
**TOWARDS A UNIVERSAL MODEL REGULATORY
FRAMEWORK FOR DERIVATIVES: POST-CRISIS
CONCLUSIONS FROM THE UNITED STATES AND THE
EUROPEAN UNION**

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This Article provides a comparative analysis of the over-the-counter (OTC) derivatives regulation in the United States and the European Union and proposes a model regulatory framework. It also attempts to identify the rationale for OTC derivatives regulation, and extent to which they should be regulated, if at all.

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1. INTRODUCTION

According to an old Armenian proverb, “the clouds that thunder do not always bring rain.”¹ Exactly the same can be said about OTC derivatives that “thunder” in the financial world. The only question is whether they really may cause “rain” in the form of a financial crisis. This is particularly important in the context of the financial crisis in 2008. Finding a clear answer to that question would probably make it easier to understand and resolve another problem – how to regulate OTC derivatives.

Unfortunately, it seems that it is almost impossible to reach any sort of consensus on this issue. Many financial analysts, policymakers, and regulators have completely different opinions on the causes of the 2008 financial crisis. This disagreement led to endless debates regarding the role OTC derivatives played in that crisis and, thus, the necessary extent of OTC derivatives regulation. Supporters of the opinion that OTC derivatives caused the crisis, certainly, would insist on their detailed regulation. Advocates of the opinion that OTC derivatives market had nothing to do with the crisis of 2008 would obviously be against heavy regulation of these financial instruments, or any regulation at all. There are also those with intermediate positions on this issue, i.e., accepting the necessity of OTC derivatives regulation, but only to a certain extent. A completely different view, which also exists among scholars, proposes refusing to enforce an OTC derivative contract as a speculation instrument, and enforcing only those contracts where one of the parties is truly using it for hedging (insurance).²

At the same time, despite the absence of unanimity on the question of OTC derivatives regulation, the Group of Twenty (“G-20”) Leaders agreed in Pittsburgh in 2009 on certain aspects of OTC derivatives regulation as: (1) attempting to standardize contracts, (2) developing mandatory central clearing of standard OTC derivatives, (3) requiring reports to trade depositories, and (4) imposing

¹ GEVORG R. BAYAN, *ARMENIAN PROVERBS AND SAYINGS, TRANSLATED INTO ENGLISH* 11 (1932), available at http://www.armenews.com/IMG/Armenian_proverbs_1932.pdf [<https://perma.cc/S95N-FJBC>].

² Lynn A. Stout, *Regulate OTC Derivatives by Deregulating Them*, 32 REG. 30 (2009) (hereinafter *Regulate OTC Derivatives*).

higher capital requirements for non-centrally cleared contracts.³ Moreover, the first wave of reforms and enacted legislation in response to the financial crisis has already passed in certain G-20 countries, including the US and the EU.

The primary purpose of this Article is to engage in a comparative analysis of current OTC derivatives regulation in the US and the EU with the intent to use the comparison to develop a model regulatory framework for OTC derivatives. Such analysis is crucially important, as OTC derivatives, like many other financial instruments, are not limited to certain borders due to the globalized financial world. Thus, the regulation of OTC derivatives has to be not just simply domestically, but also internationally, correlated. The choice of legal framework is determined by jurisdictional territory and the US and EU include almost two-thirds of the G20 countries – where the most trade of derivatives takes place. Besides, these areas represent two different legal systems with different development levels of current OTC derivatives regulation.

Another purpose of this Article is to apply the aforementioned old Armenian proverb to OTC derivatives and to discuss their role in the financial crisis of 2008, as well as the question of to what extent they should be regulated, if at all. The heavy regulation of OTC derivatives seems problematic, as the key difference between OTC derivatives and exchange-traded derivatives is their lower level of standardization. On the other hand, the unregulated OTC market has caused many concerns among financial specialists in the past, especially during the financial crisis of 2008. This Article argues that (1) unregulated OTC derivatives bear certain risks that exceed the benefits of their use and (2) while many of these risks materialized during the crisis of 2008, the OTC market did not actually cause the crisis; therefore, (3) regulation is still necessary – but only to a certain extent.

Part 2 contains an overview of derivatives and discusses their role in the financial crisis of 2008. Part 3 explains the current regulatory regimes in the US and the EU for OTC derivatives by using a comparative analysis of the two regimes to identify the advantages

³ G20 LEADERS' STATEMENT, THE PITTSBURGH SUMMIT (2009), *available at* https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf [<https://perma.cc/W3ME-792F>] (articulating aspects of OTC derivatives regulation that garnered consensus among the G20 leaders).

and disadvantages of the two approaches, while developing a model regulatory framework for the regulation of OTC derivatives. The Conclusion summarizes the outcome of the analysis and model development, and discusses its implications for future regulation of OTC derivatives.

2. OTC DERIVATIVES ESSENTIALS AND REGULATION RATIONALE

2.1. *Overview of Derivatives*

Before we can understand the role that OTC derivatives played in the financial crisis of 2008 and the appropriate regulatory framework necessary for efficient OTC derivatives markets (which would be necessary to discuss the cutting-edge issues of the global OTC derivatives regulation), it is worth understanding the basics of OTC derivatives: their substance, the various types, and market size. Unsophisticated forms of derivatives existed at least 4,000 years ago in the ancient markets.⁴ Current derivatives have very little in common with their ancient forms,⁵ which is unsurprising, as every "product" of the human mind has developed on a "simple-to-complex" basis.

There are many complex definitions of derivatives given by legal scholars and finance specialists, but, essentially, derivatives are financial instruments whose value is derived from another underlying asset (such as a security or commodity).⁶ Although such a definition might be fairly criticized as being "more descriptive than prescriptive" and "inadequate to sustain legal reasoning"⁷, we consider it appropriate and sufficient for the purposes of this Article. Derivatives were initially intended for neutralizing or "hedging" risks. Nowadays, however, they are very often used for speculating.

⁴ Edward J. Swan, *Building the Global Market: A 4000 Year History of Derivatives* 27 (2000).

⁵ *Id.* at 28.

⁶ ROBERT E. LITAN, INITIATIVE ON BUSINESS AND PUBLIC POLICY AT BROOKINGS, THE DERIVATIVES DEALERS' CLUB AND DERIVATIVES MARKETS REFORM: A GUIDE FOR POLICY MAKERS, CITIZENS AND OTHER INTERESTED PARTIES 3, 12 (2010), available at http://www.brookings.edu/~media/Research/Files/Papers/2010/4/07%20derivatives%20litan/0407_derivatives_litan.pdf [<https://perma.cc/T6XG-LMQX>] (defining "derivatives").

⁷ RAFFAELE SCALCIONE, THE DERIVATIVES REVOLUTION: A TRAPPED INNOVATION AND A BLUEPRINT FOR REGULATORY REFORM 9-10 (2011).

This is why some scholars also compare contracting derivatives to betting.⁸

To illustrate the aforementioned ways of using derivatives let us give an example of a very simple derivative contract – a put option. Assume that an investor has a portion of the common stock of Apple, Inc. in his portfolio. Despite the company's good performance, the investor is still concerned that the volatility of the market might adversely affect stock prices. To protect his investment and to hedge that risk, he can buy the right to sell his Apple stocks at or before a specified date ("maturity date") and at a predetermined price ("strike price"), i.e., buy a put option for his Apple stocks. In this way the put option can mitigate the investor's risk that the stock price falls below the strike price. The put option could also be used in a speculative way by investors who are willing to bet on stock prices falling or growing.

There are four main types of derivatives:

- (a) Forward contracts - agreements to buy something at a specified price on a specified future date;
- (b) Futures contracts - generic types of forward contracts executed at an exchange;
- (c) Swap contracts - agreements to exchange future cash flows, where the amounts to be exchanged are based on a future variable; and
- (d) Option contracts - agreements granting the holder the right, but not the obligation, to buy or sell something at a specified price on or before a specified future date.⁹

Another common division is between derivatives traded over organized exchanges ("exchange-traded derivatives") and the OTC market ("OTC derivatives"). Exchange-traded derivatives are listed and concluded on an authorized and regulated derivatives exchange such as the Chicago Board of Trade, the Boston Options Exchange, the New York Mercantile Exchange, or Philadelphia Stock

⁸ Lynn. A. Stout, *Derivatives and the Legal Origin of the 2008 Credit Crisis*, 1 HARV. BUS. L. REV. 1 (2011) (hereinafter *Credit Crisis*) (attributing the 2008 downfall of "several systematically important financial institutions" to "bad derivatives bets").

⁹ Alireza M. Gharagozlou, *Unregulable: Why Derivatives May Never Be Regulated*, 4 BROOK. J. CORP. FIN. & COM. L. 269, 273 (2010) (listing types of derivatives).

Exchange. These derivatives are standardized, i.e., they have standard size, contractual terms, and rules of trading set by the exchange. All of this makes a derivatives exchange a liquid marketplace. Moreover, the exchange-traded derivatives are negotiated through clearinghouses, a central counterparty system, which means that the parties to a derivative do not deal directly with each other. Each market participant has to clear its trades through the clearinghouse at the end of each trading session and deposit a margin sufficient to cover its debit balance with the clearing house. Finally, the exchange-traded derivatives market is highly transparent, as derivatives pricing is public. The Bank for International Settlements (the "BIS") estimated that there were over 231.1 million outstanding contracts on organized exchanges with a notional principal amount of 29 trillion US dollars¹⁰ as of June 2014, of which 82.3 million were entered into in North America and 82.6 million in Europe.¹¹

However, the aforementioned advantages of the exchange-traded derivatives do make them limited in many ways. First, the exchange-traded derivatives are not flexible financial instruments as they are fully standardized and may not be modified. Thus, such instruments may not always be able to satisfy the parties' business interests. Moreover, the heavy regulation, including such preventive mechanisms as margin and clearing requirements, significantly increases the costs of the exchange-traded derivatives market participants. Hence, many traders would prefer dealing on the much less regulated, less costly, and therefore, more convenient, OTC market.

OTC derivatives were traditionally negotiated privately and directly allowed counterparties to tailor a contract to their individual specific needs. As OTC transactions were not processed through regulated exchanges, they were not subject to the same standardization, clearing, and margin requirements as exchange-traded derivatives were. This was probably the reason why the OTC market was

¹⁰ Bank for Int'l Settlements, BIS Exchange Traded Derivatives Statistics, Table 23A: Derivative financial instruments traded on organised exchanges, BIS QUARTERLY REV. 146 (Sep. 2014), available at http://www.bis.org/statistics/r_qa1409_hanx23a.pdf [<https://perma.cc/Y4CC-GCBS>].

¹¹ Bank for Int'l Settlements, BIS Exchange Traded Derivatives Statistics, BIS QUARTERLY REV. 147, Table 23B: Number of contracts (contracts outstanding and turnover) (Sep. 2014), available at http://www.bis.org/statistics/r_qa1409_hanx23b.pdf [<https://perma.cc/7FSF-93QD>].

more attractive for investors and why the notional amounts outstanding of OTC derivatives were greater than the exchange market. However, the absence of regulation is no longer the case in most developed jurisdictions including the US, the EU and, to some extent, Russia, where OTC derivatives reforms started shortly after the financial crisis in 2008. At the same time, while the reforms are not finished yet and not all requirements have become effective, the notional amount of outstanding global OTC derivatives as of June 2014 was estimated to be almost 700 trillion US dollars.¹²

Essentially, the question arises: why and to what extent do OTC derivatives need to be regulated? What benefits do they have and what risks do they expose to the market participants? What role did they play in the crisis of 2008?

2.2. *OTC Derivatives Benefits and Costs*

The use of OTC derivatives, like the use of almost any other financial instrument, has certain benefits and costs. It is necessary to not only identify these benefits and costs, but also to analyze them and ascertain which are more substantial. In other words, we try to determine whether advantages prevail over potential costs and whether actions can be taken to mitigate significant risks, e.g., via regulation.

2.2.1. *Benefits*

Prior to discussing the costs of OTC derivatives and the risks they may generate, it would be fair to mention the benefits of these instruments that make them so popular among investors and end-users.

2.2.1.1. *Traditional Use of OTC Derivatives*

OTC derivatives are mainly used for the following three purposes: hedging, speculating, and arbitrage.

¹² BANK FOR INT'L SETTLEMENTS, STATISTICAL RELEASE: OTC DERIVATIVES STATISTICS AT END-JUNE 2014 1 (Nov. 2014), available at http://www.bis.org/publ/otc_hy1411.pdf [<https://perma.cc/5E6R-MWYP>] (identifying that the notional value of outstanding contracts, which is used as an indicator of overall activity, at the end of June was \$691 trillion).

2.2.1.1.1. Hedging

First of all, as mentioned earlier, since OTC derivatives are not standardized instruments, they are more flexible in terms and, therefore, may be customized for the specific needs of each party. This is important as, in practice, situations that may arise and require hedging are essentially unpredictable and certainly not standardized. For instance, a producer of wheat wants to increase its production in response to increased demand. The necessary infrastructure is expensive, but the investment is justified by rising demand. Financing will only be available, however, if the producer is able to lock in the price at which it can expect to sell its product in the future. The dealer provides that price risk protection through a customized OTC derivative.¹³

OTC derivatives may also be used by multinational corporations to reduce exposure to fluctuating exchange rates by locking in an exchange rate via currency derivatives.

Despite the obvious advantages of using OTC derivatives as a hedging instrument, there is an interesting debate among scholars whether such hedging by a corporation creates any value for the shareholders.¹⁴ The opponents of hedging would claim that many wise shareholders have already hedged their risk exposures by diversifying their portfolios. However, the counterargument would be that using derivatives for hedging purposes creates shareholder value by reducing the volatility of the company's earnings, which positively affects the price of the company's shares, i.e., shareholder equity.

Finally, a more global advantage of hedging lies behind the assumption that both parties of the derivatives transaction are hedgers, and their opposite risks would off-set each other and therefore, maintain economic stability.¹⁵

¹³ INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, OTC DERIVATIVES: BENEFITS TO US COMPANIES, 4 (2009), available at https://www.sifma.org/uploadedfiles/issues/regulatory_reform/otc_derivatives/isdacongressslides5-28v2may2009.pdf [<https://perma.cc/38FT-DAVG>].

¹⁴ The following arguments in this paragraph are based on Scalcione, *supra* note 8, at 48–49 (“[W]hile hedging existing risk should remain unconstrained, a risk taking derivatives operation should be carried out in a regulated environment for the protection of the market at large.”).

¹⁵ Kevin Meyer, *Analysing the New OTC Derivatives Regulations: A Critical Overview of Tomorrow's Legal Framework* 4 (August 26, 2011) (unpublished

2.2.1.1.2. Speculation

Whereas certain companies use OTC derivatives to hedge their risks, many corporations and individuals speculate on them in order to try to achieve huge returns. Despite the fact that speculation exposes companies to significant risks (to be discussed in the next section), it can also have some positive impact on the market conditions. First, speculation supports the level of liquidity on the market that is necessary for its normal operation. Moreover, Friedman's "rational speculation" hypothesis contends that if a market price moves away from its "fundamental" value, which is an indicator of the market's competitive and rational operation, then speculators will bring that "fundamental" value back.¹⁶

2.2.1.1.3. Arbitrage

Arbitrage is the strategy of discovering and taking advantage of market anomalies and inefficiencies. For instance, if a certain company's stock trades at a lower price on one stock exchange than on the other, an arbitrageur would purchase the stock on the former exchange and sell it on the latter, i.e., would pocket the difference.

On one hand, OTC derivatives have a lower level of liquidity than exchange derivatives as a result of their status as non-standardized contracts. They therefore intuitively would seem less attractive for arbitrageurs. However, OTC derivatives could still serve as an arbitrage tool due to both their high level of customization, i.e., flexibility, and their low level of transparency (the marginal differences in such contracts could be much larger). In other words, arbitrageurs using OTC derivatives could gain more money using less leverage than they could using the exchange traded contracts.

L.L.M. thesis, Edinburgh University), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2121222 [<https://perma.cc/GLE8-YNMK>].

¹⁶ Dick Bryan & Michael Rafferty, *Capitalism with Derivatives: A Political Economy of Financial Derivatives*, *Capital & Class* 125-26 (2006).

2.2.1.2. *Other Ways of Using OTC Derivatives*

2.2.1.2.1. Information Disclosure to Markets

Derivatives can serve as an instrument for sending certain signals to the market regarding a company's performance. For example, in the case of Intel,¹⁷ the management sent an explicit message to shareholders about their expectations on the company's future share price through derivatives. Rather than just distributing dividends, which would immediately affect the share price, Intel's management decided to distribute "put warrants" to shareholders at a strike price sufficiently high enough to indicate their confidence that the company's future share price would be much higher.

2.2.1.2.2. Tax Benefits

As discussed above, derivatives can be used as hedging instruments and can reduce the volatility of the company's earnings. Reduction of the earnings' fluctuations also leads to the reduction of tax liabilities which consequently adds value to the company.¹⁸

2.2.1.2.3. Hedge Accounting

Companies using OTC derivatives are able to benefit from hedge accounting rules, which require a close fit between a hedge and the underlying risk.¹⁹ The rule of "marking to market" causes volatility in profit and loss and therefore affects how others view the company. When a company uses hedge accounting, entries for the ownership of a security and the opposing hedge are treated as one.²⁰ Therefore, hedge accounting reduces the volatility in profit and loss (as well as in the balance sheet) that is created by the repeated "marking to market" adjustment of a financial instrument's value.

¹⁷ The following case description in this paragraph is based on Scalcione, *supra* note 8, at 52-53.

¹⁸ Scalcione, *supra* note 8, at 56.

¹⁹ JOHN HULL, *OPTIONS, FUTURES, AND OTHER DERIVATIVES* 38 (7th ed. 2008).

²⁰ *Hedge Accounting*, INVESTOPEDIA DICTIONARY, <http://www.investopedia.com/terms/h/hedge-accounting.asp> [<https://perma.cc/P97U-K2AL>].

2.2.1.2.4. Credit Derivatives

There are a number of benefits specific to credit derivatives. Credit derivatives may avoid undesirable credit exposures and redistribute them among banks and institutional investors who find them attractive as a tool for diversifying their portfolios.²¹ In addition, credit derivatives may serve as a mechanism to customize the risk-return profile of a financial product.²² Credit default swaps (“CDSs”), by limiting banks’ risk, increase their credit capacity and willingness to lend. Therefore, CDSs greatly facilitate companies’ access to capital from bank loans.²³ Sometimes OTC derivatives can even be an indicator of the inadequacy of specific market prices.²⁴ For instance, CDS spreads signal the market’s attitude towards a certain credit risk.²⁵

Thus, OTC derivatives play an important role in various industries and geographic areas. They are used to manage certain risks and capital raising activities and are thought to increase economic growth. However, these benefits are not without costs.

2.2.2. Costs

Along with the numerous aforementioned benefits, OTC derivatives expose market participants to certain risks. Therefore, this next Section provides an overview of the costs of the use of OTC derivatives including the OTC market specifics as well as certain types of generated risks.

²¹ J.P. Morgan & Co. & RiskMetrics Group, *The J.P. Morgan Guide to Credit Derivatives*, § 3 (1999), available at http://www.investinginbonds.com/assets/files/Intro_to_Credit_Derivatives.pdf [<https://perma.cc/5DRV-BL5H>].

²² *Id.*

²³ Frank Partnoy & David A. Skeel Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CIN. L. REV. 1019, 1025 (2007) (“Because swaps limit the bank’s downside risk (and pass it on to other parties, such as insurance companies and pension funds), banks are willing to lend much more to many more businesses.”).

²⁴ Colleen M. Baker, *Regulating the Invisible: The Case of Over-the-Counter Derivatives*, 85 NOTRE DAME L. REV. 1287, 1304 (2010).

²⁵ Michael Casey, *U.S. Is Riskier Than Euro Zone; So Says CDS Market*, WALL ST. J. (Mar. 24, 2010), <http://online.wsj.com/articles/SB10001424052748703312504575142112712294450> [<https://perma.cc/VHP5-C6PJ>].

2.2.2.1. OTC Market Specifics

The most important feature of the global OTC market usually considered from the point of hedging risks is its potential for generating new market risks. This potential is determined by its specific characteristics, which can be divided into several groups.²⁶

2.2.2.1.1. Combination of Classic and Exotic Contracts

The first group of such characteristics relates to the large variety of OTC derivative contracts, which is much greater than the variety of exchange contracts. One example of such a large or even infinite variety of OTC derivatives is the high variety of option contracts. As noted above, in a standard exchange option the price, transaction date, and underlying asset itself are fixed. By contrast, in an OTC option contract, all of these characteristics can be changed in various ways. As such, contracts in which these characteristics have been changed are called "exotic" contracts. An exotic option contract may include: (1) the use of another derivative as an underlying asset (e.g., swaptions, or options on swaps); (2) a choice of option type (put or call) by the buyer at a specific time; and (3) a set price level at which the option is canceled or, on the contrary, is executed.²⁷

As a result, OTC derivatives may be based on contracts that are not covered by any country's current legislation, and therefore a party to such a contract will have no right to remedies in cases where this contract is breached.²⁸ This is more salient for contracts governed by the legislation of civil law countries, where contract law is codified and all types of contracts are specified in statutes.

