Credit default swaps after the global banking crisis: Regulatory responses and industry initiatives

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ABSTRACT

The role of credit default swaps (CDS) in the financial crisis has been hotly debated among regulators, market participants and academics since early 2008. The purpose of this article is: (i) to outline the current debate for further regulation of CDS (both in the US and the UK) and (ii) to describe the various industry-led initiatives designed to address the lack of transparency and the counterparty risk associated with CDS.

Keywords: credit default swaps, ISDA initiatives, central clearing, collateral

INTRODUCTION

In the past nine years, the CDS market has grown into a multi-trillion dollar notional market with participants from nearly every sector of the financial world.[1] The first CDS products were relatively simple transactions in which a protection buyer would make payments to a protection seller in exchange for the right to

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receive a payment upon the occurrence of certain credit events with respect to a specified corporate, the transaction being akin to insurance against credit risk. These simple trades later evolved to the myriad of 'basket', 'Nth to default', 'index', 'contingent', 'recovery lock' and 'constant maturity' CDS; CDS on mortgage-backed securities, syndicated secured loans and asset-backed securities. The volume of CDS trades and the growth in their complexity rapidly increased over the past few years.

The recent financial crisis has focused the world's attention on CDS transactions. In particular, as part of the re-assessment of risk in the credit markets, concerns have been expressed about the CDS market's largely unregulated environment and opaqueness. In the midst of the turmoil in the financial markets, regulators[2] have become increasingly concerned with systemic and counterparty risk and also with the perceived lack of transparency, liquidity and efficiency in the CDS market. To tackle these problems, the US Treasury, the UK Treasury, the Financial Services Authority and other European regulators and entities (including the European Central Bank) have promised a thorough regulatory overhaul of the CDS markets in their respective jurisdictions.

REGULATION OF CDS

The US Regulatory Landscape

CDS have been lightly regulated in the US, but numerous regulatory proposals in 2009 will change the status quo. As long as over-the-counter (OTC) derivatives are individually negotiated and are not a part of a fungible class of securities, they are not generally considered 'securities' for purposes of US securities law (subject to some exceptions). Hence, they are not subject to detailed US federal regulation, or the supervision of the Securities Exchange Commission (SEC). Derivatives did not have to be cleared or traded on regulated exchanges, given the specific exemptions provided for in the US Securities Act of 1933 (the 'Securities Act') and the US Securities Exchange Act of 1934 (the 'Exchange Act'). Derivatives traded OTC between 'eligible swap participants' and subject to other requirements were also excluded from the supervision of the Commodity Futures Trading Commission (CFTC) under the Commodity Exchange Act (the 'CEA').[3] Nor were they considered as insurance contracts by the state insurance regulators.

Things are changing quickly. In March 2009, US Treasury Secretary Timothy Geithner described to Congress the Treasury's Framework for Regulatory Reform, which addresses, among other things:

1. regulation and supervision of dealers in OTC derivative markets, and
2. clearing of standardised CDS (everything except bespoke) through central counterparties (CCPs) and exchanges.

It also subjects non-standardised CDS to higher standards of documentation and practice. CCPs will be required to publicly disclose aggregate data of trading volumes and positions for CDS and pass individual counterparty information to federal regulators on a confidential basis. On 13th May, 2009 the Treasury issued a press release, broadening the scope of proposed reform to regulate not just CDS but all OTC derivatives markets.[4] The International Swaps and Derivatives Association (ISDA) has welcomed this proposal as 'an important step toward much-needed reform of financial industry regulation'.

At the same time, three bills have been introduced into Congress that may pave the way for further CDS regulation.[5] The Derivatives Trading Integrity Act of 2009 (DTIA), would end the exemption for trading of derivatives (including CDS) under the CEA and require such trading to occur on registered exchanges.[6] The Derivatives Markets Transparency and Accountability Act of 2009 (the DMTAA), would require all derivatives (including CDS) to be settled or cleared through a Derivatives Clearing Organisation regulated by the CFTC or through a SEC-regulated clearing entity.[7] As an alternative to central clearing, counterparties could report derivatives transactions to the CFTC (subject to showing their own financial stability/integrity as well as that of the relevant transaction).[8] The DMTAA would grant the CFTC extensive power to supervise OTC transactions;[9] including the power:

