

*Bridging the Gap Between the Private and Public Regulation of OTC
Derivatives Markets: Analysis of the Performance of the 'Flawed Asset' and
Close-out Netting Provisions in the ISDA Master Agreement During the Global
Financial Crisis and the Subsequent Regulatory Reforms relating to Central
Clearing and Initial and Variation Collateral Margining*

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I Introduction

A Background

OTC¹ derivatives markets have experienced phenomenal growth since the early days of the markets' development in the late 1970s and 1980s. By December 2008, the Bank for International Settlements reported that the size of global OTC derivatives markets, as measured by the notional value of all outstanding derivatives contracts, was USD 592 trillion.² This astonishing amount represented several times the entire global money supply.³ The cost of replacing all of these outstanding derivatives contracts with equivalent contracts at market price was USD 25 trillion, reflecting the aggregate credit exposure of all market participants.⁴ As one commentator observed, "over-the-counter (OTC) derivatives have emerged as a global behemoth – the '800 pound gorilla' of modern financial markets".⁵

To describe OTC derivatives as a 'market' or 'markets' is somewhat illusory. OTC derivatives contracts are a subset of the broader derivative financial instruments group. However, unlike that broader grouping of financial instruments which tend to be more vanilla in nature and transact on exchange platforms, OTC derivatives are privately negotiated contracts and subsequent 'trading' takes place among a "closely-knit network of dealers" performing an intermediary and market-making function and, from time to time, facing 'end-users' who deploy derivatives to hedge business risks such as interest rate and currency exchange movements.⁶ Over 80% of OTC derivatives trading occurs among these closely knit financial institutions and, consequently, derivatives markets are predominantly an interbank business.⁷ Such 'trading' is essentially a private matter, conducted bilaterally and on an arm's length basis between two market participants.⁸ Given the private nature of OTC derivatives contracts, the identities of the contracting counterparties, the positions taken and the pricing and other transaction details all comprise information that is not publicly available and is generally difficult to obtain. More than 90% of these derivatives contracts are recorded on a standard form master agreement developed by the International Swaps and Derivatives Association ('ISDA').⁹ ISDA's influence as an industry body on the development of derivatives markets cannot be overstated. The ISDA Master Agreement was described by

¹ OTC refers to the term 'over-the-counter'.

² The Bank for International Settlements, *BIS Quarterly Review* (June 2009). It should be noted that notional value reflects the benchmark against which cash flows are calculated in the context of derivatives transactions and does not reflect the actual value at risk.

³ Above n 2.

⁴ Above n 2.

⁵ Dan Awrey "The Dynamics of OTC Derivatives Regulation: Bridging the Public-Private Divide" (2010) 11(2) *E.B.O.R.* 155 at 155.

⁶ Awrey, above n 5, at 176.

⁷ John Biggins "'Targeted Touchdown' and 'Partial Liftoff': Post-Crisis Dispute Resolution in the OTC Derivatives Markets and the Challenge for ISDA" (2012) 13 *German L.J.* 1297 at 1304.

⁸ Edward Murray "UK Derivatives and Commodities Markets" in Michael Blair QC and George Walker *Financial Markets and Exchanges Law* (Oxford University Press, Oxford, 2013) 289 at 312.

⁹ Rodrigo Zepeda "The ISDA Master Agreement 2012: A Missed Opportunity?" (2013) 28(8) *J.I.B.L.R.* 308 at 318.

Briggs J in *Lomas v JFB Firth Rixson Inc* as “one of the most widely used forms of agreement in the world. It is possibly the most important standard market agreement used in the financial world.”¹⁰

OTC derivatives have been identified by some commentators as one of the primary causes of the Global Financial Crisis (‘GFC’).¹¹ They were famously labelled “financial weapons of mass destruction” by legendary United States investor Warren Buffet.¹² However, the utility of, and appetite for, OTC derivatives as a versatile financial mechanism for many financial markets’ participants (and, more generally, commercial enterprises) remains extremely robust. Financial markets’ participants are attracted to OTC derivatives as a powerful risk management tool.¹³ OTC derivatives in particular provide the means to unbundle just about every risk associated with the ownership of a particular asset. Shareholders of an asset owning enterprise are able to isolate and shift various risks such as market risk, credit risk, interest rate risk and foreign exchange risk to other market participants willing to speculatively assume those risks. The subsequent balancing exercise achieved by the transfer of risk has been described as “essential to ensure market liquidity”.¹⁴

B Purpose of Research Paper

Given the private contractual nature of OTC derivatives, determining an appropriate public regulatory framework for derivatives markets has presented challenges for financial markets’ regulators.¹⁵ OTC derivatives transactions typically fall outside the scope of general financial markets regulatory mandates such as securities, insurance, market conduct and prudential regulation.¹⁶ As such, OTC derivatives transactions have historically operated in a regulatory

¹⁰ *Lomas v JFB Firth Rixson Inc* [2010] EWHC 3372 (ch) at [5] and [53].

¹¹ While this was the angle taken by some market commentators, in particular in respect of the connection between credit default swaps and large financial institutions such as AIG, more comprehensive GFC reviews, such as the Turner report, attributed the causes of the GFC to a multitude of complex and interconnected factors mainly having their genesis in the proliferation of relaxed lending standards in the United States sub-prime housing industry. OTC derivatives in this regard were only an ancillary contributor with most concerns centring on the size and complexity of OTC derivatives markets and the risk that the failure of a single large counterparty could have disastrous systemic consequences.

¹² Scott Appleton “Derivatives: Smoking Gun or Untapped Tools” (2009) 63(5) Int’l B. News 25 at 25.

¹³ ISDA research published in 2009 revealed that 94% of the world’s 500 largest companies continued to use derivatives to manage and hedge business and financial risks.

¹⁴ Appleton, above n 12 at 26, as stated in 2009 by Jonathan Ross, Senior Vice-Chair of IBA’s Securities Law Committee.

¹⁵ It is important to distinguish OTC derivatives from exchange traded derivatives. Exchange traded derivatives are standardised instruments, primarily options and futures, which are bought and sold on centralised trading platforms. Purchasers of exchange traded derivatives have a limited menu of underlying assets and must comply with the terms and conditions set by the relevant exchange. Derivatives exchanges, for example the London International Financial Futures Exchange, are generally closed markets in the sense that only members are permitted to trade. They have rigorous rules and trading procedures and, unlike OTC derivatives, do not require extensive documentation as the member agreements govern the trading relationships. Clearing and settlement is normally outsourced to a clearing house. Derivatives exchanges are usually subject to significant regulatory oversight.

¹⁶ Awrey, above n 5, at 162.

vacuum.¹⁷ Prior to the GFC, this regulatory vacuum caused considerable unease in light of the burgeoning size of derivatives transactions relative to the small number of dealers and end-users comprising the vast bulk of the market. The sense of unease was compounded by the potential for the interconnected nature of derivatives markets to precipitate systemic market risk and failure. The pressing question for regulators around the world was just how to implement a public regulatory framework for OTC derivatives transactions and which national and/or international bodies should undertake the regulatory responsibility. The GFC served to crystallise the public unease and concerns. It provided the impetus for international bodies to find answers to the issue of the OTC derivatives regulatory vacuum.

Following the GFC, a paradigmatic shift in regulatory attitude towards OTC derivatives markets has begun to emerge and develop. The first evidence of this attitudinal shift manifested in the declarations issued at the G20 Pittsburgh Summit in September 2009. The preamble to the Leaders Statement signalled an intention to enhance and expand the scope and regulation of OTC derivatives.¹⁸ “Tougher regulation” of OTC derivatives was proclaimed.¹⁹ This was to be achieved via several regulatory initiatives. Firstly, standardised OTC derivatives transactions were to be moved to exchange traded platforms (rather than being traded ‘over-the-counter’) and centrally cleared via financial institutions known as central counterparty clearing houses.²⁰ The second regulatory initiative was designed to increase market transparency by requiring mandatory reporting of derivatives transactions to trade repositories. Mandatory reporting would enable regulators to collate and analyse OTC derivatives data and to have greater visibility over the potential accretion of financial risk within OTC derivatives markets. The final regulatory initiative was designed to ensure that the failure of a counterparty to a derivatives transaction did not threaten the stability of the financial system by creating a domino contagion effect.²¹ This initiative would precede but eventually complement the central clearing of standardised OTC derivatives by requiring a more robust collateral exchange system. The initiative has come to be known as the posting of initial margin and subsequent variation margining of non-centrally cleared trades.

Parties to derivatives transactions have historically sought to secure their respective credit exposures by a process known as collateral management. This process typically involves the party who is ‘out of the money’²² transferring (or ‘posting’) on a periodic basis an agreed form of cash or securities (as ‘collateral’) to its contracting counterparty who is ‘in the money’. Collateral management arrangements have generally been recorded on a separate

¹⁷ Awrey, above n 5, at 162. It should be noted that the leading OTC dealers are supervised financial institutions within their respective jurisdictions and are therefore subject to licencing, market conduct and prudential regulation.

¹⁸ <http://www.g20.utoronto.ca/2009/2009communique0925.html>

¹⁹ Above n 18.

²⁰ Biggins, above n 7, at 1308.

²¹ Glenn Morgan “Reforming OTC Markets: the Politics and Economics of Technical Fixes” (2012) 13 (3) E.B.O.R. 391 at 405.

²² As will be discussed later in the paper, derivative transactions change in value as the value of the underlying asset in respect of which the contract is derived changes. This creates a situation where, at any given point in time, one party to the contract is invariably likely to have a credit exposure to the other party.

standardised contractual document developed by ISDA called a Credit Support Annex and the practice of using collateral management arrangements has grown significantly since the early 1980s when almost all OTC derivatives trading was conducted on an ‘uncollateralised’ basis.²³ By 2000, ISDA’s regular Margin and Collateral survey recorded 12,000 separate collateral management arrangements.²⁴ By 2009, this amount had increased to 150,000.²⁵ The concept of counterparties to a derivatives transaction interchangeably being a creditor or debtor (either ‘in the money’ or ‘out of the money’) is fundamentally important to OTC derivatives markets. Unlike many other financial instruments which trade on a ‘spot’ basis (legal ownership and economic risk are transferred in a short space of time, for example 72 hours), OTC derivative counterparties have an ongoing relationship sometimes spanning several years and characterised by executory performance obligations, for example to exchange payments on future specified periodic dates. Counterparty credit risk, and the management thereof, are therefore key themes underpinning the operation of OTC derivatives markets.

The practice of collateral management combined with other legal features inherent in OTC derivatives transactions, such as mutuality based close-out netting, novation and supportive jurisdictional legal opinions, has been designed to mitigate potentially adverse consequences resulting from counterparty insolvency. In particular, close-out netting has been constructed to protect a non defaulting counterparty from becoming embroiled in a protracted and complex insolvency by swiftly bringing all of the derivatives trades on foot to a close. The purpose of this paper is to examine one specific provision in ISDA’s standard form master agreement that may have had a counterintuitive effect in respect of managing the potentially adverse consequences to stakeholders of an insolvent party. This provision is known as the ‘flawed asset’ provision and its effect will be examined through the lens of a specific set of legal proceedings associated with the collapse of the United States investment bank Lehman Brothers’ United Kingdom operations. The ‘flawed asset’ provision performance conditions payment obligations on, among other things, the absence of an event of default. The conditionality of a future payment obligation is perceived to create a ‘flaw’ in the contingently receivable asset. The paper will concentrate its analysis on this key provision in ISDA’s standard form master agreement. The paper will then consider regulatory reforms to OTC derivatives markets and the extent to which they may have alleviated issues connected with the ‘flawed asset’ provision.

Section one of the paper comprises this introduction. Section two details background information relevant to OTC derivatives markets; how are derivatives transactions structured, what is their purpose, what are the different product types and key contractual terms, how has ISDA’s role developed in the standardisation of contracts and its influence on the shape of derivatives markets. Section three examines the functions of close-out netting and collateral

²³ Murray, above n 8, at 314.

²⁴ Morgan, above n 21, at 401.

²⁵ Morgan, above n 21, at 401.

management and how they seek to achieve the mitigation of counterparty credit risk.²⁶

Section four considers some of the concerns regarding close-out netting in an insolvency situation. The section then considers the performance of the 'flawed asset' provision in the United Kingdom case of *Lomas v JFB Firth Rixson Inc.* Finally, section four analyses the divergent conclusions that courts in the United States and the United Kingdom have reached regarding the operative effect of the 'flawed asset' provision. Section five details some of the regulatory initiatives relating to the trading and collateralisation of derivatives transactions post GFC, including initial and variation margining and central clearing, to assess the perceived shift towards the public regulation of OTC derivatives markets. Section six of the paper concludes.