2.2.2.1.2. High Level of "Derivative Leverage"

Both exchange-traded and OTC derivatives have a special kind of leverage that differs from financial leverage. In essence, derivative leverage means that the derivative transaction is not related to the payment of the entire value of the underlying asset. Therefore,

²⁶ Alexandra V. Galanova, *Influence of the Global OTC Derivatives Market on the Market Risks* 47 (2006) (unpublished Ph.D. dissertation, Russian Economic Academy). Alexandra Galanova defines ten such groups, whereas I address only those that are specific to OTC derivatives market and that I consider the most plausible and relevant for the purposes of this Article.

²⁷ *Id.* at 48-50.

²⁸ *Id.* at 48-49.

a positive difference in the prices (rates) is matched not with the entire value of the asset, but only with the amounts advanced in the market of its derivative. In other words, the return from transactions involving assets in the derivatives market is charged against a smaller amount of capital than in the physical market, where the entire value of the asset is paid. Thus, the rate of return on the derivatives market is always higher than in the physical market.²⁹ Professor Frank Partnoy, a former derivatives trader, also notes that OTC derivatives are frequently used to create excessive amounts of unwarranted leverage.³⁰

One unique feature of the OTC derivative is that the level of derivative leverage is even higher than on the exchange market because the OTC market does not employ the use of a central counterparty, and there are therefore no margin requirements. For instance, in order to conclude a swap contract, there could be no requirement for depositing any amounts in advance. Payments received by one party under the swap contract are usually charged only against its pay-offs, which are usually also broken in time. Derivative leverage obviously increases the number of open positions in the market with the same amount of equity. However, in the event of adverse changes in market prices (rates), or of the improper use of derivative (or financial) leverage, such leverage can cause significant growth in losses, i.e., accelerated growth of risk.³¹ Finally, the synergy of derivative leverage and minimal, if any, capital requirements can increase market volatility and the level of systemic risk.³²

Certainly, the level of derivative leverage may vary depending on the specific type of derivative. Therefore, corporate risk policies should be customized to the specific derivatives and levels of leverage that a certain company uses.³³

²⁹ *Id.* at 52–53.

³⁰ Frank Partnoy, Op-Ed., *Danger in Wall Street's Shadows*, N.Y. TIMES (May 14, 2009), available at http://www.nytimes.com/2009/05/15/opinion/15partnoy.html?_r=0 [<https://perma.cc/B8RL-RCJC>].

³¹ Galanova, *supra* note 26, at 53–54.

³² Baker, *supra* note 24, at 1307.

³³ Scalcione, *supra* note 7, at 71.

2.2.2.1.3. Non-Transparency

One of the very prominent features of the OTC derivatives market is its relative opacity compared to the highly transparent exchange market. This opacity results from the strictly bilateral nature of transactions on, and the absence of central counterparty systems in, the OTC derivatives market. The need for a high degree of transparency arises from the large number of the OTC market participants, as well as from the high volume of trade.

This opacity can create market uncertainty, particularly in times of unstable market conditions. Parties using OTC derivatives to hedge certain risks cannot simply understand the true reliability of their hedges if their counterparty's exposures are not clear. Therefore, a market participant who is unaware of its counterparty's credibility could hedge one risk, but assume a disproportionate amount of counterparty risk.³⁴

The OTC market's lack of transparency also makes it difficult for regulators to obtain adequate information to oversee these markets, as regulators do not know the exact size of any particular segment of the OTC derivatives market. Moreover, as the OTC derivatives market is global, regulators usually do not know the precise breakdown of the counterparties' positions within the companies they regulate, which may force them to seek such information outside of their jurisdiction.³⁵ Finally, the OTC market's opacity prevents regulators from identifying risks at early stages and eliminating or mitigating them.³⁶

2.2.2.1.4. Decentralized Market Infrastructure

The OTC derivatives market has much greater decentralization and less self-regulation than the exchange market, which is regulated not only by states but also by exchanges themselves. The OTC derivatives market is highly decentralized as its participants negotiate independently, while exchange-traded derivative transactions take place only on an exchange. Unlike exchange markets, the OTC

³⁴ Baker, *supra* note 24, at 1306.

³⁵ EUROPEAN COMMISSION, 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 14-15 (2010) [hereinafter *Impact Assessment*].

³⁶ Baker, *supra* note 24, at 1306.

market is informal in terms of both regulatory issues and trading management and oversight.³⁷

However, it would be unfair to characterize the OTC market as absolutely decentralized because regulators in different countries and self-regulatory organizations still find ways to influence it. For example, there are various organizations including the International Swaps and Derivatives Association (“ISDA”) that are designed to improve the operation of the OTC market. Such associations work out recommendations aimed to standardize financial records, assist in the effective management of risk, assess regulatory and operational risks, and initiate voluntary disclosure of OTC derivative transactions.³⁸

On the one hand, market decentralization is one of the most attractive attributes of OTC transactions to market participants. On the other hand, since the OTC derivative transactions are negotiated without a centralized clearing system, margin requirements, and restrictions (limits) on the value of open positions, the market participants have to manage credit risk on their own. Hence, risk management in the OTC market is also decentralized.³⁹

Organizational imperfection of the global OTC market infrastructure inevitably leads to a relative increase of risks on it due to the:

- Lack of professional organizations that specialize in servicing settlements under OTC derivative contracts, which would reduce the associated risks of the market;
- Lack of uniform rules for settlements and performance guarantees on OTC derivatives (these rules and guarantees may vary from transaction to transaction and from one market maker to another);
- Inconsistencies, differences, and gaps in the national legislation of different countries regarding the obligations that must be fulfilled under these instruments.⁴⁰

³⁷ Galanova, *supra* note 26, at 57-59.

³⁸ *Id.* at 60.

³⁹ *Id.* at 59.

⁴⁰ *Id.* at 85.

2.2.2.2. OTC Market Generated Risks

The aforementioned features of the OTC market infrastructure can reduce the effectiveness of market discipline and create instability in the market, having a negative impact on the dynamics of market prices. These features therefore directly contribute to the following market risks.

2.2.2.2.1. Counterparty (Credit) Risk

Counterparty risk denotes the possibility that the counterparty may default on its obligations under a derivative contract. For exchange-traded instruments, there is a central clearinghouse that guarantees to all market participants that their transactions will be accomplished, regardless of counterparty default.⁴¹ Moreover, valuation on the exchange market takes place almost every day, which is much more frequent than on the OTC market.⁴² Counterparty risk is difficult to manage due to the following flaws of the OTC market: (1) the lack of information on the counterparty in the transaction; (2) the absence of a uniform risk management and control system; (3) unreliability of the existing risk measuring and modeling methods.⁴³

The lack of information about the counterparty results from: (1) the need to preserve the counterparty's trade secrets; (2) constant changes in the counterparty's economic activity, rapidly rendering past information about the counterparty obsolete; (3) changes in the methods of market risks calculation, which often requires new information.⁴⁴ Infrequent valuation of exposures combined with a high degree of leverage may lead to large margin calls in case of

⁴¹ Adam R. Waldman, *OTC Derivatives & Systemic Risk: Innovative Finance or the Dance Into the Abyss?*, 43 AM. U. L. REV. 1023, 1047 (1994).

⁴² However, reconciliation frequency had a positive tendency in the last few years according to ISDA Margin Surveys. In 2014, larger portfolios showed an increased rate of portfolio reconciliation versus 2013. INT'L SWAPS & DERIVATIVES ASS'N, ISDA MARGIN SURVEY 2014 24 (2014) available at <http://www2.isda.org/functional-areas/research/surveys/margin-surveys/> [<http://perma.cc/R5QW-GD7W>]. Moreover, in 2010 dealers performed daily reconciliation on 56% of their trades, while in 2014 larger firms reconciled 84% of all portfolios on a daily basis. *Id.*; INT'L SWAPS & DERIVATIVES ASS'N, ISDA MARGIN SURVEY 2010 12 (2010) available at <http://www2.isda.org/functional-areas/research/surveys/margin-surveys/> [<http://perma.cc/R5QW-GD7W>].

⁴³ Galanova, *supra* note 26, at 86.

⁴⁴ *Id.*

sudden price changes, which may result in high costs for the party receiving the margin call or may even lead to its default.⁴⁵

The main drawback of the OTC market related to risk management is that every market participant needs to have its own risk management system since OTC derivatives participants deal directly with each other without the benefit of an exchange clearinghouse. The operation and maintenance of such a system, where each participant manages its own risk, is quite expensive. In addition, the overall effectiveness and "defensive" capabilities of such a system are always limited. On the exchange market, this burden is carried by the clearinghouse, which is much less expensive for market participants.⁴⁶ Moreover, the differences in the risk models used may lead to collateral disputes between counterparties.⁴⁷

Issues of the reliability of the risk measuring and modeling methods are common for both the exchange and OTC derivatives as they rely on the development of the relevant areas of economic science. However, the OTC market has its specific reliability issues, as risk management is concentrated within the separate companies, which often have insufficient resources for the task. Therefore, their methods can significantly lag behind those applied by larger financial institutions.⁴⁸ Moreover, in order to evaluate counterparty risk, a market participant must determine the cost of replacing the contract in the event of counterparty's default, which requires modeling the volatility of both the underlying and related fluctuations.⁴⁹ Such measuring of volatility is usually very subjective, as it "depends on judgment and personal opinion about what the future will look like."⁵⁰

Finally, the long-term nature of OTC derivatives contracts also increases the risk of default by the counterparty. The OTC market

⁴⁵ Impact Assessment, *supra* note 25, § 3.1.4.3 (remarking on the problems caused by under-collateralization of contracts, which increases parties' leverage, as well as the infrequent valuation of that collateral and the resulting exposures).

⁴⁶ Galanova, *supra* note 26, at 87.

⁴⁷ Impact Assessment, *supra* note 25, § 3.1.4.3 (noting that different models can lead to different valuations of derivative contracts and thus lead to conflicts as to the amount of collateral that secures that contract).

⁴⁸ *Id.*

⁴⁹ Waldman, *supra* note 41, at 1048.

⁵⁰ Kenneth S. Leong, *Estimates, Guesstimates and Rules of Thumb*, in FROM BLACK-SCHOLES TO BLACK-HOLES: NEW FRONTIERS IN OPTIONS 63, 67 (1992).

participants often have to rely on each other's financial credibility for many years.⁵¹

2.2.2.2.2. Liquidity Risk

While exchange-traded derivatives have a very high degree of liquidity, OTC derivatives are less liquid. This is partly due to the non-standardized nature of OTC contracts, which are often individualized and tailored to specific market participants. Therefore, it is very difficult for parties to liquidate such a contract before it expires. In addition, the OTC market has no centralized infrastructure that would provide liquidity.

The non-standard character of OTC derivative contracts makes them non-fungible. Market participants that wish to close a position have to go back to the original counterparty (and usually make a deal). This gives the dealer a certain amount of market power – and hence, pricing power. Market participants could alternatively enter into an opposite position with a different counterparty in order to eliminate the liquidity risk; however, it would not eliminate counterparty risk.⁵²

Another reason for low liquidity is the long-term duration of OTC contracts, which are usually concluded in five or more years. Such long-term obligations cannot easily be altered in the event of dramatic changes in the market. The rigidity caused by the lack of premature liquidation options increases the credit risk of such contracts. By contrast, short-term obligations specific to exchange derivatives allow for these derivatives to have high liquidity, as they correspond to changing market conditions.

2.2.2.2.3. Price Risk

The pricing of privately negotiated OTC derivatives is less transparent than that of exchange-traded standardized instruments. The prices of OTC derivatives are usually determined by impenetrable formulas. One or both parties of an OTC derivative transaction may not fully understand the terms of the contract they have negotiated.

⁵¹ Waldman, *supra* note 41, at 1048.

⁵² COMM'N OF THE EUROPEAN CMTYS., ENSURING EFFICIENT, SAFE AND SOUND DERIVATIVES MARKETS § 3.1.3 (2009), available at http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/report_en.pdf [<http://perma.cc/R5QW-GD7W>].

Such complexity of an OTC transaction creates incentives for price manipulation.⁵³ A remarkable example of such manipulation is the case between Procter & Gamble Co. and Bankers Trust and Co., in which the latter kept its counterparty in the dark about key aspects of the derivatives sold. This was revealed by a taped conversation of its employees discussing a leveraged derivative deal the bank had sold to Procter & Gamble Co.⁵⁴

Another concern regarding the price of OTC derivatives is that it could be affected by external factors not foreseen by the contracting parties. Without a clearinghouse to determine the price, counterparties are usually left to argue the effect that such external factors should have on them.⁵⁵

2.2.2.2.4. Operational Risk

An OTC derivatives transaction goes through several processing stages before it is confirmed and completed. During the term of an OTC derivative contract, several single (e.g., termination) or recurring (e.g., settlement of payments) events may take place that need to be managed. In order to efficiently manage these events, a very high level of automation is needed, the availability of which, in general, directly correlates with the level of contract standardization, i.e., the higher the level of standardization, the more automated processes are available.⁵⁶

As mentioned earlier, unlike standardized exchange derivatives, OTC derivatives are customizable, with room for a high degree of flexibility in the terms and conditions of contracts. Therefore, they require substantial involvement of human resources in certain stages of contract performance. Such intervention becomes particularly problematic when the transaction volumes increase enormously. As a result, low levels of standardization and automation lead to the increase of operational risk, i.e., the risk of loss due to

⁵³ Desmond Eppel, Note, *Risky Business: Responding to OTC Derivative Crises*, 40 COLUM. J. TRANSNAT'L L. 677, 681 (2002) (advocating that if OTC transactions are complex, fraud and abuse are likely).

⁵⁴ Kelley Holland et al., *The Bankers Trust Tapes*, BUS. WEEK, Oct. 16, 1995, <http://www.businessweek.com/1995/42/b34461.htm> [<http://perma.cc/6KXL-TTYE>].

⁵⁵ Eppel, *supra* note 54, at 682 (remarking that parties are left to dispute amongst each other the effects of these factors).

⁵⁶ Impact Assessment, *supra* note 35, § 3.1.5.1.

incompetent or failed internal and/or external processes. This may also lead to the increase of other risks, e.g., legal risk or even counterparty (credit) risk. For instance, the failure to confirm a transaction because of lack of automation may pose a threat to its enforceability or the capability to net it against other transactions.⁵⁷

2.2.2.2.5. Systemic Risk

One of the main concerns about OTC derivatives among specialists is the fact that they are a source of systemic risk. There are many various approaches to understanding and defining such risk. Alan Greenspan fairly observed that although “[i]t is generally agreed that systemic risk represents a propensity for some sort of financial system disruption, . . . one observer might use the term ‘market failure’ to describe what another would deem to have been a market outcome that was natural and healthy, even if harsh.”⁵⁸ As a result, the “very definition [of systemic risk] is still somewhat unsettled.”⁵⁹ However, the general underlying idea is that systemic risk is the risk that a given system that is adversely affected by an economic shock (systemic event) such as market or institutional failure may trigger the failure or significant losses of other markets or institutions, which is caused or exacerbated by distrust or loss of confidence in the stability of the system.⁶⁰ The systemic event may lead to various significant consequences,⁶¹ and OTC derivatives have several elements and features that may increase the systemic risk.

⁵⁷ *Id.* § 3.1.5.3.

⁵⁸ George G. Kaufman, *Bank Failures, Systemic Risk, and Bank Regulation*, 16 *CATO J.* 17, 21 n.5 (1996) (quoting Alan Greenspan, Chairman, Bd. of Governors of the Fed. Reserve Sys., Remarks at a Research Conference on Risk Measurement and Systemic Risk 7 (Nov. 16, 1995), available at <http://www.cato.org/pubs/journal/cj16n-2.html> [<http://perma.cc/A6VU-D6ZW>]).

⁵⁹ *Id.*

⁶⁰ See Scalcione, *supra* note 7, at 93; Steven L. Schwarcz, *Systemic Risk*, 97 *GEO. L.J.* 193, 203 (2008) (describing an example of a company’s systemic risk that was caused by its exposure to other actors in the market).

⁶¹ The consequences of a systemic event are discussed further in this article in relation to the financial crisis in 2008.

Most OTC derivatives transactions are not secured.⁶² This creates the risk that the failure of one significant market participant to make payments could result in its counterparty's delay of payments and cause a quick transfer of defaults to other market participants⁶³ or even to other markets, including non-financial ones due to their interconnectedness. Such a chain reaction is known as the "domino effect."⁶⁴ Systemic risk is increased even more by the fact that the OTC derivatives business is concentrated among a small number of market players using similar derivatives strategies.⁶⁵ Thus, the failure of one of these players would likely have adverse systemic effects. The systemic risk is further aggravated by the long-term nature of the OTC transactions.⁶⁶

There is another concern regarding the use of certain trading strategies such as dynamic hedging, which involves adjusting a hedge as the underlying asset value changes (often several times a day). As such strategies are based on "an unrealistic assumption of liquidity,"⁶⁷ they can fail in the case of poor market conditions, causing the parties to default and further triggering overall market meltdown.

The "Too Big to Fail" concept could be an additional factor incentivizing market participants to increase risk taking, as the likelihood of government interference is almost guaranteed if the default of a particular company seems to be large and significant. Unfortunately, the taxpayers have to bear the burden of bailing out such huge financial entities in order to prevent a financial meltdown.

Finally, it is important to note that today financial markets are no longer domestic, and transactions all over the world are highly interconnected. The OTC market is certainly not an exception to this

⁶² William Glasgall & Bill Javetski, *Swap Fever: Big Money, Big Risks*, BUS. WEEK, June 1, 1992, at 102, 103 (noting that most OTC derivatives transactions are "unsecured and exposed to ever-more-volatile interest-rate, currency, and futures markets").

⁶³ Waldman, *supra* note 41, at 1055.

⁶⁴ Scalcione, *supra* note 8, at 87.

⁶⁵ *Id.* at 98-99.

⁶⁶ See Claire Makin, *Hedging Your Derivatives Doubts*, INSTITUTIONAL INVESTOR, Dec. 1991, at 113, 119 (describing OTC transactions as private contracts that rely on bank counterparties, which is not problematic for short terms but can create concern when stretched to longer terms).

⁶⁷ Waldman, *supra* note 41, at 1056.

globalization. This requires regulation and oversight not just at the level of a particular country, but globally. Therefore, the systemic risk associated with OTC derivatives is also aggravated by the lack of cooperation among regulators of different countries.

2.2.3. *Benefits vs. Costs*

The risks, or potential costs, posed by OTC derivatives seem far greater than the benefits such instruments give. Therefore, the use of OTC derivatives may be appropriate only if they are comprehensively regulated. However, prior to defining how exactly they have to be regulated, we may want to see the risks created by the use of OTC derivatives in practice.

2.3. *The Role of OTC Derivatives in the Financial Crisis*

In previous sections, we discussed various threats that OTC derivatives may pose, but only in theory, not in practice. One may fairly argue that, in theory, all financial instruments bear some level of risk, even government securities (very unlikely, but still possible). It seems that specialists took this same view of OTC derivatives, arguing that the world had changed and the risks exposed by derivatives would never materialize. Otherwise, it is hard to explain the level of carelessness with regard to OTC derivatives prior to 2008. However, this view was decisively discredited by the financial crisis of 2008, when many companies involved in large amounts of OTC transactions suffered huge losses or simply went bankrupt.

The financial crisis that began in 2007 in the US and then spread all over the world has become a serious challenge for the modern global economic system and caused significant structural changes to it. The negative role of derivatives, as will be shown further, is often cited as the main reason of the crisis by both economists and finance specialists. Besides, several years before the crisis of 2008, Warren Buffett expressed his concerns about derivatives, calling them financial weapons of mass destruction with latent, but potentially lethal, dangers.⁶⁸

In our opinion, the crisis was caused by a whole range of factors, both financial (such as the large and unregulated OTC market) and

⁶⁸ BERKSHIRE HATHAWAY INC., 2002 ANNUAL REPORT 15 (2002), available at <http://www.berkshirehathaway.com/2002ar/2002ar.pdf> [<http://perma.cc/V4SX-LNR9>].

economic (such as the fall in real estate prices). The synergy of these factors led to the deterioration of the developed economies. However, for the purposes of this Article—to understand how exactly unregulated OTC derivatives can adversely affect the economy, we mainly address only their role in the crisis of 2008.

2.3.1. Regulation prior to 2008

Before discussing the specific OTC derivatives cases of 2008 and trying to show their consequences, it seems appropriate to present the general regulatory picture right before the financial meltdown. This section will first illustrate the development of OTC market regulation in the world's major economies. This analysis will allow for a better understanding of the reasons why those cases related to derivatives actually happened during the financial crisis, what could have been done to prevent them, and, therefore, what regulation seems to be appropriate.

2.3.1.1. United States

In the US, OTC derivatives were not highly regulated before the financial crisis of 2008.⁶⁹ For many years, the US legal system made a distinction in terms of the enforceability of agreements intended to hedge a certain risk (i.e., when at least one of the parties was trying to reduce risk) and speculative contracts: the former were enforceable in the courts while the latter were not.⁷⁰ However, derivatives speculators resolved the problem of enforcement by trading in private venues that enforced their contracts—the commodity exchanges.⁷¹

The first attempt to regulate derivatives was made in 1922, with the enactment of the Grain Futures Act, which was reenacted as the Commodity Exchange Act (“CEA”) in 1936.⁷² The CEA had two key

⁶⁹ Frank D'Souza et al., *Illuminating the Need for Regulation in Dark Markets: Proposed Regulation of the OTC Derivatives Market*, 12 U. PA. J. BUS. L. 473, 476–77 (2010).