1. to impose limits on positions in OTC derivatives if it determines that trading in the OTC market has a potential to 'disrupt the liquidity or price discovery function on a registered entity' or 'cause a severe market disturbance in the underlying cash or futures market', and
2. to suspend CDS trading if 'the public interest and the protection of investors so require', subject to the US President's consent.[10]

The Financial System Stabilization and Reform Act of 2009 (FSSRA) aims at a more general overhaul of the US financial system, and includes specific requirements for all CDS regardless of complexity, though it does not address all derivatives. It would require all CDS to be traded through a clearing house regulated by the CFTC with adequate capital.[11] Any person dealing with CDS through a clearing house will have to keep records of CDS trading for at least five years.[12] To fight market manipulation, the SEC would have rule-making power in respect of 'fraudulent, deceptive or manipulative acts or practices in connection with credit-default swaps'.[13]

On 17th June, 2009 the Obama administration released its white paper on its proposed regulatory reform of the US financial industry.[14] Along the same lines as the US Treasury's Framework for Regulatory Reform published in March 2009, the white paper covers many areas of financial regulation including OTC derivatives and CDS. In particular, OTC markets (including CDS) will be subject to comprehensive regulation aimed at (i) preventing activities in those markets from posing risk to the financial system, (ii) promoting the transparency and efficiency of those markets, (iii) preventing market manipulation, fraud, and other market abuses and (iv) preventing OTC derivatives from being marketed inappropriately to unsophisticated parties. These goals will be reached through comprehensive regulation requiring (i) standardised OTC derivatives (including CDS) to be centrally cleared and executed on exchanges and other transparent trading venues, (ii) transparency for all OTC derivative trades and positions through recordkeeping and reporting requirements, (iii) conservative regulation of all OTC derivative dealers and all other major participants in the OTC derivatives markets and (iv) higher capital charges for customised OTC derivatives.

Although the New York State Department of Insurance has delayed indefinitely its initial plans to regulate CDS as insurance,[15] the states of Missouri and Virginia have proposed initiatives in this regard,[16] and the National Conference of Insurance Regulators has announced its intention to publish model legislation that will give insurance regulators authority over CDS.[17]

At present, none of these initiatives has been implemented, but the focus of policy-makers and legislators on OTC derivatives generally and CDS particularly forecasts sweeping regulatory changes in the US derivatives market in the near future.

The UK Regulatory Landscape

It cannot be said that CDS are currently 'unregulated' in the UK. The Financial Services Authority (the FSA) is appointed under the Financial Services and Markets Act 2000 (FSMA) to regulate prescribed 'regulated activities'. No person may carry on or purport to carry on a regulated activity in the UK unless he is an authorised person or an exempt person[18] — this is known as the 'general prohibition'. An activity is a regulated activity for these purposes if it is an activity of a specified kind, which is carried on by way of business and relates to an investment of a specified kind.[19] Activities that are so specified include dealing in investments, arranging deals in investments and managing investments. Investments that are so specified include almost all CDS.[20]

CDS can also be susceptible to the FSA's powers under the market abuse regime (which includes insider dealing offences). CDS are not traded on prescribed markets, which is the usual prerequisite for susceptibility to committing an offence set out within the market abuse canon of offences. However, the legislation also covers behaviours affecting 'related instruments' or investments 'whose price or value depends on the price or value of the qualifying investment',[21] which definition may in turn capture CDS. Dealing in relevant CDS that amounts to abusive behaviour would therefore be the subject of FSA enforcement action.

However, until recently, the FSA has been reluctant to develop a specific and comprehensive regulatory regime for CDS. The regulatory philosophy has been based on the assumption that product regulation would stifle innovation and is not necessary because firms that are subject to prudential regulation will not develop excessively risky products and customers will be well informed of risks associated with particular products as such firms would also be subject to conduct of business regulation. In the wholesale structured products market, it has also been assumed that customers are by definition sophisticated and do not need a high level of regulatory protection. Recently, these assumptions have been subject to scrutiny and there has been a call for regulation of those products that have been identified as having contributed to the current economic instability.

