Regulation of the OTC Derivatives Market: a Regulatory Proposal of CDS

Erik Welin
Sacred Heart University, welin@eib.org

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Regulation of the OTC Derivatives Market

- A Regulatory Proposal of CDS

By Erik Welin

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Professor: Lucjan T. Orlowski, Ph.D

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Introduction

The market for derivatives and especially OTC derivatives has increased tremendously over the last decade (see figure 1). This development has mostly been driven by the increase in interest rate, FX, and credit derivatives. This is also reflected in the gross market value of these derivatives (see figure 2). However, according to many commentators, the credit derivatives and especially CDS have been a leading cause to the development of the current financial crisis. For example the collapse of AIG, Lehman Brothers, and the financial turmoil these events caused can be derived from losses on CDS. During the last year, policy makers, regulators, and other commentators around the world have therefore focused their attention on how to regulate OTC derivatives and especially CDS.¹

Figure 1

![Figure 1](source)

Figure 2

![Figure 2](source)

¹ BIS (2009), Stout (2009) and O’Harrow & Dennis (2008).
Background and Purpose

The devastating effect OTC derivatives have had on the economy is by many commentators ascribed to the general financial deregulation during the end of the 20th century and early 21st century. As a result of the lax regulation of financial institutions and OTC derivatives, the market for CDS exploded during mid-2000 and the notional value of all CDS was twice the amount of global debt issuance during some years (see figure 3). This is of course remarkable at first sight since a CDS is in essence insurance on the default of the underlying bond or index. However, such a comparison is false since the notional amount of debt will eventually be exchange, while the notional amount of CDS is not intended to be exchanged and can instead be considered as a multiplier or leverage of the insurance. This relationship has deceived many commentators and policy maker. However, the gross market value of CDS is on the other hand highly relevant since this could or would eventually be exchanged. The gross market value of more than five trillion USD is of course highly alarming since financial institutions suffering losses of only a small fraction of this amount are at risk of default. This is highly troublesome for regulators since default of financial institutions posses a systemic risk to the whole economy.²

With this background, the purpose of this paper is to analyze some of the proposed regulatory responses to OTC derivatives and especially CDS from an economic point of view. The paper will also propose a twofold regulatory response.

Figure 3

Recent Regulatory Responses

Ever since the deregulation of financial market during the end of the 20th century and early 21st century, commentators have argued for the regulation of OTC derivatives and warned about the systemic risk they pose. These commentators have now of course received increased recognition.

As a response to the financial crisis and the discussed remedies, the Obama administration has proposed a number of regulatory responses relating to OTC derivatives during spring and

summer 2009. The proposals are currently discussed by the House of Representatives. Major parts of the proposals are the following:\(^3\):

- Regulated central counterparties for all “standardized” OTC derivatives with central clearing, robust margin requirements and risk control. I.e. “standardized” OTC derivatives would move to regulated exchanges and electronic trading systems.
- Customization of OTC derivatives solely as a method to avoid central clearing would be prohibited.
- In order to improve transparency and efficiency, regulators (i.e. CFTC and SEC) would have access to comprehensive and timely information regarding the trading position of each and every participant in all OTC derivatives markets.
- Tighten regulation and supervision by CFTC and SEC to police fraud, market manipulation, and other market abuse.

Another regulatory response has been to regulate so called “non-naked” CDS\(^4\) in accordance with insurance regulation. This is the response of the state of New York and this regulatory oversight begun in January 2009 by the NYSID. The reasoning behind this regulatory response is that non-naked CDS closely resemble traditional insurance contracts. Since insurance is regulated on state level in the US, New York Governor Paterson could enact this regulation. Non-naked CDS might in fact meet or not meet the definition for the “insurable interest requirement” of the New York insurance law. However, the logic behind treating this as insurance can be highly questioned on two grounds. First, separating the regulation of non-naked CDS from naked CDS fragments the regulatory framework. Further, trying to regulate the globally innovative CDS market where financial engineering can and will blur the line between what is a non-naked CDS and what is a synthetic non-naked CDS will be difficult. Secondly, regulating non-naked CDS on a state level will create growing complexities for the CDS market participants and impede mutual beneficial transactions. This is therefore a questionable regulatory response.\(^5\)

