form and indicates 59 fields<sup>82</sup> that counterparties must complete when performing a report and which are divided into the following sections:

1. "*Counterparty Data*" - in this section shall be given the personal data of counterparties including:

1.1. Reporting timestamp, so date and time of the report to TRs;

1.2. Counterparty ID, a unique identification code of the reporting counterparty. In the case of individuals, they can use the customer number.

1.3. ID of the other Counterparty, a unique identification number of the other party involved in the contract. This field is filled from the point of view of the reporting counterpart. In the case of individuals, they can use the customer number.

<sup>&</sup>lt;sup>82</sup> Commission Implementing Regulation (EU) No 1247/2012 of 19 December 2012 laying down implementing technical standards with regard to the format and frequency of trade reports to trade repositories according to Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories.

1.4. Name of the Counterparty, the company name of the reporting counterpart. This field can be left blank in case of coverage by Legal Entity Identifier (LEI)

1.5. Domicile of the Counterparty, it's an indication of the registered office, including full address, city and state, of the reporting counterpart. This field can be left blank if the field "Identification of the counterparty" already contains the information.

1.6. Corporate sector of the Counterparty, it considers the nature of the activities of the reporting counterpart (bank, insurance company, etc...). This field can be left blank if the field "Identification of the counterparty" already contains the information.

1.7. Financial or non-financial nature of the counterparty, it indicates whether the reporting counterpart is a financial or non-financial pursuant to Article 2, paragraphs 8 and 9 of Regulation (EU) No. 648/2012.

1.8. Broker ID, in the event that a third party acting on behalf of the other party without becoming a reporting counterpart, the counterparty reporting identifies him with a unique code. In the case of individuals, they can use the customer number.

2. *"Data operation"* - in this section shall be entered all the details of the transaction including:

2.1. Taxonomy used, the contract is identified by an identification of the product (U = Product Identifier [endorsed in Europe], I = ISIN/AII + CFI, E = Interim taxonomy);

2.2. Product ID 1, the contract is identified by an identification of the product (FR = Forward rate agreements, FU = Futures, FW = Forwards, OP = Option, SW = Swap, OT = Other);

2.3. Product ID 2, the contract is identified by an identification of the product (FR = Forward rate agreements, FU = Futures, FW = Forwards, OP = Option, SW = Swap, OT = Other);

2.4. Underlying, it is identified by a unique identifier of the underlying. In case of baskets or indexes, use an identifier for the basket or index if there is not a unique identifier;

2.5. Notional Currency 1, it is the currency of the notional amount. For derivative contracts on interest rates corresponds to the notional currency of the leg 1;

2.6. Notional Currency 2: it is the currency of the notional amount. For derivative contracts on interest rates corresponds to the notional currency of the leg 2;

2.7. Delivery Currency, if there is a currency to be delivered.

Counterparties have, also, kept a record of any derivative contract they have concluded and any modification for at least five years following the termination of the contract.<sup>83</sup>

According the Regulation, when a trade repository is not available to record the details of a derivative contract, counterparties and CCPs shall ensure that such details are reported to ESMA; and it underlines that a counterparty or a CCP that reports the details of a derivative contract to a trade repository or to ESMA, or an entity that reports such details on behalf of a counterparty or a CCP shall not be considered in

<sup>&</sup>lt;sup>83</sup> EMIR Regulation (EU) No 648/2012 Of The European Parliament And Of The Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, Article 9 comma 2.

breach of any restriction on disclosure of information imposed by that contract or by any legislative, regulatory or administrative provision.<sup>84</sup>

But what alternatives have a company to fulfil its reporting obligations?

According to Paolo Esposito, director at Chatham Financial, a world leader independent company in Financial Risk Management Advisory, there are three options.

With the first, the company can create an account at an approved Trade Repository and send the data directly relating to the transactions carried out and counterparties. This requires, however, the share of 85 items of information for each extension; societies with a high number of transactions difficult to choose this option.

The second option is to delegate the reporting activity to banking counterparties, if they offer this chance to their customers. This solution is feasible only by companies that have a very limited number of relationships with banks and any intercompany transaction (because the banks can only report transactions for which they are counterparty).

The last solution is to turn to a third counterpart for the delegation of the reporting obligation for their all own transactions. This solution removes the need to negotiate documents and to carry out manual reporting activities and simplifies the process for companies with a high number of transactions carried out with different banks or intercompany entities.

Paolo Esposito, also, suggests to companies, that they should seek qualified and independent advisor to ensure that their own derivatives

<sup>&</sup>lt;sup>84</sup> EMIR Regulation (EU) No 648/2012 Of The European Parliament And Of The Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, Article 9 comma 3,4.
are really for cover, and non-speculative, and that are traded at fair contract terms and at market prices.<sup>85</sup>

# **3.2** Risk-Mitigation Techniques for OTC Derivative Contracts Not Cleared by a CCP

The overall layout of the EMIR regulation waiver to design a system of mandatory clearing through central counterparties applicable to all OTC derivatives. So it submits OTC derivatives, in a specific regulation, that for the typological characteristics are most suitable for the bilateral clearing.

To mitigate the credit risk of a counterparty, market participants which are not subject to the clearing obligation should follow risk

E la seconda opzione?

Ma il regolamento Emir aiuterà le società a evitare di sottoscrivere derivati con strutture inadeguate o di pagare troppo per i propri swap?

Purtroppo non è questa la finalità del regolamento: Emir punta ad aumentare la trasparenza del mercato e a ridurre il rischio a livello sistemico. Le società dovrebbero rivolgersi ad advisor qualificati e indipendenti per assicurarsi che i propri derivati siano di effettiva copertura, quindi non speculativi, e che siano negoziati a condizioni contrattuali eque e a prezzi di mercato.

<sup>85</sup> Intervista del Sole24 Ore del 08/02/2014

Quali alternative hanno le società per adempiere agli obblighi di reporting (si veda anche articolo a fianco, ndr) che scattano mercoledì prossimo?

Ci sono tre opzioni. Con la prima – risponde Paolo Esposito, direttore presso Chatham Financial, società indipendente leader mondiale nel Financial risk management advisory – le società possono creare un account presso una Trade repository approvata e inviare direttamente i dati relativi alle transazioni eseguite e alle controparti. Ciò richiede però la condivisione di 85 elementi informativi per ogni derivato; le società con un elevato numero di transazioni difficilmente sceglieranno questa opzione.

È quella di delegare l'attività di reporting alle controparti bancarie, se offrono questa possibilità ai propri clienti. Questa soluzione è percorribile soltanto da società che hanno un numero molto limitato di banche di relazione e nessuna transazione intercompany (poiché le banche possono riportare soltanto le transazioni di cui sono controparte). L'ultima soluzione è quella di rivolgersi a una controparte terza per delegare a questa il reporting di tutte le proprie transazioni. Questa soluzione rimuove la necessità di negoziare documenti e di effettuare attività di reporting manuali e semplifica il processo anche per società con un elevato numero di transazioni eseguite con diverse banche o con entità intercompany .

management procedures that require the timely exchange of accurate and appropriately segregated exchange of collateral with respect to OTC derivative contracts (considering 24 Reg. N. 648/2012). ESMA, in preparing draft regulatory technical standards specifying the arrangements required for the accurate and appropriate exchange of collateral for the management of the risks associated with uncleared trades, took into account the analysis of the risks of counterparty and systemic (Art. 11 Reg. N. 648/2012).

We can draw, mainly, two groups of technical standards from the complex regulation. The first, applicable to all counterparties, financial and otherwise, has the following obligations:

- 1. timely confirmation of the terms of the contract;
- 2. reconciliation of the portfolio;
- 3. compression of the portfolio;
- 4. resolution of disputes.

The second group, only applicable to financial counterparties and non-financial counterparties qualified, split evaluation techniques of mark to market contracts and exchange of collateral.

In the Q&A on Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), ESMA released clarification on these regulatory requirements.

The first technique for mitigating counterparty risk is the timely confirmation of the terms of the contract. Pursuant to the Art. 12 of the Delegated Regulation n. 149/2013, counterparties must confirm the terms of the OTC derivative contract cannot be compensated, by

electronic means where possible, otherwise by fax or even by hand<sup>86</sup>, "as soon as possible." The confirmation is due only when the parties have reached an agreement on all elements of the contract in question.<sup>87</sup> The specified regulatory standard, however, is likely to be frustrated given that the parties may, in line with the well-established practice, agree the mode of "tacit consent"<sup>88</sup>, as a technique for confirmation of the terms of the agreement. The same "timely" of the confirmation is variously declined. The Article 12 of the Delegated Regulation n. 149/2013 provides, in fact, an application of the obligation to timely confirmation of contracts gradually over time, so-called phase-in, depending on the type of derivative contract.<sup>89</sup>

<sup>&</sup>lt;sup>86</sup> Q&A on Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR) – Answer – n. 5 (b).

<sup>&</sup>lt;sup>87</sup> Q&A on Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR) – Answer – n. 5 (a).

<sup>&</sup>lt;sup>88</sup> Q&A on Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR) – Answer – n. 5 (a).

<sup>&</sup>lt;sup>89</sup> Comma 1 explains that contracts stipulated by financial or non financial counterparties shall be confirmed:

<sup>(</sup>a) for credit default swaps and interest rate swaps that are concluded up to and including 28 February 2014, by the end of the second business day following the date of execution of the OTC derivative contract;

<sup>(</sup>b) for credit default swaps and interest rate swaps that are concluded after 28 February 2014, by the end of the business day following the date of execution of the OTC derivative contract;

<sup>(</sup>c) for equity swaps, foreign exchange swaps, commodity swaps and all other derivatives not provided for in point (a) that are concluded up to and including 31 August 2013, by the end of the third business day following the date of execution of the derivative contract;

<sup>(</sup>d) for equity swaps, foreign exchange swaps, commodity swaps and all other derivatives not provided for in point (a) that are concluded after 31 August 2013 up to and including 31 August 2014, by the end of the second business day following the date of execution of the derivative contract;

<sup>(</sup>e) for equity swaps, foreign exchange swaps, commodity swaps and all other derivatives not provided for in point (a) that are concluded after 31 August 2014, by the end of the business day following the date of execution of the derivative contract.

Another obligation for counterparties is to put in place solid, resilient and auditable formalized processes in order to reconcile portfolios. The portfolio reconciliation thus concerns the key terms of each OTC derivative contract and their evaluation. The time and manner of reconciliation will not be the same for all operators<sup>90</sup>; let's consider for example the non-financial counterparty under the threshold, (namely firms and funds that have less than 100 transactions with each bank) the reconciliation should be performed once a year. Many companies are, also, turning to electronic platforms that automate the exchange of information and report any discrepancies.

The EMIR requires the parties to reconcile among themselves the evaluation of the derivative contracts. Let's take an example: following the wording of the regulation then a micro-enterprise that sells tires with three employees and a turnover of  $\in$  200,000 per annum should "sit down" with the bank counterpart to "reconcile" the value of the mark to market of their IRS notified from the bank as well as the accuracy of the

. (i) each business day when the counterparties have 500 or more OTC derivative contracts outstanding with each other;

. (ii) once per week when the counterparties have between 51 and 499 OTC derivative contracts outstanding with each other at any time during the week;

<sup>&</sup>lt;sup>90</sup> Article 13 the Commission Of Delegated Regulation (EU) No 149/2013

<sup>&</sup>quot;In order to identify at an early stage any discrepancy in a material term of the OTC derivative contract, including its valuation, the portfolio reconciliation shall be performed:

<sup>(</sup>a) for a financial counterparty or a non-financial counterparty referred to in Article 10 of Regulation (EU) No 648/2012:

<sup>. (</sup>iii) once per quarter when the counterparties have 50 or less OTC derivative contracts outstanding with each other at any time during the quarter;

<sup>(</sup>b) for a non-financial counterparty not referred to in Article 10 of Regulation (EU) No 648/2012:

<sup>. (</sup>i) once per quarter when the counterparties have more than 100 OTC derivative contracts outstanding with each other at any time during the quarter;

<sup>. (</sup>ii) once per year when the counterparties have 100 or less OTC derivative contracts outstanding with each other. "

calculations of differential periodic pertaining for example to the USD Libor 6 months.