II OTC Derivatives Transactions and ISDA

A Derivatives; Purpose, Product Types and Contracting Counterparties

Derivatives (or more specifically derivative transactions) are financial instruments that derive their financial value by reference to an underlying asset.²⁷ Importantly, OTC derivatives, as a subset of derivatives, are contracts and it is the contractual rights and obligations that comprise their inherent economic value. There is a broad range of underlying assets upon which derivatives, by reference, are usually constructed. These include securities, commodities, currencies, interest rates and third party creditworthiness.²⁸ As the underlying asset changes in value, there is a corresponding value adjustment to the derivative contract. On this basis, OTC derivatives have been characterised as 'aleatory contracts' in that their value (and any subsequent payments between counterparties) is dependent upon "the outcome of one or more extrinsic, future, uncertain events or metrics".²⁹

Almost all derivatives are structured from three product building blocks; 'options', 'forwards' and 'swaps'.³⁰ An option contract represents the right (but not the obligation) to buy or sell an agreed quantity of an underlying asset at a predetermined price.³¹ A forward contract represents both the right, but more importantly, the obligation to buy or sell the agreed quantity at the predetermined price.³² An OTC derivatives swap generally involves the parties to the contract agreeing to exchange periodic payments which are calculated on the basis of the performance of another financial instrument, often an interest rate.³³ The contracting counterparties effectively swap payment obligations in respect of an agreed notional principal

²⁶ Counterparty credit risk can be defined as the probability of a counterparty defaulting on its payment obligations. This risk increases the further away a future payment date is as every additional day increases the possibility that some event may cause an inability to pay. A counterparty with a lower credit rating presents a greater repayment risk than a more highly rated counterparty.

²⁷ Awrey, above n 5, at 157.

²⁸ Biggins, above n 7, at 1299.

²⁹ Biggins, above n 7, at 1299.

³⁰ Colin Scott and John Biggins "Public-Private Relations in a Transnational Private Regulatory Regime: ISDA, the State and OTC Derivatives Market Reform" (2012) 13(3) E.B.O.R. 310 at 312.

³¹ Scott and Biggins, above n 30, at 312. These are often referred to as 'call' and 'put' options.

³² Scott and Biggins, above n 30, at 312.

³³ Scott and Biggins, above n 30, at 312.

amount.³⁴ This paper will concern itself predominantly with OTC interest rate swap derivatives. While OTC derivative contracts can be ‘physically settled’; for example a forward contract is completed by the delivery of the specified asset at the agreed contract price on the settlement date; in practice the majority of OTC derivatives are ‘cash settled’ by a cash payment between the parties of the difference between the market price for the underlying asset and the agreed contractual price.

OTC derivatives contracts are remarkably flexible financial instruments lending themselves to almost limitless potential structures and purposes. However, a key attribute of OTC derivatives (in fact, of all derivatives) is their ability to facilitate the reallocation of financial and economic risk. OTC derivatives contracts isolate certain financial risks and shift them from one contracting party to another.³⁵ A commercial exporting enterprise may desire the certainty of a fixed rate of interest on its debt capital and certainty regarding the currency rate in the export market it is operating in. This will allow the enterprise to insulate itself from interest rate and currency volatility. The function of the reallocation of risk facilitated by OTC derivatives gives rise to three primary roles that market participants perform. The first of these roles is performed by those parties seeking to use OTC derivatives to hedge certain business risks. Often referred to as ‘end-users’, this category encapsulates a broad range of entities including governments, territorial authorities, public companies and financial institutions. Investment managers of large asset owning vehicles are particular end-users of OTC derivatives for portfolio construction and investment risk mitigation purposes.³⁶ The

³⁴ For example, an interest rate swap transaction may involve one counterparty paying by reference to a fixed rate of five percent on a notional amount of \$100m for a term of five years with the other counterparty paying by reference to the floating rate of interest over the course of that five year term. Payments will be exchanged between the parties periodically (for example every six months). The payment dates will be recorded in a Confirmation (see section *II C* for further information). The Confirmation will identify a series of dates upon which the parties are obliged to make payments to each other and will contain the formula to calculate the amounts payable.

³⁵ Awrey, above n 5, at 160.

³⁶ Investment portfolios with significant weightings towards corporate bonds will enter into interest rate swaps with bank counterparties in order to preserve the value of the corporate bonds. For example, an investment portfolio holds a corporate bond issued by a large listed manufacturing company. The investment portfolio subscribed for the corporate bond on the issue date of 1 January 2015 and received the bond in exchange for a capital investment of \$100m. The value of the bond at the date of issue is \$100m and it has a term of five years paying a quarterly coupon of five percent. Interest rates remain stable throughout 2015 but by the end of 2015 the investment manager for the portfolio has formed a view that interest rates are likely to rise significantly in the upcoming three to six months then remain relatively stable at that new higher level until the maturity of the bond. A significant increase in interest rates will cause the corporate bond to decrease in value due to the impact of discounting the future fixed cash flows of the bond at a higher interest rate. In order to preserve the value of the bond, the portfolio enters into a four year interest rate swap with a bank counterparty, the swap contract commencing on 1 January 2016. The maturity dates of both the interest rate swap and the corporate bond are aligned. The face value of the swap is \$100m mirroring the face value of the bond and the swap counterparties agree to make quarterly payments based on the face value of the swap. The payment obligation of the portfolio is fixed to a rate of five percent of \$100m while the bank’s payment obligation is referenced to the prevailing floating interest rate calculated as a percentage of \$100m. If the floating interest rate increases from five percent to eight percent at the start of the first quarter of 2016 (and remains at that level throughout that quarter), then the portfolio will be ‘in the money’ on the swap by the present value of the difference between the fixed and floating rates (three percent of \$100m; then divided by four to reflect the quarterly adjustment). As a result, the portfolio will receive a quarterly payment of \$750k from its bank counterparty at the end of the first quarter in 2016 (and for all subsequent quarters should interest rates remain at the new higher interest rate until the

second category of market participant is the commercial and investment banks who perform a market-making function by structuring derivatives instruments and marketing them for end-users.³⁷ This category is sometimes referred to as 'derivatives dealers'.³⁸ The final category is the financial enterprises seeking to profit from exposure to risk, often referred to as 'speculators'.³⁹ Effectively, speculators assist the completion of OTC derivatives markets as the mirror opposite of end-users with the derivatives dealers performing an intermediary function.⁴⁰

B Role of ISDA in OTC Derivatives Markets

As new derivative products began to develop and be more widely used in the 1980s, market participants sought to standardise the contractual documents underpinning OTC derivatives transactions in order to minimise transaction costs and promote legal certainty.⁴¹ This led to the establishment of ISDA whose initial primary function was to safeguard copyright associated with the developing standardised contracts.⁴² However, as derivatives markets developed and transactions moved into jurisdictions beyond the traditional financial hubs of London and New York, concerns regarding the legal enforceability of OTC derivatives contracts emerged. These concerns centred primarily on two broad legal issues; firstly the operation of contractual payment obligations in the event of counterparty insolvency, and the subsequent treatment of any collateral that may have been posted under the contract; and secondly the potential application of a jurisdiction's gambling laws to an OTC derivatives contract which could be perceived as speculation in respect of a future uncertain event (for example whether interest rates will increase or decrease).⁴³

ISDA was particularly concerned that a mechanism being developed in the standardised OTC derivatives contracts to manage the risks associated with counterparty insolvency may not operate in concert with the insolvency regimes of certain jurisdictions. This mechanism

maturity of the bond). The present value of the portfolio's cash flows under the swap contract will have a positive offsetting effect on the fall in market value of the bond resulting from the new higher level of interest rate impacting the value of the corporate bond. The interest rate swap has served its purpose of protecting the value of the bond in the higher interest rate environment.

³⁷ Awrey, above n 5, at 159.

³⁸ Awrey, above n 5, at 159. The largest group of dealers are known as the G16. As at 2012, the G16 comprised Bank of America/Merrill Lynch, Barclays, BNP Paribas, Citigroup, Credit Agricole, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JP Morgan Chase, Morgan Stanley, Nomura Group, Royal Bank of Scotland, Societe Generale, UBS, Wells Fargo.

³⁹ Awrey, above n 5, at 159. OTC derivatives may also be used for the purposes of 'regulatory arbitrage'. In such cases the derivative is used to exploit a gap between the economic substance of a transaction and its legal or regulatory treatment. For example, equity derivatives may be used to disguise the true underlying holdings in a company therefore enabling a shareholder to avoid regulatory disclosure requirements and potentially construct a strategic but 'non legal' holding in advance of a corporate takeover. Investment managers may use equity derivatives to exclude or 'swap out' certain undesirable or prohibited securities from index based funds while simultaneously enjoying the economic exposure to those particular securities.

⁴⁰ Awrey, above n 5, at 159.

⁴¹ Scott and Biggins, above n 30, at 323.

⁴² Scott and Biggins, above n 30, 323. ISDA is a not for profit corporation incorporated in the state of New York having been formed in 1985.

⁴³ Murray, above n 8, at 324.

would come to be referred to as ‘close-out netting’ in the standardised contracts. Close-out netting permitted the solvent, non defaulting counterparty to terminate all the open positions under an OTC derivatives contract, determine the market value of those positions and then set-off each position against the others to arrive at a single ‘net’ amount either owing to or by the defaulting party.⁴⁴ This was a particularly effective counterparty credit risk mitigant because, at any given point in time, a bilateral OTC derivatives contract could govern hundreds if not thousands of transactions and a substantial proportion of those were likely to be ‘out of the money’. An insolvency event on the part of one counterparty could oblige the non defaulting party to make a payment on each of its ‘out of the money’ positions but potentially deprive it of the benefit of its ‘in the money’ positions. In respect of those ‘in the money’ positions, the non defaulting party could be required to file a proof of debt with the administrators of the insolvent party’s estate and receive a pro rated dividend with all of the estate’s unsecured creditors in accordance with the *pari passu* principle. This outcome would likely dis-incentivise counterparties from entering into OTC contracts in jurisdictions where the efficacy of close-out netting was uncertain.

These concerns prompted ISDA to expand its activities beyond just the protection of copyright. It began to perform a lobbying function, working with governments to transpose ‘safe-harbours’ for OTC derivatives to ensure the efficacy of close-out netting.⁴⁵ Part of ISDA’s lobbying activities involved the commissioning of legal opinions, across a large number of jurisdictions, delineating the interface between contractual close-out netting rights and national insolvency regimes.⁴⁶ By retaining external counsel to provide favourable legal opinions, ISDA was seeking to provide *ex ante* legal certainty therefore enabling OTC derivatives markets to extend into jurisdictions otherwise not perceived to have accommodating legislative frameworks. ISDA’s activities have also served to highlight the employment and economic growth associated with developing OTC derivatives in those jurisdictions.⁴⁷ As OTC derivatives markets developed in the 1990s, ISDA was also quick to point out the destabilising domino effect counterparty insolvency could have on financial markets should it not be possible to effectively and promptly settle derivatives’ positions via close-out netting.⁴⁸

ISDA’s lobbying activities have proven to be very successful in penetrating public legislative processes.⁴⁹ In 2009 ISDA was described as “the most powerful and effective lobbying force in the recent history of financial markets.”⁵⁰ ISDA’s effectiveness as a lobbying group in the late 20th century was a key reason why OTC derivatives were not only recognised as valid

⁴⁴ Philipp Paech “Close-out Netting, Insolvency Law and Conflict-of-Laws” (2014) [online] LSE Law, Society and Economy Working Papers, at 7.

⁴⁵ Scott and Biggins, above n 30, at 327. As of July 2011, at least 43 countries had adopted or were considering netting legislation.

⁴⁶ Scott and Biggins, above n 30, at 327. These opinions are made available to ISDA’s members. As of August 2012, ISDA had commissioned 57 netting opinions and 48 collateral opinions.

⁴⁷ Scott and Biggins, above n 30, at 334.

⁴⁸ Scott and Biggins, above n 30, at 328.

⁴⁹ Scott and Biggins, above n 30, at 322.