In the EU, the European Commission (EC) has during summer and autumn of this year specified their proposal for regulation of the OTC market. When looking at their proposal it’s apparent that many of the regulatory responses resemble the proposals by the US Treasury Department. The main point of the EC’s proposal is centralized counterparty clearing for “standardized” contracts. The reasons are that this reduces the counterparty risk as well as increases the transparency and liquidity. The EC recognizes the fact that central clearing is impossible for all OTC derivatives and therefore intends to make it more expensive to do bilateral trading of OTC derivatives. The EC further intends to improve product and market standardization, strengthen bilateral collateral management, and ensure central storage of contract details.\(^6\)

The term “standardization”, which is a central theme of both the US Treasury Department’s and EC’s proposals, is still not defined by the regulators. The EC even admits that this is still a big challenge even after having gone through a thorough consultation process with market participants. This is in fact very understandable. The reason is that OTC derivatives are almost per definition non-standard. In fact, one of the major differences between OTC


\(^4\) Non-naked CDS refers to a CDS in which the buyer owns the underlying bond or asset that the CDS is designed to insure. This can be compared with a naked CDS where the buy of insurance doesn’t hold the underlying bond or asset.


\(^6\) The EC (2009a), the EC (2009b) and Tait (2009).
derivatives and exchange traded derivatives is that market participants are able to tailor the derivative instruments according to their own individual needs. Having said this, it should also be clear that OTC derivatives and CDS can be standardized. This has also happened following a self-regulatory initiative by the trade association ISDA (the International Swaps and Derivatives Association) on April 7, 2009. ISDA then launched the so called big-bang protocol which brought about several changes in order to standardize North American CDS. The main changes in terms of standardization would be standard fixed coupons (100bps or 500bps), standard coupon dates and accrual dates, standard effective dates and auction settlement after a default or credit event (so called auction hardwiring).  

The big bang clearly simplified the trading of CDS and as a response to this the so called small bang protocol was launched on July 14, 2009 for European CDS. This protocol standardized the CDS market just like the big bang. However, the standard fixed coupons are more varied and the European CDS still include restructuring events (i.e. no auction hardwiring). In conclusion, both North American CDS and European CDS have been greatly standardized with improved transparency and standardization. However, they are far from identical and the global market therefore remains fragmented. What is equally important to understand is that these protocols are not mandatory and market participants still trade CDS that doesn’t follow the standardizations. However, a very positive development in accordance with the proposals of the US Treasury Department and the EC is that IntercontinentalExchange (ICE) has started to operate as a central clearing house and clears some CDS.

**Regulation from an Economic Point of View**

Following the policy maker’s urgency for tighter regulation of OTC derivatives and the markets participants’ recent responses it’s natural to investigate why we are in this situation. As mentioned before, a number of financial deregulations came into effect during the end of the 20th century and early 21st century. One major thing was the overriding of the long time common law “rule against difference contracts” in the US and UK. This rule had the effect of allowing any type of derivatives contracts, but didn’t enforce speculative derivatives wagers. This rule, dating back centuries, put the burden of proof on the contracting parties to prove that this wager was in fact a natural hedge for one of the parties in order to have the wager legally enforced. Since the legal enforcement of wagers was uncertain, speculators took different counter actions. The speculators’ solutions were often to set up private exchange with requirements on membership, margins, netting and a number of other mechanisms in order to ensure that speculative traders would make good on their legally unenforceable contractual promise. For OTC derivatives, this created a very strong incentive to know your counterparty and put in place rigorous mechanism in order to ensure that the counterparty made good on their contract. When this common-law rule was replaced by the Financial Services Act of 1986 in the UK and the Commodity Futures Modernization Act of 2000 in the US, all derivatives contracts became legally enforceable. The market for OTC derivatives consequently six folded during following seven years (see figure 1).

The economic rationale for this shift in law was that speculation wasn’t necessarily seen as negative by many economists and policy makers, in fact, it was even seen as positive by many. The basis for this is that conventional economic wisdom holds that speculation is

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8 Markit (2009b), ISDA (2009c), Reuters (2009a), Reuters (2009b) and Reuters (2009c),
economically beneficial for two main reasons. First, speculation transfers risk away from risk-averse parties (hedgers) to speculators who accept more risk in return for a higher potential profit. This is the so called risk hedging theory and can also be put in relationship to insurance theory and pooling of risk theory. The second argument is the so called information arbitrage argument which posits that speculators who invest in predictive information will allow them to trade at an advantage compared to less informed parties. Both theories hold that speculation increased welfare for on the one hand the trading parties (risk hedging) and on the other hand the general public by improving the accuracy of market prices (information arbitrage).10

One opposing theory is the heterogeneous expectation theory which states that differences in traders’ subjective expectations is the reason for trading. If individuals only posse different expectations, due to acquisition and reliance on different information, then speculative trading distorts welfare. Firstly, trading driven by heterogeneous expectation doesn’t create a real value for society since trading only reshuffles payoff structures based upon subjective expectations. Secondly, trading on heterogeneous expectation in fact distorts prices and therefore blurs the information that can be derived from prices. As a consequence resources are not allocated optimally.11 Consequently, there are opposing theories for how beneficial speculation is for the economy and which measures to apply.