Following the banking crisis, the Chancellor of the Exchequer asked Lord Turner (Chairman of the FSA) to review and make recommendations for reforming the UK and international approach to the way banks are regulated. The FSA published its review (the 'Turner Review')[22] and a discussion paper (the 'FSA Discussion Paper')[23] in March 2009. The Turner Review considered whether the CDS market in the UK should be subject to product regulation and summarised the arguments for regulation as follows:[24]

- The existence of significant investors with an interest in a company running into trouble, when combined with the potential for short-selling, creates a heightened risk of abusive market behaviour.
- CDS prices systematically understate the risk in the upswing and overstate it in the downswing, thus making the

extensive use of CDS prices to assess the fair value of illiquid underlying bonds potentially pro-cyclical and making overall CDS spreads poor indicators of risk.[25]
- Unrestricted CDS trading can introduce significant volatility into the price of credit, bringing about the very default events that CDS insure against.
- Such effects have the potential to be particularly harmful to banks, where the combination of CDS shorting and equity short-selling can generate a failure of confidence and rising funding costs, creating an incentive for harmful position-taking which can achieve a self-fulfilling effect.

The Turner Review[26] also notes that arrangements that related the level of collateral posted in CDS to the credit ratings of counterparties and VAR-based measures of price volatility created pro-cyclical market behaviour and practices.[27] For example, CDS and other OTC derivative contracts entered into by AIG required it to post more collateral if its own credit rating fell — creating a downward spiral of increased liquidity stress and falling perceived credit worthiness. The Turner Review suggests that consideration be given to setting minimum levels of haircuts in OTC derivatives contracts to reduce the extent to which increases in haircuts in periods of rising volatility contribute to deflationary pressures.

Conversely, there are market participants[28] that are of the view that increasing regulation will not necessarily help recovery as more regulation may increase transactional costs and drive market efficiency down, with market innovation being hampered. One possible result of increased regulation is a contraction in the size and scope of the CDS market. A smaller market may reduce the opportunities for market participants to use CDS transactions as an effective tool for risk management. In addition, the market may lose the benefits of price discovery that many industry participants believe facilitates capital raising. While there are some commentators who find these advantages of CDS transactions to be doubtful,[29] there are many who don't believe their disappearance is a desirable end.[30] A number of writers[31] have pointed out that CDS should not be considered the only cause of the current financial crisis and have warned against a regulatory over-kill.

The Turner Review has been seen by most commentators as a measured response — inviting further debate before any product regulation of CDS may be introduced. It draws no conclusions on the strength of the arguments in favour or against the regulation of CDS. However, it does conclude that regulators should leave open the possibility for direct product regulation and suggests that a distinction between different types of CDS — complex bespoke CDS, on the one hand, and more 'vanilla' CDS, on the other — might be useful, while noting that CDS contracts do play an important role in hedging risk exposures.

Various industry groups are currently considering their response to the Turner Review: for example, ISDA has recently published its response ('ISDA's Initial Response') to the Turner Review.[32] In arguing the case against direct product regulation of CDS, ISDA's Initial Response notes that abusive behaviour in CDS linked to publicy traded securities is the subject of existing regulation. Although recognising that systematic risk needs to be monitored, ISDA cautions that the distinction between vanilla CDS and complex synthetic derivatives instuments may not be useful, as complexity of the latter relates to the underlying risk, not the CDS instrument.

THE CLEARING HOUSE PROPOSAL

Introduction

The size and complexity of the CDS market has created the concern that the failure of one counterparty could produce market disruption. If one counterparty defaults on its CDS, this may have a 'domino' effect on all the other CDS entered into by such counterparty, which in turn will affect the parties facing the defaulting party and their respective counterparties and so on. The Turner Review concluded that a reduction in the net position outstanding could be greatly assisted by the development of clearing systems with central counterparties (CCPs), allowing multilateral netting and reducing economic exposures to those outstanding versus the central counterparty.[33]

A CCP operates by being 'a buyer for every seller and a seller for every buyer'[34] by putting itself in between counterparties of each CDS cleared. If a counterparty were to default under a CDS, the CCP will perform such counterparty's obligations under such CDS as if no default occurred and the loss borne by the CCP will be shared between the CCP's members. Contracts will still be negotiated between the original counterparties[35] and then submitted to the clearing house for validation and clearing.

