



The Extent of Mitigation of Risks through Regulation of Over-the-Counter (OTC) Derivative Markets in Different Jurisdictions

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Abstract

Over the last decade dealing with derivative financial instruments (basically forwards, futures, options and combinations of these), particularly in the Over-The-Counter derivatives market has become a central activity for major wholesale banks and financial institutions. Major new regulatory initiatives are under consideration in various jurisdictions and also adopted in some, as a means for increasing transparency and reducing the various types of risks involved in OTC derivative trading. This paper tries to understand the concept of derivatives as a whole. The main aim of the paper will be to analyze the different types of risks that are involved in OTC derivative trading. It will put forward these risks in a manner so as to enable the reader to get an in depth study of the risks in OTC derivative market through qualitative and quantitative research. As mentioned above, this paper will then focus on the regulatory regimes of three major jurisdictions i.e. India, United States and Europe and will conclude that these regulations are sufficiently able to mitigate these risks in their respective jurisdictions. Lastly, certain measures are recommended for different jurisdictions so as to further increase the ambit of sufficiency in mitigating the risks involved.

Keywords: Derivatives, Market, Risks, Securities, Trading.

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Introduction

Over-the-counter (OTC) derivative markets are now perceived as the weak link in the financial system that has increased the systemic risk of financial crisis globally. Their complex and non-transparent nature coupled with a lenient regulatory approach towards them resulted in extreme counterparty exposures and risk concentrations building up through the system. Naturally there has been a concerted effort globally to reform the OTC derivative markets, with much of the debate focusing on measures to address the issues of counterparty credit risk and non transparency. The revised remedy for reforming these markets, as is being pursued in major jurisdictions, broadly envisages greater standardization of contracts to make them eligible for central clearing, tighter counterparty risk management norms, higher capital charges for all clearing-ineligible contracts and making these markets more transparent.

Therefore to regulate the same, countries have come up with different regulations so as to curb the extent of such risks, for e.g., The Dodd Frank Act in the U.S.A. and European Market Infrastructure Regulation (E.M.I.R.) in the E.U. In India, the Reserve Bank of India Act, 1934 (as amended on 2006) empowers RBI to regulate OTC products such as interest rate derivatives and foreign currency derivatives.

As the OTC derivative market is now regulated, this paper mainly will deal with the aspect of risks present in the OTC derivative market and the ability of the regulations to curb these risks. Part I deals with the nature and characteristics of derivatives. Part II deals with the kinds of risks present in the OTC derivative market, relying on a qualitative data. Part III deals with the regulatory mechanism present in various jurisdictions and their ability to mitigate the risks involved and maintain transparency.

What is a Derivative?

As defined in the International Accounting Standard, 'Derivative' (IAS 39) is a financial instrument:

- (a) whose value changes in response to the change in a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index, or similar variable (sometimes called the 'underlying');
- (b) that requires no initial net investment or little initial net investment relative to other types of contracts that have a similar response to changes in market conditions; and
- (c) that is settled at a future date.¹

Broadly defined, a derivative product is a financial contract that derives its value in whole or in part from the performance of an underlying asset, including securities, currencies, rates, or indices of asset values.² They are characterized according to the nature of the underlying assets or indices from which they derive their value.³ Most derivative instruments are classified as foreign exchange contracts, interest rate contracts, commodity contracts, or equity contracts.⁴ Well known derivative products include futures, swaps, options, and forwards, or some combination of these contracts.⁵ These commonly used definitions are incomplete, ambiguous, over inclusive and typically fail to capture the nature and scope of derivative transactions. To fully understand what derivatives transactions are, it is necessary to understand what common characteristics all derivatives transactions share. The following paragraphs analyze the same.

¹ 2011 O.J. (C 39) 3.

² Adam R. Waldman, *OTC Derivatives & Systemic Risk: Innovative Finance or the Dance Into The Abyss?*, 43 AM. U. L. REV. 1023, 1026 (1994).

³ DONALD W. RIEGLE, FEDERAL DEPOSIT INS. CORP., DERIVATIVE PRODUCT ACTIVITIES OF COMMERCIAL BANKS, IN JOINT STUDY CONDUCTED IN RESPONSE TO QUESTIONS POSED BY SENATOR RIEGLE ON DERIVATIVE PRODUCTS, 2 (1993).

⁴ *Supra* note 2.

⁵ Eli M. Remolona, *The Recent Growth of Financial Derivative Markets*, 1993 FED. RES. BANK N.Y. Q. REV. 28, 28-29.

Contracts between Two Parties

Firstly, derivatives are agreements or contracts between two counterparties.⁶ The value of a derivative contract stems primarily from the rights to which one is entitled from, and the obligations one owes to, one's contractual counterparty.⁷ Derivatives are not, for example, equity rights in any assets, tangible or intangible; neither creditor rights arising from having lent something of value in return for a loan repayment rights; nor rights obtained under a service contract wherein services are provided for some fee.⁸

Agreements are Contingent in Nature

Derivative agreements are aleatory.⁹ The payments due under a derivative contract depend in part, on some unknown future contingency, typically referred to as an underlying, specifically (i) the outcome of an event or events¹⁰; or

(ii) the future value of some asset or set of assets; or

(iii) some future metric or metrics; or

(iv) some combination of these.¹¹

All of these future contingencies are extrinsic to the derivatives contract and to the counterparties in the sense that the counterparties have no, or very limited, ability to control the outcomes of the contingencies.¹²

⁶ Black's Law Dictionary 475 (8th ed. 2004).