⁵⁰ Scott and Biggins, above n 30, at 323.

financial instruments in many jurisdictions but also left largely unregulated by national prudential and market conduct regulators prior to the GFC.⁵¹

C OTC Derivatives Document Architecture and Key Contractual Terms

ISDA's success as a lobbying group in enabling the validation and public deregulation of OTC derivatives in many jurisdictions can be significantly attributed to its effectiveness in developing a highly standardised contractual documentation structure for OTC derivatives transactions.⁵² The benefits of contractual standardisation evolved into the concept of a bilateral 'master agreement' which could govern all transactions between the counterparties (as opposed to separate but standardised contracts for each transaction). The 'master agreement' could stipulate that all transactions under it form a single agreement which would be subject to the exchange of certain representations and would form the operative basis for the conduct of all future transactions.⁵³ The master agreement would therefore create a contractual connection between all bilateral transactions and enable the effective use of close-out netting as a mechanism for determining a net credit exposure enforceable against a defaulting counterparty in the event of its insolvency.⁵⁴ From 1987, ISDA began to publish a series of master agreements designed for specific types of derivatives, for example interest rate swaps, but in 1992 it published the ISDA Master Agreement (multicurrency cross-border) which quickly became the most commonly used precedent document within OTC derivatives markets.⁵⁵ In 2002, ISDA published a successor to the 1992 version master agreement which responded to various market crises in the 1990s, including the 1997 Asian Crisis and the collapse of the hedge fund Long Term Capital Management, by making refinements to, among other things, the close-out netting provisions.⁵⁶ Today, over 90% of all OTC derivatives transactions are governed by either the 1992 or 2002 ISDA Master Agreement.

A typical bilateral OTC derivatives arrangement using the ISDA Master Agreement will actually comprise a suite of documents encapsulating the contractual position. The first of these documents is the ISDA Master Agreement itself. It is a 'boiler plate' contract containing the standard transactional relationship provisions such as day to day legal obligations, representations, termination events and so forth.⁵⁷ The next in the suite of documents is the Schedule to the ISDA Master Agreement. The Schedule provides the counterparties with an opportunity to amend or add provisions to the Master Agreement to

⁵¹ Today ISDA is among the world's largest global financial trade organisations with over 850 member institutions from 68 countries. These members comprise a broad range of derivatives markets participants including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. ISDA operates across six continents and retains offices in New York, London, Brussels, Washington, Singapore, Tokyo and Hong Kong.

⁵² Scott and Biggins, above n 30, at 323.

⁵³ Murray, above n 8, at 319.

⁵⁴ Murray, above n 8, at 319.

⁵⁵ Murray, above n 8, at 320.

⁵⁶ Murray, above n 8, at 320. Any reference to the 'ISDA Master Agreement' in this paper could be to either the 1992 or 2002 versions unless otherwise specified.

⁵⁷ Murray, above n 8, at 321.

tailor the arrangements to their specific economic and transactional requirements. Each transaction under the Master Agreement is recorded in a standard form document referred to as a 'Confirmation' which contains the specific economic details of the transaction. The Confirmations are aggregated and form part of the suite of documents.⁵⁸

If one of the counterparties (Counterparty A) is entering into the derivatives arrangement on behalf of a third party client, for example an asset manager contracted to provide investment services to a pension fund, then the counterparties will incorporate a standard form Investment Manager Supplement into the suite of documents. If Counterparty A enters into a number of derivatives arrangements on behalf of a wide variety of third parties, the Investment Manager Supplement performs an important function because it has the legal effect of creating a separate Master Agreement between its counterparty (Counterparty B; usually a commercial bank or 'derivatives dealer') and each third party client of Counterparty A, with Counterparty A performing an agency function. This enables an event of default in respect of a particular third party to be isolated and to have no effect on the trading activities of Counterparty A's other clients named in the Master Agreement documentation. The final document in the suite is the Credit Support Annex. ('CSA'). Together with close-out netting, the CSA performs the key counterparty credit risk mitigant function. The CSA governs the mechanisms by which the counterparties periodically exchange collateral to secure their respective mark-to-market positions.⁵⁹

A key section of the ISDA Master Agreement are the provisions specifying events of default (such as counterparty bankruptcy) and setting out the grounds for early termination.⁶⁰ The counterparties can select 'Automatic Early Termination' upon an event of default when they finalise and execute their ISDA Master Agreement, although in practice a counterparty will generally want to have the flexibility to decide whether or not it wishes to designate an early termination date upon an event of default and to bring all of the transactions under the contract to a close.⁶¹ A consequence of early termination is to trigger the close-out netting

⁵⁸ By section 1(b) of the Master Agreement, inconsistencies are resolved by affording priority first to the Confirmation, secondly to the Schedule and finally to the Master Agreement.

⁵⁹ Mark-to-market is a 'fair value' measure methodology applied to assets that will change in value over time. It is designed to provide an up to date valuation for assets that may be valued periodically or like OTC derivatives have only periodic payment dates (for example quarterly payments).

⁶⁰ Both the 1992 and 2002 versions of the ISDA Master Agreement specify eight independent events of default; Failure to pay or deliver; Breach/repudiation of agreement; Default under specified transaction; Cross default; Bankruptcy; and Merger without assumption. In addition to events of default, Section 5 (b) also contains a list of 'termination events' which, although not events of default, also provide for 'early termination'.

⁶¹ Another key section of the ISDA Master Agreement is the choice of law provisions. While the counterparties may agree and specify any governing jurisdiction, ISDA guidance strongly recommends that any contractual disputes be confined to English or New York law. Section 13 of the Master Agreement specifically references only English or New York law in respect of potential legal proceedings flowing from a counterparty dispute. Other key provisions in the ISDA Master Agreement include s.1(c) which confirms that all transactions between the counterparties form one single agreement and s.7 which prevents assignment of the contract without the prior written consent of the other party. Also of note (and which will be analysed in detail later in this paper) is section 2 (a) (iii) of the ISDA Master Agreement (or the 'flawed asset' provision) which has the effect of conditioning the performance obligations to make payments to counterparties on the basis that no event of default or potential event of default subsists at the time the obliged payment arises.

mechanism. This is a fundamentally important component of the ISDA Master Agreement and it operates in three stages; firstly, the termination of all outstanding trades between the parties; secondly, the ‘mark-to-market’ valuation of each trade; and thirdly the determination of a single net amount from the aggregated trades payable either to or from the non defaulting party.⁶²

III Close-out Netting and the Use of Collateral

A Close-out Netting

Close-out netting is a key functional mechanism within the ISDA Master Agreement for the management of counterparty credit risk. It has been regarded as “perhaps the most effective risk mitigant in financial markets”.⁶³ Close-out netting is a sub-type of the broader mechanism of netting which essentially involves the ability of contractual counterparties, with a number of live transactions between them, to set off the positive and negative valued transactions and arrive at one net value reflecting the true credit exposure between the counterparties at that particular point in time.⁶⁴ Close-out netting is the mechanism which “serves to close the course of dealings” or, in other words, the full range of live transactions subject to the ISDA Master Agreement, following an event of default by one of the contracting counterparties.⁶⁵ The first step in the close-out netting process is the termination stage. This stage is triggered by the non-defaulting party designating an early termination date thereby accelerating all existing payment obligations to that date and aborting all future payment obligations. Importantly, unless ‘Automatic Early Termination’ has been selected by the contracting counterparties, the designation of an early termination date is a right the non defaulting party may or may not exercise.

The next step in the process is the valuation stage. Broadly, this involves the determination of the cost of replacing all of the accelerated transactions under the ISDA Master Agreement by having a third party assume the rights and obligations of the defaulting party.⁶⁶ The replacement cost for each transaction is calculated on a ‘mark-to-market’ basis.⁶⁷ Effectively, the calculation formula in the ISDA Master Agreement permits the non defaulting party to determine the loss (or gain) from the associated costs inherent in entering into replacement derivatives for each accelerated transaction. The non defaulting party may determine the loss (or gain) by reference to quotations of relevant market rates for potential replacement derivatives. Notably, the relatively complex technical provisions in the ISDA Master Agreement relating to the valuation stage were revised in the 2002 form of the agreement.

⁶² Murray, above n 8, at 317.

⁶³ Gerry G. Kounadis “Striking the Correct Balance between Imposing a Suspension of Close-out Netting Rights while Preserving Legal Certainty and Market Integrity in View of the Bank Recovery and Resolution Directive 2014/59/EU: Part A” (2015) 30 (4) J.I.B.L.R. 228 at 228. ISDA references close-out netting as “compression” which involves “tearing up” trades that economically offset each other.

⁶⁴ Kounadis, above n 63, at 229.

⁶⁵ <https://www.bu.edu/ilj/files/2015/04/Johnson-The-Case-against-Close-out-Netting.pdf> at 109.

⁶⁶ Murray, above n 8, at 317.

⁶⁷ Murray, above n 8, at 317.

During the various market crises of the mid and late 1990's, including the Asian and Russian currency default crises and the collapse of hedge fund Long Term Capital Management, it had proven difficult to obtain appropriate market quotations due to a lack of market liquidity.⁶⁸ ISDA responded by introducing a mechanism intended to more specifically and accurately provide the non defaulting party with the 'economic equivalent' of the terminated transactions.

The 1992 version of the ISDA Master Agreement had permitted the non-defaulting party the flexibility to determine the replacement cost on a 'loss' basis or 'market quotation' basis but also contained the additional flexibility, if the parties had so agreed at the time of entry into the ISDA Master Agreement, of selecting the 'First Method' which permitted the non defaulting party to avoid making a payment to the defaulting party should the final netted amount result in the defaulting party being 'in the money'. In practice the 'First Method' was seldom selected by contracting counterparties because banks seeking to rely on netting agreements for capital adequacy purposes were required to ensure that their ISDA Master Agreements did not contain 'walk-away' clauses which was the effective potential result under the 'First Method' if a non defaulting bank was 'out of the money' on close out.⁶⁹ The mechanism introduced by ISDA to respond to the 1992 agreement version close-out valuation issues was to remove the optionality associated with the 'First Method' and to effectively combine the 'loss' and 'market quotation' methodologies in order to more precisely put the non defaulting party into the position it would otherwise have been had the transactions not been terminated.⁷⁰ In determining replacement cost, the non defaulting party was obliged to "act in good faith and use commercially reasonable procedures in order to produce a commercially reasonable result."⁷¹

The final step in the process involves the determination of a net balance which is calculated by netting the transactions with positive values (where the non defaulting party is 'in the money') against those with negative values to arrive at a final close-out amount.⁷² The determination of the net balance is legally enabled by a process of novation.⁷³ Under this process each transaction is discharged as at the specified early termination date and the associated rights and obligations of the counterparties are consolidated and novated into a separate obligation on part of the 'out of the money' counterparty to pay the net balance. The mechanism of novation was historically developed into the ISDA Master Agreement as the most effective means to militate an insolvency administrator's ability to enforce the 'in the

⁶⁸ Zepeda, above n 9, at 314.

⁶⁹ Zepeda, above n 9, at 314.

⁷⁰ Zepeda, above n 9, at 315.

⁷¹ Section 14 (Definitions) of the 2002 ISDA Master Agreement; "Close-out Amount".

⁷² Kounadis, above n 63, at 229.

⁷³ Murray, above n 8, at 317. Novation effectively cancels all of the individual 'contractual arrangements' recorded in each confirmation and replaces them with a new 'contractual arrangement' but with all benefits and burdens also being transferred to the new arrangement.

money' positions whilst disclaiming the 'out of the money' positions as onerous contracts, a process referred to as 'cherry picking'.⁷⁴

If the defaulting party is 'out of the money' following the determination of a net balance, then the non defaulting party may apply any posted collateral towards the discharge of the defaulting party's contractual payment obligation.⁷⁵ Excess collateral must be returned to the insolvency administrator.⁷⁶ If there is a shortfall following the application of collateral, then the non defaulting party's residual claim will be treated in the same manner as the claims of unsecured creditors in the defaulting party's insolvency administration.⁷⁷ In addition to close-out netting, the 2002 version of the Master Agreement introduced a right of set-off in favour of the non defaulting party.⁷⁸ This permits the non defaulting party who is 'out of the money' to set off any other amounts owing under non derivatives contracts by the defaulting party in order to reduce the net amount it must pay under its ISDA Master Agreement.⁷⁹ Contractual set off is a subtly different legal mechanism to close-out netting in that it does not otherwise involve a termination and novation of the contractual rights and obligations giving rise to the amounts owed to the non defaulting party outside of the ISDA Master Agreement.

B The Use of Collateral

Alongside close-out netting, the posting of collateral is the other primary credit risk mitigant used in connection with OTC derivatives contracts. Collateralisation seeks to reduce credit risk by providing assets which the non defaulting collateral taker has recourse to in an insolvency event.⁸⁰ The practice of posting/receiving collateral, or the collateral management process as it is often referred to, involves the transfer of legal title to an amount of financial instruments, usually cash, to reflect the 'out of the money' position of the transferring counterparty. The transfer usually takes place on an agreed periodic basis subject to the terms and conditions contained in the ISDA Credit Support Annex first developed by ISDA in 1994.⁸¹ These are likely to include procedures for one counterparty making a call for collateral when underlying OTC derivatives transactions exceed agreed financial thresholds.⁸² Generally, the transfer of collateral takes place on a 'title transfer' basis as opposed to a 'security interest' basis. Title transfer ensures that the collateral taker obtains proprietary rights in the collateral therefore moving the collateral beyond the scope of an insolvency administrator. The collateral giver loses title to the collateral and instead is owed a personal obligation by the collateral taker to redeliver equivalent collateral in the event the marked-to-market value of the derivatives contract moves back in the favour of the collateral giver.⁸³

⁷⁴ Murray, above n 8, at 318.