There are a number of entities currently providing clearing services for CDS including:

1. Euronext Liffe (the derivatives business owned by NYSE Euronext) and its subsidiary LCH.Clearnet Limited (LCH);
2. Intercontinental Exchange (ICE);
3. Chicago Mercantile Exchange (CME); and
4. Eurex.[36]

Systemic and counterparty risk

As buyer and seller will not face each other any longer, but the CCP instead, it is argued that the use of a CCP will reduce systemic and counterparty risks.[37] This argument is based on the assumption that the CCP's credit risk is preferable to counterparty risk. However, some commentators[38] have argued that the large dealers (that trade billions of US$ of CDS annually) have better capacity to sustain counterparty losses when compared with the existing CCPs. The strength of these arguments will ultimately depend on the profile of the members of the CCP, the operating rules of the CCP,[39] whether or not the CCP is adequately capitalised,[40] and how easy it would be for the CCP to raise new capital from its members if need be.

Membership requirements will, therefore, be a key factor for the efficient functioning of a CCP. The lower the criteria, the higher the number of members and, in a pre-default scenario, the more efficient the clearing will become as there will be more trading and netting opportunities in a larger pool of counterparties available. However, lower criteria would lead to higher counterparty risk and ultimately higher systemic risk as CCP members will bear higher losses.[41]

Netting efficiencies

It has also been argued that the use of a CCP will increase netting efficiency across positions between counterparties thereby reducing both the amount of collateral required to be posted and the regulatory capital that banks must hold against such positions. A counterparty will be able to net its obligations to post collateral on the basis of its global exposure to the CCP by taking into account all such counterparty's CDS positions, without limitation to the positions held with one particular dealer. For example, if counterparty A has to post collateral worth 100 under a CDS with counterparty B, but has to receive collateral for 70 from counterparty C, it may be required to only post the difference of 30 with the CCP, while without a CCP, it would have to post or receive, as the case may be, the full collateral for each CDS position and hold capital against that.

However, other commentators[42] have argued that netting across different asset classes of derivatives (not limited to CDS) between two counterparties is likely to be more efficient than netting between multiple counterparties across CDS only. For example, if counterparty A owes 100 to counterparty B under a CDS, and counterparty B owes counterparty A 60 under a FX swap, in an OTC environment, counterparty A's total exposure to counterparty B will be 40 (and the collateral posted will be calculated on that basis). However, if CDS are cleared through a CCP but FX swaps are not, in this example, counterparty A's collateral obligations in respect of the CDS will be calculated on a gross basis without netting opportunities across the other asset classes (in this example, the FX swap). This argument supports the view that the CCP proposal should extend to all OTC products so as to capture all netting efficiencies.

Collateral

A related issue that will need consideration for the efficient functioning of a CCP is the way in which collateral is calculated,[43] posted and held. In the case of determining collateral requirements, it has been argued[44] that CCPs will be less likely to have the required skills, time and information to price CDS accurately when compared with an OTC counterparty and that large dealers are more apt and have better resources than CCPs to determine collateral requirements when assessing risk. This may lead to mispricing of risk, driving market efficiency down and ultimately increasing systemic risk.

Following the recent experience of many market participants in relation to the administration of Lehman Brothers International (Europe) where there is still uncertainty as to the fate of the claims to proprietary assets held by the Lehman entities on behalf of their clients,[45] of concern will be the way in which collateral will be held by the CCP and in particular whether collateral posted by a member will be segregated from that posted by others.[46]

Transparency and pricing efficiencies

One of the perceived benefits of the CCP approach is increased transparency and liquidity — trades cleared through a CCP will be publicly disclosed. Indeed the UK Treasury has recommended that the FSA takes steps to encourage trading through clearing houses and where appropriate exchanges to avoid the lack of transparency inherent in OTC trading.[47] With greater transparency, the expectation is that prices will go down and market efficiency will improve. However, there is much uncertainty on the level of disclosure that will be required (whether or not information relating to pricing and volumes will be disclosed is still unclear).[48] Balancing the interests of counterparties not wanting to disclose pricing information in an illiquid market with regulatory concerns on market abuse and transparency may prove to be difficult.

A solution for all CDS?