⁷⁰ Stout, *supra* note 10, at 11 (describing this conceptual difference and noting that the test often employed was whether either party actually owned or planned to own at some point the asset that was the subject of the contract).

⁷¹ *Id.* at 14–15.

⁷² Pub. L. No. 49-675, 49 Stat. 1491 (1936) (codified as amended at 7 U.S.C. §§ 1-27f).

provisions: (1) it authorized the Commodity Futures Trading Commission ("CFTC") to oversee and regulate private commodity exchanges and (2) it required that all futures contracts be traded on a regulated exchange.⁷³ Thus, the CEA ensured that speculative derivatives on the prices of commodities be traded on organized and regulated exchanges.

However, speculators found other ways to profit, such as by betting on interest and currency rates, housing prices, or inflation.⁷⁴ By the 1980's, an alternative type of futures contracts was developed, usually referred to as "swaps."⁷⁵ Initially, the CFTC defined swaps as "an agreement between two parties to exchange a series of cash flows measured by different interest rates, exchange rates, or prices with payment calculated by reference to a principal base (notional amount)."⁷⁶ Essentially, the question arose whether such contracts would be subject to the mandatory exchange trading under the CEA. The CFTC exempted swaps from the CEA exchange-trading requirement by issuing a 1989 Policy Statement declaring that swaps must be "negotiated by the parties as to their material terms, based upon individualized credit determinations, and documented by the parties in an agreement or series of agreements that is not fully standardized."⁷⁷ As the CEA did not empower the CFTC to grant exemptions from the CEA's exchange-trading requirement, in order to avoid ambiguity, Congress gave the CFTC such authority in 1992.⁷⁸ Soon after, in 1993, the CFTC used its new power and exempted from the CEA's exchange-trading requirement those transactions that were, *inter alia*, "not part of a fungible class of agreements that are standardized as to their material economic terms"

⁷³ § 4a-4b, 49 Stat. at 1492-94. There was an exception for hedge-to-arrive contracts that contemplated actual delivery and were thus "cash forward contracts" outside the scope of the CEA.

⁷⁴ See Stout, *supra* note 10, at 19 (listing various market characteristics that could be bet on and chronicling the rise of swaps related to interest rates).

⁷⁵ Michael Greenberger, *Overwhelming a Financial Regulatory Black Hole with Legislative Sunlight: Dodd-Frank's Attack on Systemic Economic Destabilization Caused by an Unregulated Multi-Trillion Dollar Derivatives Market*, 6 J. BUS. & TECH. L. 127, 131-32 (2011) (hereinafter *Overwhelming*).

⁷⁶ *Policy Statement Concerning Swap Transactions*, 54 Fed. Reg. 30,694-95 (July 21, 1989).

⁷⁷ *Id.* at 30, 969.

⁷⁸ Futures Trading Practices Act of 1992, Pub. L. No. 102-546, § 502, 106 Stat. 3590, 3629-32.

and “not entered into and traded on or through a multilateral transaction execution facility.”⁷⁹

What followed over the next five years were several cases of companies suffering significant losses speculating through OTC derivatives: Procter & Gamble Co. (157 million US dollars) in 1994,⁸⁰ Orange County Fund (2.5 billion US dollars) in 1995,⁸¹ and Long Term Capital Management (survived only with a 4 billion dollar government bailout) in 1998.⁸² As a result, in May 1998, the CFTC issued a concept release stating that “it [was] appropriate to reexamine its regulatory approach to the OTC derivatives market taking into account developments since 1993”⁸³ and proposing certain restrictions. However, the other financial agencies (the SEC, the Federal Reserve, and the Treasury) – members of the President’s Working Group – were opposed to the CFTC’s proposals, and that led to Congress enacting legislation to limit the CFTC’s authority to regulate OTC derivatives.⁸⁴

The last and most important regulatory action regarding OTC derivatives before the 2008 crisis was the enactment of the Commodity Futures Modernization Act of 2000 (“CFMA”).⁸⁵ The CFMA exempted OTC derivatives from all exchange trading requirements under the CEA, subject to the following conditions: that both parties to the transaction are “eligible contract participants” and that the

⁷⁹ 17 C.F.R. § 35.2(b), (d) (2009).

⁸⁰ See Gabriella Stern & Steven Lipin, *Procter & Gamble to Take a Charge to Close Out Two Interest-Rate Swaps*, WALL ST. J., Apr. 13, 1994, at A3 (examining Procter & Gamble’s losses from OTC derivatives).

⁸¹ See Laura Jereski, *Orange County Fund Losses Put at \$2.5 Billion*, WALL ST. J., Dec. 12, 1994, at A3 (measuring the losses to the Orange County Fund at \$2.5 billion).

⁸² See FRANK PARTNOY, *INFECTIOUS GREED: HOW DECEIT AND RISK CORRUPTED THE FINANCIAL MARKETS* 261 (2003) (describing how LTCM only survived from its derivative bets due to a government bailout).

⁸³ *Over-The-Counter Derivatives*, 63 Fed. Reg. 26,114, 26,115–16 (May 12, 1998).

⁸⁴ See THE PRESIDENT’S WORKING GRP. ON FIN. MKTS., *OVER-THE-COUNTER DERIVATIVES MARKETS AND THE COMMODITY EXCHANGE ACT 12–15* (1999), available at <http://www.treasury.gov/resource-center/fin-mkts/documents/otcact.pdf> [perma.cc/5DQE-DB38] (explaining the need to limit the CFTC’s ability to regulate OTC derivatives).

⁸⁵ Commodity Futures Modernization Act of 2000, H.R. 5660, 106th Cong. (2000).

execution (or trading) of the transaction itself occurs outside a trading facility.⁸⁶

2.3.1.2. European Union

Derivative market regulation in the EU was historically much lighter than in the US. For instance, there were no position limits on market participants, neither in national regulation nor in the rules applied by exchanges.⁸⁷ Moreover, before the financial crisis of 2008, no supranational European regulation existed since OTC derivatives were not regulated separately from other derivatives in most countries. Rather, a system of self-regulation was implemented in different national laws that governed OTC derivative markets by a very limited group of actors, such as ISDA, Group of 30,⁸⁸ and the Counterparty Risk Management Policy Group.⁸⁹

However, certain European countries used to have legislation on OTC derivatives that has gone through several regulatory changes. For instance, the United Kingdom was the world's leading jurisdiction involved in OTC derivatives trading in 2007 (right before the crisis).⁹⁰ Like the CFMA in the US, the U.K. Financial Services and Markets Act of 2000 (FSMA)⁹¹ largely exempted most derivatives

⁸⁶ *Id.* § 103. In general, for any business entity or individual to be an "eligible contract participant" had to have total assets exceeding 10,000,000 US dollars with some exceptions requiring lesser amounts in the case of using the OTC derivative as an instrument for risk management. *Id.* § 101.

⁸⁷ See, e.g., PETER GIBBON, COMMODITY DERIVATIVES: FINANCIALIZATION AND REGULATORY REFORM 17-18 (2013), available at http://www.diis.dk/files/media/publications/import/extra/commodity_derivatives_web_wp_2013.pdf [perma.cc/L8NM-66SF] (examining the relatively meager set of regulations regarding position limits in the EU).

⁸⁸ A private, nonprofit, international body composed of very senior representatives of the private and public sectors and academia.

⁸⁹ See JOHANNES PETRY, REGULATORY CAPTURE, CIVIL SOCIETY & GLOBAL FINANCE IN DERIVATIVE REGULATION: AN ANALYSIS OF COMMODITY DERIVATIVE REGULATION IN EUROPE 11-12 (2014), available at <http://reggov2014.ibei.org/bcn-14-papers/16-140.pdf> [perma.cc/7EZC-XRZN] (examining the regulations in countries throughout Europe on the subject of derivatives and the parties involved).

⁹⁰ See BANK FOR INT'L SETTLEMENTS, SURVEY, FOREIGN EXCHANGE AND DERIVATIVES MARKET ACTIVITY IN 2007 19-12 (2007), available at <https://www.bis.org/publ/rpfx07t.pdf> [perma.cc/2ZSH-EKXM] (comparing different countries' banking activities in 2007).

⁹¹ Financial Services and Markets Act, 2000, c. 8 (U.K.).

transactions from regulatory oversight.⁹² Nonetheless, some regulation remained, and instead of prohibiting certain OTC derivative transactions, the United Kingdom imposed restrictions on which parties were allowed to transact in OTC derivatives.⁹³ Moreover, the parties were required to comply with certain requirements, including maintaining capital and risk controls and disclosing all OTC derivatives trading to regulators.⁹⁴ Capital maintenance requirements were the most common and likely the only restrictions in the leading European countries as of 1999 according to the CFTC's survey.⁹⁵

Thus, both the US and Europe lacked a comprehensive regulatory framework prior to the 2008 financial crisis. The lack of such a framework resulted in the formation of a large OTC derivatives market with almost no oversight and high systemic risk.⁹⁶ This market was very sensitive to the dramatic changes in the global economy that would take place during the crisis.

2.3.2. *Impact of OTC Derivatives on the Crisis of 2008*

Various factors caused the financial crisis, but unregulated derivatives played a unique role. There is still no consensus among finance specialists and legal and economic scholars on the impact of OTC derivatives on the global economy in 2008.

The most extensive debates took place in the US, where the crisis initially started. For instance, Gary Gensler, Chairman of the CFTC, noted, "[T]he over-the-counter derivatives marketplace was in fact part and parcel" of the financial crisis in 2008.⁹⁷ Mr. Gensler had

⁹² See Anupam Chander & Randall Costa, *Clearing Credit Default Swaps: A Case Study in Global Legal Convergence*, 10 CHI. J. INT'L L. 639, 661 (2010) (studying how the United Kingdom ceded its duty to regulate Credit Default Swaps and the effects of that decision).

⁹³ U.S. COMMODITY FUTURES TRADING COMM'N, REGULATION OF OVER-THE-COUNTER DERIVATIVE TRANSACTIONS 7-8 (1999) (describing the existing regulations of OTC derivatives in countries around the world in 1999).

⁹⁴ *Id.* at xi.

⁹⁵ *Id.* at vii-xvii.

⁹⁵ *Id.* at vii-xvii.

⁹⁶ See Chander, *supra* note 93, at 649-50 (demonstrating the risks in the market and its effects following the financial crisis).

⁹⁷ Gregory Meyer, *CFTC Head Blames OTC Derivatives for Crisis*, FIN. TIMES (Jan. 6, 2010), <http://www.ft.com/cms/s/0/3be62c7a-fae8-11de-94d8-00144feab49a.html#axzz3DnqDbp9H> [<http://perma.cc/X4H6-DRDY>].

many times claimed, prior to the reforms, that OTC derivatives were not regulated enough and could pose risks to the financial system.⁹⁸ Michael Greenberger, professor at University of Maryland School of Law, goes even further, stating that “the darkness of this huge multi-trillion dollar unregulated [OTC derivatives] market not only caused, but substantially aggravated, the financial crisis.”⁹⁹

On the contrary, many other specialists deny a cause-and-effect relationship between OTC derivatives and the financial crisis. For example, Steven W. Kohlhagen, former professor of International Finance at UC Berkeley, testified that OTC derivatives had “absolutely no role whatsoever in causing the financial crisis.”¹⁰⁰ It is also necessary to mention Lynn A. Stout, one of the most radical persons regarding OTC derivatives regulation, who does not accept the perception of the crisis as an economic phenomenon, instead focusing on the legal decisions that led to the crisis.¹⁰¹ In Stout’s opinion, the crisis was caused by the removal of legal constraints on speculative trading in OTC derivatives by the CFMA in 2000.¹⁰²

Despite the absence of unanimity regarding the role of OTC derivatives in the crisis of 2008, almost all specialists always acknowledge the following factors did have a major role in the crisis: (1) the adverse role of credit default swaps (CDS) and (2) the systemic risk derived from all OTC derivatives. These are the main factors suggesting the impact of OTC derivatives on the economy in 2008 and showing how the risks connected with them can materialize.

⁹⁸ *Id.*

⁹⁹ *The Role of Derivatives in the Financial Crisis: Hearing before the Fin. Crisis Inquiry Comm’n 21* (2010) (testimony of Michael Greenberger, Law School Professor, University of Maryland School of Law), available at <http://cybercemetery.unt.edu/archive/fcic/20110310175404/http://c0182412.cdn1.cloudfiles.rackspacecloud.com/2010-0630-Greenberger.pdf> [perma.cc/M9CU-SHLR] [hereinafter *Testimony*].

¹⁰⁰ *The Role of Derivatives in the Financial Crisis: Hearing Before the Fin. Crisis Inquiry Comm’n 1* (2010) (testimony of Steven W. Kohlhagen, Former Professor of International Finance, University of California, Berkeley) available at <http://cybercemetery.unt.edu/archive/fcic/20110310175228/http://c0182412.cdn1.cloudfiles.rackspacecloud.com/2010-0630-Kohlhagen.pdf> [perma.cc/VHW6-R8CU].

¹⁰¹ Stout, *supra* note 10, at 4.

¹⁰² *Id.*

2.3.2.1. Credit Default Swaps

In June 2008, the notional value of the unregulated OTC market was estimated to be over 680 trillion US dollars with almost 60 trillion of CDSs.¹⁰³ Many specialists agree that the unregulated multi-trillion dollar CDS market adversely affected the global economy during the 2008 crisis. The SEC Chairman at that time, Christopher Cox, dubbed the CDS market a “regulatory black hole” that needed “immediate legislative action.”¹⁰⁴ Even those who supported deregulation of derivatives by the CFMA – former SEC Chairman Arthur Levitt and former Federal Reserve Chair Alan Greenspan included – have admitted to the responsibility of the CDS market deregulation for the 2008 economic crisis.¹⁰⁵

What is a CDS and how does it work? A CDS is a contract under which one party (protection buyer) will pay an annual fee to another party (protection seller) either until the maturation of the contract or until a credit event (loan default or other event)¹⁰⁶ occurs on an underlying party that bears the credit risk of the contract (reference entity).¹⁰⁷ If such a credit event occurs, the buyer will deliver bonds or loans of that reference entity for the notional value of the contract to the seller and will receive compensation (usually the face value of loan or of other obligation) in return (as shown on GRAPH 1).¹⁰⁸ In other words, CDSs serve as a mechanism for insuring the financial

¹⁰³ See BANK FOR INT'L SETTLEMENTS, OTC DERIVATIVES MARKET ACTIVITY IN THE FIRST HALF OF 2008 6-7 (2008), available at <http://www.bis.org/publ/otchy0811.pdf> [perma.cc/RD8K-PP3A] (showing the incredible size of the OTC derivatives market at the height of its market share).

¹⁰⁴ Robert O'Harrow Jr. & Brady Dennis, *Downgrades and Downfall*, WASH. POST, Dec. 31, 2008, at A1, available at <http://www.washingtonpost.com/wp-dyn/content/article/2008/12/30/AR2008123003431.html> [perma.cc/GG7N-EQW3].

¹⁰⁵ See Peter S. Goodman, *Taking a Hard New Look at a Greenspan Legacy*, N.Y. TIMES (Oct. 8, 2008), <http://www.nytimes.com/2008/10/09/business/economy/09greenspan.html?pagewanted=all> [perma.cc/U3PT-64S8] (demonstrating the lasting effects of the boom years under Greenspan as Federal Reserve Chairman that ultimately led to the Financial Crisis in 2008).

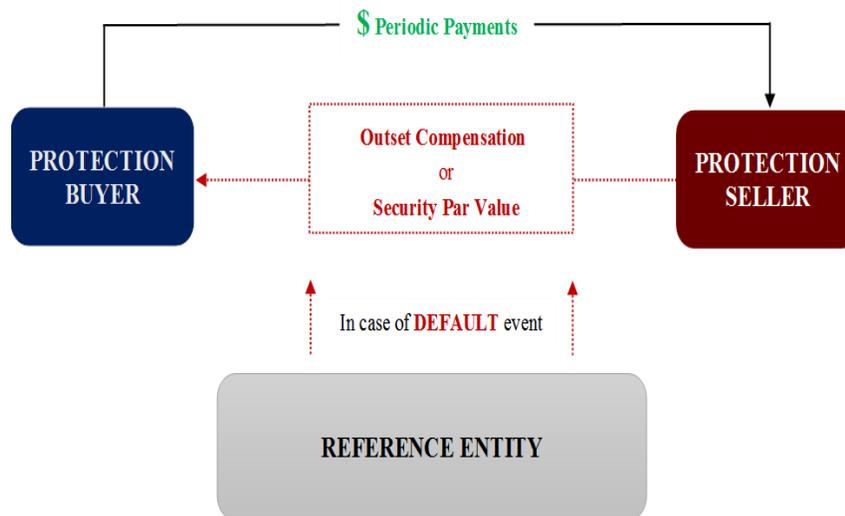
¹⁰⁶ Events considered as default could be, *inter alia*: (1) non-repayment of a loan at maturity, (2) breach of contract, and (3) declaration of bankruptcy.

¹⁰⁷ See COMM'N OF THE EUROPEAN CMTYS., *supra* note 53, § 3.1.1-3.1.3 (describing the structure of CDS and the relative risks involved).

¹⁰⁸ *Id.*

viability of certain obligations by paying a “premium” for such insurance.¹⁰⁹

GRAPH 1. CDS STRUCTURE



However, by using the term “swaps,” CDS fell into the regulatory “black hole” –no agency had direct oversight authority over them after they were deregulated by the CFMA’s.¹¹⁰ The same can be fairly inferred in relation to the situation in Europe and Russia, where swaps regulation was almost absolutely absent during that time. Thus, there were no regulatory requirements in place before the crisis that could have prevented the catastrophe.

To more precisely delineate the CDS’s role in the 2008 crisis, it is worth describing in brief the housing securities market situation first. The securitization of mortgage loans results in mortgage backed securities (“MBSs”) that derive their value and payments from a pool of underlying mortgages. An MBS pools payments from individual underlying mortgages and distributes the pool of cash and payments to investors, packaged as collateralized debt obligations (“CDOs”), in tranches ranked by seniority and risk level. CDSs

¹⁰⁹ *Testimony, supra* note 100, at 14.

¹¹⁰ *Id.*

were widely used for “insurance” of CDOs but several misunderstandings by the market participants led to the market crash. First, the issuers of CDSs believed that housing prices would always go up, and therefore issuance of a CDS was considered “risk free.” Due to this assumption, they tried to issue as many CDSs as possible. Second, after the housing market collapsed, and the default events provided for in the CDS occurred, it turned out that the undertaken risk was significantly undervalued. Third, as each CDO was considered to be protected by CDS insurance, the demand for MBSs that sourced CDOs was constantly growing. Fourth, the lack of CDS market transparency meant that regulators could not discover that CDSs were not secure enough. Finally, under the wrong assumption of CDS being absolutely risk-free and due to the high demand for them, the issuers began to write “naked” CDS to buyers who did not hold the loan instrument and who had no direct insurable interest in the loan, i.e., who had no risk for MBSs or CDOs. Essentially, this allowed traders to speculate on the creditworthiness of reference entities and such CDSs were also used to create synthetic long and short positions in the reference entity.¹¹¹

A very illustrative example of the CDS use is the case of American International Group, Inc. (“AIG”). Before the financial crisis, AIG underwrote huge amounts of CDSs on CDOs. However, whereas many banks and other issuers of CDSs usually hedged their short positions in CDS with long positions in other CDSs, AIG was never on both sides of the CDS transactions.¹¹² Meanwhile, the size of its exposure to CDSs was approaching 440 billion US dollars before the crisis, which exceeded what it could pay in the event that CDOs defaulted.¹¹³ After the housing market crash and subprime mortgage borrowers defaulted, the value of CDOs became remark-

¹¹¹ See *Hearing to Review the Role of Credit Derivatives in the U.S. Economy: Before the H. Comm. on Agriculture*, 110th Cong. 11-35 (2008) (statement of Erik Sirri, Director, Division of Trading and Markets, U.S. Securities and Exchange Commission), available at <http://www.sec.gov/news/testimony/2008/ts101508ers.htm> [perma.cc/3GCT-PPPP] (explaining the rampant speculation and modification that had become commonplace in the market).

¹¹² See Adam Davidson, *How AIG Fell Apart*, REUTERS (Sep. 18, 2008), <http://www.reuters.com/article/2008/09/18/us-how-aig-fell-apart-idUSMAR85972720080918> [perma.cc/X6QB-KA68] (describing how AIG's one-sided bet without any hedging made it particularly vulnerable to the crash).

¹¹³ *Id.*

ably low. At that point, AIG had already insured more than 441 billion US dollars of fixed-income investments held by the world's leading institutions, including 57.8 billion US dollars in paper related to subprime mortgages.¹¹⁴ Counterparties who had bought CDS protection from AIG also demanded insurance payouts. All this, along with increased collateral requirements due to the lowering of its credit ratings by major agencies, made AIG face liquidity issues. It did not have enough cash and other liquid assets to fulfill its pending obligations. As we all know, the story ended with the 180 billion US dollar government bailout of AIG. AIG's downfall is a typical case of the counterparty, liquidity, and price risks posed by OTC derivatives in practice.

