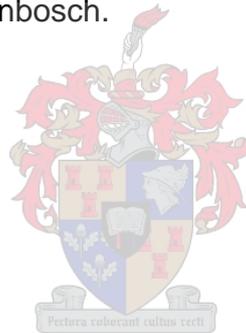


The Legal Risks Associated with Trading in Derivatives in a Merchant Bank

Janet René Terblanché
Student number 14236877

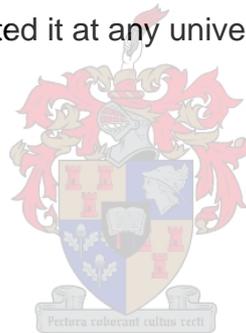
Thesis presented in fulfilment of the requirements for the degree of Masters of
Law at the University of Stellenbosch.



Prof. P Sutherland and Dr. C van der Bijl
April 2006

Declaration

I, the undersigned, Janet René Terblanché, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.



Signature: _____

Date: _____

Summary

The research defines derivatives as private contracts, with future rights and obligations imposed on all parties, used to hedge or transfer risk, which derives value from an underlying asset price or index, which asset price or index may take on various forms. The nature of derivatives is that the instruments are intended to be risk management tools. The objectives of derivatives are either to hedge a risk, or to speculate. Derivatives may be classified by the manner in which they are traded, either over the counter (OTC) or on exchange. Alternatively, derivatives may be classified on the basis of structure and mechanisms, i.e. forwards, futures, options or swaps.

Risk and risk management are defined in the third chapter with the focus on merchant banking. The nature of risk is that it is inherent in all activities. The nature of risk management is that it aims to ensure that the risks faced by the merchant bank are managed on a daily basis. The objective of risk management is to ensure that losses are minimised and the appropriate level of risk is taken in order to maximise profits. Risk may be classified as operational, operations, market, systemic, credit and legal risk. A comprehensive discussion of credit risk is presented, as it pertains to the legal risk in derivatives in a merchant bank. This includes insolvency, set-off, netting, credit derivatives and collateral.

Legal risk is defined as the risk of loss primarily caused by legal unenforceability (i.e. a defective transaction, for instance a contract), legal liability (i.e. a claim) or failure to take legal steps to protect assets (e.g. intellectual property). The nature of legal risk is that it is caused by jurisdictional and other cross-border factors, inadequate documentation, the behaviour of financial institutions, a lack of internal controls, financial innovation or the inherent uncertainty of the law. The objectives of legal risk management in derivatives are to avoid the direct and indirect costs associated with legal risk materialising. This includes reputational damage. Derivatives attract specific legal risks due to the complexity of the instruments as well as the constant innovation in the market. There remains some legal

uncertainty regarding derivatives in terms of gaming, wagering and gambling, as well as insurance.

The relationship between risk and derivatives is that due to the complexity and constant innovation associated with derivatives, there are some inherent risks to trading in derivatives. It is therefore important to ensure that there is a vested risk management culture in the derivatives trading environment.

Chapter four gives an overview of derivatives legislation in foreign jurisdictions and in South Africa. The contractual and documentation issues are discussed with reference to *ad hoc* agreements, master agreements and ISDA agreements. The practical implementation issues of master agreements and *ad hoc* agreements are also discussed.

The recommendations are that legal risk management be approached in a similar manner to credit, market and other risk disciplines. A legal risk management policy needs to be developed and implemented. The second recommendation is that a derivative to manage the legal risk in derivatives be developed.



Opsomming

In hierdie navorsing word afgeleide instrumente gedefinieer as private kontrakte, met toekomstige regte en verpligtinge vir alle partye. Hierdie instrumente word gebruik om risiko te verskans of oor te dra. Die waarde van afgeleide instrumente word bepaal deur die onderliggende batewaarde of indeks, welke bate of indeks verskeie vorme kan aanneem. Die aard van afgeleide instrumente is dat die instrumente bedoel is om risikobestuursmiddele te wees. Die doel van afgeleide instrumente is om risiko's te verskans of om te spekuleer. Hierdie instrumente word geklassifiseer op grond van die wyse waarop dit verhandel word, óf oor die toonbank, óf beurs-verhandel. In die alternatief kan afgeleide instrumente geklassifiseer word op grond van hulle struktuur en meganismes, naamlik vooruitkontrakte, termynkontrakte, opsies en ruiltransaksies.