⁷ McCarthy, *Derivatives Revisited*, 189 JOURNAL OF ACCOUNTANCY 1 (2000).

⁸ Roberta Romano, *A Thumbnail Sketch of Derivative Securities and Their Regulation*, 55 MD. L. REV. 6 (1996).

⁹ Mark C. Brickell, *Business, In Defense of Over-the-Counter Derivatives*, WALL ST. J., May 14, 2010 at A19.

¹⁰ Myron S. Scholes, *Global Financial Markets, Derivative Securities, and Systemic Risks*, 12 J. RISK & UNCERTAINTY 271 (1996).

¹¹ DON M. CHANCE, AN INTRODUCTION TO DERIVATIVES (Dryden, 3rd ed. 1995).

¹² Saul Hansell, *Derivatives as the Fall Guy: Excuses, Excuses*, N. Y. TIMES, Oct. 2, 1994, at 31.

It may be argued that the counterparties may in certain circumstances have some control over the outcome of the contingency.¹³ But, it is only in a special case in which one or both of the counterparties to a derivatives contract happen to be in a position to influence a contingency that is not wholly extrinsic to counterparties actions.¹⁴ Furthermore, while counterparty may have some influence on the underlying, these contracts are premised on the expectation that such influence will be negligible.

The Counterparties are on the Opposite Sides

Counterparties to a derivatives contract agree to take the opposite sides of the same underlying events, value(s) or other metric(s).¹⁵ In other words, one counterparty expects “A,” the other expects “not-A.” A derivative contract is only possible when the counterparties take a contradictory stand.

Is Derivative Trading Equal to Betting?

Interestingly, Colleen M. Baker, has defined derivatives as “Literally bet agreements between parties that one will pay the other a sum of money that is determined by whether or not a particular event occurs in the future.”¹⁶ Financial derivatives, in particular, are bets between parties that one will pay the other a sum determined by what happens in the future to some underlying financial phenomenon, such as an asset price, interest rate, currency exchange ratio, or credit rating.¹⁷ However, they cannot be called as wagering agreements, and therefore are not void under

¹³ Myron S. Scholes, *Derivatives in a Dynamic Environment*, 88 AM. ECON. REV. 350, 367 (1998).

¹⁴ Timothy E. Lynch, *Derivatives: A 21st Century Understanding*, 43 LOY. U. CHI. L. J. (2011).

¹⁵ Burton G. Malkiel, *Business Forum: Big Moves, New Instruments; But Markets Only Seem More Volatile*, N.Y. TIMES, Sept. 27, 1987, at 33.

¹⁶ Colleen M. Baker, *Regulating the Invisible: The Case of Over-The-Counter Derivatives*, 85 NOTRE DAME L. REV. 1287, 1299 (2010).

¹⁷ Lynn A. Stout, *Derivatives and the Legal Origin of the 2008 Credit Crisis*, 1 HARV. BUS. LAW REV. 6 (2011).

Section 30 of the Indian Contract Act 1872.¹⁸ The reasoning behind this approach is that, unlike in the wagering contract, there is at least one party who is interested in the happening or non-happening of the event.

The Use of Derivatives

Derivatives are primarily used either for risk management or speculation.¹⁹ As a risk management tool, derivatives allow a business to hedge against future market risks.²⁰ An example of hedging is the use by financial institutions of fixed for floating interest rate swaps to guard against interest rate risk.²¹ This disparity in rates can lead to significant losses if market rates suddenly jump and was one of the primary causes of the savings and loan crisis in the 1980s.²²

Derivatives are extremely popular risk management tools, and a report approximates that ninety four percent of the 500 largest companies use some form of derivative for risk management purposes.²³ While hedging strategies are used to reduce an entity's risk exposure, if an entity is taking a speculative position, it is taking on risk by betting on future market conditions.²⁴ Therefore,

¹⁸ Deepaloke Chatterjee & Ranjini Das, *How To Square A Circle: Exploring The Legality Of Financial Derivatives In India*, 2 NUJS L. REV. 337 (2009).

¹⁹ Norman Menachem Feder, *Deconstructing Over-the-Counter Derivatives*, 1 COLUM. BUS. L. REV. 677, 731 (2002).

²⁰ Deutsche Börse AG, *The Global Derivatives Market - A Blueprint for Market Safety and Integrity*, DEUTSCHE BORSE GROUP 6 (2008), available at http://www.eurexchange.com/download/documents/publications/global_derivatives_market.pdf.

²¹ Adam. J. Krippel, *Regulatory Overhaul of the OTC Derivatives Market: The Costs, Risks and Politics*, 6 OHIO ST. ENTREPRE. BUS. L.J. 269, 273 (2011).

²² Luke Zubrod, *Beware of the Mongoose*, F. T. TRADING ROOM, (Jun. 17, 2010) available at <http://www.ft.com/intl/cms/s/0/99e016e6-7a1e-11df-9871-00144feabdc0.html#axzz2nElw4hpn>. (last visited Dec. 17, 2013).