Thus, the AIG story explicitly shows how the risks posed by complex instruments can materialize due to the lack of proper regulatory requirements, i.e., (1) exchange trading that could make CDS trading and pricing more transparent and adequate; (2) clearing in order to secure parties' capital maintenance; or at least (3) reporting that could send regulators "red flags" before the market collapses.

2.3.2.2. *Interconnectedness: Systemic Risk Derived from All OTC Derivatives*

Only a truly systemic risk can pose a threat to the entire financial system.¹¹⁵ As discussed earlier, OTC derivatives can be the source of such systemic risk. Unregulated OTC derivatives contributed to the formation of an environment of opaque and uncontrolled relations between: (1) financial institutions, (2) financial markets, and (3) financial and non-financial markets.¹¹⁶

The most explicit evidence of the ability of OTC derivatives to create systemic risk could be observed at the level of the financial

¹¹⁴ See George White & Peter Moreira, *Fed Lends AIG \$85 Billion, Takes Control*, AM. LAW. (Sep. 17, 2008), <http://www.americanlawyer.com/id=1202424584749/Fed-Lends-AIG-85-Billion-Takes-Control#ixzz3MIMqAFHQ> [perma.cc/F5KY-YY5H] (detailing how AIG had insured incredibly large amounts of subprime mortgages).

¹¹⁵ See *The Role of Over-The-Counter (OTC) Derivatives in the Financial Crisis: Hearing Before the Fin. Crisis Inquiry Comm'n.* 6 (2010) (testimony of Michael W. Masters, Managing Member, Masters Capital Management, LLC), available at http://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/2010-0630-Masters.pdf [<http://perma.cc/J9SZ-VHWS>] (explaining that nothing short of cataclysmic system-wide risk can bring down the entire system).

¹¹⁶ *Id.*

institutions, where there was “an interlocking web of very large exposures amongst the 20 or so largest swaps dealers.”¹¹⁷ The situation was exacerbated by the market participants’ belief in the invincibility of the system, which consisted of dealers that were considered “Too Big to Fail.” Market participants recognized that the collapse of a system whose participants were not only significant, but also so firmly linked, could lead to the collapse of the whole economy. Therefore, they all had confidence that the US Treasury would come to the rescue (a hugely expensive example of moral hazard). However, some of these “immortal” companies, like Bear Sterns, did actually fail or, in the case of Lehman Brothers, went bankrupt. These two companies are of special interest as they had one common aspect: both were functioning as intermediaries for OTC derivatives, in particular, “swaps” trading.

First was Bear Sterns, which recognized significant losses in its trading portfolios after the subprime mortgage collapse.¹¹⁸ As these portfolios served as collateral for the borrowed funds, the company’s lenders started to require more liquid collateral. Consequently, Bear Sterns had to sell more of its mortgage securities, which led to a decrease in their market value. Meanwhile, the majority of Bear Sterns’ counterparties, including those in derivatives transactions, terminated their operations and therefore significantly cut the company’s earnings. All this made Bear Sterns suffer serious liquidity problems. Nevertheless, in its essence, as SEC Chairman Christopher Cox noted, Bear’s collapse “was the result of a lack of confidence” and not a result of “inadequate capital.”¹¹⁹

A very similar story happened to Lehman Brothers, which was a counterparty to 930,000 derivatives transactions at the time it filed for bankruptcy.¹²⁰ Initially, Lehman suffered an unprecedented loss due to the subprime mortgage meltdown. In 2007, it underwrote

¹¹⁷ *Id.* at 7.

¹¹⁸ Karl S. Okamoto, *After the Bailout: Regulating Systemic Moral Hazard*, 57 *UCLA L. REV.* 183, 197 (2009).

¹¹⁹ Letter from Christopher Cox, Chairman, Sec. & Exch. Comm’n. to Nout Wellink, Chairman, Basel Comm. on Banking Supervision 1 (Mar. 20, 2008), available at www.sec.gov/news/press/2008/2008-48_letter.pdf [perma.cc/B9QW-SPWJ].

¹²⁰ Lehman Brothers Holdings Inc. First Creditors Section 341 Meeting, January 29, 2009, 19–20. See also, GuyLaine Charles, *OTC Derivative Contracts in Bankruptcy: The Lehman Experience*, 13 *N.Y. ST. B.A. N.Y. BUS. L. J.* §1:7–16 (Spring 2009) (examining the effects of derivatives once a company goes into bankruptcy).

more mortgage-backed securities than any other company did and its leverage ratio at that time was 31:1.¹²¹ After that, the same chain of events as in the cases of AIG and Bear Stearns was observed: loss of counterparties' confidence, fall of stock prices and credit ratings resulting in demands for larger collateral and eventually leading to the liquidity default. Lehman was just unlucky that it was the last to fall into crisis because after having bailed out Bear Stearns, Freddie Mac, and Fannie Mae, the government refused to rescue Lehman.

When Lehman Brothers went bankrupt, swaps dealers, as well as their customers, immediately reevaluated the creditworthiness of their counterparties.¹²² Moreover, as they were no longer sure of counterparties' viability, they started to reduce counterparty exposure as much as possible, regardless of relevance to subprime MBSs or even of swap types. This reduction adversely affecting not only CDSs, but also the whole OTC market. Furthermore, since swaps were used for hedging various portfolios and swap dealers were used to secure their exposures by using futures, the OTC market participants' panicked reaction transferred to regulated exchange markets, including futures, stocks and bonds. The crash in the futures market, in turn, spread to the commodities market as their producers and users hedged their risks through futures contracts.

Thus, the crisis demonstrated how, due to the interconnectedness within different financial and even non-financial markets, the start of a single element's collapse could create a chain reaction throughout the system, previously referred to as the "domino effect."

2.3.2.3. *Did OTC Derivatives Cause the Crisis?*

While the adverse role of OTC derivatives during the financial crisis is today taken as conventional wisdom, the question of whether they actually caused the crisis still remains unresolved. Nonetheless, it is important to understand their role in the crisis in order to assess the adequacy of current and future regulation of OTC derivatives.

¹²¹ Lehman Bros. Holdings, Inc. Annual Report (Form 10-K), at 30 (Jan. 29, 2008), available at <http://www.secinfo.com/d11MXs.t5Bb.htm#9mfu> [<https://perma.cc/3XPY-XJVZ>].

¹²² Masters, *supra* note 116.

OTC derivatives obviously caused the formation of “virtual” capital, collateralized by significantly overvalued assets. After derivatives double the original debt, they then can serve as both collateral and payment instruments. On the one hand, the expansion of market transactions leads to the growth of profits. On the other, the volume of transactions masks the primary debt, dissolving it in the mass-traded securities. However, obligations do not disappear, and their failure creates the “domino effect” through the OTC derivatives. In addition, hedging transactions with securities via OTC derivatives increases the volume of speculative obligations on the market, while the illusion of the constant primary debt’s warranty increases. Thus, the derivatives, especially synthetic ones, played the role of the “virtual” capital growth multiplier at the housing and financial markets, which, in turn, led to larger losses.¹²³

Moreover, the substitution of lending by various derivatives, collateralized by debt, allowed banks to generate new assets with almost no undertaking of new liabilities (deposits). The widespread use of derivatives has changed the structure of the financial market: from a two-tiered model of a market economy consisting of cash and loan commitments, it adds a third level – derivatives. That is why many specialists considered derivatives to be one of the main causes of the financial crisis.¹²⁴

It seems more plausible, however, that derivatives have become the tool that has transferred “overheating” from the mortgage market to investment and insurance institutions.¹²⁵ At the beginning of the crisis, the amount of subprime mortgages was extremely high, due partly to government policy designed to stimulate housing demand. Eventually, the high percentage of bad loans leads to a significant imbalance in the economy. Thus, within the structure of mortgage derivatives even a minor impairment in the value of loans

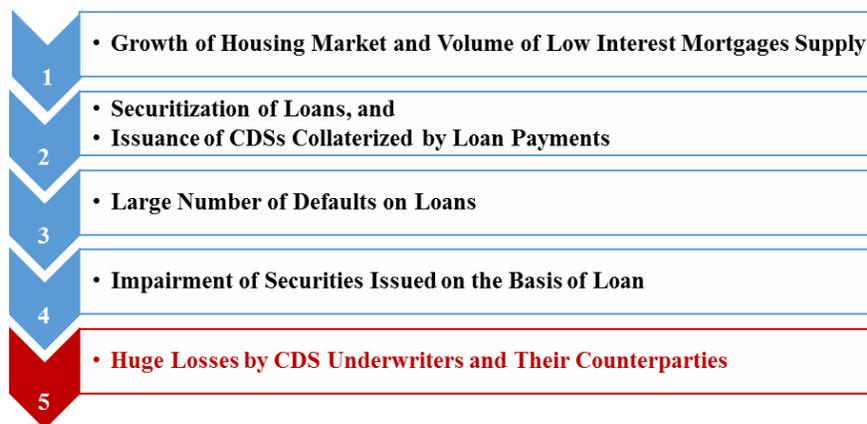
¹²³ Evgeniy V. Petrenko, *Derivatives Market in the World Financial System: Condition, Development, and Prospects* 67 (2012) (unpublished Ph.D. dissertation, Russian State Trade and Economics University) (on file with the University of Pennsylvania Journal of International Law).

¹²⁴ *Id.* at 70–71.

¹²⁵ Alexey F. Sedunov, *Derivatives Market in the World Economy: Features of Development and Transformation* Direction 92 (2013) (unpublished Ph.D. dissertation, Russian Science Academy, Institute of Economics) (on file with the University of Pennsylvania Journal of International Law). *See also, Id.* fig.3.

could carry huge losses. This process then affected the shares of investment banks that underwrote CDSs. More specifically, the difficulties experienced by Bear Stearns, Lehman Brothers and AIG during the crisis originated outside the OTC market, even though their exposures in the OTC derivatives market, and in particular CDS contracts, transferred those difficulties to other sectors of the economy.

GRAPH 2: RISK TRANSFER CHAIN



In addition, some finance specialists opine that “the financial crisis would have been more severe” without the operation of the OTC derivatives market,¹²⁶ which “continued to function effectively throughout the crisis, and ha[s] not been adversely affected by Lehman’s collapse.”¹²⁷ Others, to the contrary, claim that OTC credit derivatives in general, and CDSs, in particular, delayed the crisis by allowing the housing bubble to grow and that without CDSs, there would have still been a financial crisis, but it would have come earlier and “would have been less severe.”¹²⁸

Nevertheless, one thing is clear: the origin of the crisis lay not in the derivatives market, but in the economic imbalance created by

¹²⁶ EUROPEAN UNION COMMITTEE, THE FUTURE REGULATION OF DERIVATIVES MARKETS: IS THE EU ON THE RIGHT TRACK?, 2009-10, H.L. 93, at 118.

¹²⁷ EUROPEAN UNION COMMITTEE, THE FUTURE REGULATION OF DERIVATIVES MARKETS: IS THE EU ON THE RIGHT TRACK?, 2009-10, H.L. 93, at 20.

¹²⁸ Kohlhaugen, *supra* note 101.

the “defective” mortgages, as well as in the opacity of the evaluation and credit ratings of MBSs, which eventually led to significant excess amount of CDSs issued over hedged loans.

In other words, applying the old Armenian proverb, the OTC definitely “thundered” in the financial world, but did not actually bring the “rain,” even though they made it “heavier.”

2.4. Preliminary Findings

- The use of OTC derivatives, like the use of almost any other financial instrument, has certain benefits and costs.
- Costs of OTC derivatives are greater than the benefits such instruments yield. Therefore, the use of OTC derivatives may be justified only if they are comprehensively regulated.
- Among the various risks posed by the OTC market, the core ones are the counterparty, liquidity, and systemic risks created mainly by the absence of central clearing and reporting requirements, and by the resulting lack of transparency.
- These risks did actually materialize during the financial crisis of 2008. However, OTC derivatives did not directly cause the financial crisis, which originated outside the OTC market.
- It was possible for the risks associated with OTC derivatives to materialize because the US as well as Europe lacked a comprehensive regulatory framework prior to the 2008 financial crisis, in particular: (1) exchange trading; (2) clearing; or at least (3) reporting.

OTC derivatives need to be regulated, but how exactly and to what extent? The next Part will investigate this question, by comparatively analyzing current OTC market regulation in the US and EU.

3. THE US AND EU REGULATION AND A MODEL FRAMEWORK EXPERIMENT

In Part 2 of this Article, it was noted that the US as well as Europe lacked a comprehensive regulatory framework for OTC derivatives prior to the 2008 financial crisis. The rapid growth of the derivative markets as well as the role of derivatives in the financial crisis of 2008 have pressured governments to take immediate actions. As a result, after the financial crisis spread globally, the G20 member-states held numerous summits to find possible solutions to the crisis and to strengthen international cooperation in financial oversight, in particular in the question of OTC derivatives regulation.¹²⁹ During these summits, the G20 countries, including the EU and the US, came up with general regulatory goals for their future national legislation on OTC derivatives. More precisely, the G20 Leaders agreed during the Pittsburgh Summit in 2009 that:

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.¹³⁰

In June 2010, G20 Leaders in Toronto reaffirmed their commitment and committed to accelerate the implementation of strong measures to “improve transparency and regulatory oversight of over-the-counter derivatives in an internationally consistent and nondiscriminatory way.”¹³¹ Thus, the objective of the G20 agreement was to establish a global regulatory framework for OTC derivatives to avoid the possibility of a market collapse in derivatives such as occurred in 2008.

3.1. *Current Regulation Overview*

Both the US and the EU have taken some significant steps to implement the agreements arising out of the aforementioned G20

¹²⁹ The G20 Summits have been held in Washington (2008), in London and Pittsburgh (2009), and in Toronto and Seoul (2010).

¹³⁰ G20 Leader's Statement, The Pittsburgh Summit (Sept. 2009), *supra* note 3.

¹³¹ G20 Leader's Declaration, The Toronto Summit (June 2010), *available at* https://g20.org/wp-content/uploads/2014/12/Toronto_Declaration_eng_0.pdf.

meetings. The legislation is intended to authorize various oversight agencies to regulate derivatives and to reduce the risk of market abuse in derivative markets.

3.1.1 *United States*

In July 2010, in response to the financial crisis, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd Frank Act).¹³² The Dodd Frank Act consists of sixteen sections regulating almost all financial industries. In particular, Title VII of the Dodd Frank Act, the Wall Street Transparency and Accountability Act of 2010, focuses on derivatives regulation.¹³³

Thus, Title VII of the Dodd Frank Act is the primary statute regulating derivatives in the US at the current time. It created a comprehensive regulatory framework for the swaps market in order to eliminate the gap in past regulation of the market. The objective of the legislation was to bring safety and transparency to the OTC market for derivatives based on the assumption that such increased transparency can reduce the risks associated with derivatives such as counterparty risk. The statute requires the use of clearinghouses or central counterparties (CCPs) for trade settlements, exchange trading of standardized OTC derivatives, and trade reporting of all OTC derivatives to a central data repository. The legislation integrated a regulatory framework for the regulation of the OTC derivatives market and market participants that involves the cooperation of multiple national agencies.¹³⁴

3.1.2 *European Union*

The EU, in response to the role OTC derivatives played during the financial crisis, enacted the European Markets Infrastructure

¹³² Pub. L. No 111-203, 124 Stat. 1376 (2010).

¹³³ Dodd-Frank Act §§ 701-74.

¹³⁴ See John C. Coffee, Jr., *The Political Economy of Dodd-Frank: Why Financial Reform Tends to Be Frustrated and Systemic Risk Perpetuated*, 97 CORNELL L. REV. 1019, 1062 (2012) (analyzing the situations whereby people have the appetite for the appropriate level of financial reforms).

Regulation (EMIR),¹³⁵ the Markets in Financial Instruments Directive (MIFID II),¹³⁶ and the complementary Markets in Financial Instruments Regulation (MIFIR).¹³⁷

The EMIR establishes the general regulatory framework for derivatives in the EU. The EMIR introduces a reporting requirement for OTC derivatives, a clearing requirement for covered OTC derivatives, and mechanisms to reduce counterparty and operational risks for bilateral OTC derivatives. The regulation also empowers national agencies to monitor and regulate the OTC derivatives market in conjunction with the European Securities and Market Authority (ESMA). The EMIR established the business conduct standards and capital requirements for CCPs and other market participants.

The MIFID II and MIFIR¹³⁸ contain additional requirements on derivatives market structure, exemptions from regulation, and requirements for derivative trading venues.

3.2. *Comparison between the US and the EU Regimes*

The regulations passed in the US and the EU concerning OTC derivatives have substantial similarities. Nonetheless, differences exist in the American and European approaches to regulating OTC derivatives. These differences developed due to various reasons: historical background of securities and commodities regulation, policy considerations, regulatory powers, among others.

3.2.1. *Regulatory Authorities*

Before comparing the core of OTC derivatives regulation in the US and the EU, we first discuss the regulatory agencies authorized

¹³⁵ Regulation 648/2012/EU of the European Parliament and of the Council of 4 July 2012 on OTC Derivatives, Central Counterparties and Trade Repositories, 2012 O.J. (L 201/1) [hereinafter *EMIR*].

¹³⁶ 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, 2014 O.J. (L 173/349) [hereinafter *MiFID II*].

¹³⁷ Regulation 600/2014/EU of the European Parliament and of the Council of 15 May 2014 on Markets in Financial Instruments and Amending Regulation 648/2012/EU, 2014 O.J. (L 173/84) [hereinafter *MiFIR*].

¹³⁸ MIFID II and MIFIR will come into effect on January 3, 2017, and repeal Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments (MIFID).

to oversee the derivatives market. The further development of regulation and maintenance of stability in the market almost completely depend on such agencies, rather than legislators, being able to react immediately to issues that arise. Moreover, both the US and the EU approaches caused serious debates among scholars as well as practitioners.

3.2.1.1. *United States*

The Dodd Frank Act divides regulatory authority for the derivatives market between the CFTC and the SEC. Under the provisions of the CFMA, the CFTC and the SEC could regulate the futures markets but were not allowed to regulate the swaps market. Nonetheless, the CFMA gave the SEC authority to investigate cases of fraud on the swaps market,¹³⁹ including credit default swaps. Because the SEC could not impose transparency requirements such as record keeping or disclosure rules, it was difficult for the agency to exercise its anti-fraud authority.

The Dodd Frank Act solved the issue of lack of sufficient power to regulate and monitor the OTC market by giving the CFTC and the SEC joint responsibility over swaps.¹⁴⁰ The authority of the CFTC includes swaps, swap dealers and major swap participants, swap data repositories, and derivative clearing organizations (DCOs).¹⁴¹ The SEC has similar rulemaking powers but with respect to security-based swaps.¹⁴²

Both the CFTC and the SEC have to coordinate and consult with each other in formulating and implementing new rules in order to maintain consistency in regulations across their respective jurisdictions.¹⁴³ In addition, when making rules, the SEC and the CFTC must consult with the Federal Reserve Board of Governors.¹⁴⁴ The Dodd Frank Act also gave the CFTC and the SEC joint rulemaking authority to develop regulations establishing the requirements for the records that must be kept for swap data in repositories.¹⁴⁵

¹³⁹ 7 U.S.C. § 2.

¹⁴⁰ Dodd Frank Act § 712 (codified at 15 U.S.C. § 8302).

¹⁴¹ *Id.* § 712(a)(1).

¹⁴² *Id.* § 712(a)(2).

¹⁴³ *Id.* § 712(a)(1)-(2).

¹⁴⁴ *Id.* § 712(d)(1).

¹⁴⁵ *Id.* § 712(d)(2)(B).

3.2.1.2. *European Union*

The EMIR grants regulatory authority to the ESMA in developing draft regulatory technical standards along with safeguarding the stability of the financial markets in an emergency situation.¹⁴⁶ The ESMA also has a central role in the authorization and monitoring of CCPs and trade repositories.¹⁴⁷ In addition, the EMIR authorizes the members of the European Central Banks (ESCB) to exercise oversight of the clearing and payment systems for derivatives.¹⁴⁸ The ESCB is also responsible for approving interoperability arrangements among the CCPs, authorization and monitoring of CCPs (in addition to the ESMA), and for recognizing CCPs in countries outside of the EU.¹⁴⁹ The grant of authority to the ESCB system does not affect the existing responsibility of the European Central Bank (ECB) or the national central banks to ensure stable clearing and payment systems within the EU and within each member nation of the EU.¹⁵⁰ The ESMA and the ESCB are required to cooperate closely when preparing the relevant draft technical standards.¹⁵¹

3.2.1.3. *US vs. EU*

The rulemaking powers granted to the regulatory authorities is one of the key differences between the US and the EU approaches.¹⁵² The grant of regulatory authority under the Dodd Frank Act has the advantage of clearly defining and separating the responsibilities of the CFTC and SEC in the area of oversight of the OTC swaps market. At the same time, the advantage of the EU regulatory regime is that while it divides defined regulatory responsibilities between multiple agencies, there is still one central regulator – the ESMA. The US and the EU approaches fall within the three basic organizational

¹⁴⁶ EMIR, *supra* note 136, art. 1(10).