⁷⁵ Kounadis, above n 63, at 229.

⁷⁶ Kounadis, above n 63, at 229.

⁷⁷ Kounadis, above n 63, at 229.

⁷⁸ Section 6 (f) of the 2002 ISDA Master Agreement.

⁷⁹ Kounadis, above n 63, at 229.

⁸⁰ Raul Oscar Elias "Legal Aspects of Swaps and Collateral" (2001) 3 J.I.F.M. 232 at 233.

⁸¹ Elias, above n 80, at 233.

⁸² Zepeda, above n 9, at 312.

⁸³ Elias, above n 80, at 233.

Despite the intention of any collateral management process being to reduce counterparty credit risk, the collateral giver may find itself exposed in the event its counterparty becomes insolvent.

When OTC derivatives markets began to develop in the 1980s, almost all trading was undertaken on an uncollateralised basis.⁸⁴ Counterparties were reluctant to collateralise transactions due to legal uncertainty on the enforceability of financial collateral arrangements particularly where the financial collateral took the form of securities held through a chain of financial intermediaries.⁸⁵ By the late 1990s, ISDA had become more active in both tracking the amount of collateral being posted and encouraging its members to adopt the practice of collateral management.⁸⁶ ISDA initiated regular Margin and Collateral Surveys and published the findings on its website.⁸⁷ The amount of collateral management arrangements increased from 16,000 in 2000 to around 150,000 by the end of 2010.⁸⁸

C The Benefits of Close-out Netting and Collateral Management

The mechanism of close-out netting has received widespread support and endorsement from scholars, regulators and policy makers since its creation and development in the late 1980s and early 1990s.⁸⁹ It has been asserted that close-out netting performs a vital function in the operation of modern financial markets.⁹⁰ Regulatory authorities such as the Financial Stability Board⁹¹ and the Cross-border Bank Resolution Group of the Basel Committee on Banking Supervision⁹² encourage the use of both close-out netting and collateral management due to the beneficial effects these mechanisms have on the stability of the financial system.⁹³ The European Commission also considers close-out netting critical to the efficiency of financial markets due to its ability to both reduce credit risk and decrease the requirement for financial institutions to hold reserve amounts of buffer capital on balance sheet.⁹⁴

⁸⁴ Murray, above n 8, at 314.

⁸⁵ These concerns were particularly associated with collateral in the form of dematerialised shares where there was significant uncertainty as to the nature of legal rights to those shares when they were held in electronic accounts with depositories. In common law countries like New Zealand and the United Kingdom, the dematerialised shares often represented an intermediated connection between the share issuer and the share 'owner' where there could be a chain of intermediaries in between. In such cases the collateral giver's legal ownership comprised an equitable property right to the intermediated securities with such rights being potentially defeated by the granting of a collateral security interest to back an 'out of the money' position. This could occur where the collateral receiver went into insolvency and/or the collateral was re-hypothecated.

⁸⁶ Morgan, above n 21, at 401.

⁸⁷ Morgan, above n 21, at 401.

⁸⁸ Carl Baker "Rethinking the ISDA flawed asset" (2012) 27 (6) J.I.B.L.R. 250 at 255.

⁸⁹ Above n 65, at 103.

⁹⁰ Above n 65, at 104.

⁹¹ The Financial Stability Board was established following the G20 Pittsburgh Summit to address financial system vulnerabilities and implement strong regulatory, supervisory and other policies in the interests of financial stability.

⁹² The Basel Committee on Banking Supervision develops, among other things, international standards on capital adequacy and formulates supervisory standards, guidelines and statements of best practice in respect of banking supervision.

⁹³ <http://www.unidroit.org/overview-netting> at 3.

⁹⁴ Above n 65, at 111.

The primary reason why close-out netting is so effective in promoting financial stability is because it permits a non defaulting financial institution or end user to cleanly and promptly extract itself from its OTC derivatives arrangements with another financial institution that is bordering on entry into the zone of insolvency. As a result, the non defaulting financial institution can avoid being caught up in a potentially complex and protracted quagmire ensuing from the defaulting party's insolvency. Complexity and delay could easily occur if each derivatives transaction was treated separately and individually negotiated as between the non defaulting counterparty and the insolvency administrator. The derivatives arrangements could extend to thousands of transactions each giving rise to potentially competing and conflicting interests as the insolvency administrator sought to maximise the insolvent estate for the benefit of unsecured creditors. Any posted collateral would "effectively become useless if it were frozen" during the negotiating period.⁹⁵ A non defaulting end user who had entered into derivatives arrangements for the purposes of hedging risk would potentially face a "long and unpredictable" period during the insolvency where it needed to deploy additional financial resources to rebalance hedged positions.⁹⁶

In the absence of a close-out netting mechanism, the associated counterparty credit risks facing OTC derivatives' market participants have the potential to cause a wider systemic risk to the financial system. Systemic risk could manifest where a non defaulting counterparty's exposure to an insolvency process caused it to default on its separate and independent financial obligations due to, for example, an inability to access 'locked up' collateral. This could lead to successive failures of other market participants resulting in a 'chain of defaults' and subsequent turmoil in the underlying securities, commodities or interest rate markets from which the OTC derivatives concerned derived their value.⁹⁷ Close-out netting performs an important function in avoiding this 'contagion effect' and the subsequent systemic risk to the stability of the financial system.⁹⁸

Another benefit of the use of both collateral and close-out netting is the fact that these mechanisms can be taken into account when determining a financial institution's capital ratio under the Basel Accords.⁹⁹ At any given point in time, two major global financial institutions are likely to have hundreds of thousands of open OTC derivatives positions.¹⁰⁰ Statistics prepared by ISDA indicate that the mutual credit exposure between two such financial institutions is likely to be reduced by around 85% as a result of having effective close-out netting contractually in place.¹⁰¹ This means that only 15% of the credit exposure needs to be collateralised and covered by sufficient capital buffers, leaving the financial institutions free

⁹⁵ Above n 65, at 113.

⁹⁶ Above n 65, at 113.

⁹⁷ Above n 65, at 114.

⁹⁸ Above n 65, at 115.

⁹⁹ Above n 93, at 3.

¹⁰⁰ Paech, above n 44, at 6.

¹⁰¹ Paech, above n 44, at 6.

to deploy significantly larger amounts of capital in the course of their business activities.¹⁰²
As a result, financial markets benefit from improved liquidity and a lower cost of capital.¹⁰³

IV The ISDA Master Agreement and the Global Financial Crisis

This section of the paper analyses the tension between national insolvency regimes and aspects of the ISDA Master Agreement relating to the deployment of close-out netting. Given the extended time periods counterparties to OTC derivatives transactions are engaged with each other, counterparty credit risk is a key theme and concern. The cross border nature of many derivatives contracts introduces an additional layer of complexity as insolvency regimes and rules are seldom completely harmonised. The GFC served to crystallise the underlying tension between the ISDA Master Agreement and national insolvency regimes. This section of the paper analyses the ‘flawed asset’ provision in the ISDA Master Agreement in the context of divergent litigation outcomes in the courts of the United Kingdom and the United States.

A Close-out Netting and the Anti Deprivation and Pari Passu Principles

Despite the demonstrable benefits of close-out netting, a number of concerns have been raised regarding the effect it may have on the defaulting counterparty and its general unsecured creditors. Critics have suggested that close-out netting may force some financial institutions prematurely, and potentially needlessly, into insolvency.¹⁰⁴ This is because the events of default giving rise to termination rights in the ISDA Master Agreement may incentivise a non defaulting party who is ‘in the money’ to crystallise the arrangements rather than to afford the defaulting party time to remedy the event of default and ‘get its ship back in order’. The designation of an early termination date and subsequent deployment of close-out netting may push an ‘out of the money’ institution, already close to the zone of insolvency, over the edge in otherwise recoverable circumstances. In this regard, close-out netting could be perceived as a self-interested technique providing a ‘super-priority’ to a non defaulting counterparty potentially at the expense of the defaulting party’s general unsecured creditors.¹⁰⁵ Effectively, the non defaulting party’s credit risk is transferred to general unsecured creditors who may suffer further unnecessary loss if assets belonging to the insolvent debtor are sold at reduced values in distressed circumstances.¹⁰⁶ Additionally, there is a lack of transparency relating to OTC derivatives markets. No public declarations or filings are required therefore general unsecured creditors will have little visibility over the status of a debtor’s derivatives’ positions.¹⁰⁷

OTC derivatives markets depend upon key private law concepts such as freedom of contract and party autonomy. These concepts are supported by most jurisdictions and permit OTC

¹⁰² Paech, above n 44, at 10.

¹⁰³ Paech, above n 44, at 10.

¹⁰⁴ Above n 65, at 123.

¹⁰⁵ Above n 65, at 102.

¹⁰⁶ Above n 65, at 117.

¹⁰⁷ Above n 65, at 117.

derivatives' counterparties to regulate their contractual arrangements as they see fit, including the choice of which jurisdiction's legal system should govern the relationship, subject to certain basic contractual constraints such as capacity and illegality. However, when one counterparty becomes insolvent, mandatory insolvency laws and regimes come into play which may, in some circumstances, override privately agreed arrangements. Insolvency laws are generally predicated on maximising the insolvent estate for the benefit of the insolvent institution's creditors. On this basis, insolvency administrators can normally affirm favourable executory contracts (where outstanding contractual obligations remain to be performed as at the date of insolvency)¹⁰⁸ and invalidate disadvantageous transactions.¹⁰⁹ The insolvency administrator's powers to choose amongst executory contracts are often referred to as 'cherry picking'.¹¹⁰

Once the parameters of the insolvent estate have been established, the estate is distributed in accordance with the *pari passu* principle. The principle mandates that all general unsecured creditors participate equally as to a rateable share in the pool of assets comprising the insolvent estate. The *pari passu* principle invalidates a contractual arrangement designed to give one unsecured creditor more than its proportionate share of the estate.¹¹¹ Closely linked to the *pari passu* principle is the anti deprivation rule. It is a long established principle which is "essentially based on the proposition that one cannot contract out of the provisions of the insolvency legislation which govern the way in which assets are dealt with in a liquidation".¹¹² The anti deprivation rule serves to protect the *pari passu* principle by ensuring that none of the property owned by the insolvent institution at the commencement of the insolvency process is inappropriately contractually divested.¹¹³ The English case of *Whitmore v Mason* provides an example of the application of the anti-deprivation rule.¹¹⁴ The case involved a stipulation in a partnership deed that a partner's interest in a mining lease transferred upon bankruptcy for no consideration. That provision in the deed was held to be void while the transfer of other assets belonging to the bankrupt partner at a market valuation was ratified by the Court.¹¹⁵ The essence of the rule was aptly summarised in *Carreras Rothmans Ltd v Freemans Matthews Treasure Ltd* by Peter Gibson J as voiding an arrangement where the effect of the contract was to appropriate an asset owned by the company at the commencement of its liquidation in a manner otherwise than in accordance with the *pari passu* principle.¹¹⁶ Obviously, the rule is not absolute or unconditional as certain

¹⁰⁸ OTC derivatives contracts are regarded as executory contracts because obligations are still to be fulfilled for example future payment dates.

¹⁰⁹ Above n 65, at 115.

¹¹⁰ Above n 93, at 4. Although 'cherry picking' powers may exist in respect of executory contracts, mandatory insolvency set off operates in many jurisdictions, including the United Kingdom to permit the set off of mutual dealings.

¹¹¹ *Belmont Park Investments PTY Limited v BNY Corporate Trustee Services Limited, Lehman Brothers Special Financing Inc* [2011] UKSC 38 at [1].

¹¹² *Lomas v JFB Firth Rixson Inc* above n 10 at [94].

¹¹³ At [97] per Briggs J.

¹¹⁴ *Whitmore v Mason* (1861) 70 E.R. 1031.

¹¹⁵ At [216] per Sir William Page Wood V-C.

¹¹⁶ *Carreras Rothmans Ltd v Freemans Matthews Treasure Ltd* [1985] Ch 207 at [226].

creditors can lawfully alter their priority in a liquidation scenario, for example by the taking of security over the debtor's assets, just as unsecured creditors can adjust the operation of the *pari passu* principle by entering into subordination agreements.