But what does it mean and how you can "reconcile a portfolio"?

The EU delegated regulation n. 149 of 19.12.2012 on the premise n. 28 stipulates that reconciliation should include the fundamental terms of the operation where the essential term is to reconcile the evaluation each operation. Translated into practical terms, means to reconcile between the parties the value of the mark to market of the derivative. The mark to market value is the market value to which the derivative could at any time be extinguished or acquired by a third party.

So with portfolio reconciliation, operators must still verify that the derivative agreement signed by both parties corresponds effectively to the desired characteristics. In this way should be reduced the possible disputes between the parties on the structure and value of the derivatives, as well as on the exchange of collateral.

It is understood, however, that the application or otherwise of any hidden costs (in the heart of the dispute between banks and customers in recent years) should always be checked at the time of signing the agreement perhaps with the help of independent consultants. In practice, all operators (banks, companies, funds) that have or are about to enter into new OTC derivatives will have shared and signed the appropriate procedures with their counterparts, to reconcile the portfolio and to resolve disputes.

Given the high technicality of the operation of the portfolio reconciliation, ESMA has provided the possibility to delegate to third parties, i.e. calculation agents; but remains, of course, the liability of the counterparties.<sup>91</sup>

In a nutshell, in the light of the above, we can then define the task of reconciliation of the portfolio (in the absence of an official market of reference) as the process of verification of the correspondence between the value of the mark to market determined by a contractor of the derivative OTC and one of the same size determined by the other party. Considering the application of the Art. 13, paragraph 2 of the EU Delegated Regulation N. 149 of 19/12/2012 the process would be entrusted to a qualified third party duly mandated whose processing would be the reconciliation itself. If a financial counterparty and nonfinancial counterparty has 500 or more OTC derivative contracts outstanding with a counterparty which is not centrally cleared, the Art. 14, § 1, Delegated regulation n. 149/2013 92, requires the establishment of procedures to screen regularly, at least twice a year, the idea of making a compression of the portfolio in order to reduce the credit risk of the counterparty. However, in the event of failure of the compression of the portfolio, the financial counterparty and a non-financial counterparty ensure they can explain in a reasonable and valid way to the

<sup>&</sup>lt;sup>91</sup> Q&A on Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR) – Answer – n. 14 (c).

<sup>&</sup>lt;sup>92</sup> Article 14 of the Commission Of Delegated Regulation (EU) No 149/2013 on Portfolio compression

<sup>&</sup>quot;Financial counterparties and non-financial counterparties with 500 or more OTC derivative contracts outstanding with a counterparty which are not centrally cleared shall have in place procedures to regularly, and at least twice a year, analyse the possibility to conduct a portfolio compression exercise in order to reduce their counterparty credit risk and engage in such a portfolio compression exercise.

Financial counterparties and non-financial counterparties shall ensure that they are able to provide a reasonable and valid explanation to the relevant competent authority for concluding that a portfolio compression exercise is not appropriate."

relevant competent authority the reasons which have led. In this regard, ESMA has clarified the cases of possible exemption of the obligation to compression in the subject.<sup>93</sup>

The reconciliation of the portfolio should be a procedure that should be adopted with caution, according to Paolo Esposito, director at Chatham Financial. "We are working - he said - with about 150 companies and funds to facilitate the adoption of the new rules. We noted, however, that the lack of uniformity in the approaches used by banks creates some difficulties for companies that have few resources to devote to compliance." He, also, spent few words on the managing of this the complex process of documentation, saying that the ISDA (the association that collects the main players in the derivatives market) issued a protocol that allows to adopt a standardized process of reconciliation: companies can join online by paying a fee. All this, however, is applicable only to those banks that have acceded to the protocol. Alternatively, companies may enter into bilateral agreements that modify ISDA agreements in place with the banks. But these documents deserve to be traded and analysed carefully in order to avoid unbalanced conditions in favour of the banks.

The other problem is the automatization process, because the implementation of the use of electronic platforms can be difficult. The alternative is a manual reconciliation but exposes firms to significant risks because they have rarely the possibility to control data sent by banks or to challenge in time for any discrepancies.

The last technique for mitigating counterparty risk is explained in Article 15, comma 1 of the Delegated Regulation 149/2013 and it relates

<sup>&</sup>lt;sup>93</sup> Q&A on Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR) – Answer – n. 11 (a).

to the resolution of disputes; so the counterparties shall agree among themselves on detailed processes and procedures for identifying, recording and monitoring of any dispute regarding the recognition or valuation of OTC derivative contract; the timely resolution of disputes provides a specific process for disputes not resolved within 5 working days.

This requirement analysed carries with it the further paradox of the EMIR regulation that imposes a formal process and solid for the settlement of disputes in the absence of the real possibility of understanding the object of contention because of the undeniable skills gap between the firm and the bank counterparts.

The valuation techniques in the mark to market are established by Art. 11, paragraph 2 of EMIR that indicates to check the value of outstanding contracts with official markets data available, or "where market conditions prevent the marking-to-market, we use an evaluation model based on a prudent and reliable." More specifically, the OTC derivatives, not having a market by definition, should be evaluated (i.e. it will be determined the mark to market) with the most popular models for the pricing of derivatives, including the discounted cash flow, models for the option pricing (the Black & Sholes, for example) or very complex models such as Monte Carlo simulation to name a few. Wanting to be accurate in the case of OTC derivatives would not be correct to speak of mark to market but rather to mark to model. In common parlance the two terms have become synonyms for the benefit of mark to market, which is used interchangeably for the two cases.

The obligations of (i) the daily valuation of contracts, i.e. mark to market, and (ii) the exchange of collateral are applied exclusively for the

operation carried out by financial counterparties and non-financial counterparties.

Pursuant to Art. 11, § 2, Reg. N. 648/2012, financial counterparties and non-financial counterparties, referred in the Article 10, use the evaluation at current market prices, i.e. mark to market, to determine the value of outstanding contracts. Where market conditions prevent the evaluation at current market prices, they use an evaluation based on a prudent and reliable model. The market conditions that prevent the valuations at current prices are identified by the Delegated Regulation n. 149/2013, in § 1, in cases where (a) the market is inactive, that is, when quoted prices are not readily and regularly available and those prices available do not represent actual and regularly occurring market transactions on an arm's length basis or when (b) where the range of reasonable fair values estimates is significant and the probabilities of the various estimates cannot reasonably be assessed.

In the event that market conditions prevent the mark to market, financial counterparties and non-financial counterparties are obliged to use a valuation of the derivative positions not centrally cleared through the i.e. mark to model, to be understood as a pattern which, according to what described by Art. 17 of the Delegated Regulation n. 149/2013, (a) incorporates all the information that the counterparties would consider in setting the price, (b) conforms to the economic methodologies for pricing financial instruments; (c) is calibrated and tested and based on observable market data; (d) be validated and monitored by an independent service from which takes the risk; (e) is documented and approved by the Board of Directors at least once a year.

Finally, note the obligation under Article. 11, § 3, Reg. N. 648/2012, for the financial counterparties to take risk management

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procedures that provide for an exchange of collateral in a timely and accurate way and appropriately segregated with respect to OTC derivative contracts entered into on since the 16 August 2012. Qualified non-financial counterparties shall use, however, risk management procedures that provide for an exchange of collateral in a timely, accurate and appropriately segregated with respect to OTC derivative contracts entered into on since the date of exceeding the clearing threshold. The development of projects of common technical standards to specify the procedures for risk management, that the provisions relating to the level and type of collateral and segregation, are delegated, Art. 11, § 15, Reg. N. 648/2012, to ESMA, EBA and EIOPA. While awaiting a ruling of the European Supervisory Authorities, however, the obligation has not yet entered into force.

Some anticipation, in reference to the technical aspects of the application, can be drawn in the final report on the collateral requirements released in September 2013 by the working committee set up in 2011 by the Basel Committee on Banking Supervision and the International Organization of Securities Commission (IOSCO). The system of exchange of collateral is, in fact, centred on the exchange between the parties of an initial margin, for the coverage of potential exposure arising from future changes to the contract or the risk of failure of the counterparty, and of a variation margin, which allows to assess the changes in the risk conditions of contract. The exchange of the margins takes place on a gross basis, without using the compensation between the various positions; this happens for a greater solidity of the collateral, and takes place on a bilateral basis. The initial margin is paid at the beginning of the contractual relationship; the variation margin is paid periodically instead, even on a daily basis.

## 3.3 Penalties

The Article 33 comma 1 of Law 97 of 6 August 2013 amending the Consolidated Law on Financial Intermediation in introducing the Art. 193-quater which essentially provides for penalties from  $\notin$  2,500 to  $\notin$  250,000 for individuals who perform management functions of financial counterparties and non-financial assets who do not comply with the provisions of EMIR. The penalty, therefore, seems to hit not so much the company but the directors. The comma 2 of Art. 33 extends the sanctions regime to control bodies such as the board of auditors in the event of lack of vigilance.

## 4. MiFID II AND MiFIR: LATEST DEVELOPMENTS

The application of MiFID I<sup>94</sup> to the EU's equity trading markets in November 2007 heralded a new era for EU financial markets.<sup>95</sup> MiFID I's equity trading rules (or the order execution rules which govern the process whereby shares are traded between market participants and on different types of trading venue) were designed to reshape the EU trading market. MiFID I abolished the 'concentration' rule which allowed Member States to require that equity orders were routed to national stock exchanges.<sup>96</sup> It sought to use law to impose competitive discipline on the EU's incumbent stock exchanges and to harness industry innovations and technological advances. This reform was the most ambitious and avowedly most market-shaping (as compared to market-facilitating.<sup>97</sup>) of the 1999-2004 Financial Services Action Plan (FSAP) period, and generated intense interest internationally.<sup>98</sup> Some

<sup>&</sup>lt;sup>94</sup> The Markets in Financial Instruments Directive (MiFID) 2004/39/EC, OJ 2004 L 145/1, MiFID Level 2 Commission Directive 2006/73/EC, OJ 2006 L 241/26, and MiFID Level 2 Commission Regulation (EC) No 1287/2006, OJ 2006 L 241/1. A list of the acronyms used in this article can be found at the end.

<sup>&</sup>lt;sup>95</sup> From a massive literature, see generally P. GOMBER and M. CHLISTALLA, 'MiFID – Catalyst for a New Trading Landscape in Europe?' (2007), available at: <a href="http://ssrn.com/abstract=1134763">http://ssrn.com/abstract=1134763</a>; R. DAVIES, A. DUFOUR and B. SCOTT-QUINN, 'The MiFID: Competition in a New European Equity Market Regulatory Structure', in G. FERRARINI and E. WYMEERSCH, eds., Investor Protection in Europe. Corporate Law Making, the MiFID and Beyond (Oxford University Press 2006) p. 163; B. ALEMANNI, G. LUSIGNANI and M. ONADO, 'The European Securities Industry: Further Evidence on the Roadmap to Integration', in ibid., p. 199; and G. FERRARINI and F. RECINE, 'The MiFID and Internalisation', in ibid., p. 235.

<sup>&</sup>lt;sup>96</sup> It was most associated with France, Germany and Italy.

<sup>&</sup>lt;sup>97</sup> On market-shaping and market-facilitating capitalism in the EU, see J. BUCKLEY and D. HOWARTH, 'Internal Market Gesture Politics? Explaining the EU's Response to the Financial Crisis', 48 Journal of Common Market Studies (2010) p. 119, and L. QUAGLIA, R. EASTWOOD and P. HOLMES, 'The Financial Turmoil and EU Policy Co-operation in 2008', in 47 Journal of Common Market Studies (2009) p. 63.