¹⁴⁷ *Id.*

¹⁴⁸ EMIR, *supra* note 136, art. 1(11).

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² See Daria S. Latysheva, Note, *Taming the Hydra of Derivatives Regulation: Examining New Regulatory Approaches to OTC Derivatives in the United States and Europe*, 20 CARDOZO J. INT'L & COMP. L. 465, 490 (2012) (examining the differences between the US and EU models).

models that, according to professors Coffee and Sale,¹⁵³ exist with regard to financial regulation in the major capital markets: the functional/institutional model (current US approach), the consolidated financial services regulator model (current EU approach), and the 'twin peaks' model.

The US approach seems less optimal as it leaves a large room for different sets of rules governing similar instruments, which could create confusion or even fragmentation.¹⁵⁴ Moreover, issues regarding the fragmented regulatory scheme between these two agencies existed in the past with regulation of futures by the CFTC and regulation of securities by the SEC, and some commentators suggested "merging the CFTC and SEC and creating one regulatory body with jurisdiction over both."¹⁵⁵ Professor Jill E. Fisch also expressed her concern about having similar functions under the regulatory oversight of different agencies as it may produce jurisdictional conflicts or simply lead to regulatory gaps.¹⁵⁶

Another aspect where the Dodd Frank Act and EMIR differ relates to establishing and implementing rules by the regulatory authorities. The Dodd Frank Act grants the regulators much broader authority to issue the necessary rules. According to the EMIR, agencies mainly just enforce, rather than issue, regulations – with the exception of regulatory technical standards in various aspects of regulation, which ESMA should only draft, and the European Commission then adopts. The EMIR itself contains detailed provisions that directly regulate the functioning of CCPs and trade repositories. In contrast, the Dodd Frank Act authorizes the CFTC and the SEC to jointly adopt rules governing trade repositories.¹⁵⁷ The US regulatory regime has always relied on the agencies' active role in establishing rules and standards. The logic that lies behind it is that agency rulemaking ensures greater regulatory stability and clarity for regulated entities opposed to the case law. Such reliance

¹⁵³ See John C. Coffee, Jr. & Hillary A. Sale, *Redesigning the SEC: Does the Treasury Have a Better Idea?*, 95 VA. L. REV. 707, 717 (2009) (analyzing the US and EU approaches based on three different frameworks).

¹⁵⁴ Scalcione, *supra* note 7, at 354.

¹⁵⁵ D'Souza et al., *supra* note 70, at 511–512.

¹⁵⁶ See Jill E. Fisch, *Top Cop or Regulatory Flop? The SEC at 75*, 95 VA. L. REV. 785, 786–87 (2009) (noting the potential issues the American system for regulating derivatives).

¹⁵⁷ Dodd Frank Act §712(d).

on agency rulemaking is not the case in the EU, where, besides central regulators, each EU Member State also has its own regulatory authorities. Already at the stage of drafting the current derivatives regulation, the European Commission explicitly stated that “the objectives of the proposal cannot be sufficiently achieved by the Member States and can . . . be better achieved by the EU.”¹⁵⁸ Thus, the EU regulation leaves some, but much less space for adopting rules by the regulators, which seems to be better tailored to ensure a comprehensive regulatory framework.

Another advantage of the EU regulatory approach is the greater responsibility of the banking system and the ECB in regulating the operations of CCPs in comparison with the US approach. The ECB directly monitors the CCPs and functions as a regulatory agency with a banking agency that has more experience in supervising such process as clearing in the CCP. In the US, the advisory position of the Federal Reserve Board of Governors reduces its ability to regulate the operations of CCPs. While the Federal Reserve Board of Governors in the US provides CCPs with liquidity and access to discount windows,¹⁵⁹ the central bank does not have the same oversight authority over CCP operations as in the EU. As a result, the SEC and the CFTC have complete responsibility for monitoring clearing processes and capital adequacy—ensuring that the CCPs properly manage their capital reserves.

The differences in the grant of regulatory authority in the US and the EU are likely to be the result of the regulatory structure development in both jurisdictions. The federal government in the US has exclusive jurisdiction over financial regulation that involves interstate transactions with various federal agencies having authority to oversee financial markets. The Dodd Frank Act amended existing legislation to incorporate swaps by granting additional authority to agencies. In addition, some rivalry is likely to exist among agencies that led to splitting jurisdiction between the SEC and the CFTC. In contrast, the EU has concurrent jurisdiction in financial matters with Member States due to its structure, where the Member States have retained power to control matters such as regulation of markets

¹⁵⁸ Proposal for a Regulation of the European Parliament and of the Council on OTC Derivatives, Central Counterparties and Trade Repositories, COM (proposed 2010), at 6.

¹⁵⁹ Dodd Frank Act § 806 (codified at 12 U.S.C. § 5465).

within their borders. In addition, the regulatory agencies of the EU are not as well established as in the US and do not have an extensive history of oversight in specific areas. The EMIR functionally established new authority to regulate rather than to amend a broad array of existing statutes authorizing regulation of financial markets.

3.2.2. Covered Instruments

The scope of the instruments covered is one of the core aspects regarding derivatives regulation. The way derivatives are defined gives the basis for construing and applying all remaining rules and regulations. Hence, it is very critical to understand to which instruments the relevant rules apply as this may create further obligations for the parties, e.g., clearing or reporting, or both.

3.2.2.1. United States

The provisions of the Dodd Frank Act apply to all transactions in the OTC market that involve the purchase or sale of derivatives with exceptions for some types of transactions. Title VII of the Dodd Frank Act applies to “swaps” and “security-based swaps” as they are defined in the CEA and the Securities Exchange Act of 1934 (“34 Act”) i.e.:

“Swaps”¹⁶⁰ include, *inter alia*: (1) options of any kind; (2) contracts that provide for a purchase, sale or payment that is contingent on a financial, economic or commercial event (e.g., CDS); (3) executory exchange payment contracts based on the value or level of an underlying asset that transfers financial risk associated with it (not a property interest); and (4) other contracts commonly known as swaps.

- Exclusions: security-based swaps (other than “mixed swaps”) and the transactions qualifying for a specific exclusion.¹⁶¹

¹⁶⁰ Commodity Exchange Act, 17 U.S.C. § 1(a)(47), as amended by the Dodd Frank Act, § 721, and further defined as a result of joint rulemaking by the CFTC and the SEC (77 FR 48356, Aug. 13, 2012).

¹⁶¹ *Inter alia*: (1) Listed futures; (2) options on securities and indices that are subject to US securities laws; (3) physically-settled security forwards subject to US securities laws (unless contingent on a third-party credit event); (4) debt securities subject to US securities laws; (5) certain physically-settled commodity forwards;

“Security-based swaps”¹⁶² include swaps based on (1) a single security or loan; (2) a “narrow-based security index” (generally, 9 or less); (3) events relating to an issuer of securities or issuers of securities in a “narrow-based security index” (e.g., single-name CDS).

- Exclusions: transactions excluded from “swap” definition and derivatives on US government or agency securities.

As we can see, the division of the primary regulatory authority between the CFTC for swap transactions and the SEC for security-based swap transactions is reflected in defining these instruments in separate provisions. Security-based swaps are essentially limited to swaps based on single securities, single loans or narrow-based securities indices, and the CFTC regulates all other swaps. Mixed swap transactions that have characteristics of both swaps and security-based swaps, are subject to dual jurisdiction of the CFTC and the SEC.

3.2.2.2. European Union

Under the EMIR, “derivative” or “derivative contract,” includes options, futures, swaps, forward rate agreements and other derivative contracts in relation to a very broad range of underliers.¹⁶³ “OTC derivative,” or “OTC derivative contract,” means a derivative contract that is not executed on a regulated market or on a third-country market considered as equivalent to a regulated market.¹⁶⁴ Despite a rather broad definition of derivatives, there are certain transactions not mentioned by the EMIR and MiFID (and MiFID II) and therefore do not fall within the scope of the new regulation, e.g.,

(6) Foreign Exchange (FX) spots (if not “rolling spots”); (7) certain physically-settled FX forwards and swaps (certain requirements still apply); (8) transactions with the US government or a US agency backed by full faith and credit of the United States; (9) specified “Consumer” and “Commercial” Transactions (10) certain regulated insurance products.

¹⁶² Securities Exchange Act of 1934, § 3(a)(68), as amended by § 721 of the Dodd Frank Act, and further defined as a result of joint rulemaking by the CFTC and the SEC (77 FR 48356, Aug. 13, 2012).

¹⁶³ EMIR, *supra* note 136, art. 2(5) (by reference to points (4) to (10) of Section C of Annex I to MiFID). The relevant sections of the MiFID II are pretty much the same.

¹⁶⁴ *Id.* art. 2(7).

inter alia: (1) spot transactions; (2) certain physically-settled commodity and exotic underliers transactions; (3) FX spots (if not "rolling spots").

3.2.2.3. *US vs. EU*

The US and European approaches to defining derivatives differ significantly, which inevitably leads to further distinctions in the overall derivatives market regulation.

First of all, the EMIR, along with MIFID, introduces a new definition of derivatives, whereas the Dodd Frank Act does not define them at all but rather contains a very broad definition of swaps. If the main purpose of the regulation was to introduce a harmonized framework for all derivatives, the question arises: Why did the US legislators choose not to work out a comprehensive definition of derivatives?¹⁶⁵ One possible explanation goes back to the issues discussed in section 3.2.1. of this Part, i.e., regulatory authorities. Obviously, division of all instruments covered by the Dodd Frank Act into swaps and security-based swaps justifies the existence of the two regulatory agencies as opposed to having one authority in case of a unified category of derivatives. This does not mean that the American Government simply wants to have two agencies instead of one. The logic seems to lie behind the idea of maintaining the powers of the SEC to regulate securities and of the CFTC to regulate commodities. Another justification of this structure relates to the point that the legislators had the intent to regulate only the new instruments and leave the existing ones—i.e., futures—subject to existing regulation under the CEA.¹⁶⁶

Another distinction, evident even through a very high-level comparative analysis, is that the EMIR definition of derivatives has a broader and less fragmented scope, including almost any kind of derivatives. The Dodd Frank Act, in contrast, does not include any futures or physically-settled commodity forwards for the reason mentioned above—i.e., they are all regulated by the CEA. Moreover, almost all CDSs fall within the definition of swaps under the Dodd Frank Act except only single-name CDSs as long as they are based on events relating to one or more reference securities. Even

¹⁶⁵ Scalcione, *supra* note 7, at 358.

¹⁶⁶ *Id.* at 359.

though the SEC and CFTC should consult with each other before issuing rules in order to make such rules consistent, such classification of instruments creates diversity and therefore leaves opportunity for fragmentation and different treatment of incredibly similar instruments. Certainly, it could be the case that the purpose of Congress was to leave the distinction between the instruments based on the nature of their underlier (commodity vs. security) rather than treating them all with regard to their common economic function. However, this seems neither convincing nor efficient when considering possible significant differences in further regulation.

Thus, the practical difference in the US and EU approaches is that the former appears to be more fragmented and covers fewer number of instruments. For instance, listed futures are regulated by the EMIR, but fall outside the definition of swap under the Dodd Frank Act as they are covered by the CEA. The scope of the Dodd Frank is further fragmented by the division of instruments into swaps and security-based swaps depending on their underliers and by the division of the authority to oversee these instruments between two agencies – the CFTC and the SEC accordingly.

Finally, from a standpoint of statute-drafting technique, the definition of swaps under the Dodd Frank Act is more remote from the standard market and finance practices. For instance, options have never been considered swaps in the finance world even though they are defined as swaps by the Dodd Frank Act. Such confusion could have been escaped by simply listing options separately from swaps,¹⁶⁷ but the legislators preferred, instead, to create a unified category of swaps.

Despite the specified disadvantages of the US approach in defining the instruments included in the scope of the regulation, it shall be fairly noted that the European definition of derivatives, although broader in scope, is much less detailed and thorough in specifying the instruments covered. The MIFID, as well as its future substitute MIFID II, simply lists the types of instruments that are considered derivatives—i.e., swaps, futures, options—without defining or enumerating the content of these instruments, as is done in very much detail in the Dodd Frank Act. Moreover, the European statutes do not explicitly determine which instruments are not covered. This

¹⁶⁷ *Id.* at 358.

creates confusion for the market participants, who have to understand which transactions fall under the regulation. On the other hand, the relatively broad definition of the derivatives makes it easier for the regulators to include exotic derivatives that can be developed in the future.

Nevertheless, overall, the European approach seems to be better tailored and more comprehensive – its unified category of both derivatives and OTC derivatives leaves almost no room for divergent interpretations. This means that the regulation is not locked in a narrow group of instruments and its detailed scope can be easily adjusted via technical standards according to the current market conditions without the necessity of amending the regulation itself, for instance, in case of new exotic derivatives development.

3.2.3. Covered Parties

The scope of the parties covered is another sensitive regulatory area, which directly affects market participants and sets up certain constraints on them. Different approaches as to covered parties may lead to different results in terms of the effectiveness of the overall regulation. More importantly, regulation of market participants has a direct effect on determining the major actors of the derivatives market in the future.

3.2.3.1. United States

The Dodd Frank Act functionally covers all parties entering into a swap contract by imposing registration requirements as long as one party is a derivative dealer or holds substantial derivatives positions. The legislation introduces definitions of “swap dealer” and of “major swap participant” in the CEA and similar definitions of “security-based swap dealer” and of “major security-based swap participant” in the 1934 Act.¹⁶⁸

Swap (security-based swap) dealer is defined as any person who: (1) holds himself or herself out as a dealer in swaps (security-based swap); (2) makes a market in swaps (security-based swaps);

¹⁶⁸ Dodd Frank Act, § 721(49)(A) and 761(71)(A) accordingly, and as further defined as a result of joint rulemaking by the CFTC and the SEC: (1) CEA § 1a(49) of the Act and 17 C.F.R. § 1.3(ggg) – swap dealer; (2) '34 Act §3(a)(71) and 17 C.F.R. § 240.3a71-1 - security-based swap dealer.

(3) regularly enters into swaps (security-based swap) as counterparty in the course of business for his or her own account; or (4) engages in activity regularly considered in the trade as making a market for swap (security-based swap).¹⁶⁹ However, the term “swap (security-based swap) dealer” does not include a person that enters into swaps (security-based swaps) for such person's own account, either individually or in a fiduciary capacity, but not as a part of regular business.¹⁷⁰

Major swap (security-based swap) participant is a person that is not a swap (security-based swap) dealer and: (1) maintains a “substantial position” in a major swap category excluding hedging or mitigating for commercial risk or positions maintained by any employee benefit plan; or (2) has outstanding swaps that create substantial exposure that could have adverse effects on financial stability of the US banking system or financial markets; or (3) any financial entity that is highly leveraged relative to the capital it holds and is not subject to a capital adequacy requirement and maintain a substantial position in a major swap (security-based swap) category.¹⁷¹

Finally, another category that has to be mentioned is that of “eligible contract participant,” a new category introduced by the Dodd Frank Act.¹⁷² The regulation makes it unlawful for a person that is not an eligible contract participant to enter into a swap (security-based swap) unless that swap (security-based swap) is entered into over a board of trade that has been designated by the CFTC as a

¹⁶⁹ *Id.* The latter criterion is subject to a *de minimus* exemption defined by the CFTC and the SEC for swap dealers and security-based swap dealers under the Dodd Frank Act § 721(49)(D) and 761(71)(D) accordingly. Such exemption is determined in C.F.R. § 1.3(ggg)(3) and 17 C.F.R. § 240.3a71-2 for swap dealer and security-based swap dealers accordingly.

¹⁷⁰ See C.F.R. § 1.3(ggg); see also 17 C.F.R. § 240.3a71-1 accordingly (defining swap dealer.)

¹⁷¹ Dodd Frank Act § 721(33)(A) and 761(67)(A) accordingly, and as further defined as a result of joint rulemaking by the CFTC and the SEC: (1) CEA § 1a(33) of the Act and C.F.R. § 1.3(hhh) – major swap participant; (2) '34 Act § 3(a)(67) and 17 C.F.R. § 240.3a67-1- major security-based swap participant. The CFTC and the SEC have further adopted rules to determine such categories as “substantial position”, “financial entity”, “high leverage”, “substantial counterparty exposure,” and “hedging or mitigating commercial risk;” see generally, C.F.R. § 1.3(hhh) and 17 C.F.R. § 240.3a67 accordingly (defining major swap participant).

¹⁷² Dodd Frank Act § 723 for swaps and § 763 for security based swaps (codified at 7 U.S.C. § 2 and 15 U.S.C. § 78(f) accordingly).

contract market.¹⁷³ An eligible contract participant is defined as an entity or an individual that satisfies specific criteria enumerated in the statute,¹⁷⁴ as further implemented by CFTC rules.¹⁷⁵

The Dodd Frank Act also contains more specific provisions regulating swap trading by banks:

- “Push-Out Provision”¹⁷⁶ stating that no Federal assistance¹⁷⁷ will be provided to any swaps entity¹⁷⁸ with respect to any swap, security-based swap, or other activity of the swaps entity.

¹⁷³ *Id.*

¹⁷⁴ CEA § 1(a)(18).

¹⁷⁵ 17 C.F.R. § 1.3(m). Under this Rule, major swap (security-based swap) participants and swap (security-based swap) dealers are also considered within the category of an eligible contract participant.

¹⁷⁶ Dodd Frank Act § 716 (codified at 15 U.S.C. § 8305), as amended by Consolidated and Further Continuing Appropriations Act, 2015, Pub. L. No. 113–235 (2014).

¹⁷⁷ “Federal assistance” is defined as the use of any advances from any Federal Reserve credit facility or discount window that is not part of a program or facility with broad-based eligibility under section 343(3)(A) of Title 12, Federal Deposit Insurance Corporation insurance or guarantees for the purpose of: (A) making any loan to, or purchasing any stock, equity interest, or debt obligation of, any swaps entity; (B) purchasing the assets of any swaps entity; (C) guaranteeing any loan or debt issuance of any swaps entity; or (D) entering into any assistance arrangement (including tax breaks), loss sharing, or profit sharing with any swaps entity.

¹⁷⁸ “Swaps entity” is defined as any swap (security-based swap) dealer or major swap (security-based swap) participant, except major swap (security-based swap) participant that is a covered depository institution, provided that it limits its swap and security-based swap activities to the following: (1) hedging and other similar risk mitigation activities; (2) non-structured finance swap activities; (3) certain structured finance swap activities (undertaken for hedging or risk management purposes or if each asset-backed security underlying such structured finance swaps is of a credit quality and of a type or category with respect to which the prudential regulators have jointly adopted rules authorizing swap or security-based swap activity by covered depository institutions). The term “covered depository institution” means (1) an insured depository institution, as that term is defined in section 3 of the Federal Deposit Insurance Act (12 U.S.C. § 1813); and (2) a United States uninsured branch or agency of a foreign bank. However, certain restrictions on covered depository institutions still apply, including ban on proprietary trading (“Volcker Rule”).

- “Volcker Rule”¹⁷⁹ prohibiting a banking entity from (1) engaging in proprietary trading;¹⁸⁰ or (2) acquiring or retaining any equity, partnership, or other ownership interest in or sponsor a hedge fund or a private equity.

Thus, the Dodd Frank Act amended prior legislation to ensure that individuals engaged in the business of buying and selling swaps on behalf of themselves or others would now be regulated.

3.2.3.2. *European Union*

The EMIR does not make the same distinction of covered persons as the Dodd Frank Act does in terms of swap dealers and major market participants. Instead, the EMIR focuses on defining coverage in terms of the nature of the parties involved in the transaction or, more specifically, their business purposes rather than on transaction type.

Under the provisions of the EMIR, covered participants are classified as financial counterparties and non-financial counterparties. The financial counterparty is defined as an organization in the financial industry as authorized by various EC Directives and generally includes investment firms, banks and other credit institutions, insurance and reinsurance companies, and certain asset management companies.¹⁸¹ A non-financial counterparty is an undertaking established in the EU that does not fit the definition of a financial counterparty or of a CCP.¹⁸²

¹⁷⁹ Dodd Frank Act § 619 (codified at 12 U.S.C. § 1851).

¹⁸⁰ “Proprietary trading” is defined as engaging as a principal for the trading account of a banking organization or supervised nonbank financial company in any transaction to purchase or sell, or otherwise acquire or dispose of any: (1) security; (2) derivative; (3) contract of sale of a commodity for future delivery; (4) option on any such security, derivative, or contract; or (5) any other security or financial instrument that the appropriate Federal banking agencies, the SEC and the CFTC may determine. However, the Volcker Rule does specifically permit certain trading transactions, *inter alia*: (1) in government securities; (2) in connection with underwriting or market-making, to the extent that either does not exceed near term demands of clients, customers, or counterparties; (3) on behalf of customers; or (4) by an insurance business for the general account of the insurance company; (5) certain risk-mitigating hedging.

¹⁸¹ EMIR, *supra* note 136, art. 2(8).

¹⁸² *Id.* art 2(9).

While ESMA has not issued definitive rules concerning covered party determinations, the rules that will be established are likely to be relatively broad and therefore consistent with the general regulatory trend of covering as many parties as possible while providing exemptions based on transaction type. As a result, the majority of entities engaged in OTC transactions in the EU are likely to be considered covered parties.