One can see how the key features inherent in close-out netting, in particular the netting off of a potentially significant number of separate favourable and unfavourable transactions to arrive at a single aggregate amount, could be inconsistent with principles of insolvency law. Close-out netting is particularly objectionable to an insolvency administrator's ability to affirm favourable transactions while disapplying unfavourable ones. The close-out netting provisions in the ISDA Master Agreement arguably constitute a contractual mechanism designed to deprive an insolvent institution of an asset, being its potential entitlement to receive future 'in the money' payments, upon the occurrence of its entry into insolvency. The 'super-priority' afforded to counterparties who otherwise have no specified security over assets belonging to the insolvent estate hardly appears consistent with the *pari passu* principle. All of these factors have served to promote an underlying tension between the ISDA Master Agreement and insolvency regimes around the world. This underlying tension has driven the intense lobbying by ISDA since the 1990s to create safe harbours for OTC derivatives from potentially inconsistent insolvency laws. This has resulted in at least 40 jurisdictions, including nearly all important financial markets, recognising close-out netting and adopting accommodative legislation within their legal frameworks.¹¹⁷

B Close-out Netting, Collateral and Conflict of Laws

In addition to the tension between close-out netting and insolvency laws, the way different legal systems interpret features of both close-out netting and collateral provides another complicating factor for the operation of OTC derivatives markets. Insolvency laws vary considerably in different jurisdictions. Civil code 'Napoleonic' jurisdictions and the United States have not historically recognised insolvency set-off and therefore tend to exhibit a bias against close-out netting.¹¹⁸ Posted collateral may also be treated differently depending upon a legal system's characterisation of property rights. Generally, collateral is posted on either a title transfer or security interest basis and may comprise cash or securities such as shares or bonds. An 'in the money' counterparty will usually obtain proprietary rights over collateral that is posted in the form of financial instruments such as shares. However, any proprietary rights may be seriously compromised if collateral is not held in segregated accounts by the insolvent counterparty.¹¹⁹ Proprietary rights may even be compromised upon counterparty insolvency where the legal title to collateral is transferred to the 'in the money' counterparty

¹¹⁷ Above n 93, at 4.

¹¹⁸ Paech, above n 44, at 10. However, countries belonging to the European Union must recognise close-out netting, even if the collateral giver or taker is subject to insolvency proceedings, pursuant to the EU Financial Collateral Directive 2002/47/EC.

¹¹⁹ This may occur where the posted collateral is held in accounts associated with, or managed by, the collateral giver rather than transferring to accounts held or controlled by the collateral taker.

notwithstanding whether the form of collateral is cash or securities such as shares and bonds.¹²⁰

All of these factors combine to create legal uncertainty in relation to cross border OTC derivatives transactions. It is conceivable that an OTC derivatives contractual arrangement could be subject to three sets of competing and contradictory laws and legal systems upon the insolvency of one of the contracting counterparties; firstly, the legal system nominated as the governing law in the ISDA Master Agreement; secondly, the legal system where the insolvent counterparty entered into administration proceedings; and finally the legal system where the collateral assets reside. While most legal systems contain conflicts of laws rules, harmonisation of insolvency laws is regarded as notoriously difficult.¹²¹ Even in netting friendly countries, different insolvency laws may produce contrasting outcomes regarding the treatment and operation of close-out netting. For example, in the United Kingdom a close-out netting agreement can be unenforceable if the solvent party should have known about its counterparty's imminent insolvency at the time it entered into the agreement.¹²² By contrast, close-out netting agreements subject to Belgian law that are executed prior to the opening of insolvency proceedings cannot be challenged on the grounds of knowledge.¹²³ Other jurisdictions, including New Zealand, require mutuality to validate close-out netting arrangements and this may not be present in certain legal structures such as unitised investment vehicles where the burden of such arrangements sits with a corporate trustee but the benefit with a legally separate category of beneficiaries.

C Lomas v JFB Firth Rixson Inc and the 'Flawed Asset' Provision

On 15 September 2008, the United States based investment bank Lehman Brothers collapsed and filed a voluntary petition for bankruptcy relief under Chapter 11 of the U.S Bankruptcy Code.¹²⁴ This was a watershed moment in the GFC. Lehman Brothers' collapse precipitated an insolvency process unprecedented in its scale and complexity. There was a particularly concentrated period of litigation arising out of the insolvency of Lehman Brothers' United Kingdom subsidiary, Lehman Brothers International (Europe) ('LBIE'). By the end of 2014, LBIE's insolvency had led to 33 separate court decisions, eight of which were heard at the Court of Appeal level and three at the Supreme Court level.¹²⁵ Several of these decisions related to LBIE's OTC derivatives positions on insolvency. Immediately prior to its collapse, LBIE had a substantial derivatives book comprising at least 2000 transactions under various

¹²⁰ Even where cash is posted as collateral on a security interest basis, there is still a risk that legal rights to the cash could be extinguished or significantly reduced if the cash remains in accounts that are controlled by the collateral giver and other clients or associated parties of the collateral giver also have cash in those accounts.

¹²¹ Paech, above n 44, at 2.

¹²² Paech, above n 44, at 23.

¹²³ Paech, above n 44, at 23.

¹²⁴ Jennifer Marshall and Nick Herrod "Lehman Brothers Insolvency – Client Assets" (2009) 3 LFM 145 at 145.

¹²⁵ Jo Briathwaite "Law after Lehman" (2014) 11/2014 LSE Working Paper Series at 5.

ISDA Master Agreements.¹²⁶ By the end of 2010, around 1700 of these positions had been closed out, many by early termination.¹²⁷

The *Lomas v Firth Rixson Inc* proceedings concerned a series of interest rate swaps between LBIE and various counterparties. Each counterparty had executed ISDA Master Agreements with LBIE in order to hedge interest rate risk arising from their respective financing arrangements.¹²⁸ Following LBIE's entry into insolvency, all of the counterparties were 'out of the money' in respect of imminent payment dates and had therefore decided not to exercise their rights to terminate their respective OTC derivatives arrangements with LBIE.

The court proceedings centred around section 2 (a) (iii) of the ISDA Master Agreement which has the commercial effect of conditioning the performance obligations to make payments under section 2 (a) (i) of the agreement.¹²⁹ Section 2 (a) (iii) reads as follows;

"Each obligation of each party under section 2 (a) (i) is subject to (1) the condition precedent that no Event of Default with respect to the other party has occurred and is continuing, (2) the condition precedent that no Early Termination Date in respect of the relevant transaction has occurred or effectively been designated and (3) each other applicable condition precedent specified in this Agreement."¹³⁰

The key purpose of section 2 (a) (iii) is to protect a non defaulting counterparty by ensuring that it does not need to keep paying its counterparty when it is close to or in default therefore preventing a situation of "throwing good money after bad".¹³¹

Under each of the five interest rate swaps subject to the proceedings, LBIE was the floating rate payer.¹³² The interest rate swaps were documented on a mixture of the 1992 and 2002 versions of the ISDA Master Agreements.¹³³ Two of the five interest rate swaps were between LBIE and the Firth Rixson group, a global manufacturer and supplier of specialist metal products.¹³⁴ These were based on notional amounts of GBP 95m and USD 650m respectively.¹³⁵ The UKP 95m swap provided for quarterly payments commencing on 28

¹²⁶ *Lomas v JFB Firth Rixson Inc* above n 10 at [29].

¹²⁷ At [29] per Briggs J.

¹²⁸ At [48] per Briggs J.

¹²⁹ Section 2 (a) (i) reads as follows; "Each party will make each payment or delivery specified in each Confirmation to be made by it subject to the other provisions in this Agreement".

¹³⁰ There are some minor immaterial differences between the 1992 and 2002 versions.

¹³¹ Baker, above n 88, at 250.

¹³² At [1] per Briggs J.

¹³³ At [1] per Briggs J.

¹³⁴ At [34] per Briggs J. The third interest rate swap was between LBIE and BEIG Midco Limited. The swap was based on a notional amount of GBP 300,987,600. The payment dates were November and December 2006 followed by half yearly payments at the end of December and June from December 2006 until December 2010. The fixed rate was 5.1705% versus a floating rate of sterling LIBOR BBA. The final two interest rate swaps were between LBIE and KP Germany Zweite GmbH. The swaps were based on notional amounts of EUR 120.5m and USD 100,875,000 respectively. The EUR 120.5m swap had a fixed rate of 4.695% versus a floating rate of euro-Euribor-telerate. The payment dates for both swaps were half yearly commencing at the end of December 2007 and ending in June 2012.

¹³⁵ At [32] and [33] per Briggs J.

March 2008 and ending on 20 December 2010 with a fixed rate of 5.55% versus a floating rate of three months sterling LIBOR.¹³⁶ The USD 650m swap had the same payment dates but with a fixed rate of 4.3655% versus a floating rate of USD LIBOR BBA.¹³⁷ Following LBIE's entry into insolvency, floating interest rates began to fall substantially which resulted in LBIE being 'in the money' for nine successive payment dates until the expiry of the swaps.¹³⁸ The Firth Rixson group withheld payments totalling GBP 6.6m and USD 29.3m on the basis that LBIE's insolvency constituted an Event of Default under section 2 (a) (iii) of the ISDA Master Agreement. The total amount withheld from LBIE's administrators under the five interest rate swaps and therefore unavailable to LBIE's unsecured creditors was approximately GBP 25.9m and USD 57.3m.¹³⁹

LBIE's insolvency administrators, Price Waterhouse Coopers ('PwC'), submitted to the court that the ability of a non defaulting party to indefinitely suspend 'out of the money' payments produced a commercially absurd result.¹⁴⁰ Given there was no realistic prospect of LBIE coming out of insolvency and curing the event of default, section 2 (a) (iii) effectively operated to confer a windfall on a non defaulting party who was 'out of the money'. On this basis, PwC asserted that a reasonable period of time must be implied into the suspension rights under section 2 (a) (iii) constraining a non defaulting 'out of the money' counterparty's ability to effectively 'ride the market' indefinitely. Alternatively, PwC asserted that section 2 (a) (iii) offended the anti deprivation rule as a result of its adverse effect on LBIE and its creditors triggered by the onset of LBIE's administration.¹⁴¹ Given the wide use of the ISDA Master Agreement in OTC derivatives markets, ISDA was permitted by the court to make submissions on the correct interpretation of section 2 (a) (iii).¹⁴²

During the course of his judgment, Briggs J canvassed a range of potential outcomes regarding the effect of section 2 (a) (iii) on the five interest rate swaps. The first potential outcome was that, if an event of default had occurred and was continuing on a particular payment date, then the non defaulting counterparty's payment obligations never in fact arose.¹⁴³ This would mean that, as each quarterly payment date fell due, any 'out of the money' payment obligations were effectively extinguished and could not spring back to life if the event of default was cured at some point after the payment date. Briggs J referred to this 'suspensory interpretation' as the "once and for all" position.¹⁴⁴ A second potential outcome was that the payment obligation was suspended pending remedy but extinguished immediately following the last payment date of the interest rate swap or particular derivative transaction concerned as the case may be.¹⁴⁵ A variation on this outcome was that, where the

¹³⁶ At [32] and [33] per Briggs J.

¹³⁷ At [32] and [33] per Briggs J.

¹³⁸ At [36] per Briggs J.

¹³⁹ At [4] per Briggs J.

¹⁴⁰ At [4] per Briggs J.

¹⁴¹ At [4] per Briggs J.

¹⁴² At [5] per Briggs J.

¹⁴³ At [66] per Briggs J.

¹⁴⁴ At [67] per Briggs J.

¹⁴⁵ At [75] per Briggs J.

parties had multiple derivatives transactions on foot, any and all of the payment obligations would only be extinguished immediately following the final payment date of the last outstanding transaction (assuming the defaulting party has not been able to remedy the event of default by that point in time). The counter position proposed by PwC for the second potential outcome and its variation was that the netted payment obligations of the non defaulting party fell due when the transaction, or the last transaction in a series of transactions, expired.¹⁴⁶

A further potential outcome, and that which was proposed by LBIE's administrators, was that the suspension of payment obligations be permitted for a reasonable period only, perhaps sufficient to allow the non defaulting party enough time to decide whether to elect an early termination date or to continue to perform its payment obligations.¹⁴⁷ PwC expanded on this potential outcome by submitting that the non defaulting party was under a constant obligation to exercise its discretion whether or not to designate an Early Termination Date in a manner that was not arbitrary, capricious or unreasonable.¹⁴⁸ As soon it was clear that that the event of default was likely to be permanent or where the non defaulting party had already re-hedged its positions, then the non defaulting party must be obliged to designate an Early Termination Date.¹⁴⁹ The final potential outcome was that payment obligations were suspended indefinitely and would be reinstated as soon as the event of default was remedied.¹⁵⁰ Under this scenario, the payment obligation would remain as a contingent liability of the non defaulting party and could spring back to life long after the term of the derivatives transaction had expired. This was the outcome endorsed by ISDA as the drafters of the 1992 and 2002 template versions.¹⁵¹

Briggs J rejected PwC's submission that a reasonable period of time be implied into a non defaulting party's suspension rights under section 2 (a) (iii).¹⁵² He also rejected the submission that a duty to exercise the discretion whether or not to designate an early termination date in a reasonable manner be implied into section 2 (a) (iii).¹⁵³ In rejecting PwC's submissions, Briggs J relied on well settled principles developed in English jurisprudence regarding the grounds for the implication of contractual terms such as *Attorney General of Belize v Belize Telecom Ltd*¹⁵⁴ and *Trollope and Colls v Northwest Metropolitan Regional Hospital Board*¹⁵⁵. These principles included the requirement that the implied term

¹⁴⁶ At [81] per Briggs J.