<sup>&</sup>lt;sup>98</sup> US Securities and Exchange Commission (SEC) Commissioner Campos stated that 'it is not an overstatement to say that [MiFID] will markedly change the regulatory landscape in Europe and globally. It will be a new global frontier', speech on 'The Challenge of MiFID in the United States', Amsterdam, 10 May 2007, available at: <a href="http://www.sec.gov/news/speech/2007">http://www.sec.gov/news/speech/2007</a>>.

five years of experience with MiFID I have now been gained.<sup>99</sup> Major empirical studies have been produced.<sup>100</sup> The massive MiFID Review, scheduled at the time of MiFID I's adoption, is heading to completion. In summer 2010, CESR (Committee of European Securities Regulators – now the European Securities and Markets Authority (ESMA)) presented its Technical Advice to the Commission on the Review.<sup>101</sup> The Commission's initial MiFID II Consultation was presented in December 2010.<sup>102</sup> The much anticipated MiFID II Proposals for a MiFID II Directive and a new Regulation were published on 20 October 2011<sup>103</sup> and were accompanied by an extensive Impact Assessment and related studies.<sup>104</sup> In October 2012, the European Parliament, which carried out

<sup>100</sup> E.g., CFA Institute, The Structure, Regulation and Transparency of European Equity Markets under MiFID (2011) (CFA 2011 Report); MiFID: Spirit and Reality of a European Financial Markets Directive (2010), report by P. GOMBER (Goethe University) and A. PIERRON (CELENT) (Celent Report); London Economics, Understanding the Impact of MiFID in the Context of Global and National Regulatory Innovation (2010) and (2011), each for the City of London Corporation (London Economics (2010) and (2011)); and LAZZARI, supra, n. 6.

<sup>101</sup> CESR/10-802. The related Consultation Paper is at CESR/10-394 and the Feedback Statement is at CESR/10-975. The Advice reflected an earlier June 2009 study on the equity markets (CESR/09-355). The industry responses to the CESR/10-394 Consultation Paper referenced in this article are available at: <a href="http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esma.europa.eu/index.php?page=groups&mac=0&id=61>">http://www.esmac=0&id=61</a>">http://www.esmac=0&id=61</a>">http://www.esmac=0&id=61</a>">http://www.esmac=0&id=61</a>">http://www.esmaceu/index.php?page=groups&mac=0&id=61</a>">http://www.esmaceu/index.php?page=groups&mac=0&id=61</a>">http://www.esmaceu/index.php?page=groups&mac=0&id=61</a>">http://www.esmaceu/index.php?page=groups&mac=0&id=61</a>">http://www.esmaceu/index.php?page=groups&mac=0&id=61</a>">http://www.esmaceu/index.php?page=groups&mac=0&id=61</a>">http://www.esmaceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=groups&maceu/index.php?page=grou

<sup>102</sup> European Commission, Public Consultation. Review of the Markets in Financial Instruments Directive (2010) (Commission December 2010 Consultation). The industry responses to the Consultation referenced in this article are available at: <a href="http://ec.europa.eu/internal\_market/consultations/2010/mifid\_en.htm">http://ec.europa.eu/internal\_market/consultations/2010/mifid\_en.htm</a>>.

<sup>103</sup> COM(2011) 652/4 (Proposed MiFID Regulation) and COM(2011) 656/4 (Proposed MiFID II Directive). The order execution rules are addressed, for the most part, by the Proposed Regulation (hereinafter, MiFIR Proposal). Collectively, the two Proposals will be termed the MiFID II Proposals.

<sup>104</sup> European Commission, MiFID II Impact Assessment (SEC(2011) 1226) (MiFID II Impact Assessment). The related studies, additional to the MiFID Review specific studies (London

<sup>&</sup>lt;sup>99</sup> E.g., B. ASSI and D. VALIANTE, MIFID Implementation in the Midst of the Financial Crisis, ECMI Research Report No 6 (2011); B. SOLTANI, H. MINH MAI and M. JERBI, 'Transparency and Market Quality: An Analysis of the Effect of MiFID on Euronext' (2011), available at: <a href="http://sssrn.com/abstract=1833605">http://sssrn.com/abstract=1833605</a>; V. LAZZARI, ed., Trends in the European Securities Industry (Egea, Milan 2011); C. GRESSE, 'Multi-Market Trading and Market Quality' (2010), available at: <a href="http://basepub.dauphine.fr/bitstream/handle/123456789/3148/multimarkettrading\_marketquality.pdf">http://basepub.dauphine.fr/bitstream/handle/123456789/3148/multimarkettrading\_marketquality.pdf</a> ?s>; G. PETRELLA, 'MiFID, Reg NMS and Competition Across Trading Venues in Europe and the USA', 18 Journal of Financial Regulation and Compliance (2010) p. 257; and K. LANNOO and D. VALIANTE, 'The MiFID Metamorphosis' (2010), ECMI Policy Brief No 16.

a consultation on the Commission Proposals, adopted a Resolution on its proposed revisions, and, at the time of writing, Council discussions on a Council position are underway: 'trilogue' negotiations between the Council, Parliament and Commission on their agreed positions were expected in 2013.<sup>105</sup>

The problems that emerged as a result of the market crisis of 2008 have strongly influenced the audit of the Directive since the G20 in Pittsburgh in 2009. This led to a new text of the Directive (known as MiFID 2) and the preparation of new regulation implementation known as MiFIR.

During the Irish presidency has reached agreement on the text of MiFID  $2^{106}$  and MiFIR at Council level. The trilateral dialogue between Parliament, the Council and the Commission that resulted had as result a basic agreement on January 14, 2014.

See also MEMO/14/305

Economics and PriceWaterhouseCoopers both carried out MiFID studies for the Commission) include Oxera, Monitoring Prices, Costs and Volumes of Trading and Post-Trading Services (2011).

<sup>&</sup>lt;sup>105</sup> The Parliament's Resolution on the MiFIR Proposal, which was adopted on 26 October 2012 (P7\_TA\_PROV(2012)0407) (October 2012 Parliament MiFIR Resolution), reflects the initial draft report of the Parliament's Economic and Monetary Affairs (ECON) Committee circulated by the ECON Rapporteur, MEP Ferber, earlier in 2012 (PE485.888v01, 27 March 2012 (Draft 2012 Ferber Report)). At the time of writing, the most recent Presidency Compromise draft on the MiFIR Proposal was the 22 October draft (ECOFIN 862, Brussels, 22 October 2012) (October 2012 Draft MiFIR Presidency Compromise).

<sup>&</sup>lt;sup>106</sup> In October 2011, the European Commission tabled proposals to revise the Markets in Financial Instruments Directive (MiFID II) with the aim of making financial markets more efficient, resilient and transparent, and to strengthen the protection of investors (see IP/11/1219). A political agreement between the European Parliament and the Council endorsing the Commission proposal was reached on 14 January 2014 (MEMO/14/15). MIFID II is accompanied by the Regulation on insider dealing and market manipulation (i.e. market abuse) ("MAR") and the Directive on criminal sanctions for market abuse ("CSMAD") which were adopted by the European Parliament respectively, on 10 September 2013 and 4 February 2014 and by the Council on 14 April (IP/14/424).

The European Parliament, on April 2014 adopted the European Commission's proposals for the reform of the MiFID (Markets in Financial Instruments Directive).<sup>107</sup>

The changes, implemented through a new Directive (MiFID II) and a new regulation (MiFIR), aim to fill gaps in the existing legislation, ensuring greater safety and effectiveness to the financial markets, improving investor protection, ensuring that the high-frequency trading is regulated and that the activity of speculative trading on commodities is controlled.

Internal Market and Services Commissioner, Michel Barnier said: "I welcome today's adoption of MiFID II by the European Parliament. Our legislation needs to keep pace with the changes in financial markets and implement our G20 commitments. The new rules will improve the way markets function in order to serve the real economy. They will establish a safer, more transparent and more responsible financial system and restore investor confidence in the wake of the financial crisis. I would like to congratulate the European Parliament - especially the rapporteur, Markus Ferber, and the shadow rapporteurs - for their hard work and commitment on this important file."<sup>108</sup>

The new provisions of the revised framework MiFID (Market in Financial Instruments Directive) of the Directive 2004/39 / EC were published, on June 12, 2014, in the Official Journal of the European Union.

In particular, have been published:

<sup>&</sup>lt;sup>107</sup> The Press Release of European Parliament is available at

http://www.europarl.europa.eu/news/en/news-room/content/20140411IPR43438/html/MEPs-vote-laws-to-regulate-financial-markets-and-curb-high-frequency-trading

<sup>&</sup>lt;sup>108</sup> The Statement of the European Commission is available at http://europa.eu/rapid/press-release\_STATEMENT-14-129\_en.htm

- Directive 2014/65 / EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92 / EC and Directive 2011/61 / EU (MiFID II);
- Regulation (EU) No. 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No. 648/2012 (MiFIR).

The MiFID II<sup>109</sup> establishes requirements in relation to the following elements: authorization and operating conditions for investment firms; the provision of investment services or execution of investment activities by companies from third countries through the establishment of a branch; authorization and operation of regulated markets; authorization and operating conditions of service of data communication and supervision, cooperation and enforcement of the legislation by the competent authorities.

The MiFIR establishes uniform requirements in relation to disclosure of trade data; transaction reporting to the competent authorities; trading of derivatives on organized venues; nondiscriminatory access to clearing and non-discriminatory access to trading of reference; intervention powers on products conferred to the competent authorities, the ESMA and the EBA as well as the powers conferred on ESMA in order to control the management of the positions and the limitations of the positions; provision of services or investment activity by companies of third countries, following a decision of equivalence applicable by the Commission, with or without a branch.

<sup>&</sup>lt;sup>109</sup> For a deeper analysis see Markets in Financial Instruments Directive (MiFID II):Frequently Asked Questions, at http://ec.europa.eu/finance/securities/isd/mifid2/index\_en.htm

Member States shall adopt and publish, by July 3, 2016, the laws, regulations and administrative provisions necessary to comply with MiFID II, communicating immediately to the Commission the text of those provisions. They shall apply these measures as of January 3, 2017, except for the provisions transposing Article 65, paragraph 2, which shall apply from 3 September 2018. As regards the MiFIR Regulations, subject to exceptions from Art. 55, this applies from January 3, 2017.

In auspices, the new rules will improve the functioning of the capital market to the benefit of the real economy and are considered essential tools to make markets more secure, open and accountable and to recover investor confidence after the financial crisis.

The review comes mainly on four fronts: (i) the field of application of the Directive itself; (ii) the protection of investors; (iii) market discipline; (iv) the relations with third countries.

*Field of Application.* The scope of the Directive is expanded following the introduction of a new investment service consisting in the management of systems of negotiations organized (Organised Trading Facilities or OTF<sup>110</sup>) and of a new category of instruments financed represented by allowances. Have been, also, strictly modified certain exemption schemes applicable to brokers who trade commodities and to market makers.

<sup>&</sup>lt;sup>110</sup> Final MiFIR proposal (n 102) Recital 7. OTFs include 'broker crossing systems, which can be described as internal electronic matching systems operated by an investment firm which execute client orders against other client orders. The new category also encompasses systems eligible for trading clearing-eligible and sufficiently liquid derivatives. It shall not include facilities where there is no genuine trade execution or arranging taking place in the system, such as bulletin boards used for advertising buying and selling interests, other entities aggregating or pooling potential buying or selling interests, electronic post-trade confirmation services, or portfolio compression, which reduces non-market risks in existing derivatives portfolios without changing the market risk of the portfolios.'