Risiko en risikobestuur veral by aksepbanke word in die derde hoofstuk bespreek. Die aard van risiko is dat dit in alle aktiwiteite teenwoordig is. Die aard van risikobestuur is dat dit verseker dat die risiko's waaraan 'n aksepbank blootgestel is, op 'n daaglikse basis bestuur word. Die doel van risikobestuur is om te poog om verliese te minimaliseer, terwyl die toepaslike vlak van risiko gewaag word om sodoende wins te maksimaliseer. Risiko word geklassifiseer as bedryfs-, bedrywigheids-, mark-, sistemiese-, krediet- en regsrisiko. 'n Omvattende bespreking van kredietrisiko, soos van toepassing op die regsrisiko in afgeleide instrumente in 'n aksepbank, is ingesluit in die navorsing. Dit sluit insolvensie, skuldvergelyking, afgeleide kredietinstrumente en sekuriteit in.

Regsrisiko word omskryf as die risiko van verliese as gevolg van onafdwingbaarheid ('n defektiewe transaksie, byvoorbeeld 'n kontrak), aanspreeklikheid ('n eis) of die versuim om regstappe te neem om bates te beskerm (intellektuele goedere). Die aard van regsrisiko is dat dit veroorsaak word deur jurisdiksie en ander oorgrens-faktore, onvoldoende dokumentasie, die optrede van finansiële instellings, 'n gebrek aan interne beheermaatreëls, finansiële innovering of die inherente onsekerheid van die reg. Die doelwit van

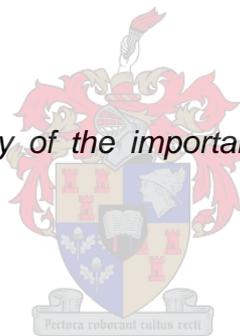
regsriskobestuur in afgeleide instrumente is om die direkte en indirekte koste van regsrisiko wat manifesteer, te vermy. Dit sluit skade aan reputasie in. As gevolg van die kompleksiteit van afgeleide instrumente sowel as die gedurige innovering op die mark, is daar spesifieke regsrisiko's teenwoordig. Daar is `n mate van regsonsekerheid ten opsigte van die verhouding van afgeleide instrumente met dobbel, weddenskappe en versekering.

Daar is inherente risiko's verbonde aan die handel in afgeleide instrumente as gevolg van die kompleksiteit en konstante innovering wat met afgeleide instrumente geassosieer word. Daarom is dit belangrik om te verseker dat daar `n gevestigde risikobestuurskultuur is in `n omgewing waar afgeleide instrumente verhandel word.

Hoofstuk vier verskaf `n oorsig van wetgewing oor afgeleide instrumente in verskeie buitelandse jurisdiksies en in Suid-Afrika. Die probleme met kontrakte en dokumentasie word bespreek met verwysing na ad hoc-ooreenkomste, meesterooreenkomste en ISDA-ooreenkomste. Praktiese implementeringsooreenkomste word ook bespreek.

Die aanbevelings is dat regsriskobestuur gevestig word op `n wyse soortgelyk aan krediet-, mark- en ander risikodissiplines. `n Regsriskobestuursbeleid moet ontwikkel en geïmplementeer word. Die tweede aanbeveling is dat `n afgeleide instrument ontwikkel word om die regsrisiko in afgeleide instrumente te verskans.

Why is it that so many of the important things are also the most boring?



Ashleigh Brilliant¹

With thanks to my husband, Carel, my parents Jan and René Smit and Jurie Bester. Without their support and encouragement this research would not have been possible.

¹ Tschoegl, A.E. *The Key to Risk Management: Management* (2003) Wharton Financial Institutions Center p 2.

Index

	Page
Foreword	1
Chapter 1	
Introduction	
1. <i>Introduction</i>	2
2. <i>History of derivatives</i>	3
3. <i>Conceptualisation</i>	7
4. <i>Problem statement</i>	7
5. <i>Aim of research</i>	8
6. <i>Research method</i>	9
7. <i>Limitations of the study</i>	9
8. <i>Structure</i>	9
Chapter 2	
Nature and Purpose of Derivatives	
1. <i>Introduction</i>	11
2. <i>Definitions</i>	12
2.1 <i>Derivatives</i>	12
2.2 <i>Bank</i>	16
2.3 <i>Merchant Bank</i>	16
3. <i>Nature and objectives of derivatives</i>	17
3.1 <i>Nature of a derivative</i>	18
3.2 <i>Hedging and speculating</i>	19
3.3 <i>Trading and performance</i>	21
3.4 <i>The difference between common stocks and derivatives</i>	21
4. <i>Classification of derivatives</i>	22
4.1 <i>Classification based on exchange trading or off-exchange trading or by structure of instrument</i>	22
4.2 <i>Derivatives markets</i>	23
4.2.1 <i>Exchange traded derivatives</i>	24