Irrespectively of how beneficial speculation in derivatives is, it should be clear that the use of derivatives can be a two edged sword. On the one hand derivatives are extremely important risk management tools that are used by almost all major corporations and other parties for hedging. On the other hand it’s a highly speculative instrument that can generate enormous positive or negative cash flows for speculators. The reason for their existence is therefore twofold; because the world we’re living in is uncertain and derivative instruments can help decrease the uncertainty. At the same time they can generate huge economic profits for parties who can predict the future well or manage risk well. An over regulation of the OTC derivatives market can therefore destruct many corporations hedging instruments. A lax regulation can, as has just been experienced in this financial crisis, expose certain parties to material risk and thereby pose a systemic risk to others.12 The challenge for regulator is therefore to strike a balance between accommodating the beneficial effects of OTC derivatives trading while restricting the destructive sides of OTC derivatives speculation.

Proposal for Regulating the OTC Derivative Market

One central point in the regulator’s proposals and many commentators’ opinions is that hazardous speculation in OTC derivatives should be prohibited or harshly regulated in order to avoid a similar financial crisis. Regulators and commentators have therefore tried to categorize what is pure speculation and what is a natural hedge. This is a very difficult task and if the regulators would be unable to separate speculation from hedging, we would end up with over regulation or under regulation. One practice that has often been deemed as speculation is naked CDS. In fact, this is not necessarily correct. For example, a naked CDS can enable an investor who believes that a certain company’s credit profile will improve to create a synthetic bond without buying the bond. If the bond for example is very illiquid or otherwise difficult to purchase, the investor can buy a risk free treasury bond and enter a CDS as a seller of protection on the reference entity. In this way the investor is taking exposure against the reference entity and receives the deal spread. If the company’s credit profile

12 Stulz (2009) and Hazen (2009).
improves, the CDS will be “in the money”, i.e. show a positive margin and the investor will make a profit. This is only one type transaction in which a CDS can be used in a certain investment strategy. This might be speculation or not. But for a regulator who is observing a portfolio of a treasury bond and a CDS, it might be difficult to draw a clear conclusion.\textsuperscript{13}

Recognizing that certain judgments might be very difficult for a regulator due to the innovativeness and complexity of many of the derivatives instruments, the regulator still needs to do something about the things that went wrong in this financial crisis. Without making an exhaustive list, it’s probably fair to state that the risk management of many financial institutions was not what it should have been. Further, many financial institutions probably invested in instruments, such as derivatives, in a way or to such extent that they shouldn’t have. When some of these financial institutions later failed, they externalized the costs of their inadequate risk management and investment strategies to ordinary tax payers in the form of the state. It’s clearly understandable that tax payers, politicians, and regulators intend to prohibit this from happening again. The question is just how.

This paper proposes two things. First it proposes that we return to the old common law rule of “rule against difference contracts”. This would deem all speculative derivatives as legal, but legally unenforceable unless one of the parties can prove in court that the derivative was a natural hedge. This would place the burden of proof on the parties to the contract to prove if it was a hedge and would refrain the regulator from doing such judgments. It’s reasonable to expect that the counterparties to an OTC derivative would rely less on counterparty reputation and credit rating and instead introduce robust collateral requirements and risk management processes. This would increase the costs associated with OTC derivatives for speculator.

The second part of the proposal, which relates especially to CDS, is to simultaneously assist the market participants establish central counterparty trading. This would include collateral requirements, daily mark to market, standardization of CDS, etc. This is very much what is currently happening, however in combination with a rule against difference contracts, the regulators needs to take less responsibility in the regulatory process.

\textbf{Discussion}

The result of this proposal would be:

- Less regulation and more self-regulation. This is positive because market participants would need to find arrange among themselves and the scope for regulators for over or under regulation is less.
- Natural hedgers would only see a small increase in cost for OTC derivative instruments. Under the proposals by Obama and the EC, natural hedgers would fall under the same regulatory framework as speculators, i.e. in terms of collateral requirements, reporting, risk management etc. With this proposal natural hedgers would be protected by law, but with less regulatory requirements. However, since they would need to prove themselves as natural hedgers, they would probably have an increased incentive to take due care when dealing with speculators.
- Speculators, like hedge funds, would have great difficulties to enforce their OTC derivatives as natural hedges. This would induce them turn to exchanges or take on additional measures to make sure that their counterparties make good of the OTC derivatives.