The management of OTF therefore falls into the category of investment services and becomes therefore an activities reserved to authorized intermediaries. An OTF is a new type of trading platform introduced by MiFID 2. It is defined as a multilateral system other than a regulated market (i.e., a stock market) and an MTF (i.e., a multilateral system operated by an investment firm or a management company of the regulated markets which brings together the inside and on the basis of non-discretionary rules of multiple purchase and sales of third parties relating to instruments financed, allowing the conclusion of contracts). An OTF is therefore a Multilateral Trading Facility - which brings together requests for purchase or sale of securities by a number of third parties - or a simple trading platform compared to the two market structures just mentioned, as lacking a defined structure and free from the rules provided for the other systems.

As we see, the definition is intentionally broad and is intended to encompass systems - including those using oral or electronic trading that actually are not subject to discipline.

It has long been discussed about whether to limit the definition of OTF only to systems that allow trading of bonds, structured products, emission allowances and derivatives or to extend it to the entire category of financial instruments. This second approach aimed to eliminate regulatory gaps that have allowed the proliferation of "dark pools" in the stock markets. The less rigorous orientation seems to have prevailed and, at present, the OTF are solely dedicated to trading of bonds, financial products, emission allowances and derivatives.

MiFID 2 introduces a specific discipline of emission allowances (defined by the Directive on the systems for the exchange of emission quotas) and derivatives relating to emission allowances in order to counter irregular practices ingrained in the secondary market, considering shares that may undermine public confidence in the systems of trading of the shares themselves.

Are also reformulated certain additional exemptions relating to the provision of intra-group trading services to take account of the frequent use of joint ventures that do not fall within the scope of the group.

Similarly, have been reformulated exemptions for Commodity Firms and individuals that deal exclusively in their own. In particular, for what concerns the subjects that are trading on their own account, the change is intended to ensure that those who have trading volumes in financial instruments disproportionate respect to their main business does not benefit from any exemption from licensing requirements.

Furthermore, the exemption applies to entities which deal on own account (except in Commodity Derivatives) shall not find application to Market Makers, subjects who make use of high-frequency trading techniques involving the use of algorithms as well as to individuals who execute the orders of the customers. Parliament had also suggested the non-application of this exemption for the members or participants of the regulated market or MTF, but it seems that this indication has not been incorporated in the text of the agreement.

*Investor protection.* MiFID 2 aims mainly to strengthen the protection of investors. Investment firms will be required to adhere to stricter rules to ensure that customers can rely on the fact that the products offered are tailored to their needs and characteristics, and that the assets in which they invest are adequately protected. In auspices, investors will also be able to receive advice from independent nature and "neutral". The fee structure of the products and the remuneration due to

investment firms must be consistent with these principles. The new rules will impact significantly on businesses that will have to reconsider their fee structure, the procedures in place for the management of relationships with eligible counterparties and ensure a higher level of protection of local authorities and public bodies.

Furthermore, the possibility of trading according to the scheme of "execution only" will be limited to a smaller number of financial instruments. The perception of commissions or other benefits of noncash will be prohibited in the context of the provision of advisory services and asset management.

Investment firms will be required to publish the five major trading venues in which they executed client orders in the previous year for each category of financial instruments. ESMA and the national supervisory authority will have power to prohibit or limit the distribution of certain financial products.

Regarding customer classification, it will no longer qualify automatically local authorities as professional clients or eligible counterparties unless they have specifically opted for the relevant scheme and the investment firm has verified that head to the same requirements of the necessary experience and competence. The obligation to act in accordance with rules of fairness and honesty, and to provide clear, fair and not misleading is extended to eligible counterparties that will also benefit from the rights of information and periodic reports due in the provision of investment services.

The verification requirements of the adequacy of the investments will be applied also to the provision of consulting services and management.

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MiFID 2 also introduces more onerous requirements to reach an adequacy judgement. In particular, individuals who provide counselling will be required to specify whether they will provide a continuous assessment of the adequacy of investments and regular communication about it.

Investment firms will be required to specify whether the advice provided is made on an independent basis and whether it is prepared on the basis of a general analysis of different types of financial instruments or on a narrower range of products.

The independence requirement will be determined based on several factors, including the fact that investments are selected from a diverse range of financial instruments and the absence of "inducements". Obligations of simple appropriateness apply to services without a consulting component. Note that, in this regard the types of products deemed non-complex were reduced so that assessing suitability will have done with regard to: shares, not listed or traded on MTFs; nonharmonized funds or harmonized funds that incorporate components derived; bonds and other debt securities not listed or traded on MTFs; debt securities which have a derivative component or those who "have a structure that makes it difficult for customers to understand the risks associated with the investment"; all investments for which the firm has granted a loan to the investor. Finally, the funds will be harmonized structured excluded from the list of non-complex instruments with the consequent inability to market these products in the absence of a relationship advice.

Considering the inducements, note that despite the confusion and disagreements application, the current text of MiFID allows, in limited circumstances, investment firms perceive charges, commissions and benefits of a monetary or non-monetary from third parties. MiFID 2 introduces a ban for intermediaries who provide services to independent advice or portfolio management to accept charges, commissions or benefits of a monetary or non-monetary by third parties or entities acting on their behalf (eg., issuers and suppliers services). Will be permitted only non-monetary benefits if "not significant" and provided that these do not affect the company's ability to act in the best interest of the client (eg., training on product characteristics).

It also provides for the adoption of rules of the second level to better define the disclosure requirements about the inducements.

MiFID 2 will introduce numerous innovations to investment firms that execute the orders of the customers. In particular, the execution policy should be formulated with clarity and in ways that make it easy to understand. In addition to the obligations already mentioned advertising on major execution venues, intermediaries will then be required to make public for free information on the quality of execution, such as price, costs, speed and likelihood of execution for each financial instrument.

The MiFID 2 also introduces more onerous requirements in the field of cross-selling, information to clients about the cost structure of the securities offered and strengthens the obligations of telephone recording and electronic records. As noted, the introduction of these obligations is accompanied by the strengthening of the supervisory powers of the national authorities and ESMA, which will be free to make judgments about the merits of the products offered on a temporary basis and to prohibit the marketing of products or the performance the activities they consider likely to negatively affect the stability and integrity of the markets, the orderly course of trading in the stock exchange and the interests of investors.

*Markets.* Stronger innovations brought by MiFID 2 and MiFIR concern markets. Of course, these are also the most controversial and will continue to inspire debate in the coming months.

The general intent is to encourage, if not impose, the conduct of trading within trading systems regulated - whether regulated markets themselves, MTFs or OTFs - i.e. systematic internalisers (whose discipline is reformed). This goal is pursued also by extending the transparency regimes pre- and post-trade in a wider range of equity and debt. Hand in hand, trying to promote access to the facilities of regulation and increase competition between CCPs and trading venues. This will have significant impacts for investment firms that manage systems for the crossing of orders for purchase and sale of customers. They will have to determine whether the systems managed meets the definition of MTF or OTF or whether it is appropriate convert those structures.

In addition, investment firms will have to determine whether - to how to conduct trading services adopted - they use them qualified as systematic internalisers in relation to a wide range of equities or debt. The problem will arise with particular urgency in relation to the markets of fixed income securities, in which the firms negotiate primarily on a bilateral basis as principals.

The number of individuals who have acquired the status of systematic internalisers was below what was expected entry into force of MiFID. The qualitative nature of the conditions for qualification as systematic internalisers made verification by companies about the existence of those requirements very subjective, and many of them have concluded to be devoid of the necessary requirements. Moreover, the MiFID circumscribes the role of systematic internaliser in admitted shares to trading on regulated markets. In line with the more general nature of the obligations of pre-trade transparency which will be discussed further on, the MiFIR expands the role of systematic internalisers that will cover many equities, understood in a broad sense, including depositary receipts, ETFs, certificates and other instruments of a similar nature are traded on a regulated market, MTF or OTF. Therefore, the type of securities traded by systematic internalisers will also include securities not representing capital.

Into force of MiFID 2, a larger number of intermediaries will fall within the definition of systematic internaliser in reference to a significantly broader range of financial instruments.

To ensure that the shares are traded on trading venues in which find application requirements of transparency, the text of MiFIR introduces an obligation to negotiate shares admitted to trading on a regulated market or traded on the MTF or OTF (namely systematic internalisers exclusively at these locations). Investment firms can negotiate shares outside of those areas only on a non-systematic, regular or frequent way, or on an "ad hoc" technique or in those cases in which trading does not contribute to the formation of prices.

A similar push for trading on trading venues subject to regulation is found with reference to standardized OTC derivatives. The MiFIR gives ESMA the power to identify the derivatives subject to the requirements of the regulation provided EMIR that meet requirements of sufficient liquidity for trading only at or traded on MTF or OTF or thirdcountry trading venues considered equivalent.

The high-frequency trading and through algorithms have attracted particular attention in recent years. MiFID 2 sets specific requirements for investment firms that carry trades "through the use of algorithms". The latter concept is broadly defined to encompass any negotiation mode in which an algorithm calculated by computer automatically determines individual parameters of orders (e.g. the time of order entry, execution time, price or quantity of the order) without any - albeit limited - human intervention. This definition will include inevitably a large number of electronic systems.

Enterprises using negotiations through algorithms will be required to adopt systems and risk controls that ensure that the trading systems are flexible, efficient, and are subject to limits and thresholds required to prevent the erroneous order entry or other disruptions that could affect the orderly trading on the market. They are also requested to ensure that their systems are not used to commit market abuse.

In addition, the MiFID 2 will force investment firms to provide the supervisory authority of the state of origin and the market venue of the use of market trading strategies using algorithms. The competent authorities will then have the right to request additional information about the strategies, parameters and limits of negotiation, as well as the principals of compliance and control of the risks that the company has adopted.

In order to ensure liquidity on a regular basis and in a predictable way for the trading venues, firms that use algorithms to put in place strategies for market making (actually entering orders on trading venues underwriting and selling at the same time) will be required to perform this activities on an ongoing basis during a phase of trading hours. These companies will be subject to the obligations introduced by MiFID 2 regardless of the formal status of market makers. These predictions clearly address the fading in the critical moments of the liquidity afforded by electronic trading.

MiFID 2 also requires companies that offer customers direct access to trading venues via electronic means (also known as "direct market access") the obligation to use systems and controls which ensure that the service is suitable for customers who use them and to ensure that this mode of trading will not create or help to create a disorderly market or lend itself to market abuse. Investment firms that offer direct access to trading venues electronically are required to verify that customers who use the service have the requirements of MiFID 2 and by trading venues which have direct access.

The MiFIR will expand the transparency regime pre and posttrade currently provided for the shares to a wider range of equity and non-equity.<sup>111</sup> Regarding equity instruments, operators of regulated markets, MTFs and OTFs will be subject to pre-trade transparency requirements. They will publish the prices on offer and sale, demand data, prices shown on their systems and the indications of interest which can be given over on an ongoing basis during normal trading hours. This results in a significant expansion of the scope of the regime of transparency required by MiFID, which currently applies only to shares admitted to trading on a regulated market. The competent authorities will

<sup>&</sup>lt;sup>111</sup> Final MiFIR proposal (n 102) arts 4-4(a). The Council '[i]n order to avoid any negative impact on the price formation process [...] introduce[d] an appropriate volume cap mechanism for orders placed in systems which are based on a trading methodology by which the price is determined in accordance with a reference price and for certain negotiated transactions', see recital 14(a) Final MiFIR Proposal supra nt 102. Such provision allows the execution of transactions in dark pools, but using prices formed and disclosed in lit venues. More specifically the waivers refer to the following caps:

<sup>&#</sup>x27;i) the percentage of trading in a financial instrument carried out on a trading venue under these waivers shall be limited to 4% of the total volume of trading in that financial instrument on all trading venues across the Union over the previous 12-month period.

ii) overall EU trading in a financial instrument carried out under these waivers shall be limited to 8% of the total volume of trading in that financial instrument on all trading venues across the Union over the previous 12-month period.' See art 4(a)1 Final MiFIR Proposal (n 102).

have discretion to grant exemptions from the requirements of pre-trade transparency for equity instruments in particular circumstances, including also exemptions relating to price target reference systems crossing of orders (order matching systems). Although the scope of the post-trade transparency requirements for equity instruments has been extended compared to the provisions of MiFID, both with reference to the types of instruments concerned both with reference to trading venues (including MTF and OTF).