4.2.2	<i>OTC derivatives</i>	26
4.3	<i>Classification based on the structure and mechanisms of derivatives</i>	27
4.3.1	<i>Forwards and futures contracts</i>	28
i.	<i>Commodity futures</i>	31
ii.	<i>Currency futures</i>	32
iii.	<i>Interest rate futures</i>	33
iv.	<i>Stock index futures</i>	33
4.3.2	<i>Options</i>	34
4.3.3	<i>Swaps and other derivative contracts</i>	37
5.	<i>Conclusion</i>	38

Chapter 3

The classification and identification of risk and legal risk and their relationship with derivatives

1.	<i>Introduction</i>	40
2.	<i>Definitions of risk and risk management</i>	42
2.1	<i>Definition of risk</i>	42
2.2	<i>Definition of risk management</i>	45
3.	<i>Nature and objectives of risk management</i>	48
4.	<i>Classification of different types of risk</i>	50
4.1	<i>Operational risk</i>	50
4.2	<i>Operations risk</i>	52
4.3	<i>Market risk</i>	53
4.4	<i>Systemic risk</i>	55
4.4.1	<i>Systemic risk and legal risk in derivatives</i>	56
4.5	<i>Credit risk</i>	59
4.5.1	<i>Credit risk and legal risk in derivatives</i>	61
4.5.2	<i>Pre-settlement risk</i>	62
4.5.3	<i>Settlement risk</i>	64
4.5.4	<i>Counterparty risk</i>	64
4.5.5	<i>Margin</i>	64
4.5.6	<i>Credit rating</i>	64
4.5.7	<i>Nature and objectives of credit risk management</i>	65

4.5.7.1	<i>Insolvency</i>	66
4.5.7.2	<i>Set-off and netting</i>	66
4.5.7.2.1	<i>Bilateral netting</i>	68
4.5.7.2.2	<i>Multilateral netting</i>	68
4.5.7.2.3	<i>Payment netting</i>	69
4.5.7.2.4	<i>Netting by novation</i>	69
4.5.7.2.5	<i>Close-out netting</i>	69
4.5.7.2.6	<i>ISDA Model Netting Act</i>	72
4.5.8	<i>Credit risk management tools</i>	72
4.5.8.1	<i>Credit derivatives</i>	73
4.5.8.2	<i>Collateral</i>	75
4.5.8.2.1	<i>Advantages of collateral</i>	77
4.5.8.2.2	<i>Disadvantages of collateral</i>	78
4.6	<i>Legal risk</i>	78
4.6.1	<i>Definition of legal risk</i>	79
4.6.2	<i>Classification of legal risk</i>	82
4.6.2.1	<i>Compliance risk management</i>	83
4.6.2.2	<i>Contractual risk</i>	83
4.6.3	<i>Nature and objectives of legal risk management</i>	84
4.6.3.1	<i>Nature of legal risk</i>	84
4.6.3.1.1	<i>Jurisdiction and cross-border issues</i>	84
4.6.3.1.2	<i>Inadequate documentation</i>	85
4.6.3.1.3	<i>Behaviour of financial institutions</i>	86
4.6.3.1.4	<i>Lack of internal controls</i>	87
4.6.3.1.5	<i>Financial innovation</i>	95
4.6.3.1.6	<i>Inherent uncertainty of the law</i>	96
4.6.3.2	<i>The objectives of legal risk management in derivatives</i>	99
4.6.4	<i>Legal risk management in derivatives transactions</i>	101
4.6.4.1	<i>Technology</i>	102
4.6.4.1.1	<i>A mathematical legal risk model</i>	103
4.6.4.2	<i>Legal risk mitigation</i>	104
4.6.4.3	<i>Legal risks associated with collateral</i>	105

4.6.4.4	<i>Impact of credit risk on legal risk in derivatives</i>	106
4.6.4.5	<i>Gaming or wagering and gambling</i>	106
4.6.4.6	<i>Derivative contracts and insurance</i>	109
4.6.5	<i>Conclusion on legal risk and management</i>	110
5.	<i>Derivatives risk management</i>	111
6.	<i>Conclusion</i>	112
Annexure A		115

Chapter 4

An overview of legal aspects pertaining to regulatory and contractual risks in derivatives

1.	<i>Introduction</i>	116
2.	<i>Legislation</i>	117
2.1	<i>Types of regulations</i>	119
2.2	<i>Self-regulation versus external regulation</i>	120
2.3	<i>Foreign jurisdictions.</i>	121
2.3.1	<i>Australia</i>	122
2.3.2	<i>European Union</i>	122
2.3.3	<i>United Kingdom</i>	122
2.3.4	<i>United States of America</i>	124
2.3.5	<i>Developments in the International Arena: Bank for International Settlements</i>	127
2.3.6	<i>Conclusion on legislation in foreign jurisdictions</i>	128
2.4	<i>South Africa</i>	128
2.4.1	<i>The Banks Act</i>	129
2.4.2	<i>The Securities Services Act</i>	129
2.4.3	<i>The Financial Advisory and Intermediary Services Act</i>	130
2.4.4	<i>The Financial Services Board and the South African Reserve Bank Acts</i>	130
2.4.5	<i>The Policy Board for Financial Services and Regulation Act</i>	131
2.4.6	<i>The Financial Intelligence Centre Act</i>	131
2.4.7	<i>The National Credit Bill</i>	132