²³ Press Release, International Swaps and Derivatives Association, *Over 94% of the World's Largest Companies Use Derivatives to Help Manage Their Risks, According to ISDA Survey* (Apr. 23, 2009) available at <http://www.isda.org/press/press042309der.pdf>.

²⁴ Lynn A. Stout, *Regulate OTC Derivatives by Deregulating Them*, 32 UCLA L. REV. 30, 33 (2009).

it can be said that derivatives are used for managing risk or for speculation purposes.

Derivative transactions “allow market participants, including commodity producers, processors, and end users, as well as corporations, banks and governmental entities, to manage financial risks caused by fluctuating interest rates, currencies, commodity prices and securities prices.”²⁵ To manage their risks effectively and efficiently, market participants use standard and customized derivatives contracts. Standardized derivatives contracts are liquid contracts that are traded on exchanges.

All derivative transactions can be traced to fundamental types of building blocks²⁶ known as ‘forwards and options’.²⁷ An option is a contract that creates the right, but not the obligation to buy or sell a security at a set price for a limited period of time.²⁸ A forward is a contract that commits a party to purchase or sell a given asset at a pre set time for a specified amount.²⁹ By innovatively manipulating these building blocks, perfect exposure to a broad spectrum of risk can be created.

Where to Deal in Derivatives?

There are two groups of derivative contracts, OTC derivatives such as swaps are privately negotiated contracts that do not go through

²⁵ Letter from Robert G. Pickel, CEO, Int'l Swaps & Derivatives Ass'n., to David Stawick, Secretary, Commodity Futures & Trading Comm'n (June 16, 2009).

²⁶ CLIFFORD W. SMITH, JR. & CHARLES W. SMITHSON, FINANCIAL ENGINEERING: AN OVERVIEW, THE HANDBOOK OF FINANCIAL ENGINEERING: NEW FINANCIAL PRODUCT INNOVATIONS, APPLICATIONS, AND ANALYSIS 4-9 (Harper Business, 1990).

²⁷ RICHARD M. BOOKSTABER, OPTION PRICING AND INVESTMENT STRATEGIES viii (Probus Professional Pub. 3rd ed. 1991).

²⁸ LAWRENCE G. MCMILLAN, OPTIONS AS A STRATEGIC INVESTMENT: A COMPREHENSIVE ANALYSIS OF LISTED OPTIONS STRATEGIES 4 (New York Institute of Finance 2nd ed. 1986).

²⁹ Steven Lipin, *Banks try to Avoid Rules on Derivatives*, WALL ST. J., Jul. 22, 1993, at C1.

an exchange or other intermediary³⁰, while the other is, exchange traded derivatives that are traded through specialized derivatives exchanges or other exchanges.³¹ In India, National Commodity & Derivatives Exchange Ltd. is an example of an exchange where Derivative trading takes place.

Exchange Traded Derivatives

An exchange lists a finite number of standardized contracts in each of which there is at least one term that is not standardized but is left to be negotiated between potential counterparties.³² Typically, the negotiable term is the price term of a futures contract or an option contract, or it might be a term in a swap agreement which is an element in determining the amount of cash to be periodically delivered from one counterparty to the other.³³ More often, especially in large retail oriented exchanges, derivatives contracts are agreed upon by intermediaries hired by the counterparties.³⁴ Counterparty to an exchange traded contract, therefore, usually does not know who their opposite counterparty actually is, and therefore, they might be exposed to very high counterparty risks.³⁵

But, there is the presence of clearing houses in exchange traded derivatives that ensure that the contract is cleared. Clearing houses hedges the counterparty risk completely and ensures that the

³⁰ Mark C. Bricknell, *In Defense of Over-the Counter Derivatives*, WALL ST. J., May 14, 2010, at A19.

³¹ Steven A. Bank, *Devaluing Reform: The Derivatives Market and Executive Compensation*, 7 DEPAUL BUS. L. REV. 301, 323-29 (1995).

³² DARRELL DUFFIE, et al., POLICY PERSPECTIVES ON OTC DERIVATIVES MARKETS, FED. RES. BANK OF N. Y. Staff Report No. 424, at 17 (2010).

³³ Joint Press Release, U.S. Treasury and Federal Reserve Board Announce Participation in AIG Restructuring Plan, US Federal Reserve & US Treasury Department (Mar. 2, 2009).

³⁴ Lynn A. Stout, *Insurance or Gambling?: Derivatives Trading in a World of Risk and Uncertainty*, 14 THE BROOKINGS REVIEW 38 (1996).