The MiFIR introduces transparency requirements for pre and posttrade negotiations in non-equity instruments traded on regulated markets, MTFs and OTFs. Operators will be required to publish current prices of offer and sale and data about the application on the basis of those prices on a continuous basis during normal trading hours. May be granted some exemptions for block sales, for indications of interest made in response to requests for quotes, and for trading systems voice that exceed certain volumes as well as for some illiquid instruments.

*Third Countries.* MiFID 2 aims to increase the amplitude of the single market while allowing the EU to be the main contact at the international level on all matters relating to financial regulation for all Member States "with one voice".

In this framework, are added the changes relating to the system of third countries. MiFID 2 will introduce a harmonized regime for access to EU markets by entities established in third countries based on an assessment of equivalence of third countries carried out by the Commission. The new regime will apply only to the provision of services and investment activities on a cross against professional investors and eligible counterparties. For a transitional period of three years and, subsequently, on pending of equivalence assessments by the Commission, will continue to apply the provisions of national laws on access to the domestic market by intermediaries in third countries.

Finally, the question that may arise is "What are the anticipated costs and benefits of MiFID II?". So, MiFID II is estimated to impose a one-off adjustment costs between  $\in$  512 and  $\in$  732 million and ongoing costs between  $\in$  312 and  $\in$  586 million euro per year. This is a one-off impact and running costs of no more than 0.15% of the total operating expenditure in the EU banking sector. This is only a fraction of the costs imposed at the time of the introduction of MiFID. The impacts of one-time cost of the introduction of MiFID were estimated at about 0.6% (retail and savings banks) and 0.7% (investment banks) of total operating expenses. Recurring compliance costs were estimated at about 0.1% (retail and savings banks) to about 0.2% (investment banks) of total operating operating expenses.

The main benefits of the MiFID II will be very tangible, but they are not readily quantifiable. The benefits of an improved level playing field, increased market transparency, better transparency towards regulators and stronger powers for regulators, for better investors protection and the implied confidence investors have in financial markets, and reduction of the risk taken and the related impact on the financial stability of EU financial markets are real benefits, on which it is almost impossible to place a number.

## 5. ANALYSIS OF EU AND U.S. REGULATIONS

### 5.1 Pre-Crisis Regulation in the U.S.

It is reasonable to say that, over the years, the regulation of OTC derivatives has been characterized by uncertainty levels. This uncertainty has been cleared with a detailed and prescriptive regulation in Title VII of the Dodd-Frank Act in 2010. Overall, the history of regulation of OTC contracts in the United States can be understood considering the context of the regulation of derivatives in general. Commodity derivatives trading in the U.S. began in the mid-nineteenth century, with the advent of grain futures contracts.<sup>112</sup> Earlier, derivatives markets were self-regulated, and some aspects of self-regulation remain today.

In 1992 came an important indicator of exchange-traded and OTC markets, the grain Futures Act and its successor, the 1936 Commodity Exchange Act (CEA), which declared illegal off-exchange futures trading. Over-the-counter trades, as they are not futures contracts, as defined by the statutes, were not affected.

Over the next 40 years, derivatives exchanges introduced products more standardized agricultural commodity derivatives, and in 1972 the first contacts future cash flows have been introduced by the International Money Market, a division of the Chicago Mercantile Exchange (CME). Due to the expansion of markets, in 1974 Congress amended the CEA to create a regulatory framework more complete for trading futures. And also, the amendment gave rise to the Commodity Futures Trading

<sup>&</sup>lt;sup>112</sup> For a in-depth analysis of the grain futures markets in Chicago, see CRONON W., Nature's Metropolis: Chicago and the Great West, New York: W. W. Norton, 1991.

Commission (CFTC), which is the market controller for the industry of derivatives.<sup>113</sup>

The jurisdiction of CFTC did not extend to OTC markets. As more kinds of futures and OTC contracts were created, problems of definition with regard to the regulatory powers of the CFTC appeared.<sup>114</sup> The CEA amendment in 1974 included a provision added at the request of the Department of the Treasury. The Treasury was concerned that the jurisdiction of the new CFTC could be interpreted broadly to include OTC foreign currency option trading between banks, which the Treasury saw as being appropriately regulated by banking agencies and, therefore, under its regulatory domain.<sup>115</sup> The Treasury provision states: "Nothing in this Act shall be deemed to govern or in any way be applicable to transactions in foreign currency, security warrants, security rights, resales of instalment loan contracts, repurchase options, government securities, or mortgages and mortgage purchase commitments, unless such transactions involve the sale thereof for future delivery conducted on a board of trade".<sup>116</sup> While this amendment to the law in essence means that the OTC foreign exchange contracts, such as forward contracts and futures, were outside CFTC jurisdiction, there was still uncertainty about the options in foreign currencies, as well as financial

<sup>&</sup>lt;sup>113</sup> The mission of the CFTC is to protect market users and the public from fraud, manipulation, and abusive practices related to the sale of commodity and financial futures and options and to foster open, competitive, and financially sound futures and option markets.

<sup>&</sup>lt;sup>114</sup> See TORMEY T.A., A derivatives dilemma: The Treasury amendment controversy and the regulatory status of foreign currency options, Fordham Law Review, Vol. 65, No. 5, 1997.

<sup>&</sup>lt;sup>115</sup> See JOHNSON MCBRIDE P., LEE HAZEN T., Derivatives Regulation, Vol. 1, New York: Aspen, 2004.

<sup>&</sup>lt;sup>116</sup> For a in-depth analysis see U.S. Government Printing Office, United States Code, 1995 Edition, Title 7, Chapter 1 - Commodity Exchanges, Sec. 2 - Accounts, agreements, and transactions subject to jurisdiction of Commodity Futures Trading Commission; relation to jurisdiction of Securities and Exchange Commission and Federal and State courts; excepted transactions; available at www.gpo.gov

derivatives.<sup>117</sup> The uncertainty led to litigation and general uncertainty in the industry as to the scope of the authority of the CFTC.<sup>118</sup> In the early 1980s, the first swap contracts were devised.

An important example, the IBM / World Bank 1981 swap, shows that the development of a global economy generated a demand for innovative products and highly customized derivatives. Throughout its corporate finance activities, IBM had large amounts of Swiss Franc (CHF) and German Mark (DEM) debt outstanding. Consequently, it had predictable debt-servicing payments to make payable in Swiss francs and German marks. Meanwhile, the World Bank faced a limit on the amount of Swiss denominated debt it could issue, but it had access to the U.S. debt market. The two sides privately negotiated a swap contract, the terms of which included the World Bank issuing debt (i.e., borrowing dollars) in the U.S. market and exchanging the payment obligation to IBM from US dollars in IBM's CHF and DEM obligations. The swap allowed each party to keep their debt positions (for example, no debt has been exchanged, or was the debt retired and reissued), and were not necessity of foreign exchange transactions, because IBM had the CHF and DEM on hand and the World Bank had U.S. dollars available to meet its swap obligations.<sup>119</sup>

Soon after, many other financial institutions started offering swaps. The global market for swaps grew rapidly due to the demand for hedging on interest rates, currencies, and commodities. In this period, the

<sup>&</sup>lt;sup>117</sup> See MARKHAM J.W., The History of Commodity Futures Trading and its Regulation, Praeger, 1987.

<sup>&</sup>lt;sup>118</sup> See TORMEY T.A., supra

<sup>&</sup>lt;sup>119</sup> See Congressional Research Service, Derivatives regulation in the 111th Congress, report, March 3, 2011, available at http://assets.opencrs.com/rpts/R40646\_20110303.pdf.

ISDA was founded (in 1985), which serves the role of a commercial organization to market participants for over-the-counter contracts. As noticed earlier, the ISDA Master Agreement facilitated the growth of the OTC market.

In 1989, the CFTC issued a "Policy Statement Concerning Swap Transactions" in which the agency took the position that most swap transactions "were not properly regulated" as futures contracts under the CEA. Since swap contained characteristics of an OTC futures contract, the question came up whether the swap would be subject to the mandatory exchange-trading requirement of the CEA and regulatory oversight by the CFTC.

This uncertainty, as well as the vagueness of the Treasury Amendment, probably played a role in boosting the OTC swap markets to move abroad, especially in London, where there were deregulated financial markets. Congress then tackled the issue of regulating swaps in the Futures Trading Practices Act of 1992 (FTPA), which afforded the CFTC broad exemptive authority over swap agreements and certain hybrid bank products in order to address the legal status of swaps and the possible exemption of swaps from the CEA. This authority operated in January 1993, when the CFTC simultaneously published separate final rules that generally discharged swap agreements and hybrid instruments by provisions of the CEA.

In particular, the "Exemption for certain agreements Swaps" in January 1993 has been invoked by the market to exempt swap transactions from CFTC regulation, as long as they were between eligible swap participants, were not standardized, had credit as a material term, and were individually negotiated.<sup>120</sup>

The Commodity Futures Modernization Act of 2000 (CFMA) ensured the deregulation of OTC derivatives in the United States and stated that the transactions between "sophisticated parties" would not be regulated as "futures" under the CEA or as "securities" under federal securities laws.

On the contrary, major retailers of those products (banks and securities firms) would continue to have their OTC derivatives transactions supervised by their federal regulators under general "safety and soundness" standards.

The Dodd–Frank Act of 2010 essentially reversed the CFMA. Title VII of the act allows, among other things, direct regulatory authority over swaps to the CFTC and authority over security-based swaps to the SEC. Briefly, Title VII obliges that certain swap must be executed on an exchange or "swap execution facility" (SEF), and it enforces margin and capital requirements on certain swap deals and participants.

## 5.2 The Dodd Frank Act

The Dodd–Frank Wall Street Reform and Consumer Protection Act<sup>121</sup> (commonly referred to as Dodd-Frank) was signed into federal

<sup>&</sup>lt;sup>120</sup> See GENSLER G., History of derivatives regulation, culprit OTCs, CommodityOnline, July 2, 2010, available at www.commodityonline.com/news/history-of-derivatives-regulationculprit-otcs-29636-3-29637.html.

<sup>&</sup>lt;sup>121</sup> The US regulation was examined, including a comparative approach with respect to the EU EMIR, by GREENE, Issues in the Extraterritorial Application of Dodd-Frank's Derivatives and Clearing Rules, the Impact on Global Markets and the Inevitability of Cross-Border and US Domestic Coordination (2013) at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2312724; Awrey, Complexity, Innovation and Regulation of the Modern Financial Markets (2013) at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1916649

law by President Barack Obama on July 21, 2010. Passed as a response to the Great Recession, it brought the most significant changes to financial regulation in the United States since the regulatory reform that followed the Great Depression<sup>122</sup>. It made changes in the American financial regulatory environment that affect all federal financial regulatory agencies and almost every part of the nation's financial services industry<sup>123</sup>.

As with other major financial reforms, a variety of critics have attacked the law, some arguing it was not enough to prevent another financial crisis or more bailouts, and others arguing it went too far and unduly restricted financial institutions<sup>124</sup>.