\textsuperscript{13} Stout (1999), Wallis (2008) and Duffie (2009).
- As a result the OTC derivatives and the CDS market would diminish in size and the exchange traded market would increase and develop innovative solutions.

The merits with this proposal apart from the efficiency gains are that the policy measures are well known to policymaker and they are probably relatively easy to enact from our current situation. However, seeing this in a broader perspective, it would be very difficult for policymaker to explain that the solution to this financial crisis is to entrust the financial sector with more self regulation. After all, the negative publicity the OTC derivatives have received and the many misperceptions that are present regarding OTC derivatives and especially CDS, this proposal would be difficult to enact.

When taking one step back from this debate about regulating CDS, one has to ask: why are policy makers in particular targeting CDS as a part of their regulation? The main answer is the huge notional of CDS and their interconnections between financial institutions and the systemic risk this poses. This is only partially correct. It should be obvious to the reader that the statistics from BIS in figure 1 and 2 and the discussion in the introduction and background that credit derivatives are only about seven percent of the OTC derivatives market and interest rate derivatives are much large. Of course the large gross market value of CDS is highly worrying, but so should also the high gross market values of interest rate and foreign exchange derivatives be. One argument might be that certain derivatives might be more frequently used as a natural hedge and others as speculative instruments. This in combination with the large gross market values (alternatively: notional value) and the interconnections of the financial institutions signals that there is a great systemic risk with these instruments. This might have been the reasons for the US Treasury Department to act in certain ways during the last two years. When looking at how the US Treasury Department acted in relation to Bear Stern, Lehman Brothers, and AIG, it’s apparent that they are all highly interconnected with the financial system and posed system risks. When looking at the same three companies from their importance to the CDS market, it’s clear that AIG as the major counterparty of CDS was highly important and therefore strategic important to rescue. However, Lehman who was much bigger on the CDS market that Bear was not rescued. Following the failure of Lehman one would then have expected devastating effects following the line of reasoning above. However, following the Lehman bankruptcy the swaps that Lehman was counterparty to were settled bilaterally with no descendible effects. Further, the CDS written on Lehman itself, with a notional of $72 billion, were settled by the Depository Trust and Clearing Corporation (DTCC). The settlement was completed without incident, with a total cash exchange among all parties of $5.2 billion. The conclusion is that Lehman did not pose a systemic risk due to its role on the CDS market. However, Lehman did without doubt pose a systemic risk due to other factors.¹⁴

However, what might be of concern and what has been proved during this financial crisis is that CDS has binary and discontinuous pay off structure. However, this is to a large extent avoided if the CDS are mark to market on a daily basis. This is exactly what an exchange would achieve. Having said that, policy makers without doubt need to do something about the OTC derivatives market and the CDS and what has been proposed in this paper is probably the most reasonable solution after all.

Conclusions

The urgency by many commentators to regulate OTC derivatives and CDS is very misleading. The primary reason for the current financial crisis was not the use of OTC derivatives; instead it was the failure of the subprime mortgage market. However, the OTC derivatives, and particularly failed risk management, have played a large role in leading us to the current situation. What happened was that economic theory predicted that sophisticated finance would be able to transfer the risk, through derivative instruments and the market, to those best able to manage and understand it. However, economic theory failed and risk was instead transferred to the investors who were neither best able to manage it nor best able to understand it. But it wasn’t the fault of derivatives; it was the improper use of them. As one investor puts it, derivatives can be described as “financial weapons of mass destruction”\(^{15}\). It’s easy for policy makers to blame OTC derivatives, especially following the high costs of the financial crisis. However, the policy makers are guilty of regulatory failure.

Building upon the misunderstandings of derivatives and the urge by policy makers to act, it’s easy that the regulatory debate goes out of hand and that misunderstanding about derivatives leads to miss regulation of the same. One indication of that is that many of the sources found in this area are unable to describe the implications of CDS correctly. Statistical fallacies and hasten conclusions are common. The risk is therefore apparent that policy makers will overact and over regulate OTC derivatives. This would destroy the undoubtedly positive effect OTC derivatives play for sound risk management in many corporations. As has been urged in this paper; the challenge is to find the right balance between over and under regulation. The policy proposal in this paper is a very reasonable way to strike this tradeoff.

References


\(^{15}\)Buffett (2002).