¹⁴⁷ At [81] per Briggs J.

¹⁴⁸ At [81] per Briggs J.

¹⁴⁹ At [81] per Briggs J.

¹⁵⁰ At [52] per Briggs J.

¹⁵¹ At [52] per Briggs J. ISDA considered that not even a limitation period could bring the contingent obligations to make payments if the event of default was cured to an end. At any point in time, even long after the last payment date had expired, the non defaulting party could still elect an early termination date (even though the phrase 'early termination' would arguably be antithetical in this context) and bring into play the close-out netting mechanism.

¹⁵² At [88] per Briggs J.

¹⁵³ At [93] per Briggs J.

¹⁵⁴ *Attorney General of Belize v Belize Telecom Ltd* [2009] UKPC 11.

¹⁵⁵ *Trollope and Colls v Northwest Metropolitan Regional Hospital Board* [1973] 1 WLR 601.

must “go without saying” and “spell out in express words what the instrument, read against the relevant background, be reasonably understood to mean”.¹⁵⁶ A contractual term could only be implied “if the court finds that the parties must have intended that term to form part of the contract”.¹⁵⁷ Briggs J concluded that the implication of a term providing that the condition precedent giving rise to the suspension rights should fall away after a reasonable period of time was plainly contrary to the express wording of section 2 (a) (iii) which unambiguously stated that the condition precedent subsist for as long as the event of default “has occurred and is continuing”.¹⁵⁸ A reasonable period of time for the suspension rights could not therefore have been the intention of the contracting parties.

Briggs J also rejected ISDA’s submission that the contingent payment obligations of a non defaulting ‘out of the money’ counterparty suspended by section 2 (a) (iii) survive indefinitely.¹⁵⁹ In Briggs J’s opinion, ISDA’s proposed interpretation was “wholly inconsistent with any reasonable understanding of the Master Agreement that payment obligations arising under a Transaction could give rise to indefinite contingent liabilities, because of the possibility that an Event of Default may be cured long after the expiry of a Transaction by effluxion of time.”¹⁶⁰ This left Briggs J with two alternatives to assess; the proposition that payment obligations are suspended then extinguished ‘once and for all’ as each payment date fell due, or that all payment obligations are suspended until the last payment date in the series of derivatives transactions subject to the Master Agreement and are then extinguished en masse once that date arrives (assuming the event of default is still occurring at that point).

Briggs J discounted the once and for all interpretation of section 2 (a) (iii) “on a fairly narrow balance”.¹⁶¹ He was however attracted to that alternative’s “simplicity and certainty”.¹⁶² It would obviate the need for a non defaulting ‘out of the money’ counterparty to make provisions against the contingent payment risk as each payment date came and went.¹⁶³ Despite this Briggs J was persuaded against the ‘once and for all’ interpretation on the basis it could produce a “pointlessly draconian outcome”.¹⁶⁴ This could occur if, for example, a petition for a counterparty’s bankruptcy was filed which later proved to be baseless. Briggs J noted that a potential event of default which did not in time become an event of default would still be sufficient to trigger the suspension rights under section 2 (a) (iii).¹⁶⁵ In these

¹⁵⁶ *Attorney General of Belize v Belize Telecom Ltd* above n 167 at [21] per Lord Hoffman.

¹⁵⁷ *Trollope and Colls v Northwest Metropolitan Regional Hospital Board* above n 168 at [609] per Lord Pearson.

¹⁵⁸ *Lomas v JFB Firth Rixson Inc* above n 10 at [88].

¹⁵⁹ At [78] per Briggs J.

¹⁶⁰ At [78] per Briggs J.

¹⁶¹ At [73] per Briggs J.

¹⁶² At [72] per Briggs J.

¹⁶³ At [72] per Briggs J.

¹⁶⁴ At [72] per Briggs J.

¹⁶⁵ At [73] per Briggs J.

circumstances he observed that the permanent destruction of a payment obligation “would be even more surprising”.¹⁶⁶

Briggs J conclusively dismissed PwC’s assertion that section 2 (a) (iii) offended the anti-deprivation rule.¹⁶⁷ He did so on the basis that LBIE’s administrator’s claim to receive LBIE’s ‘in the money’ payments (those rights being impaired by section 2 (a) (iii) thereby creating the ‘flaw’ in that asset) represented the “quid pro quo” for services already rendered to LBIE’s counterparties, being the provision of the ongoing interest rate hedge from the date of entry into the interest rate swap.¹⁶⁸ Briggs J observed that “reduced to its barest essentials, the condition precedent that there should be (inter alia) no Bankruptcy Event of Default was a provision designed to ensure that LBIE would only receive its quid pro quo for providing an interest rate hedge for so long as it was in a financial condition to be able to do so”.¹⁶⁹

Briggs J also rejected the administrator’s assertion that the rights of LBIE’s counterparties not to elect an early termination amounted to a misuse of that discretion.¹⁷⁰ He could see no basis for concluding that the exercise of the counterparties’ discretion could “possibly be categorised as dishonest, in bad faith or exercised otherwise than for the purposes for which it was conferred.”¹⁷¹ This meant that the payment obligations of LBIE’s five counterparties under the interest rate swaps were suspended until the last payment date of each respective swap and then extinguished. Given there was no prospect of LBIE emerging from insolvency as a going concern, the suspension was effectively notional.

There are several interesting features regarding Briggs J’s judgment. Notably, his deep analysis of the jurisprudence relating to the implication of contractual terms in order to discount the administrator’s assertion that suspension rights under section 2 (a) (iii) subsist for a reasonable period only seems at odds with his willingness to imply a term extinguishing the payment obligations of LBIE’s counterparties once the last payment date under each interest rate swap had arrived. Lord Hoffman’s comments in *Attorney General of Belize v Belize Telecom Ltd* regarding the interpretation of a contract when it does not expressly provide for what should happen when a certain event occurs, for example the suspension rights under section 2 (a) (iii) upon the expiry of the interest rate swap, appear more consistent with ISDA’s position than Briggs J’s conclusion. Lord Hoffman stated that “the most usual inference in such a case is that nothing is to happen. If the parties had intended something to happen, the instrument would have said so. Otherwise the express provisions of the instrument are to continue to operate undisturbed.”¹⁷² The Master Agreement after all was, as several of counsel’s submissions noted, a “precisely drafted document developed over many years” and the implication of terms was therefore unnecessary especially given the

¹⁶⁶ At [73] per Briggs J.

¹⁶⁷ At [113] per Briggs J.

¹⁶⁸ At [112] per Briggs J.

¹⁶⁹ At [112] per Briggs J.

¹⁷⁰ At [93] per Briggs J.

¹⁷¹ At [93] per Briggs J.

¹⁷² *Attorney General of Belize v Belize Telecom Ltd* above n 155 at [17].

parties could utilise the Schedule or Confirmation to tailor their arrangements if they specifically wished to do so.

Another interesting feature of Briggs J's judgment is the degree to which he entertained the 'once and for all' suspension interpretation. He was quite clearly persuaded by this argument. Not only would such an interpretation require significant implication of terms, but it would also be contrary to section 9 (h) (i) (3) of the 2002 ISDA Master Agreement template which contemplates that interest will be payable on any payment amount that was suspended pursuant to section 2 (a) (iii) but which becomes payable at a later point because the event giving rise to the suspension is cured. Admittedly, section 9 (h) (i) (3) was introduced to the 2002 form of the Master Agreement and did not form part of the 1992 version under which some of the interest rate swaps subject to the proceedings were documented. Nevertheless its introduction by ISDA to the 2002 version would seem to provide a clear indication that the drafters of the Master Agreement anticipated section 2 (a) (iii) should operate in a manner inconsistent with the 'once and for all' suspension proposition.

LBIE's administrators appealed Briggs J's judgment and proceedings were heard in December 2011 in the United Kingdom Court of Appeal.¹⁷³ The Court of Appeal rejected Briggs J's decision that there were sufficient reasons to justify an implication into the ISDA Master Agreement that suspended obligations are to be regarded as extinguished upon arrival of the final payment date.¹⁷⁴ Lord Justice Longmore considered that Briggs J was effectively concluding that "indefinite contingent liabilities are inconvenient" and, while that may be the case, it formed "a slender basis for implying a provision for extinction which the parties have not expressly agreed."¹⁷⁵ The Court of Appeal arguably distilled the jurisprudence relating to the implication of terms to a more succinct and simple level, declaring that terms will only be implied into a contract if it was "necessary to do so or it would be obvious to any disinterested third party that the contract must have the meaning which the implied term would give it."¹⁷⁶ In the Court's view, Briggs J's implication satisfied neither of these tests.¹⁷⁷

The Court of Appeal approached the interpretation of the suspension of payment rights under section 2 (a) (iii) in a subtly different manner. The Court delineated the requirement to make a payment on a payment date from the underlying debt obligation. Section 2 of the Master Agreement was, in the Court's view, "all about the payment obligation" and did not "touch the underlying indebtedness obligation."¹⁷⁸ In this fashion, the Court was able to focus the issue on whether or not some form of finite period should be implied into the payment

¹⁷³ The Court appeared able to frame the issues in a more straightforward manner stating that "in broad terms the dispute is whether, when there is an Event of Default on part of the party due to receive a payment, there is any obligation at all on the counterparty to make a payment and, if so, whether the obligation is initially suspended but then disappears or revives (and, if so, the point at which it disappears or revives) or remains in suspense indefinitely."

¹⁷⁴ *Lomas v JFB Firth Rixson Inc* [2012] EWCA Civ 419 at [53].

¹⁷⁵ At [55] per Longmore LJ.

¹⁷⁶ At [45] per Longmore LJ.

¹⁷⁷ At [45] per Longmore LJ.

¹⁷⁸ At [25] per Longmore LJ.

obligation during the currency of the event of default. It chose the latter and endorsed ISDA's interpretation of how section 2 (a) (iii) was intended to operate.¹⁷⁹ This meant that the payment obligations of LBIE's counterparties under the interest rate swaps remained on foot albeit suspended by section 2 (a) (iii) and would revive if the event of default could be cured, for example by LBIE's administration process coming to an end and the company not being placed into liquidation.

The outcome of the *Lomas v Firth Rixson Inc* proceedings contrasted sharply with the United States case, *Metavante*,¹⁸⁰ where the Lehman estate sought payment from an 'out of the money' counterparty, Metavante Corporation, who has suspended payments under section 2 (a) (iii) in circumstances very similar to those subject to the United Kingdom proceedings.¹⁸¹ By May 2009, Metavante owed a Lehman Brother subsidiary, Lehman Brothers Special Financing Inc, in excess of USD 6M. The United States Bankruptcy Court rejected Metavante's reliance on section 2 (a) (iii) in withholding payments from the Lehman estate.¹⁸² The Court considered that Metavante was effectively "riding the market for the period of one year, while taking no action whatsoever" and such conduct was "simply unacceptable and contrary to the spirit of [the safe harbour] provisions of the Bankruptcy Code."¹⁸³

While it is surprising that such divergent outcomes could occur in courts based in the two major financial hubs within which OTC derivatives markets operate, the judgments reflect, to a large extent, key differences in the operation of the insolvency regimes in those respective jurisdictions. Central to the protection of an insolvent company's unsecured creditors under United States bankruptcy laws is the concept of the 'automatic stay'.¹⁸⁴ This prevents the enforcement of contractual rights against the insolvent debtor without the consent of the Bankruptcy Court subject to certain specific statutory exceptions otherwise known as 'safe harbours'.¹⁸⁵ Included in these safe harbours are specific statutory provisions for interest rate swaps which enable the operation of close-out netting in an insolvency situation.¹⁸⁶ The effect

¹⁷⁹ At [62] per Longmore LJ.

¹⁸⁰ *In Re Lehman Brothers Holdings Inc Case No 08-13555* (JMP) (Bkr. SDNY September 15, 2009).