The law was initially proposed by the Obama Administration in June 2009, when the White House sent a series of proposed bills to Congress. A version of the legislation was introduced in the House in July 2009. On December 2, 2009, revised versions were introduced in the House of Representatives by Financial Services Committee Chairman Barney Frank and in the Senate Banking Committee by former Chairman Chris Dodd. Due to their involvement with the bill, the conference committee that reported on June 25, 2010 voted to name the bill after the two members of Congress.<sup>125</sup>

The Dodd-Frank Wall Street Reform and Consumer Protection Act (Act) is very broad and complex legislation that puts in place a

<sup>&</sup>lt;sup>122</sup> See PALETTA, DAMIAN, LUCCHETTI, Aaron, Senate Passes Sweeping Finance Overhaul, in Wall Street Journal, July 16, 2010.

<sup>&</sup>lt;sup>123</sup> See Dodd–Frank Act Becomes Law, The Harvard Law School Forum on Corporate Governance and Financial Regulation, July 21, 2010

<sup>&</sup>lt;sup>124</sup> See SIMKOVIC M., Competition and Crisis in Mortgage Securitization, in Indiana Law Journal, Vol. 88, 2013, p.213.

<sup>&</sup>lt;sup>125</sup> See PALETTA, DAMIAN, It Has A Name: The Dodd/Frank Act, in The Wall Street Journal. Retrieved, July 22, 2010.

sweeping new financial services regime that will have significant regulatory and legal consequences for banks now and for years to come.<sup>126</sup>

A New Risk-Based Approach to Financial Services Regulation. The Federal bank regulatory agencies, and in particular, the Board of Governors of the Federal Reserve (Fed), are given extensive new authorities to:

- Monitor the systemic safety of the financial system and to take proactive steps to reduce or eliminate such threats;
- Impose strict controls on large bank holding companies with total consolidated assets equal to or in excess of \$50 billion (Large BHCs) and systemically significant nonbank financial companies supervised by the Fed (Significant Nonbanks) to limit the risk they might pose for the economy and to other large interconnected companies;
- Take direct control of troubled financial companies that are considered systemically significant.

*New Regulation of Systemically Risky Institutions.* The Act puts in place several new entities and a statutory liquidation process to deal with systemically risky institutions: (1) a new Financial Stability Oversight Council is created to monitor systemic financial risks. The Council will have significant authority to identify potential systemic threats and to direct the regulatory agencies to take action to address those risks, Title I; (2) the Fed is given new authority to impose heightened prudential requirements on Large BHC-and Significant Nonbanks, including

<sup>&</sup>lt;sup>126</sup> See THOMAS P., VARTANIAN T.P., LEDIG R.H., D.L. ANSELL, Dodd-Frank Act Resources, in www.aba.com, Washington, D.C., July 14, 2010.

heightened capital and liquidity requirements and other requirements such as a self-designed resolution plan, Title I; (3) a new process is established for Federal authorities to place bank holding companies and significant nonbanks into a FDIC-operated receivership structure similar to the one in place for banks under the Federal Deposit Insurance Act. This is intended to give Federal authorities the power to act quickly to respond to potential liquidity or other crises of confidence involving non-depository institutions, Title II.

*Increased Bank Supervision.* The Act restructures the supervision of holding companies and depository institutions in several respects. It:

- Establishes the equivalent of a prompt corrective action program for large bank holding companies;
- Requires (subject to certain exceptions) that capital requirements for holding companies be at least as strict as capital requirements for depository institutions. This is the so-called Collins amendment that, among other things, grandfathers existing issues of trust preferred securities but eliminates them as regulatory capital for larger holding companies five and a half years after enactment. Holding companies with less than \$15 billion in consolidated assets are not subject to this new restriction, but new issuances of trust preferred securities do not count as tier 1 regulatory capital, Title I;
- Directs Federal bank regulators to develop specific capital requirements for holding companies and depository institutions that address activities that pose risk to the financial system, such as significant activities in higher risk areas, or concentrations in assets whose reported values are based on models, Title I;
- Enhances the authority of the Fed to examine non-bank subsidiaries, such as mortgage affiliates, and also gives other bank regulators the opportunity to examine and take enforcement action against such entities, Title VI;
- Eliminates the Office of Thrift Supervision and reallocates savings and loan holding company supervision to the Fed; Federal savings institution supervision to the OCC; and State savings institution supervision to FDIC. However, the thrift charter is preserved and new charters may be issued by the OCC, Title III;
- Establishes a statutory source of strength requirement for both bank and savings and loan holding companies, Title VI.

*Heightened Focus on Consumer Protection.* The Act establishes a new independent Federal regulatory body for consumer protection known as the Bureau of Consumer Financial Protection (the "Bureau"). The Bureau is an independent entity within the Federal Reserve System with responsibility for most consumer protection laws (except the CRA), Title X.

Although the Bureau will be required to consider the potential benefits and costs for financial institutions and consumers of a proposed regulation and to consider and address any objections from other Federal regulators, the Oversight Council will have authority to set aside a Bureau regulation in only very limited circumstances.

The Bureau has broad authority to curb practices it finds to be unfair, deceptive and abusive. What constitutes "abusive" behaviour may be very broadly defined and is very likely to create an environment conducive to increased litigation. This is likely to be exacerbated by the fact that State Attorneys General are authorized to enforce Federal consumer laws transferred to the Bureau and any rules issued by the Bureau as well.

The Bureau has also authority to supervise, examine, and take enforcement action with respect to (i) depository institutions with more than \$10 billion in assets and (ii) nonbank mortgage industry participants and other Bureau designated nonbank providers of consumer financial services.

The Bureau writes and issues new consumer protection rules but the prudential regulatory agencies have primary examination and enforcement authority for depository institutions with \$10 billion or less in assets. However, the Bureau has the right to include its examiners on a "sampling" basis in examinations conducted by the prudential regulators and is authorized to give those agencies input and recommendations with respect to consumer protection laws and to require reports and other examination documents.

Dodd-Frank Act also undermines current Federal pre-emption standards for national banks and Federal thrifts. Specifically, it increases the potential for State intervention in the operations of federally chartered depository institutions by creating new procedural hurdles to pre-emption determinations while also potentially narrowing the circumstances in which pre-emption would apply. Moreover, the Act provides statutory authority for State law enforcement authorities with respect to federally chartered depository institutions.

*Limits on Bank Investment and Related Activities.* The Act places certain limitations on investment and other activities by depository institutions, holding companies and their affiliates. The following are some of the key restrictions and requirements:

- The Volcker Rule prohibits banks and their affiliates from engaging in proprietary trading, subject to exceptions for certain types of assets and certain categories of transactions. Under the Volcker Rule, banks and their affiliates face strict limits on investment in, and sponsoring of, hedge funds and private equity funds. Sponsorship and investment in such funds will be subject to certain conditions and with ultimate investment limited to 3 percent of any single fund and an aggregate investment in all funds not to exceed 3 percent of the entity's Tier 1 capital. Existing relationships with funds that are not in conformance with Volcker Rule requirements will be have to be divested, Title VI;
- Banks that receive Federal assistance (a broadly defined term) will be required to push out certain swaps activities to affiliates, Title VII;
- The coverage of Section 23A of the Federal Reserve Act is expanded to take account of the credit exposure related to additional transactions, including derivatives transactions, along with other additional restrictions under Section 23A, Title VI;
- The Act places new restrictions on acquisitions that would result in a financial company controlling more than 10 percent of the consolidated aggregate liabilities of all financial companies, Title VI.

*Heightened Regulation of Mortgages.* The Act significantly increases the regulation of mortgage lending and servicing by banks and nonbanks. In particular, the Act requires mortgage originators to act in the best interests of a consumer and seeks to ensure that a consumer will have the capacity to repay a loan that the consumer enters into and mandates comprehensive additional residential mortgage loan related disclosures. It also requires mortgage loan securitizers to retain a certain amount of risk (as established by the regulatory agencies).

However, mortgages that conform to the new regulatory standards as "qualified residential mortgages" will not be subject to risk retention requirements.

Dodd-Frank Act Title VII, also called the Wall Street Transparency and Accountability Act of 2010, concerns regulation of over-the-counter swaps markets<sup>127</sup>. Included in this section are the credit default swaps and credit derivatives that were the subject of several bank failures in 2007.

Financial instruments have the meanings given the terms in section 1a of the Commodity Exchange Act. On a broader level, the Act requires that various derivatives known as swaps, which are traded over the counter be cleared through exchanges or clearinghouses.

The Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) both regulate derivatives known as swaps under the Act, but the SEC has authority over "securitybased swaps". The Act repeals exemption from regulation for security based swaps under the Gramm–Leach–Bliley Act. The regulators are required to consult with each other before implementing any rulemaking or issuing orders regarding several different types of security swaps. The CFTC and SEC, in consultation with the Federal Reserve are

<sup>127</sup> See EBBE D. KJAERSBO, MCBRIDE J., Chief Business Consultants, SimCorp, *Impact of Dodd-Frank on OTC derivatives: supporting central trading and clearing*, in www.simcorp.com; DILWORTH R., LYNCH M., GREEN P., JENNINGS-MARES J., PINEDO A., SCHWARTZ J., Comparison of the Dodd Frank Act Title VII and the European Market Infrastructure Regulation, January 28, 2014, in mofo.com; GUYLAINE C., in The Market Maker, The Alliance of Alternative Asset Professionals) Vol. 2, Iss. 1 (8/10) p. 2, *Over-the-Counter Derivatives and The Dodd-Frank Wall Street Reform and Consumer Protection Act*; BATES C., *Dodd-Frank Act v. EMIR Exemptions for interaffiliate and intragroup transactions, January*, 2014. charged with further defining swap related terms that appear in Commodity Exchange Act and section 3(a)(78) of the Securities Exchange Act of 1934.

The title provides that, "Except as provided otherwise, no Federal assistance may be provided to any swaps entity with respect to any swap, security-based swap, or other activity of the swaps entity". An "Interagency Group" is constituted to handle the oversight of existing and prospective carbon markets to ensure an efficient, secure, and transparent carbon market, including oversight of spot markets and derivative markets.

Dodd-Frank Act reform had significant impact on OTC derivatives in four key areas: (I) Regulatory oversight; (II) Registration and regulation of swap industry participants; (III) Mandatory clearing and trade execution requirements on standardised derivative products and (IV) Rigorous record keeping and reporting requirements.

Title VII of the Act uses several regulatory tools to make the market more transparent, efficient and competitive. This includes central clearing, trading, capital, margin, reporting and record keeping requirements. These requirements apply differently to different types of entity and the type of swap. The regulatory requirements of Title VII can be broadly categorised into those applicable to:

- all persons engaging in swaps clearing, trade execution and trade reporting requirements;
- market participants such as swap dealers (SDs) and major swap participants (MSPs) business conduct standards; and
- swap market infrastructures clearing houses, swap data repositories, exchanges.

SDs and MSPs will face the bulk of the regulatory requirements. Other swaps trading entities include banks and bank holding companies which may also be designated as SDs, security-based swap dealers (SBSDs, MSPs and major security-based swap participants (MSBSPs) depending on the thresholds reached of their swap activity. All other market participants (referred to as end users) are divided into financial and non-financial end users and are subject to different requirements.

*Regulatory oversight.* Pursuant to the Act, the CFTC and the SEC are required to oversee swap agreements, with the Federal Reserve Board, also having an important role in setting capital and margin for swap entities that are banks. The Act creates parallel regulatory regimes and divides jurisdiction between the two based on the type of swap involved.

The SEC will oversee security-based swaps (SBS) - included in the definition of "security" under the Securities Exchange Act of 1934 and the Securities Act of 1933; and certain security based swap market participants. The CFTC has regulatory authority over all other swaps and certain swap market participants.

The two bodies jointly regulate mixed swaps, i.e. SBS that also have a commodity component. In addition, the SEC has anti-fraud enforcement authority over security-based swap agreements. Other banking regulators have supervisory rule-making responsibilities over prudential requirements. Further, Dodd-Frank has furnished the CFTC and the SEC with extraterritorial jurisdiction over the foreign activities of both US and non-US participants.