3.2.3.3. *US vs. EU*

The Dodd Frank approach to covered parties creates categories of market participants and establishes threshold criteria for the parties to be covered by the statute. Once a party meets the coverage criteria, all of the provisions of the statute and rules of the various regulatory agencies apply. In contrast, the EMIR approach establishes two categories of market participants covered by the regulation. While a particular transaction may be excluded from coverage, the parties are generally covered.

On the one hand, the US approach seems very flexible as only parties involved in qualifying transactions are subject to regulation, whereas all others fall outside the regulation.¹⁸³ However, such a regulatory scheme creates fragmentation as parties who use swaps only infrequently remain unregulated.¹⁸⁴ In other words, the US regime looks to be oriented only towards professional swap traders. Again, since the Dodd Frank Act was a response to the financial crisis, it could be the case that the intent of the legislators was to regulate only major derivatives players in order to enable regulators to monitor and avoid a repeat of the large financial exposures and failures that took place in 2008. The European framework has a broader scope of parties covered and, again, seems to be much more comprehensive as it allows to simply treat market participants differently within the regulation as opposed to leaving some of them completely unregulated.

Moreover, as fairly noticed by commentators,¹⁸⁵ the US “product-by-product” regulation could hardly be manageable, both for the participants to comply with it as well as for the regulators to

¹⁸³ Scalcione, *supra* note 7, at 361.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

monitor participants. The European approach of regulating all entities' trading derivatives, rather than adopting a "product-by-product" approach, is much more efficient as it captures major participants as well as less significant derivatives trading. That said, the comprehensive approach is a much more intrusive form of regulation.

The Dodd Frank Act is also distinct from the EMIR as it contains specific "healthy" provisions regulating swap trading by banks. The effect of the Volcker Rule is considered to be the transition of swap trading from banks that are "too big to fail" to less systemically risky parts of the market.¹⁸⁶ The Push-Out Rule was also initially intended to move risky swap trades into a more diverse framework, within which speculation would be less impactful on the prices of underliers.¹⁸⁷

There were, as is always the case with new regulation, certain concerns with regard to the Push-Out Rule. For instance, US dealers might consider moving their business to broker-dealer subsidiaries in other jurisdictions, which could make it difficult and complex to close positions and therefore potentially increase systemic risk.¹⁸⁸ Another argument against the Push-Out Rule is that it is unnecessary, as market risks posed by "pushed-out" derivatives can be negated through offsetting positions. The Volcker Rule is criticized as leaving a loophole for "embedded proprietary trading," when a bank betting on the direction of a market "may just avoid hedging the opposite side of a client order,"¹⁸⁹ and that is perfectly permissible under the Rule. These concerns are fair, but not perfect, as, for instance, it is not always the case that an offsetting position exists.¹⁹⁰

¹⁸⁶ Greenberger, *Overwhelming*, *supra* note 76, at 163.

¹⁸⁷ *Id.*

¹⁸⁸ MOODY'S INVESTORS SERVICE, SWAPS PUSH-OUT TO HAVE MAJOR IMPACT ON U.S. DEALERS 2 (June 21, 2010), available at http://s3.amazonaws.com/zanran_storage/www.complianceweek.com/ContentPages/139709745.pdf [<https://perma.cc/JUN2-YMV7>].

¹⁸⁹ Matthew Leising, *Dropping Swaps Plan for Volcker Rule May Not Reduce Bank Risk*, BLOOMBERG, June 11, 2010, <http://www.bloomberg.com/news/articles/2010-06-11/dropping-swaps-plan-for-volcker-rule-may-still-allow-banks-to-take-risks> [perma.cc/C83E-2X3L].

¹⁹⁰ Adam J. Krippel, *Regulatory Overhaul of the OTC Derivatives Market: The Costs, Risks and Politics*, 6 OHIO ST. ENTREPRENEURIAL BUS. L.J. 269, 286 (2011).

Nevertheless, under the pressure of criticism, the Push-Out Rule has been recently amended by: (1) extending the coverage of its exemption to uninsured US branches or agencies of foreign banks;¹⁹¹ and (2) significantly narrowing the scope of instruments subject to the push-out requirement by the exempted parties by limiting it to swaps (security-based swaps) based on asset-backed securities. Obviously, such an amendment is the result of the lobbying efforts of big banks, as large institutions always want to be free to speculate on such opaque financial instruments as derivatives and, at the same time, to have the "Too Big to Fail" guarantee from the government. Despite being controversial to a certain extent and making trading rather complex, the overall positive effect of the original Push-Out provision seemed much more meaningful than its potential costs. Now, even though the Push-Out Rule nominally still exists, and the Volcker Rule still imposes limitations on big banks, the amendment of the Push Out requirement is a negative precedent in the context of the repeal of financial regulation.

The advantage of the Dodd Frank over the EMIR approach, on the one hand, could be that the regulatory agencies may amend the rules and determine whether a person's OTC trading activity meets the threshold for coverage. However, the categories of swap dealers and major swap participants seem to be excessively complicated in comparison with the EMIR approach. For instance, the CFTC rules for assessing whether a person is a swap dealer or a major market participant focus on the total value of transactions, whereas the volume of transactions can vary so that a person could be a covered party at one time and not a covered party at another time. In contrast, the EMIR approach appears to be rather simple covering all financial and non-financial entities with exclusions based on the nature of the transactions. Nevertheless, none of the approaches seems to be perfect, and some sort of their combination would be much more appropriate and efficient.¹⁹²

The scope of the parties covered differs like all previously discussed areas of the US and EU regulations. However, in this case, it is much harder to give preference to either approach as both have their own benefits and disadvantages. Overall, the EU regime seems

¹⁹¹ Previously, only insured depository institutions were exempted.

¹⁹² To be discussed in more detail further.

more comprehensive, meaning broader in its scope, whereas the US scheme is much more detailed, i.e., focused on specific issues.

3.2.4. Clearing, Trading and Reporting Requirements

Clearing requirements have always been the central issue among scholars and has become the “heart” of derivatives regulation both in the US and Europe. Clearinghouses or CCPs connect buyers and sellers of derivatives contracts by receiving and distributing payments associated with derivatives contracts. A properly functioning CCP helps the parties in a financial contract manage counterparty risk and improves transparency by providing continuous mark-to-market information about the value of the derivatives and their collateral. The establishment of special trading platforms is a higher level of regulation, as the derivatives have to go through a clearing process before entering trading execution facilities. Interestingly enough, the statistical data shows that approximately over 70% of interest rate derivatives and CDSs are cleared through clearing houses, whereas more than 60% of those instruments are traded on swap execution facilities.¹⁹³ Thus, the proper clearing and trading requirements are crucial for the overall derivative’s regulatory framework. Finally, reporting requirements help the regulators keep track of the derivatives transactions and provide information about them to the public.

3.2.4.1. United States

3.2.4.1.1. Clearing

The Dodd Frank Act prohibits swap (security-based swap) trades that have not been cleared to a DCO registered with the CFTC or to a clearing agency with the SEC, or exempt from registration if

¹⁹³ According to ISDA SwapsInfo comparative analysis (2015 year-to-date vs. 2014 year-to-date) for the week ending March 27, 2015, 72% of interest rate derivatives total notional was cleared versus 77%, whereas statistics for CDSs are 81% and 62% respectively. However, only 62% of interest rate derivatives total notional was executed on SEFs versus 52%, and 71% of CDSs total notional was executed on SEFs vs. 45%. See ISDA, *IRD and CDS Weekly Analysis: week ending March 27, 2015*, <http://www.swapsinfo.org/market-analysis/> [perma.cc/2D6S-VRHY] (describing fluctuation in notionals and trade counts for the week.)

the swap (security-based swap) is required to be cleared.¹⁹⁴ Swaps (security based swaps) become subject to mandatory clearing upon issuance of a mandatory clearing determination by the CFTC or the SEC.¹⁹⁵ Moreover, DCOs (clearing agencies) have to submit all swaps (security-based swaps) that they plan to accept for clearing to the CFTC or the SEC for review and final determination on clearing.¹⁹⁶ Thus, the final decision on clearing rests always with the CFTC or the SEC.

Nonetheless, transactions that would otherwise be subject to mandatory clearing may fall into one of several exceptions to the clearing requirement. First, there is a so-called “end-user” exemption, according to which the clearing requirements do not apply if any of the counterparties to the swap (security-based swap): (1) are not a financial entity;¹⁹⁷ (2) use the swap (security-based swap) to hedge or mitigate commercial risk; and (3) make a showing to the CFTC or SEC, accordingly, that it generally meets its financial obligations related to such non-cleared swap (security-based swap).¹⁹⁸ Certain exemptions may also apply to affiliates of such “end-users”.¹⁹⁹ Second, the CFTC or the SEC may consider exempting small

¹⁹⁴ Dodd Frank Act § 723(a)(3) for swaps and 763(a) for security-based swaps (codified at 7 U.S.C. § 2 and 15 U.S.C. § 78c-3 accordingly). However, the regulators should consider the following factors when deciding on clearing requirement: (i) liquidity, volume, and availability of pricing data; (ii) operational ability to clear the contract; (iii) effect on systemic risk; (iv) effect on competition; and (v) legal certainty of the contract in the event of insolvency of the derivatives clearing organization standing behind the contract.

¹⁹⁵ *Id.* The CFTC issued rules determining the first group of clearable swaps that mostly consists of interest rate and some credit swaps. See *Clearing Requirement Determination Under Section 2(h) of the CEA*, 77 Fed. Reg. 74,284 (Dec. 13, 2012).

¹⁹⁶ *Id.*

¹⁹⁷ The term “financial entity” includes: (1) a swap dealer; (2) a security-based swap dealer; (3) a major swap participant; (4) a major security-based swap participant; (5) a commodity pool; (6) a private fund; (7) an employee benefit plan; (8) a person predominantly engaged in banking or financial activities. 17 § C.F.R. 23.505 (2013).

¹⁹⁸ Dodd Frank Act § 723(a)(3) for swaps and 763(a) for security-based swaps (codified at 7 U.S.C. § 2 and 15 U.S.C. § 78c-3 accordingly). However, the “end-user” may still decide to clear the transaction. 7 U.S.C. § 2 (2010); 15 U.S.C. § 78c-3 (2010).

¹⁹⁹ An affiliate of a person that qualifies for an “end-user” exception (including affiliate entities predominantly engaged in providing financing for the purchase of the merchandise or manufactured goods of the person) may qualify for the exception only if the affiliate, acting on behalf of the person and as an agent, uses the swap (security-based swap) to hedge or mitigate the commercial risk of the person

banks, savings associations, farm credit system institutions, and credit unions depending on their total assets threshold.²⁰⁰ Also, swaps (security-based swaps) entered into prior to the effective date or application of a clearing requirement need not be cleared if they are appropriately reported.²⁰¹ Finally, the CFTC and the SEC cannot adopt rules requiring a DCO (clearing agency) to list for clearing a swap (security-based swap) if that would threaten the financial integrity of the DCO (clearing agency).²⁰² Dodd Frank, however, with regard to all uncleared swaps (security-based swaps), mandates²⁰³ the imposition of regulatory margin requirements²⁰⁴ on swap (security-based swap) dealers and major swap (security-based swap) participants as well as requirements to segregate²⁰⁵ initial margin on request of the counterparty.

3.2.4.1.2. Trade Execution

The Dodd Frank Act requires that all swaps (security-based swaps) that are subject to mandatory clearing be traded on a designated contract market (exchange) or through a swap (security-based swap) execution facility (either registered or exempt from registration).²⁰⁶ However, such trade execution requirements do not apply if no designated contract market (exchange) or swap (security-based swap) execution facility makes the swap (security-based swap)

or other affiliate of the person that is not a financial entity. However, such affiliate is not exempt if it is: (1) a swap dealer; (2) a security-based swap dealer; (3) a major swap participant; (4) a major security-based swap participant; (5) an issuer that would be an investment company; (6) a commodity pool; or (7) a bank holding company with over \$50,000,000,000 in consolidated assets. 17 § C.F.R. 23.505 (2013).

²⁰⁰ Dodd Frank Act §723(a)(3) for swaps and 763(a) for security-based swaps (codified at 7 U.S.C. § 2 and 15 U.S.C. § 78c-3 accordingly). 7 U.S.C. § 2 (2010); 15 U.S.C. § 78c-3 (2010).

²⁰¹ *Id.*

²⁰² *Id.*

²⁰³ Margin requirements are set up by the CFTC or the SEC, accordingly, or prudential bank regulators if swap (security-based swap) dealers and major swap (security-based swap) participants are banks.

²⁰⁴ Dodd Frank Act §731 for swaps and 763 for security-based swaps (codified at 7 U.S.C. § 6s and 15 U.S.C. § 78o-10 accordingly). 7 U.S.C. § 6s (2010); 15 U.S.C. § 78o-10 (2010).

²⁰⁵ Dodd Frank Act §724 for swaps and 763 for security-based swaps (codified at 7 U.S.C. § 6s and 15 U.S.C. § 78c-5 accordingly). 7 U.S.C. § 6s (2010); 15 U.S.C. § 78c-5 (2010).

²⁰⁶ *Id.*

available to trade or for transactions subject to the clearing exceptions.²⁰⁷

3.2.4.1.3. Reporting

The Dodd Frank Act requires several types of reporting of swap (security-based swap) transactions. First, every cleared swap (security-based swap), whether required to be cleared or not, is subject to “real-time public reporting.”²⁰⁸ However, trades entered into prior to the effective date or application of a clearing requirement have to be reported in a manner that does not disclose the business transactions or market positions of any persons.²⁰⁹ Second, each swap (security-based swap), whether cleared or not, must also be reported to a registered security-based swap data repository.²¹⁰ Swaps (security-based swaps) not accepted for clearing by any DCO (clearing agency) are reported to a swap data repository or, in the case in which there is no swap data repository that would accept them, to the CFTC or the SEC, accordingly.²¹¹

3.2.4.2. European Union

3.2.4.2.1. Clearing

The EMIR may require OTC derivatives to be cleared, depending on the following two factors: (1) their type (class); and (2) counterparties. The EMIR establishes two possible ways to determine OTC derivatives classes that are subject to a clearing requirement.²¹² First, when a competent Member State authority authorizes a CCP to clear a class of OTC derivatives, the ESMA has to be immediately

²⁰⁷ *Id.*

²⁰⁸ Dodd Frank Act §727 for swaps and 763(i) for security-based swaps (codified at 7 U.S.C. § 2 and 15 U.S.C. § 78m accordingly). The term “real-time public reporting” is defined as to report data relating to a swap (security-based swap) transaction, including price and volume, as soon as technologically practicable after the time at which the swap (security-based swap) transaction has been executed. 7 U.S.C. § 2 (2010); 15 U.S.C. § 78m (2010).

²⁰⁹ *Id.*

²¹⁰ *Id.*

²¹¹ Dodd Frank Act §729 for swaps and 766 for security-based swaps (codified at 7 U.S.C. § 6r and 15 U.S.C. § 78m-1 accordingly). 7 U.S.C. § 6r (2010); 15 U.S.C. § 78m-1 (2010).

²¹² EMIR, *supra* note 136, art. 5.

notified.²¹³ After receiving such notification, the ESMA develops and submits to the European Commission draft regulatory technical standards specifying the class of OTC derivatives that should be cleared.²¹⁴ Second, the ESMA can, on its own initiative, identify and notify the European Commission the classes of derivatives that should be subject to the clearing obligation, but for which no CCP has yet received authorization.²¹⁵

However, only the OTC derivative contracts concluded between the following counterparties have to be cleared:²¹⁶ (1) two financial counterparties; (2) a financial counterparty and a non-financial above the clearing threshold;²¹⁷ (3) two non-financial counterparties above the clearing threshold; (4) a financial counterparty or a non-financial counterparty above the clearing threshold and an entity established in a third country that would be subject to the clearing obligation if it were established in the EU; or (5) two entities established in one or more third-countries that would be subject to the clearing obligation if they were established in the EU.²¹⁸

There are several exceptions to this rule. First, the Regulation exempts from clearing historical trades under certain conditions.²¹⁹

²¹³ *Id.* art. 5(1).

²¹⁴ *Id.* art 5(2). Additionally, the ESMA has also to specify: (1) the date or dates from which the clearing obligation takes effect; and (2) the minimum remaining maturity in order to be subject to clearing for the OTC derivative contracts entered (novated) on or after notification of a CCP to ESMA but before the date from which the clearing obligation takes effect.

²¹⁵ *Id.* art. 5(3). The ESMA takes into account several criteria, such as the degree of standardization, volume, liquidity and the availability of reliable pricing while determining classes of OTC derivatives to be cleared (Article 5(4)). The ESMA has also to establish, maintain and keep up to date a public register in order to identify the classes of OTC derivatives subject to the clearing obligation (Article 6(1)).

²¹⁶ *Id.* art 4(1).

²¹⁷ According to EMIR, *supra* note 136, art. 10(1)(b), a non-financial counterparty becomes subject to the clearing for future contracts if the rolling average position over 30 days exceeds the threshold set up by the ESMA for certain classes of OTC derivatives.

²¹⁸ Provided that the contract has a direct, substantial, and foreseeable effect within the Union or where such an obligation is necessary or appropriate to prevent the evasion of any provisions of the EMIR. *Id.*

²¹⁹ *Id.* art. 4(1). Exemption covers the contracts entered (or novated) on or after: (1) the date from which the clearing obligation takes effect; or (2) notification of a CCP to the ESMA but before the date from which the clearing obligation takes effect if the contracts do not have a minimum remaining maturity determined by the ESMA. *Id.* art. 4(1).

Second, the EMIR provides a clearing exception for intra-group transactions that meet specified conditions.²²⁰ Finally, there is a time-limited²²¹ exception that exempts from clearing OTC derivative contracts that are objectively measurable as reducing investment risks directly relating to the financial solvency of pension scheme arrangements.²²² There is no explicit end-user exemption, but transactions involving non-financial counterparties below the clearing threshold will not be subject to the clearing obligation.

However, for uncleared OTC derivatives, the EMIR sets forth certain requirements. First, financial counterparties and nonfinancial counterparties have to ensure arrangements to measure, monitor, and mitigate operational and credit risk.²²³ Additionally, financial counterparties and non-financial counterparties above the clearing threshold are required to have procedures for the timely, accurate, and appropriately segregated exchange of collateral with respect to OTC derivative contracts and daily “mark-to-market” accounting.²²⁴

3.2.4.2.2. Trade Execution

The EMIR itself does not impose mandatory trading requirements. These requirements are contained in the MiFID II / MiFIR. In general, the MiFIR requires the ESMA to determine the classes of derivatives that are subject to mandatory venue execution.²²⁵ Additionally, when the mandatory venue execution obligation is to take effect, derivatives must be subject to the clearing obligation under the EMIR, admitted to trading or traded on at least one trading

²²⁰ *Id.* art. 4(2). Exemption is for cases, where the counterparties have notified their regulators that they intend to use the exemption (or, where the transaction is between an EU and non-EU entity, where the EU entity has obtained authorization from its regulator to use the exemption).

²²¹ For three years after the entry into force of the EMIR, i.e. by Aug. 16, 2015. *Id.* art. 89(1).

²²² *Id.*

²²³ *Id.* art. 11(1).

²²⁴ *Id.* art. 11(2); 11(3). Where market conditions do not allow marketing to market, they shall mark to model. Financial counterparties are also required to hold appropriate capital to cover risks not covered by collateral *Id.* art. 11(4).

²²⁵ MiFIR *supra* note 138, art. 32(1).

venue (i.e., regulated market, MTF²²⁶, OTF²²⁷ or a third country trading venue²²⁸), and be sufficiently liquid to trade only on these venues.²²⁹

3.2.4.2.3. Reporting

Under the EMIR, counterparties and CCPs have to ensure that the details of any derivative contract they have concluded (and any modification or termination of that contract) are reported to a registered trade repository (or where no relevant trade repository available, to the ESMA).²³⁰ Trade repositories have to then publish aggregate positions, arranged by class of derivatives, on the contracts reported to it.²³¹

3.2.4.3. US vs. EU

3.2.4.3.1. Clearing

In general, the US and EU similarly approach the imposition of clearing requirements on a broadly defined class of OTC derivatives and leave to relevant regulators the final decision on the application of the clearing obligation application to a particular class of OTC derivatives. This approach seems rather prudent as it may take time to completely analyze the OTC market and understand how to structure the clearing requirements regarding certain classes of derivatives in the most appropriate way.

By adopting legislation mandating the use of CCPs in the OTC derivatives market, the Congress and the European Commission allegedly aimed to use central clearing as a tool for reducing systemic

²²⁶ Multilateral Trading Facility.

²²⁷ Organized Trading Facility.

²²⁸ MiFIR, *supra* note 138, art. 28(1). Provided that the European Commission deemed such third country trading venues to be subject to equivalent regulatory requirements to EU trading venues and provided that the third country provides for an effective equivalent system for the recognition of trading venues authorized under MiFID II to admit to trading or trade derivatives declared subject to a trading obligation in that third country on a non-exclusive basis.

²²⁹ *Id.* art. 32(2).

²³⁰ Eur. Parl. Regulation 648/2012, art. 9(1), 2012 O.J. (L 201) 1 (EU).