³⁵ G.D. KOPPENHAVER, DERIVATIVE INSTRUMENTS: FORWARD, FUTURES OPTIONS, SWAPS, AND STRUCTURED PRODUCTS, FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT 13-16 (Robert W. Kolb & James A. Overdahl ed., 2010).

contract is performed.³⁶ The presence of a clearing house in the transaction ensures payment and settlement to both the parties.³⁷ Simply speaking, a clearing house 'clears' derivatives contracts either by guaranteeing counterparty payments or, and more commonly, by first inserting itself as a counterparty between the two original counterparties.³⁸

Existence of Risk in OTC Derivative Market

The risk in the OTC derivative market emanates from the opaqueness in the market that constrains the market participants from assessing the quantum of risk held with the counterparty. OTC derivatives can increase market volatility and the level of systemic risk due to a combination of excessive amounts of leverage and low capital requirements.³⁹ Further, with increase in volumes and complexities of the OTC derivatives, the non standardized infrastructure for clearing and settlement also becomes a major impediment in containing risk.⁴⁰

Preference of OTC Derivatives over Exchange Traded Derivatives

OTC derivatives are preferred over exchange traded derivatives because of the following reasons:

³⁶ John Kiff, Centralized Derivatives Clearing Would Aid Financial System, IMF SURVEY MAGAZINE, Apr. 13, 2010, available at <http://www.imf.org/external/pubs/ft/survey/so/2010/POL041310B.htm>.

³⁷ PRELIMINARY STAFF REPORT: OVERVIEW ON DERIVATIVES, FIN. CRISIS INQUIRY COMM'N, at 7 (2010).

³⁸ T. MOSER & DAVID REIFFEN et. al., CLEARING AND SETTLEMENT, 263(2011); SHARON BROWN-HRUSKA et. al., THE DERIVATIVES MARKETPLACE: EXCHANGES AND THE OVER-THE-COUNTER MARKET 21 (2011).

³⁹ *Commission of the European Communities, Ensuring Efficient, Safe, and Sound Derivatives Markets* at § 2.4, COM (2009) 332 final (Jul. 3, 2009).

⁴⁰ Gopinath Shyamala, Deputy Governor, Reserve Bank of India, Over-the-counter Derivative Markets in India – Issues and Perspectives, Financial Stability Review, Bank of France (Jul. 28, 2010).

- a. Parties prefer customized contracts over standardized contracts.
- b. Procedural requirements like reporting, standardization, margin requirement are not present in OTC derivatives.
- c. Direct trading between the parties and lack of involvement of an exchange or an intermediary.

Types of Risk Involved in OTC Derivatives

Derivatives improve economic efficiency by breaking apart risk⁴¹ and transferring it out to the parties who are the cheapest and most willing risk bearers.⁴² Although derivatives efficiently transfer risk, they do not eliminate it.⁴³ Regulators of the financial markets⁴⁴ have expressed fears that the derivatives market, and perhaps the entire global financial system, may be exposed to the systemic risk of cascading counterparty default.⁴⁵ There are various kinds of risks that are attached to the OTC derivative market, which are dealt in further.

Market Risk

Market risk is the risk that counterparty will sustain losses as adverse price movements in the derivative's underlying will cause it to lose value.⁴⁶ It refers to an adverse price fluctuation of the

⁴¹ Andrew Freeman, A Comedy of Errors, *The Economist*, Apr. 10, 1993 at 4.

⁴² David W. Mullins, Jr., Remarks on the Global Derivatives Study Sponsored by the Group of Thirty, ISDA SUMMER CONFERENCE 1 (1993).

⁴³ Carter Beese, Jr., Risk Management in an International Context: Lessons from the Past, *SOFFEX - Five Years in the Financial Arena*, 3 (June 4, 1993) (on file with American University Law Review).

⁴⁴ Peter Lee, *How to Exercise Your Derivative Demons*, *EUROMONEY*, Sept. 1992 at 36, 46.

⁴⁵ ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *SYSTEMIC RISKS IN SECURITIES MARKETS* 14 (1991).

⁴⁶ OFFICE OF THE COMPTROLLER OF THE CURRENCY, *RISK MGMT. OF FINANCIAL DERIVATIVES: COMPTROLLER'S HANDBOOK* 18 (1997) available at <http://www.occ.treas.gov/handbook/deriv.pdf>. (last visited Dec. 17, 2013).

underlying asset. As the market is highly volatile, the market risk is very high. The extent of market risk is largely determined by the risk inherent in the underlying market.⁴⁷

For example, Klockner & Company KGaA, a German trading company, lost \$380 million on crude oil forward contracts, destroying over fifty percent of its capital.⁴⁸ This happened due to adverse change in prices of the crude oil which were the underlying assets.

However it is interesting to note here that market risk only affects the counterparties and not the economy as a whole. As, for every value lost by one counterparty will be a value gained by the other counterparty, therefore the net effect of market risk on the economy is zero.⁴⁹

Liquidity Risk

Liquidity is commonly defined as the ease with which an asset can be bought or sold for money.⁵⁰ The two criteria for determining liquidity are whether the asset can be traded: (1) quickly; and, (2) at a reasonable price.⁵¹ Money, in the form of cash or demand deposits, is the paradigm of perfect liquidity.⁵²

Credit Risk/ Counter Party Risk

Counterparty credit risk is a primary concern to derivatives end users.⁵³ Counterparty risk is the risk associated with the failure of a counterparty to perform its obligations under a derivatives

⁴⁷ *Id.*

⁴⁸ Klockner, *To Compensate Certificate Holders*, FIN. TIMES, Jul. 8, 1989, at 10.

⁴⁹ Kimberly D. Krawiec, *More Than Just "New Financial Bingo: A Risk-Based Approach to Understanding Derivatives*, 23 J. CORP. L. 1, 15 (1997).