The CFTC has promulgated a number of final rules, while the SEC is significantly behind the CFTC's progress in both proposing and finalising regulations to implement Title VII. *Registration and regulation of swap industry participants.* Title VII also establishes several new measures for swap industry participants:

- broker dealers that are "making a market" in swap products must register as SDs with the CFTC, SEC or both depending on the swap products traded;
- MSPs entities with substantial positions in swaps, or multiple counterparties are subject to a comprehensive set of requirements under the Act and related CFTC regulations.

Registration is required with an applicable regulator irrespective of whether the entity is registered with the other applicable regulator or is a depository institution.

On 13 August 2012 the CFTC/SEC joint release adopting final rules and interpretive guidance (the Definitional Rules) was published in the Federal Register. The Definitional Rules clarify the treatment of certain agreements, contracts and transactions under the defined terms, and became effective 12 October 2012. This was a key date in the Dodd-Frank regulatory reform calendar as it started the 60-day countdown paving the way for compliance with a number of rules, including mandatory registration as an SD or MSP. Registration of all market participants acting as a swap dealer or a major swap participant was required by 15 October 2012 although certain de minimis exceptions apply. The compliance date has since been extended until 1st of January 2013. This will have implications for non-US persons as certain entities falling within the extraterritorial reach will be required to register as SDs or MSPs. *Mandatory clearing and trade execution.* The Title VII rules, in line with the G20 requirements to move derivatives trading onto exchanges, introduce mandatory central clearing and exchange trading. Swaps must be cleared if the applicable regulator determines that it is required to be cleared and a clearing organisation accepts the swap for clearing. Section 723 of Dodd-Frank in adding Section 2(h)(l) to the Commodity Exchange Act (CEA) provides that: "it shall be unlawful for any person to engage in a swap unless that person submits such swap for clearing to a derivatives clearing organization that is registered under [the CEA] or a derivatives clearing organization that is exempt from registration under [the CEA] if the swap is required to be cleared".

Swap products requiring clearing must be submitted to a registered clearinghouse - Derivatives Clearing Organisation (DCO) for non-SB swaps and clearing agencies for SBs.

Swaps will be guaranteed by clearing houses to eliminate exposure to counterparty risk. One of the main benefits of central clearing is the reduction of counterparty credit risk and the Title VII rulemaking focuses on central clearing as a means of controlling credit risk and increasing transparency. Counterparties to non-cleared trades will be subject to much higher collateral and capital requirements. The mandatory clearing requirement will not apply to existing swaps if they are reported to a swap data repository or, if none, to the applicable regulator in a timely manner. To promote certainty for market participants, the Commission approved final regulations that establish a schedule setting specific phase-in dates for compliance. The compliance schedule applies to three categories of market participants:

- Phase 1/Category 1 Entities includes swap dealers, security-based swap dealers, major swap participants, major security-based swap participants, and active funds;
- 2) Phase 2/Category 2 Entities includes commodity pools; private funds as defined in Section 202(a) of the Investment Advisors Act of 1940, other than active funds; or persons predominantly engaged in activities that are in the business of banking, or in activities that are financial in nature as defined in Section 4(k) of the Bank Holding Company Act of 1956, provided that the entity is not a third-party subaccount;
- 3) Phase 3/Category 3 Entities. The compliance schedule will phase in compliance for all other swaps, including those involving thirdparty subaccounts, ERISA plans, and those not excepted from the clearing requirement within 270 days after the Commission issues a clearing requirement. In the final rule, the Commission has modified the definition of third-party subaccount to remove the execution authority requirement.

The compliance schedule provides third-party subaccounts the most amount of additional time to bring their swaps into compliance as they are likely to require the most amount of time for documentation, coordination, and management.

The compliance dates are as follows:

- Category 1 Entities to begin clearing will commence on 11 March 2013, for swaps they enter into on or after that date;
- Category 2 Entities are required to clear swaps beginning on 10 June 2013, for swaps entered into on or after that date, and
- Category 3 Entities would be required to clear swaps beginning on
  9 September 2013, for swaps entered into on or after that date.

*End-user exception.* Not all products will be eligible for clearing and there are some exceptions for certain end users of swaps. The Section 2(h)(1) clearing requirement shall not apply where one of the counterparties to the swap: is not a financial entity; is using swaps "to hedge or mitigate commercial risk"; and notifies the applicable regulator how it generally meets its financial obligations associated with entering into non-cleared swaps.

Financial end-users will be required to clear and execute swaps in the same manner as SDs and MSPs. Therefore end users will need to determine if they qualify for the end-user exception from clearing and exchange-style trading and whether or not they are deemed "a financial entity". The term includes: SDs and MSPs; commodity pools; private funds (as defined under the Investment Advisers Act of 1940); employee benefit plans, and persons predominantly engaged in activities that are in the business of banking or in activities that are financial in nature, but excludes certain captive finance affiliates.

There is concern at about the classification of the term "financial entity" not least due to the ambiguities of the CFTC's defined term "commodity pool" which may unintentionally bring in some nonfinancial end users into the "financial entity" definition".

The final rule exempts banks, savings associations, farm credit system institutions, and credit unions with total assets of \$10 billion or less from the definition of "financial entity," making such "small financial institutions" eligible for the end-user exception.

A non-financial end user may elect to decide not to clear a swap that is otherwise required to be cleared by notifying the CFTC or the SEC. To implement the notification requirement, the final rule requires the reporting counterparty to report to a swap data repository (SDR) (or if no SDR is available, to the Commission) information for each swap for which the end-user exception is elected: notice of the election of the exception; and the identity of the electing counterparty (the counterparty eligible to elect the end-user exception) to the swap.

The other exemption from clearing is the inter-affiliate exemption, which is expected to be available for swaps between majority-owned affiliates. On 16 August 2012, the CFTC proposed rules that would permit affiliated swap counterparties to elect an exemption from mandatory swaps clearing, subject to various conditions. These conditions include reporting, documentation, risk management and other obligations, and, for swaps between financial entities, a requirement to provide variation margin.

The final rule regarding the end-user exemption was published 19 July 2012.

Many of the Dodd-Frank provisions will indirectly affect end users of swaps - they may find themselves facing new legal entities as counterparties to swap agreements, will need to potentially revise existing arrangements with swap dealer counterparties for non-cleared swaps, and monitor for and comply with position limits.

Dodd-Frank requires that all swaps transactions subject to the mandatory clearing requirement must also be "made available to trade" on an approved registered exchange (approved by either the CFTC or the SEC). This includes:

- designated contract markets (DCMs);
- swap execution facilities (SEFs)

*FX swap exemption.* The FX swaps and forwards market is markedly different from other derivatives markets with FX swaps and forwards already trading in a highly-transparent, liquid and efficient market. Further, moving FX swaps and forwards to centralised clearing would create additional costs for businesses and investors, and also increase systemic risk.

Consequently, FX swaps and forwards are exempt from the mandatory central clearing and exchange trading requirements - imposing central clearing requirements could have serious negative economic consequences, but they will remain subject to Dodd-Frank's new requirement to report trades to swap data repositories and business conduct standards. The final determination issued on 19 November 2012 is narrowly tailored and does not extend to FX options, currency swaps and non-deliverable forwards which will still be subject to mandatory clearing as well as the requirement that they be traded on either a DCM or a SEF.

*Margin*. Swaps that are centrally cleared will be subject to margin requirements imposed by the clearinghouses and their clearing members. Dodd-Frank also provides for margin requirements to apply to noncleared swaps (bilateral swaps). In May 2011 the CFTC and prudential regulators proposed rules governing margin requirements for noncleared swaps which require swap dealers and MSPs under their respective jurisdictions to collect margin from their swap counterparties. The proposed rules differentiate between financial and non-financial end users. Financial end users would be further classified as either high or low risk. Nonfinancial end users are not explicitly subject to the CFTC's proposed margin rule but are required to have a "credit support

arrangement" in place. The Prudential Regulators' proposed margin rule would explicitly require swap dealers and major swap participants to collect initial and variation margin from non-financial end users in certain cases.

The proposed rules give end users the right to request that any initial margin collected from it by a swap dealer for non-cleared swaps be segregated and held by an independent third-party custodian. End users who do not elect such segregation would receive periodic reports about their initial margin. This right is limited to initial margin and does not extend to variation margin. End users will need to decide whether to elect to have initial margin collected from them segregated at an independent third-party custodian.

*Record keeping and reporting requirements*. Title VII requires swap market participants to retain and report data relating to swap transactions. The CFTC has finalised rules governing reporting of swap transaction data to swap data repositories (SDRs) and retention of swap data by parties to a swap. SDRs are new entities created by Section 728 of the Dodd-Frank Act to provide a central facility for swap data reporting and recordkeeping. Under the Act, all swaps, whether cleared or uncleared, are required to be reported to register SDRs and are subject to the public reporting requirements under the legislation. Pursuant to Section 729, each swap not accepted for clearing by any DCO must be reported to an SDR (or to the Commission if no repository will accept the swap). The legislation ensures that at least one counterparty to a swap has an obligation to report data concerning that swap.

The Dodd-Frank Act added new Section 21 to the CEA, governing registration and regulation of SDRs and establishing registration requirements and core duties and responsibilities for SDRs. The CFTC has promulgated the Part 49 regulations implementing Section 21. SDRs are required to register with the CFTC and comply with rules promulgated by the CFTC, including real-time public reporting of swap transaction and pricing data. SDRs located outside of the US must certify on Form SDR and provide an opinion of counsel that the SDR is able, as a matter of law, to provide the Commission with prompt access to its books and records and can submit to on-site inspection and examination by the Commission.

The CFTC has finalised rules relating to real-time public reporting (Part 43) and recordkeeping and regulatory reporting (Part 45), which will place requirements on end users. Compliance with the reporting rules will be phased-in by product and reporting entity. End users with reporting obligations will need to comply with the reporting rules for all of their swaps transactions 180 days after SDs and MSPs are required to start reporting for their interest rate and credit swaps.

The record-keeping requirements depend on when the swap is entered into.

On 10 October 2012 the CFTC issued a set of Q & A providing clarity and explaining how the registration requirements of SDs and MSPs will affect the actual date on which they must first report swap data to a Swap Data Repository (SDR). The Q & As aligns the Part 45 reporting requirements with the registration requirements for SDs and MSPs.

The CFTC's final record-keeping rules provide that entities subject to the CFTC's jurisdiction keep "full, complete, and systematic records, together with all relevant data and memoranda", of all activities relating to their swaps activities. For swaps entered into before DoddFrank was enacted in July 2010 and to swaps executed between that time and the applicable compliance date of the record-keeping rules there are differing requirements. Records must be retained throughout the life of the swap and for at least five years afterwards. End-users are allowed to keep their records in paper or electronic form and must be made available upon request, to an authorised regulator.

On October 26, 2012, the Division of Swap Dealer and Intermediary Oversight (the DSIO) of the CFTC published a letter providing time-limited no-action relief for prospective and provisionally registered SDs and MSPs from having to be fully compliant with certain recordkeeping requirements under Part 23 of the CFTC's Regulations until March 31, 2013.

## 5.3 Comparison between EMIR and Dodd-Frank Act

In many respects, the Dodd-Frank (D-F) Act and EMIR are similar; but this similarity level may not be sufficient to ensure a level 'playing field' throughout the world. As previously mentioned, the U.S. and the UK are the main centres for world trading of OTC derivatives; if requirements are divergent there is a high risk of regulatory arbitrage by market participants. Many secondary trading jurisdictions, such as Singapore or Hong Kong, have, although they are not part of the G20, already passed laws more or less equivalent to those proposed by EU and USA; because of their minor role in world trade, in this paperwork I'm not analysing the regulations of these markets.