¹⁸¹ Stephen H. Moller, Anthony R.G. Nolan and Howard M. Goldwasser "Section 2 (a) (iii) of the ISDA Master Agreement and Emerging Swaps Jurisprudence in the Shadow of Lehman Brothers" (2011) 26 (7) J.I.B.L.R. 313 at 316.

¹⁸² Moller, Nolan and Goldwasser, above n 181, at 316.

¹⁸³ Moller, Nolan and Goldwasser, above n 181, at 316.

¹⁸⁴ Moller, Nolan and Goldwasser, above n 181, at 316.

¹⁸⁵ Moller, Nolan and Goldwasser, above n 181, at 314.

¹⁸⁶ Section 362 (b) (17) of the United States Bankruptcy Code provides that the filing of a bankruptcy petition "does not operate as a stay ... of the setoff by a swap participant of a mutual debt and claim under or in connection with one or more swap agreements that constitutes the setoff of a claim against the debtor for any payment or other transfer of property due from the debtor under or in connection with any swap agreement against any payment due to the debtor from the swap participant or financial participant under or in connection with any swap agreement or against cash, securities, or other property held by, pledged to, under the control of, or due from such swap participant or financial participant to margin, guarantee, secure, or settle any swap agreement. Section 560 provides that the "exercise of any contractual right of any swap participant or financial participant to cause the liquidation, termination, or acceleration of one or more swap agreements because of a condition of the kind specified in section 365 (e) (1) of this title or to offset or net out any termination values or

of the *Metavante* judgment was to confirm that the ability to withhold payments under section 2 (a) (iii) did not fall within the parameters of the interest rate swap specific safe harbour provisions in the United States Bankruptcy Code. Contrary to the United Kingdom position, *Metavante* provided a clear illustration of national insolvency laws overriding private contractual rights.

It is difficult not to empathise with the *Metavante* judgment. The very purpose of the foundational close-out netting mechanics in OTC derivatives contracts is to enable the speedy resolution and termination of the arrangements between insolvent and solvent counterparties. This prevents the solvent party from becoming entwined in its counterparty's insolvency proceedings. It also potentially prevents market contagion and systemic risk. ISDA itself promoted the benefits of close-out netting as a buttress against a destabilising domino effect stemming from a significant counterparty insolvency event.¹⁸⁷ In this context the rights afforded to a non defaulting party under section 2 (a) (iii) appear counterintuitive. Whilst a relatively short period of time, permitting the non defaulting party an opportunity to undertake due diligence regarding the extent of the event or potential event of default (and subsequent remedial prospects) and to investigate alternative hedging options, would seem an appropriate contractual position, 'riding the market' in search of a windfall appears to be an exercise of the rights under section 2 (a) (iii) in a manner inconsistent with their designed purpose.

V Post Global Financial Crisis Regulatory Reform

A Central Clearing and Variation and Initial Margin

The GFC precipitated a paradigmatic shift in regulatory attitude towards OTC derivatives markets. This shift first began to emerge at the 2009 G20 Summit in Pittsburgh with the leaders statement containing the following declaration; "All standardised OTC derivatives should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end – 2012 at the latest."¹⁸⁸ This would mark the beginning of the promulgation of a myriad of multi-layered, overlapping and complex regulatory rules designed to mitigate the presumed contribution OTC derivatives had made to the GFC. It is not possible to enumerate each set of regulatory rules in this paper but their effect has been to change the regulatory focus from the participants to the trading characteristics and features of the products themselves. This is the shift in paradigm; achieved via 'hyper-regulation'.¹⁸⁹

payment amounts arising under or in connection with the termination, liquidation, or acceleration of one or more swap agreements shall not be stayed, avoided, or otherwise limited by the operation of any provision of this title or by order of a court or administrative agency in any proceeding under this title."

¹⁸⁷ Scott and Biggins, above n 30, at 328.

¹⁸⁸ Above n 18.

¹⁸⁹ This term is used by Norman Menachem Feder in his article "Market in the Remaking: Over the Counter Derivatives in a New Age". It should be noted that, outside of regulatory reform, there are private law initiatives designed to address the issues relating to close-out netting highlighted by the GFC. These include the UNIDROIT principles on the operation of close-out netting which comprise eight principles designed to bring

A key plank in the OTC derivatives regulatory reform is the initiatives to ensure that all standardised derivatives transactions are cleared through a central clearing counterparty ('CCP'). Otherwise known as central clearing, this process involves the two initial counterparties to the derivatives contract interposing a CCP between them to manage all of the clearing functions under the suite of contractual documents. These clearing functions usually include coordinating both the settlement of netted payment obligations and the exchange of collateral to reflect 'out of the money' positions. Generally, once the counterparties have finalised their trading terms and recorded these in a Confirmation, the CCP accepts the transaction into its settlement clearing system and a legal novation process operates to replace the initial transaction with two separate transactions; for example, in the case of an interest rate swap, one transaction between the counterparty providing the hedging service and the CCP and another transaction between the counterparty seeking to hedge interest rate risk and the CCP.¹⁹⁰ The intended result is that the CCP has two perfectly off-setting positions known as a 'matched book'.¹⁹¹ The initial counterparties will usually be members of the CCP therefore agreeing to submit to a range of membership rules, such as minimum levels of financial resource and indemnity insurance, trading rules and business conduct rules and requirements for good character, market expertise etc.

Regulatory initiatives relating to central clearing are designed to shift OTC derivatives transactions away from the bilateral trading environment.¹⁹² This achieves counterparty credit risk management via two techniques; multilateral netting and clearing house member support.¹⁹³ As the CCP is a counterparty to many market participants, it can reduce counterparty credit risk by netting exposures across all of its members. Multilateral netting in this fashion involves off-setting an amount due from a member on one transaction against an amount owed to that member on another, to reach a single smaller net exposure. The CCP essentially serves as a fulcrum around which many market participants trade with netted credit risk being cumulatively reduced. The CCP will impose rigorous rules on its members regarding the posting of collateral to back 'out of the money' positions and the requirement to make contributions to a default fund to ensure mutualisation of risk.¹⁹⁴ If a member defaults on its payment obligations, the CCP may assign the defaulter's positions to another member (via an auction process) therefore restoring the 'matched book' or it may close out the positions applying collateral accordingly. If the positions are closed out, posted collateral will be applied to satisfy the CCP's 'in the money' exposures. If there is a shortfall, the members' default fund will make an allocation to the shortfall and, as a last resort, the CCP will apply its own equity.

clarity on how close-out netting should work and to harmonise conflict of laws rules to better accommodate close-out netting.

¹⁹⁰ Norman Menachem Feder "Market in the Remaking: Over the Counter Derivatives in a New Age" (2017) 11 Va 8 Bus Rev 310 at 326.

¹⁹¹ Feder, above n 190, at 326.

¹⁹² Feder, above n 190, at 317.

¹⁹³ Feder, above n 190, at 332.

¹⁹⁴ Feder, above n 190, at 333.

For those 'non standard' OTC derivatives that do not shift to central clearing, regulatory reform has focussed on collateral management practices. The G20 tasked the Basel Committee on Banking Supervision and the International Organisation of Securities Commissions with developing margin requirement standards for uncleared OTC derivatives.¹⁹⁵ In 2013 these regulatory bodies produced a framework based on the posting of a one off up front collateral amount at the commencement of the trade (Initial Margin) and the mandatory periodic exchange of collateral reflecting the value of the trade (Variation Margin). The framework is being implemented via a patchwork of different but overlapping regulatory regimes. However, some common features have emerged including the requirement for collateral to be exchanged on a daily basis if an 'out of the money' position exceeds a capped minimum transfer amount, rigorous valuation and dispute resolution rules, cash as a preferred form of collateral with 'haircuts' attaching to securities of other forms such as shares, and custodial prohibitions from the re-use or re-hypothecation of posted Initial Margin.¹⁹⁶

B Regulatory Reform Issues and the 'Flawed Asset' Provision

The central clearing initiative is likely to have an impact on the operation of section 2 (a) (iii) of the ISDA Master Agreement. This is because counterparties will be required to comply with the CCP's trading and conduct rules when they enter into derivatives transactions. These rules will override any privately agreed contractual arrangements. As a result, counterparty protections of the type contained in section 2 (a) (iii) are likely to be disabled.¹⁹⁷ However, many derivative instruments will remain in the bilaterally traded environment due to their bespoke or non standardised nature. In such cases, the primary counterparty credit risk mitigant is likely to be the regulatory initiatives relating to Initial and Variation Margin.

For OTC derivatives remaining in the bilateral environment, a developing trend has been the modification of section 2 (a) (iii) to constrain the ability of a non defaulting party to suspend payments while an event of default or potential event of default is subsisting.¹⁹⁸ This is achieved by tailoring the Schedule to the Master Agreement to either limit the suspension rights under section 2 (a) (iii) to a specified number of days or permitting the novation of the relevant transaction to a creditworthy counterparty without the need for consent.¹⁹⁹

Counterparties may also add a 'use it or lose it' provision where the right to declare an early

¹⁹⁵ Feder, above n 190, at 348.

¹⁹⁶ The two predominant sources of regulatory reform are the United States Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) and the European Market Infrastructure Regulation (EMIR). The rules flowing from these sources have some common features; 1) counterparties must calculate and post variation margin on a daily basis; 2) counterparties may agree a 'minimum transfer amount' as a minimum level below which collateral is not required to be posted. At the beginning of 2017, this amount under Dodd-Frank was a combined minimum transfer amount for Initial and Variation margin not exceeding USD 500,000 and UKP 500,000 under EMIR; 3) counterparties to exchange margin in the form of 'eligible collateral' which includes cash, certain securities and gold with there being differences under Dodd-Frank and EMIR as to the types of securities constituting eligible collateral. 'Haircuts' of 8% generally apply to 'non-cash' collateral.

¹⁹⁷ Feder, above n 190, at 363.

¹⁹⁸ Feder, above n 190, at 365.

¹⁹⁹ Feder, above n 190, at 365.

termination date as a result of an event of default is deemed to be waived if not exercised within a specified number of days.²⁰⁰

In 2014, ISDA published an optional form agreement to amend the Master Agreement by prescribing a time limit on the suspension rights under section 2 (a) (iii).²⁰¹ Under the amendment form agreement, a counterparty may designate a 'Condition End Date' after which time the condition precedent of no continuing event of default lapses.²⁰² Before the 'Condition End Date' the non defaulting party must either have made its scheduled payment or declared an early termination date.²⁰³ ISDA has suggested a period of 90 days as an appropriate amount of time for payment obligations to be suspended.²⁰⁴

While the extensive post GFC regulatory reforms may have reduced the risks of financial system collapse, new risks and concerns have emerged regarding the operation of OTC derivatives markets. Central clearing concentrates credit and liquidity risk in the CCPs themselves.²⁰⁵ A failure of a large CCP could have catastrophic consequences for the financial system. Additionally, the process to amend credit support documentation to accommodate Initial and Variation margining is proving complex for many counterparties. The process has introduced another layer of complexity surrounding an already challenging and dense documentation regime. This has included a bifurcation of credit support documentation with separate CSAs for Initial Margin and Variation Margin. For those counterparties that had been collateralising some positions but not others, there is the additional complication of splitting out certain legacy trades for the purposes of calculating margin calls. Different regulatory regimes contain subtle differences regarding which types of derivatives or end users are captured by the new margin rules.²⁰⁶

VI Conclusion

Prior to the GFC, the ISDA Master Agreement and accompanying documents had come to form the contractual basis for the vast majority of the burgeoning OTC derivatives markets. From the inception of the markets' development until the GFC, ISDA had emerged as an extremely powerful lobbying force for its members. ISDA had paid particular attention and focus on creating 'safe harbours' for the operation of close-out netting in the event of counterparty insolvency. ISDA's activities in this regard were driven by a desire to provide ex ante legal certainty that close-out netting would be effective in as many jurisdictions as possible. This would enable OTC derivatives markets to expand beyond the traditional

²⁰⁰ Feder, above n 190, at 365.

²⁰¹ Feder, above n 190, at 365.

²⁰² Feder, above n 190, at 365.

²⁰³ Feder, above n 190, at 365.

²⁰⁴ Feder, above n 190, at 366.

²⁰⁵ Feder, above n 190, at 333.

²⁰⁶ For example, physically settled FX forwards and currency swaps are exempt under United States margin rules but are covered under EMIR. Unlike EMIR, United States margin rules do not apply when facing a 'commercial end user'. Differences in regulatory regime implementation give rise to concerns regarding regulatory arbitrage. There are also concerns with the amount of good quality collateral that may effectively become 'locked up'.

financial hubs of London and New York. As part of its lobbying activities, ISDA stressed the importance of close-out netting in ensuring a non defaulting counterparty could cleanly and promptly extricate itself from its derivatives arrangements with its insolvent counterparty. Close-out netting, in ISDA's view, was critical to protect a non defaulting counterparty from potentially becoming embroiled in a complex and protracted insolvency. This in turn militated against a destabilising 'contagion effect' which could result from the insolvency of a large, interconnected financial institution and the subsequent systemic risk to the stability of the financial system.