Although the apparent benefits of a CCP approach to CDS are seen by most regulators to be desirable, perhaps those benefits should not be overstated. Not all CDS products are suitable for clearing.[49] The Turner Review notes that clearing and central counterparty systems will only be feasible for roughly 50–75 per cent of the CDS that is accounted for by standardised contracts — a large volume of bespoke contracts will continue to be traded in an OTC fashion. Bespoke CDS perform an important role in meeting the different and often complex needs of customers and counterparties.[50] The counterparty risk for those products that remain outside the CCP will continue to be managed on a bilateral basis. Indeed, if a CCP approach to CDS is to be imposed by regulation, one significant issue that needs to be considered by the regulators is which CDS will be required to be cleared.

Location of CCP and Regulatory Arbitrage

European regulators (including among others, the French Central Bank and the European Commission) have put considerable pressure on banks to find a Euro-based solution in relation to CDS clearing[51] arguing that the location of the CCP should correspond to the location of the market.[52] However, the Turner Review considers that the proposals that euro-denominated CDS must be cleared within the Euro zone are unnecessary for financial stability reasons.[53] In any event, some of the 'biggest operators' in the CDS market have been reported to agree in principle to a Euro-based clearing house for Euro-based CDS.[54]

A number of market observers and participants have expressed concerns[55] that using both a European CCP and a US CCP (rather than a global CCP) would be more costly for dealers as they would have to run two collateral pools, one in the US CCP and one in the European CCP. It has also been argued that a national-based solution would introduce unnecessary complexity,[56] may constitute protectionism[57] and would be out of step with the international drive to improve cross-border regulatory cooperation and develop shared standards and regulatory inputs.[58] Indeed, with a national based CCP approach, where each CCP is subject to different regulatory oversight and treatment, there is a risk of regulatory arbitrage, whereby market participants seek out jurisdictions with lower regulatory burdens in an attempt to cut costs and increase their competitiveness in relation to those competitors that remain subject to more onerous oversight. Regulatory arbitrage also creates competition among jurisdictions, which in turn encourages regulators who wish to retain regulated activities in their jurisdiction to decrease their scrutiny. On 20th February, 2009, the Federal Reserve Bank of New York released a statement claiming regulators in the US, UK and Europe were working toward an information-sharing agreement and consistent cross-border standards for CDS clearing.[59]

Many market participants and dealers would prefer a global solution to central clearing,[60] which benefits from lower transaction costs, single counterparty risk, better CCP capitalisation with a larger number of members, better infrastructure and netting opportunities. Striking a balance between national regulatory control and the global dimension of the CDS market will not be an easy task.

INDUSTRY SPONSORED INITIATIVES

Introduction

Many market participants have argued that the derivatives industry has, in fact, demonstrated a remarkable ability to devise industry solutions and to gain very high levels of consensus for those without the need of externally imposed rules. The recent market initiatives of the International Swaps and Derivatives Association, Inc. (ISDA) are a good example of the CDS industry acting to strengthen the infrastructure of market transactions. The recent projects undertaken by ISDA will standardise many CDS trades, which in turn will expedite the industry goal of clearing CDS through a CCP.

The CDS Auctions

One example of the derivatives industry reacting to perceived settlement risks in the market is the CDS auction process, designed to counteract the problems posed by the physical settlement of CDS transactions, where bonds or loans have to be delivered by one party to another, possibly at a time of market stress. The auction route, designed and tested over a significant number of credit events involves an agreement of 'adhering' market participants (through a standardised protocol) to establish a fair market price for the bonds and loans of the defaulted entity through an auction process, which price is then used for the cash settlement of the relevant CDS trades. It is worth noting that adherence to the auction route has been voluntary, ie, it was not devised or imposed by the regulators, yet this mechanism has achieved a very high level of uniformity across the market.

The Big Bang Protocol

Perhaps the most notable among the recent ISDA initiatives has been the amendment to the CDS documentation, which aims to standardise the determinations relevant to the CDS market and to facilitate settlement following credit events. ISDA's Auction Terms Supplement, Big Bang Protocol and Determination Committee Rules were published on 12th March, 2009. (Adherence to the Big Bang Protocol opened on 12th March, 2009 and closed on 7th April, 2009. All the provisions of the Auction Terms Supplement became effective on 8th April, 2009 except the provisions relating to the 'look-back' periods which came into effect on 20th June, 2009.)