The general lines of both regulations are aligned: this is not a big surprise, as their purposes were defined in the context of the G20 conferences and both the European Union and the United States have shown great willingness to eliminate jurisdictional arbitrage.<sup>128</sup> Observe that since the state of EMIR is not yet completed, a close comparison between some of the more technical details of the legislation is not possible.

The following sections below point out the main analogies and differences of Dodd-Frank and EMIR.

*Similarities:* The field of application of the two regulations is very similar, since both have very broad definitions, including the majority of the derivatives. Since the goal of these regulations is to make financial markets more stable, regulators have little incentive to exclude the financial assets related to systemic risk; leaving arbitrary parts of standardized derivatives market uncleared could then represent a risky legal loophole.<sup>129</sup> The aim is however limited to derivative instruments that have an effect on the systemic risk (following the objectives of the G20).

Imposing compensation of all financial assets available in the market would be counter-productive, because of inadequate infrastructure or unbalanced netting for some market participants, or using the words of the EC proposal: "Forcing a CCP to clear OTC contracts that it is unable to risk-manage may have adverse repercussions on the stability of the system".<sup>130</sup> Following this reasoning, the two regulations have omitted, among other things, spot foreign exchange

<sup>&</sup>lt;sup>128</sup> See PERROTT B., MCKEEVER D., "EU v US approach", [April 2011], Holman Fenwick Willan publications, Regulatory Bulletin, p. 1.

<sup>&</sup>lt;sup>129</sup> For a in-depth analysis see "EMIR – OTC Derivatives", [Nov 2010], Confederation of British Industry, Position Paper, p. 1.

<sup>&</sup>lt;sup>130</sup> EMIR, supra n. 154, p. 6.

transactions. Some argue that the aim of EMIR is slightly wider, as it integrates all eligible derivatives, therefore not only standardized, while others claim that the laws of the Dodd-Frank, differently from EMIR, are also applicable to ETD.<sup>131</sup>

Similarly, both jurisdictions require clearing of standardized OTC contracts through CCPs and impose minimum capital requirements and daily margin calls, but they offer an exemption of central clearing for legitimate hedging by non-financial market participants.

The recognition of third-country CCP is multifaceted and indispensable, and was presumably addressed in both Regulations in identical ways. The implementation of the recognition is based on some standards, not well defined yet, still subjects to evaluations from various institutions: the effectiveness of these laws, and subsequently their similarity, is therefore difficult to assess today. Bilateral clearing being a reality on both sides of the Atlantic, the regulators have agreed on stricter capital and margin requirements, together with up-to-date risk management procedures and electronic methods.

Nevertheless, has not been given much care to the complexity of assigning compulsory margins and valuing non-standardised derivatives. Again, the success of the implementation of the law will depend largely on future models and definitions of the regulators, and on the strict respect of market participants. Although the regulations are aligned today, further details and the development of the law could create holes between the two regulations.

Considering markets transparency, both set of laws requiring the use of data repositories to report, timely, open derivative contracts, and

<sup>&</sup>lt;sup>131</sup> See CHAN D., "EMIR compromise to put trading costs in the clear", EUROCCP publications, p. 1., 2011.

in case of inability to report to the repository, to refer to the apposite authority. Through this process, governments are guaranteed to have access to the necessary information on OTC derivatives open positions, i.e. if another financial crisis occurs in the future.<sup>132</sup>

*Differences:* Regulators on both sides of the Atlantic, when developing their regulations, understood that it would be equally beneficial to have similar laws. However, as noted earlier, the ideal convergence between the two jurisdictions is unconvincing.<sup>133</sup>

Talking about the differences between the two regulations, it is relevant to remember that, being only 42 pages long, EMIR is considerably shorter than the 160 pages of Chapter VII of the Dodd-Frank; although EMIR is a "stand alone" regulation, its implementation and success depends on several other European regulations and directives. However, some differences are evident between the two Regulations; the most important are described below.

The difference that is most emphasized is the system used to outline which contract should be cleared centrally, and which should not. The proposal of the United States requires counterparties to "opt out" and justify how they will face the credit risk, while the EC's proposal uses a system of "opt-in", where only the contracts defined as "eligible" are meant to be cleared; ex ante, the European method appears therefore to be less strict than the American one and it could lead some market participants to opt for the EU jurisdiction.

<sup>&</sup>lt;sup>132</sup> See LAWTON D., "Strengthening transparency in the markets transaction chain", Speech at FSA Xtrakter Conference, in chapter: "Trading", 2011.

<sup>&</sup>lt;sup>133</sup> See CARLO R. W. DE MEIJER, WILSON J., "New OTC Derivatives Regulation and the Future of the Derivatives Industry", [Sept 2010], Vol. 3, Num. 3, *The Journal of Securities Operations & Custody*.

The second most important, and also surprising, difference is the asymmetry of the timetables of the two proposals. Since July 2011, the Dodd-Frank's Title VII has been applicable, while the EMIR was still far from its implementation. This lack of consensus on the timeline of the regulations is often considered as the major source of regulatory arbitrage, as the mobile financial companies have little encouragements to do not move their business from one side of the Atlantic to the other, even for short periods of time.

An additional important divergence between the two jurisdictions is the presence, in the Dodd-Frank Act, of the push-out provision<sup>134</sup> and the Volcker rule<sup>135</sup>. These two elements, involving spinning-off, into separate entities, the trade some swaps, and a ban on proprietary trading, are likely to create a comparative advantage for non-U.S. based banks. The first component should have a limited effect, as most of the swap deals will not be affected by this law. It could, however, reduce the U.S. offer of less standard OTC derivatives because of the high costs. The second, the Volcker rule is more insidious, as the line between market making and proprietary trading is thin; it is likely to impact the U.S. companies' profits and relocate some of the activities of banks to Europe.<sup>136</sup>

Doubts about the risk of monopolies or vertical silos in the arena of CCPs increased, in the wake of the regulations. While the solution settled by the U.S. is focused on limiting ownership of the CCP's voting

<sup>&</sup>lt;sup>134</sup> Dodd-Frank Act, supra n. 143, Section 716

<sup>&</sup>lt;sup>135</sup> For a in-depth analysis see "Study & Recommendations on Prohibitions on Proprietary Trading and Certain Relationships with Hedge Funds and Private Equity Funds", [Jan. 2011], Financial Stability Oversight Council; Dodd-Frank Act, supra n. 143, Section 619.

<sup>&</sup>lt;sup>136</sup> See MCDERMOTT J., "The where and what of regulatory arbitrage", in *Financial Times Alphaville*, 2011

equity, the European proposal is based on the governance principles, as a requirement with regard to the composition of the Board of Direction. Here too, it seems that the European regulation is more tolerant, causing less disorderly changes to the current state of the industry.

As mentioned above, the two regulations have embraced an exemption for non-financial market participants to clear centrally their standardized OTC derivatives. However, the finer laws' details on the matter vary significantly. For example, while the U.S. law affords for an exemption of clearing for non-financial market participants pursuing to hedge their risks (requires a notification to the SEC), the Commission only allows the exemption up to a certain threshold. This significant difference in treatment could lead market participants, that would find themselves exempt under Dodd-Frank, but not under EMIR, to regulatory arbitrage.

Another significant variance concerns the changes in treatment and obligations towards trade repositories. Dodd Frank dictates reporting only for transactions that are bilaterally cleared (the rest of the information to be compiled by the CCP) and the public disclosure of aggregate positions, whereas EMIR mandates reporting by market participants of all open OTC derivative contracts and goals to increase price transparency. The costs for European end-users und should therefore be reduced as a significant part of the margins of the financiers depended on the asymmetry determined by the opaqueness of information in the OTC market.

Finally, the structure of the regulator in the USA is considerably dissimilar from the one in Europe. Whereas the European Union has delegated much of its regulatory power to the ESMA, the U.S. model is a complex network of spread power founded on market segmentation and historical "turf-wars<sup>137</sup>." For this reason, the regulatory processes and the implementation of the laws in the United States, which began before Europe's, still has serious problems, and new structures may still need to be developed; this volatility is unlikely to be welcomed by the US banking industry.<sup>138</sup>

In conclusion, taking into perspective the current state of the two Regulations, Europe seems to enjoy a less stringent regulation.<sup>139</sup> This double-edged sword can, on one hand, let the European financial sector to take advantage of regulatory arbitrage, and then capture a larger part of the market, but then it could be a sign of a more risk-prone, and consequently less stable financial market.

<sup>&</sup>lt;sup>137</sup> See section: "Pre-Crisis Regulations: USA Regulations", pp. 16-17.

<sup>&</sup>lt;sup>138</sup> See P.J. WALLISON, "Will (Should) Dodd-Frank Survive?", [March 2011], *Networks Financial Institute Policy Brief*, N. 02, p. 10.

<sup>&</sup>lt;sup>139</sup> See GREEN, JENNINGS-MARES, supra n. 185, p. 14-21; ABOUHOSSEIN, KOT, RANJAN, LEE, supra n. 248, p. 7; PATEL, OUAMAR, supra n. 243; "Regulatory Arbitrage: Is Dodd-Frank going too far?", [July 2011], Euromoney Institutional Investor White Papers.

## Conclusions

The general objectives of EMIR take account of reducing the market interdependencies, mitigating counterparty and systemic or contagion risks, and increasing the stability of the market and the transparency in the OTC derivatives markets. It has been highlighted that in theory within the EMIR, it's possible to reduce the systemic risk in OTC derivatives markets; the Regulation, also, offers more effective mitigation, relocation and management of counterparty risk; it diminishes complexity, costs and information asymmetries; it increases efficiency and transparency; and it delivers a more effective management system in case of CCP default. Additionally, the substantial legal framework of the EMIR provides adequate direction and flexibility to guarantee that the centralized clearing system of the CCP can run effectively. However it must be recalled that the EMIR is not a cure for all the problems, and there are structural weaknesses such as adverse selection, failure of a CCP, moral hazard, and the potential regulatory arbitrage in the system which, if not properly addressed, could lead to an increased systemic risk. Particularly, if too many classes of OTC derivatives are omitted from the obligation of mandatory clearing, the system cannot reach the critical mass required to deliver liquidity and efficiency of multilateral netting, while at the same time providing an inefficient financial system to mitigate systemic risk.

In order to guarantee that the EMIR provides a convenient solution for the centralized clearing of OTC derivatives, it was hence discussed that the correct determination and the balance of clearing eligibility for OTC derivatives will be necessary to properly optimize the allocation of risk for CCP in the European Union. This optimization will be further supported by confirming strict observance to central counterparty risk management and harmonization practices by the competent authorities, and ensuring that better efforts are made to promote and achieve interoperability of CCPs as soon as possible. Thereby, an effective transition, from bilateral to centrally cleared OTC derivatives markets under the EMIR, will be ensured optimizing the allocation of risk for central counterparties.

The introduction of the EMIR, certainly, has an impact on the transparency of the trading market of OTC derivatives, and it provides to supervisors an effective tool to examine the system through the supervision of the activities of CCPs and TRs. In particular, the availability of aggregate data on the prices of OTC derivatives published by Trade Repositories reduces the information asymmetry between investors and brokers who negotiate as direct counterpart.

Through an analysis of the development of OTC derivatives regulations in Europe and U.S. (EMIR and Dodd-Frank Act, respectively), emerged that, the two regulations seems very similar, but there are some differences. The most significant are the selection method of derivatives with mandatory central clearing, the substantial asymmetry of timetables, the American "Push-Out" provision and the Volcker rule. Overall, it seemed that the European legal framework is less restrictive and disruptive than the American one, which proposes that some regulatory arbitrage could emerge for the benefit of Europe. The two Regulations, albeit not impeccable, are potentially able to improve the approach of the use of OTC derivatives and they could have an important positive impact on markets' stability. Thus, the public consideration of OTC derivatives would expect enhancements in the next years, if the number of OTC derivatives scandals will decrease and more efficient regulations will be successfully developed.

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