⁵⁰ Robert McGough, *Managers Begin to Avoid Municipal Derivatives, Fearing Lack of Liquidity During A Bear Market*, 4 WALL ST. J., Sept. 13, 1993, at C13.

⁵¹ KEVIN WINCH & MARK JICKLING, *DERIVATIVE FINANCIAL MARKETS* 34-35 (Congressional Research Service, 1993).

⁵² ROBERT A. SCHWARTZ, *EQUITY MARKETS: STRUCTURE, TRADING, AND PERFORMANCE* 523 (Harper & Row, 1988).

⁵³ Tracy Corrigan, *Salomon Sets Up Triple-A Rated Derivatives Unit*, FIN. TIMES, Feb. 9, 1993, at 19.

agreement, which would cause the firm to sustain a loss.⁵⁴ As OTC derivatives participants deal directly with each other without the benefit of an exchange clearinghouse (as in the case of exchange traded derivatives), counterparties must rely on each other's credit for assurance that contractual obligations will be met.⁵⁵ Because OTC derivatives contracts are negotiated privately between parties, financial gain is entirely dependent on the continued ability of the counterparty to perform contractual obligations.⁵⁶ Also, the risk increases with the term of the contract.⁵⁷ Therefore, it is advised that as the counterparty risk can be quite significant, one party should carefully evaluate the creditworthiness of their counterparties and reevaluate these assessments as market conditions change.⁵⁸ Also, when entering into an OTC derivative, parties will typically use a standard form called the International Swaps and Derivatives Association (ISDA) Master Agreement that has a bilateral netting provision that allows the parties to document all the derivatives transactions in which they both participate and aggregate their obligations.⁵⁹

Systemic Risk

Systemic risk is the risk that financial problems in one institution or market will spread to other institutions and markets with the result

⁵⁴ Krippel, *supra* note 21, at 275.

⁵⁵ Beese, *supra* note 43, at 6.

⁵⁶ Lisa M. Raiti, Credit Sensitivity Spurs Enhanced DPC Growth, *Standard & Poor's Creditweek* 35, 36 (May 18, 1992).

⁵⁷ Fred R. Bleakley, *Managing Risk: Corporate Treasurers Adopt Hedging Plans, With Some Wariness*, *WALL ST.J.*, Aug. 17, 1993, at A1.

⁵⁸ Allen C. Ppuwalski, *Derivatives Risk in Commercial Banking*, Fed. Deposit Ins. Corp. (Mar. 26, 2003), available at <http://www.fdic.gov/bank/analytica/fyi/2003/032603fyi.html>.

⁵⁹ Credit Default Swaps and Counterparty Risk, *Eur. Cen. Bank*, 42-43 (2009) available at <http://www.ecb.int/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf>. (last visited Dec. 1, 2013).

that the losses from a seemingly isolated market event might threaten the entire economy.⁶⁰

Adam R. Waldman has discussed two scenarios of the systemic risk. One being, the domino effect toppling one institution after the another due to the default made by one party on its obligations⁶¹ and secondly, the widespread reliance of investors on dynamic hedging strategies during a market disturbance could turn an otherwise containable market downturn into an illiquidity driven crash.⁶²

In systemic risk, following substantial market losses, there is the risk that the failure of one significant participant to make payments could result in their counterparty's suspension of payments, causing a rapid, global transmission of defaults to numerous participants wedded to the initial failed participant by OTC derivatives contracts.⁶³

As derivatives transactions are off balance sheet activities,⁶⁴ it is difficult to ascertain as to how much banks are hedging and betting.⁶⁵ Former Securities Exchange Commission Chairman Richard Breeden has argued that in actual practice, there may be no way to distinguish between speculative trading activity and hedging strategies.⁶⁶ Widespread fears of the systemic risks posed by OTC derivatives have prompted regulators worldwide to sound warnings and undertake studies of the market and so we have

⁶⁰ Norman Menachem Feder, *Deconstructing Over-the-Counter Derivatives*, 1 COLUM. BUS. L. REV. 677, 729 (2002).

⁶¹ BANK FOR INTERNATIONAL SETTLEMENTS, RECENT DEVELOPMENTS IN INTERNATIONAL INTERBANK RELATIONS 30 (1992).

⁶² Waldman, *supra* note 1, at 1023.

⁶³ William Glasgall & Billjavetski, *Swap Fever: Big Money, Big Risks*, BUS. WK, Jun. 1, 1992, at 102, 105.

⁶⁴ Ill Dutt, *Derivative Trading High Profit-High Risk*, MONTREAL GAZETTE, May 12, 1992, at D1.

⁶⁵ Thomas L. Hazen, *Public Policy: Rational Investments, Speculation, or Gambling?-Derivative Securities and Financial Futures and Their Effect on Underlying Capital Markets*, 86 NW. U. L. REV. 987, 1036 (1992).