²³¹ *Id.* art. 81(1).

risk.²³² However, there is a concern that systemic risk, on the contrary, could increase because of the imposition of a central clearing requirement, which establishes such “systematically important” organizations as CCPs and “eliminates opportunities for bilateral netting.”²³³ Thus, a major concern is connected with the possibility of creating one or several “Too Big To Fail” entities²³⁴ instead of having numerous, or at least, many more entities as it previously was. In other words, commentators do not like CCPs being “multiplied versions” of companies like AIG. Such concerns are fair enough from the standpoint of systemic risk concentration, as the consequences of a CCP failure would be immense. Nevertheless, there are several reasons why having central counterparties is critically important for reducing systemic risk. First, the regulators can detect any problems of a CCP much more easily and quickly than of an independent participant like AIG. Moreover, it would be even better in this regard if only one dominant CCP emerges rather than several of them,²³⁵ so that the regulators have to monitor only one CCP. Besides, CCPs’ operations are much less complex than those of financial institutions such as banks, as a CCP focuses on a single type of business.²³⁶ Furthermore, CCPs are obliged to use such risk-reducing tools such as margin and collateral requirements. Finally, the operation of clearing houses that themselves are less opaque than banks increases the overall transparency of the derivatives market as CCPs serve as important information sources.

There is also an issue related to the capability of certain instruments to be cleared. For effective implementation of central clearing, two conditions are required: standard terms and high trading volume.²³⁷ These conditions are necessary for successful CCP risk

²³² Paul M. McBride, *The Dodd-Frank Act and OTC Derivatives: The Impact of Mandatory Central Clearing on the Global OTC Derivatives Market*, 44 Int'l Law. 1077, 1106 (2010).

²³³ *Id.*

²³⁴ Steven McNamara, *Financial Markets Uncertainty and the Rawlsian Argument for Central Counterparty Clearing of OTC Derivatives*, 28 Notre Dame J.L. Ethics & Pub. Pol'y 209, 259 (2014).

²³⁵ David A. Skeel, *THE NEW FINANCIAL DEAL: UNDERSTANDING THE DODD FRANK ACT AND ITS (UNINTENDED) CONSEQUENCES* 72 (2010).

²³⁶ *Id.*

²³⁷ Richard Heffner, *The Regulation of Multilateral Clearing in the United Kingdom and United States*, Exchanges and Alternative Trading Systems, Dick Frase & Helen Parry eds., 99 (2002).

management,²³⁸ i.e.: (1) standard terms for a valuation model of the derivative²³⁹ and (2) high trading volume for making clearing costs effective for a CCP.²⁴⁰ Thus, the decrease of standardization and increase of complexity make modeling of the derivatives harder and much more expensive for the CCP,²⁴¹ whereas without such modeling it will be impossible to appropriately measure and manage risks through just margin requirements imposed on clearing members.²⁴² Furthermore, the absence of high trading volume, i.e. low liquidity, could make the CCP unable to plan for the liquidation of a defaulting position in the derivative, which may eventually lead to significant losses for the CCP.²⁴³ Therefore, clearing is not the optimal solution for all derivatives and regulators have to take this into consideration when determining the classes of derivatives that will be subject to the central clearing requirement. The EMIR and the Dodd Frank Act, with regard to this issue, are fairly accurate and prudent in their language requiring the regulators to consider the level of standardization, trade volume, and other factors when defining derivatives to be cleared.

However, it shall be noted that imposing a clearing requirement only on standard and frequently traded derivatives will not completely solve the problem and may even create certain new issues. First, this will leave outside the clearing houses instruments that caused major concern in 2008, such as CDSs, as they are generally very customized contracts. Moreover, by clearing only certain classes of derivatives, the OTC derivatives trades of the market participants will be divided into bilateral and centrally cleared portfolios, which, on the one hand, will provide additional opportunities for multilateral netting of the cleared instruments, but on the other, reduce the opportunities for bilateral netting that existed initially

²³⁸ Bank for International Settlements, *New Developments in Settlement and Clearing Arrangements for OTC Derivatives* 27 (Mar. 2007), available at <http://www.bis.org/publ/cpss77.pdf> [<https://perma.cc/M7XT-BAT5>] (hereinafter *New Developments*).

²³⁹ *Id.*

²⁴⁰ Darrell Duffie, Ada Li & Theo Lubke, Fed. Res. Bank of N.Y., Staff Report No. 424 *Policy Perspectives on OTC Derivatives Market Infrastructure* 8 (2010).

²⁴¹ *Id.*

²⁴² *New Developments*, *supra* note 239.

²⁴³ *Id.*; Duffie et al., *supra* note 241.

when the whole OTC market was not subject to clearing.²⁴⁴ Therefore, it would be beneficial if the regulators direct their efforts to encouraging derivatives standardization and clearing, since in order “[t]o fully achieve the benefits of central clearing, a critical mass of OTC derivatives products must move to [the] CCPs”.²⁴⁵ Otherwise, central clearing may actually increase net counterparty exposure and lead to financial instability.²⁴⁶ However, it seems impossible and non-practical to standardize all OTC derivatives, because, as mentioned above, their attractiveness to the market participants inheres in their ability to be tailored to the specific needs of the parties as much as necessary. A partial solution for the underlined issues has been already offered by the legislators in both regimes—namely, the imposition of reporting and margin requirements on the uncleared derivatives. This will, at least, reduce the counterparty risk and make the market more transparent.

Another sensitive area regarding the clearing requirement relates to the “end-user” exemption. Both the EMIR and the Dodd-Frank Act provide certain exceptions for transactions aimed at hedging commercial risks. However, the US regulation contains a rather narrow definition of an “end-user”, whereas the EMIR simply excludes non-financial counterparties below the clearing threshold. Thus, both regimes explicitly do not exclude any financial entities from the clearing requirement. In the US, commentators expressed their concern about the fact that the end-user exception would not cover certain market participants not qualifying as end-users, (such as small banks) but who, at the same time, are not systematically significant and cannot afford to meet clearing requirements.²⁴⁷ Another concern relates to the margin and collateral requirements for

²⁴⁴ McBride, *supra* note 233.

²⁴⁵ Fin. Stability Bd, Implementing OTC Derivatives Market Reform (Oct. 25, 2010), <http://www.fsb.org/2010/10/fsb-report-on-implementing-otc-derivatives-market-reforms/> [<https://perma.cc/YZ82-VPSP>].

²⁴⁶ Darrell Duffie, *Policy Issues Facing the Market for Credit Derivatives*, in *THE ROAD AHEAD FOR THE FED* 107, 111-12 (John D. Ciorciari & John B. Taylor eds., 2009)

²⁴⁷ Letter from Nat'l Rural Util. Cooperative Fin. Corp., to David A. Stawick, Secretary of the Comm'n, CFTC (Jan. 12, 2011).

all uncleared derivatives, including end-users, as these requirements create additional costs for end-users that may be transferred to the consumer.²⁴⁸

One possible solution could be broadening the definition of “end-users” and requiring greater disclosure from these end-users, instead of imposing margin requirements on them.²⁴⁹ However, such a solution would still be incomplete. From the standpoint of regulating derivatives to lessen the level of systemic risk, both margin requirements and extensive disclosure are critically important and are not interchangeable, especially for counterparties that deal with each other bilaterally rather than through CCPs. What the regulators in both the US and EU could do is broaden the definition of “end-user” to include additional participants that meet a clearing threshold, i.e., something similar to what the EMIR does for the non-financial counterparties. But such a threshold has to be set only after accurate analysis of the market—anything else could produce a situation where many real “hedgers” will not fall under the exception due to the high volume of their derivatives trading. This is sometimes the case with the de minimis threshold set by the SEC and the CFTC, a problem that the regulators acknowledge.

Finally, it is very important to have an explicit end-user exemption as opposed to having an implied exception as in the European regulation, which excludes only non-financial counterparties below a clearing threshold. However, another issue that may arise is that of distinguishing hedging from speculating and trading, as in the real world the line between these practices could be very thin. It is very hard to find a “one size fits all” solution, as it seems that whether a party is hedging or not has to be determined on a case-by-case basis. Nevertheless, the regulators and, possibly, the courts can develop evidentiary factors that suggest hedging has taken place. Preliminarily, such factors could be the existence of commercial risk for the company without using derivatives, the dependence on the hedged underlier, and the intention of the company’s representatives involved in entering derivatives. Since the decision to engage in hedging is not made in a day, the company should have a

²⁴⁸ Katharine Rose, *Annuity Issuers Eye Dodd-Frank Act*, NAT’L UNDERWRITER/ LIFE & HEALTH FIN. SERV., Vol. 114 Issue 16, 12 (Aug. 23, 2010)

²⁴⁹ Carney Simpson, *Do End-Users Get the Best of Both Worlds? – Title VII of Dodd Frank and the End-User Exception*, 69 Wash. & Lee L. Rev. 1759, 1787 (2012).

hedging decision-making process reflected in many of its documents to be able to provide sufficient evidence and convince the regulators or the court that the real purpose of using derivatives was actually hedging.

3.2.4.3.2. Trade Execution

Requirements of trade execution in the US and the EU share core aspects. Trading on special platforms is required depending on whether there is a clearing obligation or not. Provided that the regulators will make only highly standardized derivatives subject to such obligation, trade requirements perfectly fit the overall intention of the derivatives regulation. Moreover, the existence of trading platforms additionally reduces transaction costs, as counterparties do not have to pay large fees to banks (which they would if they were negotiating the derivatives privately).²⁵⁰

It is also interesting to note the relationship between the mentioned platforms and exchanges. It may seem that the drafters of the legislation in the US (and EU as well) assumed most derivatives would be traded on exchanges. However, the special trading platforms have become the norm. The reasons for this could be the following. First, the legislators did not want to make the transfer of OTC derivatives from the “dark side” to transparency in too much of a coercive fashion, i.e., they established special platforms to make it smoother. Second, in my opinion the regulators still assume complete derivatives standardization in the future and, thus, consider such platforms as an interim stage before all derivatives move to exchanges. However, as explained further, it seems unlikely for individually tailored derivatives to disappear.

3.2.4.3.3. Reporting

In general, reporting requirements under the Dodd-Frank Act and the EMIR are rather similar. However, there is a minor difference that relates to the variations in treatment and obligations towards trade repositories. While the Dodd-Frank Act mandates reporting only for bilaterally cleared transactions (as the rest of the information is compiled and reported by CCPs), the EMIR requires

²⁵⁰ Skeel, *supra* note 236, at 69.

reporting by market participants of all open OTC derivative contracts. Nevertheless, both regulations are aimed at price transparency and thus have a great positive effect—namely, they eliminate the information asymmetry that existed in the past and therefore reduce information costs to market participants, in particular the end-users. Lastly, the reporting requirement serves as a great alternative means of making the uncleared transactions more transparent.

3.2.5. *Extraterritorial Application*

Because of the global nature of the derivatives market, regulations have some degree of extraterritorial reach to ensure that market actors do not use jurisdictional limitations to circumvent the intent of the regulations.

3.2.5.1. *United States*

The Dodd-Frank Act contains several provisions concerning extraterritorial application of the legislation. First, it authorizes the CFTC and the SEC, with certain exceptions, to prohibit an entity domiciled in a foreign country from participating in the US in any swap or security-based swap activities if the regulation of swaps or security-based swaps markets in a foreign country undermines the stability of the US financial system.²⁵¹ Moreover, it provides the CFTC with jurisdiction over activities outside of the US which either (1) have a “direct and significant connection with activities in, or effect on, commerce of the US,” or (2) contravene rules or regulations by the CFTC that are necessary or appropriate to prevent the evasion of its provisions.²⁵² The SEC has a similar authority regarding the security-based swaps, where it is “necessary or appropriate to prevent . . . evasion.”²⁵³

Under the authority granted to it by the Dodd-Frank Act, the CFTC issued the CFTC Cross-Border Guidance,²⁵⁴ which contains the proposed regulations for derivative transactions with non-US persons. The Guidance permits “substitute compliance” if the entity

²⁵¹ Dodd-Frank Wall Street Reform and Consumer Protection Act §715 (codified at 15 U.S.C. § 8304).

²⁵² *Id.* §722 (codified at 7 U.S.C. § 2).

²⁵³ *Id.* §772 (codified at 15 U.S.C. § 78dd).

²⁵⁴ Cross-Border Application of Certain Swaps Provisions of the Commodity Exchange Act, 77 Fed. Reg. 41, 214 (July 12, 2012).

complies with the requirements in its home country and the CFTC deems those requirements to be adequate – that is, comparable with the US rules and comprehensive.²⁵⁵ The CFTC has changed its proposal several times before issuing the final version,²⁵⁶ which is still not a final rule but only interpretive “guidance.” The SEC has also proposed rules for determining the extraterritorial application of rules governing security-based swaps.²⁵⁷

3.2.5.2. EU

The EMIR also contains several rules regarding extraterritorial application of its provisions. First, the clearing and risk-mitigation requirements apply to transactions between two entities established in one or more third countries that would be subject to the clearing obligation if they were established in the EU, provided that the contract has a direct, substantial and foreseeable effect within the EU or where such obligation is necessary or appropriate to prevent the evasion of any provisions of the EMIR.²⁵⁸

The ESMA must develop draft regulatory and technical standards that specify which types of contracts are considered to have a direct, substantial and foreseeable effect within the EU or in which cases extraterritorial application is necessary or appropriate to prevent the evasion of any provision of the EMIR.²⁵⁹ Under the current

²⁵⁵ Generally, the Guidance considers 4 categories of persons: (1) US Persons; (2) Non-US Persons; (3) Non-US Persons guaranteed by US Persons; (4) Non-US Persons that are “conduit affiliates” of US Persons. Certain considerations apply to bank branches and to non-US persons with agents or employees who act from within the United States. Regulatory requirements are categorized as “Entity-Level Requirements” and “Transaction-Level Requirements” for purposes of determining application and whether “substituted compliance” may be available.

²⁵⁶ Interpretive Guidance and Policy Statement Regarding Compliance with Certain Swap Regulations, 78 Fed. Reg. 45, 292 (July 26, 2013).

²⁵⁷ Exchange Act Release No. 34-69490 (“Cross-Border Security-Based Swap Activities; Re-Proposal of Regulation SBSR and Certain Rules and Forms Relating to the Registration of Security-Based Swap Dealers and Major Security-Based Swap Participants”), 78 Fed. Reg. 100, 968, 976 (May 23, 2013).

²⁵⁸ See EMIR, *supra* note 136, art. 4(1)(a)(v); see also EMIR, *supra* note 136, art. 11(12).

²⁵⁹ See EMIR, *supra* note 136, art. 4(4); see also EMIR, *supra* note 136, art. 11(14)(e).

version of its standards,²⁶⁰ the ESMA identifies the following categories of such transactions: (1) where at least one counterparty is a third country entity benefiting from a guarantee provided by an EU financial counterparty;²⁶¹ (2) where the two counterparties enter into the OTC derivative contract via their branches in the EU;²⁶² (3) where the primary purpose of the contract is to avoid or abuse application of the EMIR.²⁶³ However, as in the case with the CFTC's "guidance", these are not final rules.

Moreover, transactions between a financial counterparty or a non-financial counterparty above the clearing threshold and a third country entity that would be subject to the clearing obligation if it were established in the EU are also subject to the clearing obligation under the EMIR.²⁶⁴

Finally, a CCP established in a third country may provide clearing services to clearing members or trading venues established in the EU only if it is recognized by ESMA.²⁶⁵

3.2.5.3. *US vs. EU*

The extraterritorial provisions of the Dodd-Frank Act and the EMIR are substantially similar in that they allow regulatory agencies to assert jurisdiction if the contract has a domestic effect or if the contract is an attempt to evade a regulation.

²⁶⁰ ESMA, Draft Regulatory Technical Standards on contracts having a direct, substantial and foreseeable effect within the Union and non-evasion of provisions of EMIR (July 17, 2013), https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-892_draft_rts_of_emir.pdf [<https://perma.cc/8DKJ-6M4K>].

²⁶¹ *See id.* at 23 (covering all or part of liability resulting from the OTC derivative contract, to the extent that the guarantee meets certain conditions).

²⁶² *See id.* at 24 (noting the contracts with a direct, substantial or foreseeable effect within the EU).

²⁶³ *See id.* at 24 (discussing when a contract is a part of an artificial arrangement with the primary purpose to defeat the object, spirit or purpose of any provision of the EMIR. This is determined by the ESMA as the case where it is necessary to prevent the evasion of the EMIR.)

²⁶⁴ *See* EMIR, *supra* note 136, art. 4(1)(a)(iv) (stating that "between a financial counterparty or a non-financial counterparty meeting the conditions referred to in Article 10(1)(b) and an entity established in a third country that would be subject to the clearing obligation if it were established in the Union").

²⁶⁵ *Id.* art. 25(1).

The advantage of both the Dodd-Frank and EMIR extraterritoriality provisions is that the regulatory authorities can have extraordinary jurisdictional reach over any transaction that involves a US or EU entity. Given the global nature of the OTC derivatives market, broad extraterritorial jurisdiction may be necessary to ensure that the participants in the market do not develop approaches to undermine the intent of national regulations. Moreover, as both regulations are aimed at reducing systemic risk, obviously, it is necessary to regulate not only the national market participants but also their foreign counterparties,²⁶⁶ taking into account the aforementioned interconnectedness factor. Besides, in the absence of extraterritorial provisions other countries would be incentivized to provide an unregulated environment to attract the derivatives participants.

However, the disadvantage of the approach is that it is likely to have a chilling effect, i.e., it will discourage some foreign counterparties from doing business with US or EU entities or to engage in transactions that could affect US or EU interests. In addition, excessive regulatory eagerness could encourage regulatory arbitrage—i.e., drive global businesses toward jurisdictions that are clearly beyond the reach of the US and the EU.

Another disadvantage of the extraterritorial provisions in the US and EU efforts at regulating the OTC derivatives market is the probability of the lack of harmonization in the regulations, even though the CFTC and the European Commission issued a joint statement indicating that “[they] will not seek to apply our rules (unreasonably) in the other jurisdiction, but will rely on the application and enforcement of the rules by the other jurisdiction.”²⁶⁷ While the EU and the US have not yet promulgated their final rules, from the proposals issued by the relevant regulators it is likely that they will contain substantial differences as, for instance, the CFTC’s “guidance” seems much more detailed and complicated in comparison with the ESMA’s straightforward and concise approach. As a result, OTC derivatives counterparties doing business in both jurisdictions may

²⁶⁶ John C. Coffee, Jr., *Extraterritorial Financial Regulation: Why E.T. Can't Come Home*, 99 CORNELL L. REV. 1259, 1260 (2014).

²⁶⁷ Press Release, CFTC and European Commission, The European Commission and the CFTC reach a Common Path Forward on Derivatives (July 11, 2013), <http://www.cftc.gov/PressRoom/PressReleases/pr6640-13> [<https://perma.cc/M6L7-PJWV>].

have to comply with two sets of regulations, which could substantially increase transaction costs.

Thus, one of the main issues regarding extraterritorial application relates to the harmonization of different national regulations, as most of derivatives transactions take place across borders. It is particularly important to coordinate the implementation of the OTC derivatives market reforms. Identified problems regulating cross-border transactions include the need to comply with various regulatory regimes and the lack of proper coordination in the application of regulation. In some jurisdictions the same type of requirements apply differently, which increases uncertainty for market participants. To solve the cross-border issues related to overlapping cross-border regulatory regimes and regulatory arbitrage, the OTC Derivatives Regulators Group (ODRG) was created by G20 leaders in 2011. However, it has not reached significant progress yet.

3.2.6. *Closing Word on US and EU*

After analyzing the European and American regulations on OTC derivatives, it is reasonable to conclude that both countries have taken significant actions towards increasing the transparency and mitigating the risk of operations in the OTC market. However, the US legislation seems a little more concrete, meaning detailed, or even constructive. This may be explained by first, that the American market suffered much more severely during the crisis of 2008 from the OTC transactions, and, second, that the legislative process in the EU is interfaced to the big bureaucratic procedures connected with interstate coordination. On the other hand, the European approach is less fragmented and therefore more comprehensive, which is partially due to the absence of any previous OTC derivatives regulation.

Despite differences in approaches to regulation in the US and Europe, the general principles of the derivatives market infrastructure development and the conclusion of the OTC transactions are very similar. The main common features determined by the specified acts are the following: (1) centralized clearing of the OTC instruments; (2) orientation towards higher standardization of derivatives; (3) OTC derivatives trade standardized on special electronic platforms; and (4) increased transparency through extensive reporting requirements. In fact, all four main G20 recommendations were

adopted in the US and the EU with changes not only in the regulation of OTC derivatives as instruments, but also in their market infrastructure.

Nonetheless, there are still a lot of specific rules to be determined by the regulators in the near future. Moreover, the regulators have to identify and resolve cross-border issues associated with implementation of the regulations. Additionally, a certain period of time is necessary to observe how efficient the regulations are. Hence, it is still very early to make any definitive conclusions.

3.3. Model Regulatory Framework

The previous sections of this Article gave an overview of derivatives and discussed their role in the financial crisis of 2008, explained the current regulatory regimes in the US and the EU for OTC derivatives, and, through a comparative analysis of the two regimes, identified the advantages and disadvantages of each. This section develops a high-level Model Regulatory Framework for the regulation of OTC derivatives based on the regulatory regimes in the US and the EU.