Pursuant to those amendments:

1. a determination committee will be set up to decide most of the key issues in respect of the covered CDS transactions, such as Credit Events (type, date and occurrence), Auctions, Deliverable Obligations, Succession Events and Substitute Reference Obligations;
2. a relatively short window for credit events and successor determinations (60- and 90-day look-back periods, respectively) shall apply, and
3. where ISDA holds an auction for covered transactions, market participants will be able to easily avail themselves of the auction settlement mechanism.

The structural framework through which the changes will be implemented is as follows:

1. an ISDA protocol will facilitate the amendment of existing CDS transactions to incorporate the auction-related terms,
2. a Supplement to the ISDA Credit Derivatives Definitions (the 'Definitions') will incorporate the CDS auction settlement mechanism into the Definitions; and
3. future trades will incorporate that Supplement when incorporating the Definitions (unless otherwise specified).

Change in the trading convention for North American corporate CDS

Another recent ISDA initiative aimed at standardisation has been the change of the trading convention for North American corporate CDS by providing a standard fixed rate (of 1 per cent for single-name investment grade transactions and 5 per cent for high-yield ones) and a full initial fixed-rate payer calculation period (regardless of whether the actual trade date occurs at the start of that period). The updated Matrix introducing the Standard North American Corporate Transaction Type and the related form of confirmation were published by ISDA on 8th April, 2009. That standardised template also introduced common accrual periods: regardless of the effective date of the transaction, accruals would begin on 20th March, 20th June, 20th September and 20th December (each, a 'quarterly date') and the scheduled termination date will also be a quarterly date. All these changes are designed to make the CDS trades more fungible.

Margin call dispute protocol

ISDA is currently working on a set of protocols (for dealers and for buy-side) to be used when facing margin call disputes. A draft of the 2009 ISDA Protocol for Resolution of Disputed Margin Calls is expected to be released this month for comments. The aim would be to facilitate valuations (especially in the current environment when positions may be hard to mark-to-market) and to standardise electronic messages on margin calls.

CONCLUSION

The recent ISDA initiatives should strengthen the infrastructure of the CDS market and enhance the liquidity and transparency of the market of standardised CDS. In turn, the standardisation of those elements will expedite the industry goal of clearing CDS through a CCP.

Despite the industry's proven track record of adapting to changes, it seems that the general trend is towards measured regulation of the CDS market with the view of improving transparency and counterparty risk. A successful CCP should reduce counterparty risk for 'vanilla' CDS, increasing netting efficiency and easing capital requirements, even though the right balance between the desire for national regulatory control and the global nature of the CDS will be difficult to establish.

The regulatory response cannot provide an instant fix for the perceived risks in the CDS market. As suggested by the Turner Review, the arguments both in favour and against the unrestricted regulation of the CDS should be debated. Any regulatory restrictions might have to draw a distinction between the different categories of the credit derivatives market (the growth of complex synthetic credit derivatives instruments raising more concerns than 'vanilla' CDS).

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(30) Darrell Duffie, an economist at Stanford University, believes CDS are a useful tool and should not be done away with entirely (see Darrell Duffie and

Haoxiang Zhu, 'Does a Central Clearing Counterparty Reduce Counterparty Risk?', available at: http://www.stanford.edu/~duffie/DuffieZhu.pdf). See Matthew Philips, 'The Monster That Ate Wall Street', *Newsweek*, 27th September, 2008, available at: http://www.newsweek.com/id/161199/page/1. Derivatives trader Terri Duhon believes that the vilification of CDS is like blaming the gun when someone gets shot. See also David Stevenson, 'All you Need to Know about Credit Default Swaps', *Moneyweek*, 10th October, 2008, available at: http://www.moneyweek.com/news-and-charts/economics/all-you-need-to-know-about-credit-default-swaps-13792.aspx. ISDA CEO Robert Pickel claims that CDS have had blame placed on them unfairly in connection with the financial crisis; Aaron Pan, 'Default Swaps' Role in Global Turmoil "Exaggerated"', 15th October, 2008, available at: http://www.bloomberg.com/apps/news?pid=20601087&sid=a966RcwJ.aik&refer=home.

(31) See Lynton Jones, Bourse Consult, 'Current Issues Affecting the OTC Derivatives Market and its Importance to London', April 2009, 7 *et seq*. The author argues that there is little evidence to suggest that CDS contributed in any significant way to the crisis and that the efficient way in which they were closed out during the Lehman default suggests that they are capable of being transacted safely and securely.