⁶⁶ Richard C. Breeden, *The Use and Control of Derivatives: The Regulator's Perspective*, International Capital Mobility and Financial Derivatives Conference, 9 (June 28, 1993)

different regulators now regulating the OTC market so as to minimize the systemic risk.⁶⁷

Legal Risk

In 1991, the British House of Lords ruled that swaps transactions entered into by local authorities were ultra vires,⁶⁸ and therefore legally unenforceable contracts. This ruling, known as the *Hammersmith and Fulham decision*,⁶⁹ has cost eighty banks approximately \$1 billion in defaulted swaps payments.⁷⁰ The continued assurances from legal counsel that the swaps contracts at issue were enforceable⁷¹ underscore the price of misjudgment and the urgent need for legal clarity in the OTC derivatives arena.

Therefore, change in law or interpretation of the existing law in a manner so as to put a negative implication on the OTC market transaction is also a possible risk. It is an unforeseeable risk but the repercussions of it are drastic in nature (as could be inferred from the above decision).

Regulations Relating to OTC Derivatives in Different Jurisdictions

OTC derivatives are complex and non transparent in nature. A regulatory approach resulted in excessive counterparty exposures and risk concentrations building up through the system.⁷² Naturally there has been a concerted effort globally to reform the OTC derivative markets, with much of the debate focusing on measures to address the issues of counterparty credit risk and non

⁶⁷ SHARON BROWN-HRUSKA et. al., THE DERIVATIVES MARKETPLACE: EXCHANGES AND THE OVER-THE-COUNTER MARKET 21 (2007).

⁶⁸ *Hazell v. Hammersmith & Fulham*, L.B.C., 2 W.L.R. 372 (1991).

⁶⁹ *Id.*

⁷⁰ *British Local Authority Swaps, We're a Special Case, Old Chap.*, THE ECONOMIST, May 11, 1991 at 74.

⁷¹ Philip Moore, *Cleaning Up the Town Hall Mess*, EUROMONEY 31, 32 (1991).

⁷² Christopher L. Culp et. al., THE SOCIAL FUNCTIONS OF FINANCIAL DERIVATIVES 1 (2011); ROBERT KOLB, et. al. FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT 57, 59 (2010).

transparency.⁷³ The revised regulation for reforming these markets, as is being pursued in major jurisdictions, therefore broadly envisions greater standardization of contracts to make them eligible for central clearing, tighter counterparty risk management norms and higher capital charges for all clearing ineligible contracts and making these markets more transparent.

The Statutory Regulation over OTC Derivative in India

The Securities Contract Regulation Act 1956 (SCRA) had banned all kinds of derivatives trading in India to curb detrimental speculation in securities.⁷⁴ But in 1999, through an amendment in SCRA, derivatives were included under the ambit of 'securities'.⁷⁵ This led to the emergence of derivative market in India.

The emergence of derivatives market will normally require legislation, which addresses issues regarding legality of derivatives instruments, specifically protecting such contracts from anti gambling laws because these involve contracts for differences to be settled by exchange of cash, prescription of appropriate regulations and powers to monitor compliance and to enforce regulations.⁷⁶ The Reserve Bank of India Act 1936 (as amended in 2006) empowers Reserve Bank of India (RBI) to regulate OTC products such as interest rate derivatives, foreign currency derivatives and credit derivatives. Thus, all exchange traded derivatives are regulated by the respective exchanges and overseen by Securities Exchange Board of India (SEBI) whereas the OTC traded derivatives are completely within the purview of the RBI.

⁷³ GEORGE E. REJDA, *PRINCIPLES OF RISK MANAGEMENT AND INSURANCE* (11th ed. 2011).

⁷⁴ Dayanand Arora & Francis Xavier Rathinam, *OTC Derivatives Market in India: Recent Regulatory Initiatives and Open Issues for Market Stability and Development*, *INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS*, W. P. No. 248 (April, 2010) *available at*

<http://www.icrier.org/pdf/WORKING%20PAPER%20248.pdf>.

⁷⁵ The Securities Laws (Amendment) Act (1999).

⁷⁶ Saksena, *Legal Aspects of Derivatives Trading in India*, in SUSAN THOMAS, *DERIVATIVES MARKETS IN INDIA* 282 (Tata McGraw-Hill Publishing Company Limited 2003).

Types of Derivatives Permitted in India

At present the following categories of derivatives are permitted in India:

Type of Derivative	OTC Derivative	Exchange-Traded
RUPEE INTEREST RATE DERIVATIVES	a. Forward Rate Agreements b. Interest Rate swaps	a. Interest rate futures
FOREIGN CURRENCY DERIVATIVES	a. Forwards b. Swaps c. Options	a. Currency Futures
EQUITY DERIVATIVES	---	a. Index futures b. Index options c. Stock futures d. Stock options

From amongst the various OTC derivatives markets permitted in India, interest rate swaps and foreign currency forwards are the two prominent markets. However, by international standards, the total size of the Indian OTC derivatives markets still remains small because credit default swaps were conspicuously absent in India until now.