A model regulatory framework for OTC derivatives should encompass the basic elements necessary to achieve the core intended goal of regulation, which is to reduce the various mentioned risks in the OTC market. It is necessary to ensure that jurisdictions do not approach the regulation of OTC derivatives in a piecemeal fashion, which could be counterproductive to the intended goal of regulation. The Model Regulatory Framework can provide guidance concerning the elements that should be incorporated into regulations for the OTC derivatives market.

3.3.1. Purpose of Regulation

Before designing and discussing each area of the Model Regulatory Framework, it is necessary to outline the purpose of OTC derivatives regulation and make certain assumptions regarding current trends of the OTC market.

The purpose of the OTC derivative regulations should be to develop an OTC market that has a registry and clearing requirements. Such a market would be a preparatory step to a unified exchange market for most derivatives including swaps, the creation of which would eliminate the various risks connected with the unregulated

derivatives market in the past, such as the transparency and counterparty risks and would reduce overall systemic risk.

The derivatives market can have many different structures and would be characterized by the presence or absence of central clearing and trading requirements. The simplest structure is an OTC market, in which the counterparties deal directly with each other through bilateral negotiations. In this type of market, the trades generally take place between large, well-capitalized firms that desire to maximize flexibility in their ability to craft a customized derivative contract to meet their specific needs. The parties to the agreement set the collateral and margin requirements. Lacking a registry and clearing requirements, this market, however, has a high level of counterparty risk and is very opaque to regulators unable to identify abuses or fraudulent practices.

In the OTC clearinghouse market, transactions are made through a central counterparty and mostly with standardized contracts. There is little counterparty risk, with continuous and consistent mark-to-market valuation of positions and collateral. There is, obviously, more transparency in a CCP market with daily settlement prices available to the public. Regulators can much more easily and consistently monitor transactions in the CCP market and can set some criteria for the operation of the CCP. Subsequently, the exchange market, where most of the derivatives are traded after being cleared, also offers the greatest amount of counterparty protection and can accommodate the needs of retail traders.

The underlying assumption in developing a model for regulation is that the global financial market for derivatives is trending toward an exchange market in which derivative contracts are standardized, pricing is conducted constantly, and there is sufficient transparency so all market participants are aware of the market conditions, especially pricing. Based on this assumption, some of the key elements are: standardized derivative instruments, responsibility for regulatory oversight of the market and institutions such as CCPs, and explicit provisions for central banks to provide emergency liquidity for key market participants in the event of a severe market downturn or collapse. The development of a CCP system is significant because there is also a necessity in an exchange market to reduce counterparty risk. The Model Framework for derivative regulation should also assume that global trading in derivatives may require a harmonized framework in major jurisdictions such as the

US and the EU to ensure that even large well-established firms are required to use CCPs to minimize risk of default. As a result, developing a CCP market for derivatives is a preliminary step for moving the derivative markets towards an exchange market.

At the same time, the Model Framework should accept the premise that not all derivatives should be subject to standardization because counterparties want to tailor the terms of their derivatives contract to their specific needs. The terms of many derivatives and particularly the terms of swaps have to be determined by the parties to ensure that it meets their specific purposes. The Model Framework should acknowledge the need for certain market participants to use customized derivative instruments should there be a legitimate business reason for not using a standardized instrument. Thus, the Model Framework should offer the highly customized derivatives some kind of alternative to clearing and exchange trading.

3.3.2. *Single Regulatory Authority*

The grant of oversight authority to a single regulatory agency would lead to greater efficiency in oversight and in the administration of regulations concerning OTC derivatives markets for many reasons.

First, the logic that lies behind having a single regulatory agency is that uniformity and consistency are necessary in the regulation of instruments that have the same economic function. Additionally, it reduces transaction costs for the regulated entities because they have to meet the requirements established by only one regulatory agency. In addition, there is less likelihood that the regulated participants will have to suffer from the uncertainty of conflicting regulations, confusion and a fragmented regulatory framework when only one agency is responsible for regulating activity related to OTC derivatives markets. Finally, another rationale for granting authority to a single agency is to prevent the development of interagency rivalry and further emphasize the boundaries between agencies that could impede effective regulation of the derivatives market.²⁶⁸ Thus, the regulatory approach should be intended to reduce any ambiguity and confusion that can arise from the attempt by multiple agencies to regulate the same market.

²⁶⁸ Michael W. Taylor, *The Road from "Twin Peaks" – And the Way Back*, 16 CONN. INS. L. J. 61, 74 (2009).

However, it shall be noted that, apart from a single and central regulatory agency, certain other governmental authorities, in particular the central bank, need to be empowered to monitor the derivatives market and provide their opinions in the form of consultation, as is currently the case to some degree in the US and more explicitly in the EU. This is important as the derivatives market involves huge financial institutions, and various banking instruments serve as underliers of the derivatives themselves.

A potential disadvantage of using a single regulatory agency is the possibility of regulatory capture by the entities that the agency is intended to regulate. That is, there is the risk that the single regulatory agency will act in favor of the commercial or special interests that dominate the industry instead of holding them accountable for the public interest.²⁶⁹ To protect against regulatory capture, legislation should include provisions ensuring that regulators keep the balance between the interests of the public and the regulated financial industry. The agency and its officials should be independent of the political process to reduce the possibility of such a regulatory capture. As fairly noted by Stavros Gadinis,²⁷⁰ there are two major justifications for having an agency of independent bureaucrats: (1) such experts, being dispassionate, make decisions based solely on scientific evidence; (2) due to the absence of their interest in winning elections every few years, they set and focus on long-term goals.

Finally, another aspect regarding the regulatory agency is its powers to establish and implement rules. Certainly, the agency has to be authorized to issue such rules as the derivatives market and the national and global economy change; the regulator is in a much better position to follow their dynamic and promptly react to any such changes than parliament or Congress in the case of the US. Moreover, after the regulation is adopted and becomes effective, certain clarifications may be required upon its enforcement in practice. Again in this case the regulator seems to be the most competent and immediate arbiter that is most able to maintain stability in the market, even more so than the courts. However, the extent to which the

²⁶⁹ Jonathan R. Macey, *Organizational Design and Political Control of Administrative Agencies*, 6 J. L. ECON. & ORG. 93, 94 (1992).

²⁷⁰ Stavros Gadinis, *From Independence to Politics in Financial Regulation*, 101 CAL. L. REV. 327, 339 (2013).

regulator may effectively provide such clarifications through new rules may be different and depend on a concrete situation in a specific country as explicitly shown in the example of the US and the EU. In a single country, the authority of the regulator can be rather broad, whereas on a multinational level, it seems better to make it more limited to maintain uniformity, despite the slowing down of the speed of regulatory actions. Nevertheless, in general, the core aspects shall be provided by the regulation/statute with the availability of a regulatory agency to further determine them without making significant changes.

3.3.3. *One Definition for All Instruments*

To create a harmonized framework for derivatives, a comprehensive definition of derivatives as well as of OTC derivatives is necessary, as opposed to having several different types of derivatives based on the underliers. As discussed in the previous section of this Part, the focus shall be on the economic function of the instruments rather than on the type of their underlying assets. Obviously, this additionally justifies the existence of a single regulatory authority as the same type of instrument, e.g., CDS and a single-name CDS, should be regulated in the same manner.

The definition of derivatives has to be rather broad, on the one hand, but should also outline certain limits and specify the types of the regulated instruments. It should not provide an enumerated, exhaustive list, so as not to create confusion for the market participants. The purpose of broad regulatory provisions concerning covered instruments is to facilitate the possibility of the financial industry developing new types of exotic derivatives in the future. Therefore, the regulatory agency has to be enabled to determine the exact scope of the covered derivatives and constantly update it. To reduce the risk of any confusion and second-guessing, the regulation could also explicitly determine the instruments that are not covered instead of attempting to exclude them by simply not listing them in the derivatives definition.

Lastly, as to the statutory language, the terms defined in the regulation have to be very close to those used in the market and finance practices. More precisely, the classic conservative terms "derivative" and "OTC derivative" seem to be the most appropriate ones.

Thus, an effective regulation should create as much certainty as possible in terms of the covered instruments for the market participants.

3.3.4. *Two-Level Parties Classification*

The focus of the regulation should be on covering transactions with all persons participating in the derivatives market generally, regardless of the instrument type. In other words, the parties have to be covered on something other than a “product-by-product” basis. This will ensure both avoidance of any fragmentation issues and coverage of all derivatives trading participants.

However, a certain division of the covered parties is necessary, and not just simply on one level. First, such distinction has to be based on the nature of the parties’ activities, i.e. financial and non-financial. Non-financial activities that satisfy threshold requirements should be exempt from mandatory central clearing. The regulation should use the concept of “non-financial party” and clearly define this concept. The definition should specifically indicate that it applies only to entities that do not conduct business in the financial industry. Moreover, on the next level, the financial counterparties most actively involved in the derivatives trading—i.e. “rainmakers”—should be classified as dealers or major participants,²⁷¹ depending on their roles. These parties should be required to register with the regulatory agency tasked with determining the criteria of such dealers or major participants. The two-level classification of the derivatives market participants seems to be the most appropriate as it both provides special treatment to big players and creates a basis for exempting the least significant ones.

Finally, the model regulation should avoid specific provisions regarding derivatives trading by banks like the Volcker and Push-Out Rules.²⁷² One reason for that is the previously mentioned fair points of criticism including the fact that excessive market risk via speculative trades is important to the derivatives market as speculators represent a source of liquidity. Certainly, the attempt of preventing banks from taking such risks could protect taxpayers from massive bailouts like in 2008 and move risky derivatives trades into

²⁷¹ Using the language of the Dodd-Frank Act to make it clearer.

²⁷² In its original version before the amendment.

more diverse framework.²⁷³ However, this seems more like banking rather than derivatives regulation.

3.3.5. Plain Vanilla Clearing

The key aspects of any regulation regarding the clearing requirement are: (1) instruments subject to clearing; and (2) manner of CCPs' operation.

In the Model Regulatory Framework, only "plain vanilla" derivatives – i.e., highly standard ones, have to be subject to the mandatory clearing requirements, as the regulation should be an initial step towards the smooth standardization of most instruments. This will also solve the issue of "lost" bilateral netting opportunities in cases where all instruments are subject to clearing, as now the parties can reduce the counterparty net exposure by clearing their customized instruments bilaterally. Thus, the regulator should be authorized to constantly analyze the market and consider the level of standardization, trade volume, and other factors when defining derivatives to be cleared. Moreover, the regulatory agency should encourage standardization of the instruments, but not in a coercive way. It is very important to keep in mind that due to their main economic function, i.e., hedging, absolute derivatives standardization is infeasible. An example of such non-coercive encouragement could be relatively lower margin or collateral requirements for the cleared instruments, which would reduce transaction costs. However, in certain extreme cases, it seems possible to partially apply the aforementioned method of derivatives treatment suggested by Lynn Stout, but in a slightly modified way. For instance, derivatives with a notional amount above a specified threshold that are created solely for speculation purposes may be deemed unenforceable unless they are cleared through a CCP and traded on a trade execution facility, provided that clearing and trading for such contracts are available. Certainly, such a provision needs careful consideration and has to be implemented via clear statutory language in order to prevent any confusion, ambiguity, or unintended consequences. Besides, the regulation should contain margin and collateral requirements for all uncleared instruments to reduce the counterparty exposure risks.

²⁷³ Krippel, *supra* note 191, at 286.

The regulation should also have an explicit and rather detailed end-user exemption. An effective approach would be to exempt both commercial enterprises engaged in hedging and non-financial parties who meet a certain clearing threshold. Put simply, there should be a relatively broad end-user definition that includes various participants and sets up a clearing threshold for them. In practice, the regulation would allow commercial risk hedging when a specific size or duration of the derivative contract is not available in a standardized form on the exchange market. The notional amount of the contract, however, must be below a threshold amount, above which the transaction would no longer be exempt. Covering large hedging contracts makes the size of the OTC derivative market under regulation larger. At the same time, the exception reduces the possibility that the cost of compliance with the regulation will have a chilling or discouraging effect on the hedging activities of smaller businesses. In addition, covering large hedging contracts in the regulation reduces the possibility of using derivatives as a means of speculation rather than hedging. The regulation should also specify the hedging requirements. As mentioned earlier, these requirements could be: (1) existence of commercial risk for the company without using derivatives; (2) dependence on the hedged underlier; (3) intention of the company's executives responsible for entering derivatives.

The justification of having special entities exercising the clearing, i.e., CCPs, was provided in the previous sections when comparing the regimes in the US and the EU. However, the regulator should try to prevent the emergence of multiple clearing houses and should be authorized to set high requirements for them. Otherwise, this could lead to a race to the bottom when multiple CCPs compete with each other in different ways, for instance by lowering their standards.²⁷⁴ Moreover, the existence of numerous CCPs will lead to the clearance of derivatives between the same parties by different clearinghouses that will, eventually, decrease the efficiency of obligations netting.²⁷⁵ However, as a countermeasure, interoperability of clearing houses could be authorized, i.e., netting from one CCP to another. This would allow to net obligations all over the market, similar to the case before the regulation, but through a safe CCP system.

²⁷⁴ Skeel, *supra* note 236, at 73.

²⁷⁵ *Id.*

The regulation should also require CCPs to set adequate margin and collateral standards to reduce counterparty risk. Finally, the Model Regulatory Framework has to address the concern that the regulator and CCPs are incapable of appropriately managing risks solely on their own as they do not have the necessary funds and resources to analyze the complex market in a proper way.²⁷⁶ For instance, there could be a special committee with major market players that can, based on the market players' research, keep the regulatory agency and/or CCPs informed on the main issues arising in the derivatives market.

3.3.6. OTC Register

The concept of the register is rather simple and straightforward. It is a database of all OTC derivatives transactions. This would be a great support for the regulators to monitor the market conditions, identify risks and immediately react to the existing issues. Moreover, such a register could be of substantial aid for market participants to adequately assess the situation in the market. More detailed application of such a register is given further.

First, the regulator should establish a public register in order to identify the classes of OTC derivatives subject to the clearing obligation, the list of authorized CCPs, and the trade repositories and execution facilities. Second, counterparties and/or CCPs should report the details of any derivative contract (either cleared or not) they have concluded and further modifications or termination of that contract to a trade repository, or, in the absence of one, to the regulator. Moreover, the counterparties or CCPs should also report on the performance status of the transactions, i.e., whether the obligations are fulfilled. This will enable the regulator to identify potential risky market participants, especially in the case of uncleared transactions. Trade repositories or the regulator will then publish aggregate positions by class of derivatives on the contracts reported to them.

Thus, the specific details of each transaction, i.e., parties names, notional amount and term, are not disclosed to public and known only by the regulator, who can constantly monitor the market conditions and immediately step in as needed. However, CCPs and

²⁷⁶ McNamara, *supra* note 235, at 258.

trade execution facilities should also be enabled to request such specific information by making a justified inquiry to the regulator.

For example, a CCP or a trade execution facility may really need details of an uncleared OTC transaction in order to set margin requirements for counterparties who have a poor record of fulfilling their obligation under uncleared transactions.

3.3.7. *Mutual Recognition*

Extraterritoriality issues have to be addressed in the regulation. However, the “substituted compliance” method, which is used when a domestic regulator examines requirements of foreign regulatory regimes and determines their comparability and equivalence to the domestic regulation, does not seem to be a very efficient approach, as such determinations are made unilaterally and on a case-by-case basis.

Instead, we suggest choosing one of the following ways of dealing with the cross-border issues, all based on mutual recognition principle. This principle holds that countries work together and the whole regime is subject to such recognition. First, the countries where the majority of the derivatives trade is executed (e.g., the US and the EU) can together determine, in a form of a published guidance, the requirements for recognizing another regulatory framework as equivalent to theirs.²⁷⁷ This would give other countries that have yet to adopt relevant laws an idea on how to structure their regulation in order to join the guidance and would lead to global harmonization.²⁷⁸ Alternatively, several countries significant in terms of derivatives trading (or even all G20 countries) may develop and sign an international treaty setting up the minimum requirements for national derivatives regulation. Additionally, the countries that are members to the treaty or have joined the guidance may agree on the establishment of multinational clearinghouses and trade execution facilities for cross-border transactions. The critical factor in implementing the suggested options is speed—the rules should be promptly developed before other countries adopt their own regulations.

²⁷⁷ Coffee, *supra* note 267, at 1288.

²⁷⁸ *Id.*

3.3.8. Emerging Markets Disclaimer

It shall be noted that the suggested Model Regulatory Framework is most appropriate for countries that have a well-established and developed derivatives market. To implement this model in emerging markets, certain adjustments have to be made. First of all, in terms of implementation timeframe, not all regulatory instruments, i.e., clearing, reporting, and trading, have to be introduced at once. The legislatures should acknowledge that any regulation should slightly anticipate but not be far in advance of the economic relations subject to regulation. In other words, the derivatives market in a specific country should essentially mature to the point when it needs to be regulated. Otherwise, heavy regulation of an emerging market can slow down or even prevent its further development, as implementing various regulatory mechanisms at once in an underdeveloped market could create significant transaction burdens and costs for the market participants. Thus, the regulation should be implemented step-by-step after careful analysis of the market conditions on the need of a particular regulatory instrument.

However, what a legislature in an emerging market can start with and what should be the first step of implementing the Model Regulatory Framework is to set up a general legal framework by adopting rules defining the derivatives. This would create a basis for the future regulation and serve as a signal for the market participants. Another thing that can be done immediately, even in an emerging market, is adopting reporting requirements for all OTC transactions in order to create an OTC derivatives database. This would, first, enable the regulator to monitor the market regularly and identify the necessity for its further regulation. Moreover, having data on all OTC transactions helps to analyze the market conditions in order to tailor the new rules, e.g., clearing or trading requirements, to the current market conditions and prevent overregulation.

Depending on the market development dynamics, the legislature could either implement the remaining parts of the Model Regulatory Framework as a next phase of regulation or take the following intermediary step. If the market develops not as rapidly as the European and American markets did, it is worth adopting rules dividing market participants, but only on a single level as opposed to the two-level structure suggested by the model framework. In other words, the market participants have to be split up between financial

and non-financial counterparties. Furthermore, as part of the intermediary phase, clearing and trading requirements could be imposed on financial parties in a so-called test run mode, i.e., clearing would be voluntary, so that the regulator can identify the most appropriate clearing and trading requirements. Once the OTC market becomes developed enough, the model framework may be implemented in full, but again with certain adjustment due to the concrete market specifics.

4. CONCLUSION

Over the past several decades, derivatives have become a major factor in global financial markets. Investors use derivatives to hedge against changes in the value of the underlying asset or to speculate on movements in its price. The importance of the derivatives for these functions has significantly increased as global financial markets move towards greater integration. At the same time, the increased interest in derivatives has led to the development of new types of instruments and practices such as CDSs, which market participants use as a means of transferring some of the risk of default of the underlying instrument. Moreover, as almost completely unregulated instruments, OTC derivatives have certain inherent risks.

The rapid growth of the derivative markets as well as the prominent role that derivatives played in the financial crisis of 2008 have created pressure on governments to give regulators greater power to supervise and control the OTC derivative market. For exactly this reason, a lot of attention in recent years in the US and the EU was paid to the regulation of the financial markets. Ambitious regulations adopted by the EU and the US have not yet yielded expected results. The Dodd-Frank Act in the US and the EMIR in the EU are the first substantial step to regulating the OTC derivatives market. Prior to the enactment of the legislation, there were significant gaps in the ability of the regulatory agencies in the jurisdictions to monitor, oversee and effectively regulate the operation of the non-standardized OTC derivatives market. The legislation has increased transparency in the market by requiring the use of data trade repositories. It also, at least theoretically, has reduced systemic risk by establishing the authority to regulate CCPs and the counterparty risk through the adoption of clearing and trading requirements.

Despite the similarities between the Dodd-Frank Act and the EMIR, there remain many points of distinction that set up separate regulatory regimes of the OTC derivatives market. Many of the differences are due to the variation in the historical development of financial regulation in both jurisdictions. In addition, there is still uncertainty whether the regulatory frameworks adopted by the US and the EU will be effective in solving the issues caused by derivatives in the marketplace and for reducing some of the inherent risks of using derivatives. It is also not clear whether the differences in regulatory requirements will create additional burdens on the operation of the OTC derivatives markets. Apparently, we have to wait until the regulation in both jurisdictions is fully implemented and established with all additional rules and technical standards in order to see how efficiently it operates in practice.

Relying on the suggested Model Regulatory Framework can be useful for harmonizing the various regulatory approaches used in different jurisdictions such as the US and the EU. The Model Framework can adopt the strengths of the various approaches in regulating the OTC derivative market while eliminating many of the drawbacks. The Model Regulatory Framework can also serve as a guide for developing a regulatory approach to the OTC derivatives market in jurisdictions that have not yet adopted their own regulations. However, it shall be implemented with certain adjustments in emerging markets. Over the long run, the use of the Model Regulatory Framework can serve as a support tool for coordinating and implementing a global regulatory regime that will reduce risk in the OTC derivatives market and move most of the derivatives industry towards greater reliance, transparency and safety on a standardized exchange market.