(32) See the letter dated 18th June, 2009 on ISDA's website available at: htp://www.isda.org/uploadfiles/_docs/ISDA_response_to_Turner_Review_and_DP_09_2_06.18.09.pdf.

(33) See *The Turner Review*, ref. 2 above, section 2.5(iii).

(34) Craig Pirrong, 'The Clearing House Cure', in *Regulation*, Winter 2008–2009, 45.

(35) As pointed out by Anthony Belchambers, chief executive at the Futures & Options Association, 'firms will still have to carry out their front-end due diligence duties on counterparties as the CCP will not do it for you' (see *Divide and Conquer*, ref. 28 above, 24).

(36) In the US, the activity of clearing securities requires registration by the relevant clearing house or exchange with the SEC or, alternatively, obtaining a temporary exemption from registration from the SEC. On 24th December, 2008 LCH was the first to receive a temporary exemption (expiring in September 2009) from such registration requirements as a 'clearing agency' in respect of 'Cleared Index CDS' under section 38(a) of the Exchange Act. On 6th March, 2009, the SEC granted a similar exemption (due to expire late 2009) to ICE US Trust, a limited purpose trust bank regulated by the Federal Reserve Bank of New York and the New York State Banking Department and a subsidiary of ICE. ICE Trust has large support from the dealer community (including JPMorgan, Citi, Credit Suisse and Goldman Sachs) and has during its first month of operations cleared in excess of US$70bn of notional value of CDS. ICE Trust intends to expand its operations in Europe through a separate entity (ICE Clear Europe) and trade single name CDS later this year. Liffe has similar ambitions — it intends to launch clearing services managed out of Paris by December 2009 (see Press Release by LCH.Clearnet, 13th February, 2009, available at http://www.euronext.com). CME (in partnership with the hedge fund Citadel Investments) recently received approval from the SEC and is considering clearing a variety of CDS (including single-name products). Eurex, controlled by Deutsche Borse, is planning to start clearing CDS by mid

2009 but has not received any regulatory approval yet.

(37) See *Containing Systemic Risk: The Road to Reform*, ref. 2 above, *ibid*.

(38) See *The Clearing House Cure*, ref. 32 above, 34 *et seq*.

(39) Both LCH (operating through its derivatives processing service BClear) and ICE Trust had to represent to the SEC that they will meet the standards set by the FSA and IOSCO for CCPs (see Committee on Payment and Settlement Systems and Technical Committee of the International Organisation of Securities Commissions (IOSCO), 'Recommendations for Central Counterparties', November 2004, available at: http://www.bis.org/publ/cpss64.htm) and pledged transparency on pricing information, clearance and settlements, capital adequacy standards for clearing members, the publication of their own financial statements on a regular basis and at least five-year record keeping.

(40) Capitalisation issues have had to be addressed by both LCH and ICE Trust. A default fund will be established with LCH. Similarly, a guaranty fund will be set up and administered by ICE Trust; each ICE Trust member will be required to make a minimum contribution and maintain an adequate buffer on the basis of its risk profile which will be assessed on at least a quarterly basis. See Liffe, 'A Safer, clearer route for OTC' and the other information available at: http://www.euronext.com/editorial/wide/editorial-4587-EN.html; ICE Trust, 'Clearing house for Credit Default Swaps, CDS Clearing Overview' and the other information available at: https://www.theice.com/ice_trust.jhtml. See Adsatis, 'Comparison of CDS Clearing Proposals for ISDA', available at: http://www.adsatis.com/page.aspx?p=xxHiddenPagexx.

(41) Members of ICE Trust and LCH must have certain financial, operational and regulatory qualifications, contribute to a guaranty fund based on the individual member's risk profile and post daily collateral based on marked-to-market valuations of the positions held. Additionally, members of LCH must be located in a jurisdiction with satisfactory regulatory supervision, cooperation with the FSA and must meet capital adequacy standards. *Ibid*.

(42) See 'Does a Central Clearing Counterparty Reduce Counterparty Risk?', ref. 30. above.