Guidelines Laid Down by RBI for Regulation of OTC Derivatives

There are certain guidelines which are mandated by RBI so as to enter into a legally valid OTC derivative contract:

- a. There is a requirement that for an OTC derivative transaction to be legally valid, one of the parties to the transaction has to be a RBI regulated entity.⁷⁷
- b. Distinction between a market maker and users. Only Scheduled Banks (SCBs) and primary dealers (PDs) can be the market makers so as to ensure transparency and regulation. Also, SCBs and PDs are advised to report the

⁷⁷ The Reserve Bank of India Act, 1934 § 45 V.

interest-rate swaps transactions entered into with their clients in the format enclosed on a weekly basis.⁷⁸

- c. The users, including financial entities, are permitted to transact in derivatives essentially to hedge an exposure to risk or a homogeneous group of assets and liabilities or transform an existing risk exposure.
- d. Derivative structured products (i.e. combination of cash and generic derivative instruments) are permitted as long as they are a combination of two or more of the generic instruments permitted by RBI and do not contain any derivative as underlying.

Trade Repository Service

Moreover, the Clearing Corporation of India Ltd. (CCIL) has launched its Trade repository service firstly, in 2007 for Inter-bank Rupee Interest Rate Swaps and recently in 2012, for OTC Foreign Exchange Derivatives.⁷⁹ Trade repositories are entities that maintain a centralized electronic database of OTC derivatives transaction data. The centralized database provides both a granular view of positions and exposures product wise and counterparty wise, as well as a ringside view of market concentration, and thereby helps support risk reduction, operational efficiency and cost savings for the market as a whole.⁸⁰ Also, the G20 countries have globally committed to report all OTC derivative contracts to trade repositories to ensure that national regulators and supervisors have access to all relevant information.⁸¹

⁷⁸ RESERVE BANK OF INDIA, REPORT OF THE WORKING GROUP ON REPORTING OF OTC INTEREST RATE AND FOREX DERIVATIVES, at 18 (2011).

⁷⁹ Subir Gokarn, *Clearing Corporation of India launches trade repository for OTC Forex Derivatives*, THE ECONOMIC TIMES, Jul. 9, 2012, at 16.

⁸⁰ *Consultation of the Committee of Europe and Securities Regulators on Trade Repositories in the European Union*, at 1 (Nov. 2009), available at <http://www.ecb.int/pub/pdf/other/cesrconsultationontraderepositoriesineu200910en.pdf>.

⁸¹ The Clearing Corporation of India Ltd., *CCIL Launches OTC Derivatives Trade Repository*, at 1 (Jul. 9, 2012) available at

Regulation of Risk through Trade Repository

Through the trade repository and clearing counter party, there will be an elimination of the counterparty risk as one party to the transaction will be the bank or private dealers. Some believe that “with CCIL guarantees, the volume should go up in these markets... as there is no counterparty risk involved”.⁸²

Lastly, risk management at the CCIL is a high priority because the organization is systemic. The RBI, recognizing the systemic nature of CCP, ensured that CCIL is closely monitored. Further, to eliminate the possibility of CCIL not being able to honor a contract, it maintains a guarantee fund and has adequate lines of credit arrangements with various banks to ensure funds settlement on guaranteed basis. Moreover, to ensure good corporate governance, CCIL follows International Organization of Securities Commission (IOSCO) best practices.⁸³

Proposition as to Current OTC Derivative Regulation in India

The author proposes that for better surveillance of the OTC markets there should be strengthening of the CCP approach. However, at present, India has only one institution for the purpose. This has created concerns relating to concentration risk. The entry of one or two new CCPs for post-trade clearing and settlement should ensure competition and bring in the advantages of operational efficiency. Therefore, knowing the functional value of OTC derivatives markets in the Indian financial system, there is no need for new moves to tighten the regulatory rope. Instead, what we need is a concerted effort towards increased disclosure, more transparency and more standardization.

https://www.ccilindia.com/Documents/whats_new/2012/TR%2520Lau nch%25209%2520July%25202012.pdf.

⁸² Anup Roy, *Guarantees Set to Boost Derivatives Trading Volume*, LIVE MINT AND WALL ST. J., Jul. 7, 2009, available at <http://www.livemint.com/2009/07/07211133/Guarantees-set-to-boost-deriva.html>.

⁸³ RESERVE BANK OF INDIA, REPORT ON OVERSIGHT OF PAYMENT SYSTEMS IN INDIA 24 (2006-07).

The US Regime Relating to OTC Derivatives

After the 2008 crisis, there was a need felt by the law makers to have some legal response. The crisis sparked disagreement about the appropriate actions to be taken. As the US Treasury explains, “without consistent supervision and regulation, financial institutions will tend to move their activities to jurisdictions with looser standards, creating a race-to-the-bottom and intensifying systemic risk for the entire global financial system.”⁸⁴ Therefore in response, U.S. recently brought The Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010 (Dodd-Frank Act).⁸⁵

Regulatory Provisions under the Dodd-Frank Act

Title VII of the Act permits and protects OTC trading in derivatives for hedging purposes, while simultaneously working to confine speculative trading to the modern equivalent of a privately organized commodity futures exchange.⁸⁶ Section 723(a) amends the Commodity Exchange Act 1936 to add the provision that “it shall be unlawful for any person to engage in a swap unless that person submits such swap for clearing to a derivatives clearing organization that is registered under this Act.”⁸⁷

Sections 721, 723(a), and 725(c) of Title VII then make clear that, to be registered with the Commodity Futures Trading Commission (CFTC) as a ‘derivatives clearing organization’ (DCO), an organization must either be a recognized futures exchange or perform the same sorts of trade guarantee and private enforcement functions that have been performed by exchanges since the

⁸⁴ United States Department of the Treasury, *Financial Regulatory Reform: A New Foundation: Rebuilding Financial Supervision and Regulation*, 8 (2009) available at <http://www.financialstability.gov/docs/regs/FinalReport-web.pdf>. (last visited Dec. 12, 2013).