The GFC served to highlight concerns relating to the regulation of OTC derivatives markets. The collapse of the United States investment bank, Lehman Brothers, was a pivotal moment in the GFC and the ensuing insolvency of its United Kingdom operations exposed legal uncertainty regarding the effect of certain provisions in the ISDA Master Agreement. This culminated in litigation examining the effect of section 2 (a) (iii) of the ISDA Master Agreement, otherwise referred to as the 'flawed asset' provision, which performance conditions payment obligations on, among other things, the absence of an event of default. Section 2 (a) (iii) was designed to protect a non defaulting counterparty from making payments to its counterparty where it no longer had a reasonable expectation of receiving the future benefits of its hedging arrangements. This has been described as preventing a situation of "throwing good money after bad". The Lehman Brothers litigation focussed on the period of time for which a non defaulting counterparty could rely on withholding payments. ISDA's view, later endorsed by the United Kingdom Court of Appeal, was that payment obligations could be suspended indefinitely.

ISDA's interpretation of section 2 (a) (iii) had the result of providing a non defaulting 'out of the money' counterparty with the ability to avoid close-out netting altogether in the event of counterparty insolvency. Given an insolvency event is, in all but the most unusual circumstances, irreversible, an 'out of the money' counterparty would have little incentive to designate an early termination date. From a commercial perspective, it would appear more sensible in such circumstances for the non defaulting counterparty to adopt a 'wait and see' position. If its netted aggregate position moved from a negative to a positive balance, it could close-out its positions and file a proof of debt with the insolvent counterparty's administrators. If its positions remained negative following the expiry of all transactions, the non defaulting counterparty could be assured that its corollary contingent liability provisioning would not crystallise at some point in the future.

ISDA's interpretation of section 2 (a) (iii) represented in substance a total contradiction of the position it had taken in the 1980s and 1990s in promoting the benefits that close-out netting provided by enabling an orderly, prompt and clean break for counterparties facing an insolvency situation. ISDA's promulgation in 2014 of an optional form amending agreement constraining a non defaulting counterparties rights under section 2 (a) (iii) by placing a 90 day limit on the suspension period would appear to be a tacit acknowledgement of its contradictory stance during the GFC. The fact that courts in the United Kingdom and the

United States arrived at divergent conclusions on the effect of section 2 (a) (iii) further underscored the concerns regarding the credentials of the 'flawed asset' provision.

The GFC has resulted in a paradigmatic shift in the regulation of OTC derivatives markets. Regulatory initiatives relating to central clearing and Initial and Variation margining are having a dramatic effect on how OTC derivatives markets operate. These initiatives are likely to remove the legal uncertainty associated with section 2 (a) (iii) for the vast majority of OTC derivatives markets and constrain the rights of a non defaulting party to indefinitely suspend payment obligations. However, new risks relating to the operation of OTC derivatives are emerging, for example the catastrophic effect the failure of a large, interconnected CCP would likely have on the stability of the financial system. The effectiveness of the post GFC regulatory reform to OTC derivatives markets may well only be measurable after the next substantial financial crisis.

VII Bibliography

A Cases

1 Australia

Enron Australia v TXU Electricity [2003] NSW SC 1169.

2 United Kingdom

Attorney General of Belize v Belize Telecom Ltd [2009] UKPC 11.

Belmont Park Investments PTY Limited v BNY Corporate Trustee Services Limited, Lehman Brothers Special Financing Inc [2011] UKSC 38.

Carreras Rothmans Ltd v Freemans Matthews Treasure Ltd [1985] Ch 207.

Lomas v JFB Firth Rixson Inc [2012] EWCA Civ 419.

Lomas v JFB Firth Rixson Inc [2010] EWHC 3372 (ch).

Marine Trade SA v Pioneer Freight Futures Co Ltd BVI [2009] EWHC 2656.

Trollope and Colls v Northwest Metropolitan Regional Hospital Board [1973] 1 WLR 601.

Whitmore v Mason (1861) 70 E.R. 1031.

3 United States

In Re Lehman Brothers Holdings Inc Case No 08-13555 (JMP) (Bnkr. SDNY September 15, 2009).

B Legislation

United States Bankruptcy Code.

C Books and Chapters in Books

Roger Lowenstein *When Genius Failed: The Rise and Fall of Long Term Capital Management* (Random House Trade Paperbacks, New York, 2000).

Edward Murray “UK Derivatives and Commodities Markets” in Michael Blair QC and George Walker *Financial Markets and Exchanges Law* (Oxford University Press, Oxford, 2013).

D Journal Articles

Anita I. Anand “Is Systemic Risk Relevant to Securities Regulation?” (2010) 60 U.Toronto L.J.

Tracey A. Anderson, H. Lane David, Mark A. Fox “The US Financial Sector Status Update: Road to Recovery or Highway to Hell?” (2009) 24 (10) J.I.B.L.R.

Scott Appleton “Derivatives: Smoking Gun or Untapped Tools” (2009) 63(5) Int’l B.News.

Dan Awrey “The Dynamics of OTC Derivatives Regulation: Bridging the Public-Private Divide” (2010) 11 (2) E.B.O.R.

Carl Baker “Rethinking the ISDA flawed asset” (2012) 27 (6) J.I.B.L.R.

John Biggins “‘Targeted Touchdown’ and ‘Partial Liftoff’: Post-Crisis Dispute Resolution in the OTC Derivatives Markets and the Challenge for ISDA” (2012) 13 German L.J.

Vincenzo Bavoso “Financial Innovation and Structured Finance: The Case of Securitisation” (2013) 34(1) Comp. Law.

Alistair Birchall “Beggars Thy Neighbour? An Architecture for Systemic Risk Regulation” (2012) 10 N.Z.J.Pub.&Int’l L.

Joanne P. Braithwaite “The Inherent Limits of ‘Legal Devices’: Lessons for the Public Sector’s Central Counterparty Prescription for the OTC Derivatives Markets” (2011) 12 (1) E.B.O.R.

Ross P. Buckley “Lessons from the Globalisation of the Emerging Debt Markets” (2000) 15 J.I.B.L.

Timothy A. Canova “Banking and Financial Reform at the Crossroads of the Neoliberal Contagion” (1999) 7 U.S.-Mex.L.J.

Margaret Chew “The Spectre of Hedge Funds: Regulatory Responses to Speculative Activity in Singapore and Hong Kong” (1999) 3 Sing.J.Int’l & Comp.

Giorgio Tosetti Dardanelli “Direct or Indirect Regulation of Hedge Funds: A European Dilemma” (2011) 2 Eur.J.Risk Reg.

Raul Oscar Elias “Legal Aspects of Swaps and Collateral” (2001) 3(6) J.I.F.M.

Andreas Engert “Transnational Hedge Fund Regulation” (2010) 11(3) E.B.O.R.

Norman Menachem Feder “Market in the Remaking: Over the Counter Derivatives in a New Age” (2017) 11 Va 8 Bus Rev.

Anna Gelpern and Mitu Gulati “CDS Zombies” (2012) 13(3) E.B.O.R.

Daniel Harris “Valuation of Closed-out Swaps: a Dirty Business” (2015) 6 J.B.L.

Julian Harris “International Regulation of Hedge Funds: Can the Will Find a Way?” (2007) 28(9) Comp. Law.

Hui-Wen (Amy) Hasio “Join the Party but Don’t Ruin It: Analysis of Pros and Cons of Hedge Fund Regulations” (2009) 4 Nat’l Taiwan U.L. Rev.

- Eva Hupkes “Regulation, Self-regulation or Co-regulation” (2009) 5 J.B.L.
- Thomas R. Hurst “Hedge Funds in the 21st Century: Do the Benefits Outweigh Potential Dangers to the Financial Markets?” (2007) 28(8) Comp. Law.
- Ioannis Kokkoris “Liability of Swaps Dealers Against Users” (2006) 17(2) I.C.C.L.R.
- Gerry G. Kounadis “Striking the correct balance between imposing a suspension of close-out netting rights while preserving legal certainty and market integrity in view of the Bank Recovery and Resolution Directive 2014/59/EU: Part A” (2015) 30 (4) J.I.B.L.R.
- Paul Lejot “Cover Up! Hong Kong’s Regulation of Exchange-Traded Warrants” (2006) 36 Hong Kong L.J.
- Stephanie Lizou “Close-out Netting and an Introduction to the UNIDROIT Principles on its Enforceability” (2012) 27 (10) J.I.B.L.R.
- Stephanie Loizou “The New Margin Rules: An Overview” (2017) 32 (2) J.I.B.L.R.
- Jennifer Marshall and Nick Herrod “Lehman Brothers Insolvency – Client Assets” (2009) 3 LFMR 145
- Stephen H. Moller, Anthony R.G. Nolan and Howard M. Goldwasser “Section 2 (a) (iii) of the ISDA Master Agreement and Emerging Swaps Jurisprudence in the Shadow of Lehman Brothers” (2011) 26 (7) J.I.B.L.R.
- Glenn Morgan “Reforming OTC markets: the politics and economics of technical fixes” (2012) 13 (3) E.B.O.R.
- Edward Murray “Firth Rixson: Section 2 (a) (iii) of the ISDA Master Agreement” (2012) 25 (1) Insolv.Int.
- Fred J. Naffziger “The Erosion of the Rule of Law in the American Corporate Field” (2009) 24 (10) J.I.B.L.R.
- Kingsley T. W. Ong “The ISDA Master Agreement: Insolvency Stalemate and Endgame Solutions for Hong Kong Liquidators” (2010) 40 Hong Kong L. J.
- Philipp Paech “Close-out Netting, Insolvency Law and Conflict-of-Laws” (2014) [online] LSE Law, Society and Economy Working Papers.
- Helen Parry “Hedge Funds, Hot Markets and the High Net Worth Investor: A Case for Greater Protection?” (2001) 16(10) J.I.B.L.
- Maziar Peihani “The Global Financial Crisis: An Analysis of Contributing Trends, Policies and Failures” (2012) 27 B.F.L.R.

John Pozios and Matthew Underwood “Musical Chairs: Who’s Left Standing When the ABCP Music Stops” (2009) 9 *Asper Rev.Int’l Bus.& Trade L.*

Yves Quintin “Alis...da in Wonderland or Greek Tragedy? The Dynamics of Credit Default Swaps and the “Voluntary” Greek Restructuring of 2011/2012” (2012) 2 *I.B.L.J.*

Barney Reynolds and Donna Parisi “The Effects of Trans-Atlantic Reform on Margin for Uncleared Swaps: Balancing the Risks and Benefits of Uncleared Swaps” (2016) 31 (2) *J.I.B.L.R.*

German Rodriguez Paez “LTCM and Other Major Hedge Fund Failures: Part 1” (2009) 24 (5) *J.I.B.L.R.*

German Rodriguez Paez “LTCM and Other Major Hedge Fund Failures: Part 2” (2009) 24 (6) *J.I.B.L.R.*

David Rouch and Guy Morton “Learning from LTCM” (1999) 1 (3) *J.I.F.M.*

Colin Scott and John Biggins “Public-Private Relations in a Transnational Private Regulatory Regime: ISDA, the State and OTC Derivatives Market Reform” (2012) 13(3) *E.B.O.R.*

Shearman & Sterling LLP “United Kingdom: Swap Agreements – Suspension of Payment Obligations” (2012) 27 (7) *J.I.B.L.R.*

Alexander Shipilov “Model Risk” (2007) *J. Bus. Valuation.*

Jarkko Syyrila “Regulators’ Dilemma: Hedge Funds for the Public” (2003) 18(3) *J.I.B.L.R.*

Roman Tomasic “Corporate Rescue, Governance and Risk Taking in Northern Rock: Part 1” (2009) 29 (10) *Comp. Law.*

P.M. Vasudev “Credit Derivatives and Risk Management: Corporate Governance in the Sarbanes-Oxley World” (2009) 4 *J.B.L.*

Gary Walker and Guy Usher “Good law – Serious Implications: Enron Australia v TXU Electricity” (2004) 19 (10) *J.I.B.L.R.*

Peter Yeoh “Hedge Funds: From Privileged Child to Locust and Now Bogeyman?” (2012) 33(2) *Comp. Law.*

Rodrigo Zepeda “The ISA Master Agreement 2012: A Missed Opportunity?” (2013) 28(8) *J.I.B.L.R.*

E Internet Resources

<http://www.unidroit.org/overview-netting>

<https://www.bu.edu/ilj/files/2015/04/Johnson-The-Case-against-Close-out-Netting.pdf>