(43) For Liffe and ICE Trust, collateral calls will be calculated on a daily, mark-to-market basis based (at least for ICE Trust) on an auction-style calculation of the value of the positions held.

(44) See 'The Clearing House Cure', ref. 34 above, 47 *et seq*.

(45) See application by PWC to the High Court seeking directions on the client money held by Lehman Brothers International (Europe) (in administration) available at: www.pwc.co.uk/eng/issues/lehman_client_money_update_court_application_010509.html; Global Trader Europe Ltd (In Liquidation), Re Chancery Division, 24th March, 2009.

(46) See 'Margin Segregation May Snag ICE Clearing Effort' in *Derivatives Week*, vol. XVIII, no. 10, 16th March, 2009, 1

(47) See 'Banking Crisis: dealing with the failure of the UK banks', ref. 2 above, *ibid*.

(48) See 'A Safer, clearer route for OTC', ref. 40 above, 1.

(49) See 'DP09/2: A regulatory response to the global banking crisis', ref. 23 above, section 10.70.

(50) See 'Current Issues Affecting the OTC Derivatives Market and its Importance to London', ref. 31 above, 1 *et seq*.

(51) See Jeremy Grant, 'France calls for Eurozone CDS clearing house', *FT*, 18th February, 2009. Charles McGreevy, the EU Internal Market Commissioner

has been campaigning towards this goal and considered that 'central clearing [...] is particularly urgent to restore market confidence' (as reported by Nikki Tait, 'Agreement reached over European CDS clearance', *FT*, 19th February, 2009). Pervenche Beres (Chairman of the Economics and Monetary Affairs Committee in the European Parliament) had early this year called for an amendment to the Capital Requirements Directive to require banks to hold more capital against CDS that are not centrally cleared (on the assumption that a central clearing solution was soon to be found). This proposal was eventually voted down by the European Parliament in March 2009 (see Mark Pengelly, 'CDS capital charge voted down', in *Risk*, April 2009, vol. 22, no. 4).

(52) Corinna Freund of the ECB has also pointed out that 'location of core market infrastructures [ie CCPs] should correspond to the location of the market' as Europe represents a significant share in the CDS market with around 40 per cent of CDS index products being based on European entities, 39 per cent of CDS being denominated in Euro and European dealers accounting for a large share of the dealers calculating the iTraxx Europe and CDX indices. Aside from market data and dealing power, a European solution for Euro-based products would be beneficial as '[it] would offer significant congruence benefits between the location of the market and the scope of the legal and regulatory framework and fiscal responsibility', she suggested. Whatever 'congruence benefits' means in the ECB's parlance, we are assured that they will include 'central bank responsibility and tools for monetary policy, financial stability and payment systems'. See 'The role of Europe in the global CDS market' at www.ecb.int.

(53) See *The Turner Review*, ref. 2 above, section 2.5(iii).

(54) Nine dealers have written to the European Commission and have committed to clearing CDS on European reference entities via a European CCP by the end of July 2009. See Nikki Tait and Jeremy Grant, 'Agreement reached over European CDS clearance', *FT*, 19th February, 2009; Simon Boughey, 'High noon for CDS clearing', *Credit*, March 2009, 32 *et seq*.

(55) See *Divide and Conquer*, ref. 28 above, 25.

(56) Complexity can evolve at regulatory level: by way of example, a CDS entered into between a Japanese bank and an Australian hedge fund and written on a European borrower in Australian dollars is likely to entail a bundle of misaligned regulatory interests between different regulators: supervision of the Japanese bank in Japan, supervision of the Australian hedge fund in Australia, protection of the European borrower in Europe.

(57) See *High Noon for CDS clearing*, ref. 54 above, 34.

(58) See *Divide and Conquer*, ref. 28 above, 23 *et seq*.

(59) See Jacob Bunge, 'Regulators Seek Coordinated Oversight of CDS Clearing houses', *Wall St. Journal*, 20th February, 2009.

(60) See Nikki Tait, 'New Move for CDS Clearer in Europe', *FT*, 12th February, 2009; Jeremy Grant and Nikki Tait, 'European CDS Clearing Hits Hurdle', *FT*, 13th January, 2009, both available at: www.ft.com. In contrast to the European Commission, European dealer banks would prefer to clear CDS trades through a single globally functioning CCP, regardless of its location, *ibid*.