⁸⁵ Stout, *supra* note 17 at 24.

⁸⁶ Colleen M. Baker, *Regulating the Invisible: The Case of Over-The-Counter Derivatives*, 85 NOTRE DAME L. REV. 1287, 1299 (2010).

⁸⁷ The Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010, §723 (a) (2).

nineteenth century.⁸⁸ Title VII provides an exemption from the clearing requirement if one of the two parties “is using swaps to hedge or mitigate commercial risk.”⁸⁹ But, Title VII leaves it to the CFTC to define ‘commercial risk’.⁹⁰

Ultimately, hedging transactions remain both legal and legally enforceable on the OTC markets but speculative trading in derivatives, however, is confined to clearinghouses that perform the contract guarantee and systemic risk reducing functions of private exchanges.⁹¹

A Critique on the Dodd-Frank Act 2010

The Dodd-Frank Act has been subject to widespread criticism for its length and complexity, for increasing the number and expanding the power of regulatory agencies, and for providing an opportunity for shareholder activists to push through controversial and long-frustrated policy proposals largely unrelated to the 2008 crisis.⁹²

Since central clearing is not a reasonable option for all derivatives, the requirements of the Dodd-Frank Act will force market participants to divide their OTC derivatives portfolios into bilateral and centrally cleared components.⁹³ Central clearing can only eliminate the web of bilateral transactions for those derivatives amenable to central clearing. For any derivatives that continue to

⁸⁸ The Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010, §§ 721, 723 (a), 725 (c).

⁸⁹ The Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010, §723 (a).

⁹⁰ The Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010, § 721 (b).

⁹¹ The Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010, § 723 (a).

⁹² THE FINANCIAL CRISIS INQUIRY REPORT, FINANCIAL CRISIS INQUIRY COMMISSION, at 33-35 (2011).

⁹³ Paul M. McBride, *The Dodd-Frank Act and OTC Derivatives: The Impact of Mandatory Central Clearing on the Global OTC Derivatives Market*, 44 INT'L LAWREV. 1077 (2010); Comm. on Payments and Settlement Sys., *New Developments in Settlement and Clearing Arrangements for OTC Derivatives*, BIS., 27 (Mar. 2007), available at <http://www.bis.org/publ/cps77.pdf>.

be bilaterally cleared by the counterparties rather than submitted to a CCP, potentially because of a lack of standard terms or insufficient volume, the interconnectivity of the market participants will remain. In other words, a properly implemented central clearing regime cannot itself eliminate the counterparty risk between trading partners. Furthermore, any counterparty risk that remains after market participants submit their eligible OTC derivatives to the CCP may still be systemically significant.⁹⁴

The EU Regime Relating to OTC Derivatives

At the Pittsburgh G20 summit in 2009, leaders agreed that all standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end of 2012. OTC derivative contracts should be reported to trade repositories. Non centrally cleared contract should be subject to higher capital requirements. This statement is central to the set of regulatory changes in EU aimed at OTC derivative markets.

Adoption of European Market Infrastructure Regulation

OTC derivative markets face unprecedented regulatory reform. Regulators and policymakers are seeking more transparent and liquid markets that are subject to robust and effective risk management processes. EU recently adopted the European Market Infrastructure Regulation (EMIR) for regulating the OTC transactions.⁹⁵ Also, certain changes have been brought in Markets and Financial Directive (MiFid., now also known as MiFID II). The focus of this discussion will be limited to EMIR.

⁹⁴ Darrell Duffie, *Policy Issues Facing the Market for Credit Derivatives*, *The Road Ahead For The Fed.*, 107, 132-33 (2009).

⁹⁵ OTC Derivatives, Central Counterparties and Trade Repositories, Commission Regulation (EU) No. 648/2012, July 4, 2012.

A Brief Analysis of European Market Infrastructure Regulation

The author concludes that the adopted technical standards now provide some clarity on the initial level at which the EMIR clearing threshold for non financial counterparties will be set, with a view to tailoring this further as more data becomes available. When the threshold is reached, the non financial counterparty will become subject to the clearing obligation in respect of all asset classes, thereby mitigating the counterparty risk.

Conclusion

OTC derivatives are an important innovation which have contributed substantially to risk management wherever they are available and used. These risks have not simply been shifted; however, many of the risks can be cancelled in the market. Furthermore, the growing size of the market has led to the development of new risk management techniques and skills in dealer financial institutions. These factors have the effect of reducing their overall riskiness by managing risks which were previously not actively faced and managed.

Moreover, the coming of clearing party as an intermediary in a transaction has definitely reduced the counterparty risk. After analyzing the kinds of risks present and the regulations adopted so as to mitigate the same, it can be concluded that these regulations are very effective in nature. Though there are issues with the present regulatory mechanism (as mentioned above) that could be dealt in the future with the development of OTC derivative trading mechanism.