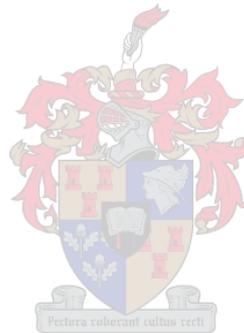
2.4.8	<i>Insurance law and regulation in South Africa</i>	133
2.4.9	<i>The South African Futures Exchange</i>	137
2.4.10	<i>Conclusion on South African legislation</i>	137
3.	<i>Contracts and documentation issues</i>	138
3.1	<i>Ad hoc contracts</i>	138
3.2	<i>Master agreements</i>	144
3.2.1	<i>Key features of Master Agreements</i>	146
3.2.2	<i>Advantages of Master Agreements to derivatives in general</i>	146
3.2.3	<i>Disadvantages of Master Agreements</i>	146
3.2.3.1	<i>No documentation before dealing</i>	147
3.2.3.2	<i>Excessive adherence to the Master Agreement</i>	148
3.2.3.3	<i>Non-standard transactions</i>	148
3.2.3.4	<i>Main terms of Master Agreements</i>	149
3.2.3.4.1	<i>Absolute payments</i>	149
3.2.3.4.2	<i>Deal confirmations</i>	149
3.2.3.4.3	<i>Payments and settlements</i>	151
3.2.3.4.4	<i>Tax grossing-up</i>	151
3.2.3.4.5	<i>Voluntary close-out</i>	152
3.2.3.4.6	<i>Market disruption</i>	153
3.2.3.4.7	<i>Adjustments and extraordinary events</i>	153
3.2.3.4.8	<i>Representations and warranties</i>	154
3.2.3.4.9	<i>Termination for illegality</i>	154
3.2.3.4.10	<i>Events of default</i>	154
3.2.3.4.11	<i>Calculation agent</i>	155
3.2.3.4.12	<i>Miscellaneous</i>	155
3.2.3.5	<i>Validity of oral contracts</i>	155
3.2.3.6	<i>Capacity</i>	156
3.3	<i>Specific Master Agreements: ISDA</i>	159
3.3.1	<i>Benefits of belonging to ISDA</i>	160
3.3.1.1	<i>Opinions</i>	160
3.3.1.2	<i>User's Guides</i>	160
3.3.1.3	<i>Protocols</i>	161

3.3.1.4	<i>ISDA Definitions</i>	161
3.3.1.5	<i>ISDA Model Netting Act</i>	162
3.4	<i>Other jurisdictions</i>	163
3.5	<i>South Africa</i>	163
4.	<i>Practical implementation</i>	163
5.	<i>Conclusion</i>	164

CHAPTER 5

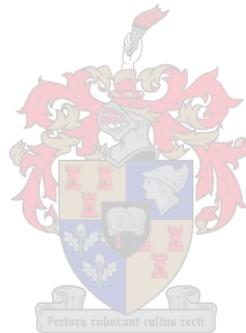
Conclusion

1.	<i>Introduction</i>	168
2.	<i>Conclusion</i>	169
3.	<i>Recommendations</i>	174
4.	<i>Implications for further research</i>	176
5.	<i>Concluding statement</i>	176



Foreword

In the author's position as the Operational Risk Manager for a large South African Banking Group, she is exposed to a merchant banking environment. She has quickly realised that derivatives, being one of the newer financial instruments available in the marketplace, firstly pose many unanswered questions regarding their risk profile and their legal risk. The second issue that can be raised is that legal risk is not a universally accepted and defined concept. The question that is asked is whether these two factors, if combined, could pose a significant risk in the merchant banking environment.



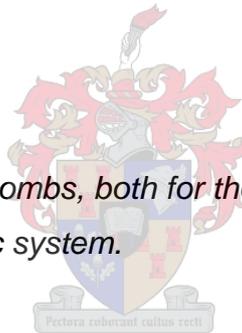
CHAPTER 1

Introduction

1. *Introduction*
2. *History of derivatives*
3. *Conceptualisation*
4. *Problem statement*
5. *Aim of research*
6. *Research method*
7. *Limitations of the study*
8. *Structure of thesis*

1 Introduction

Derivatives [are] time bombs, both for the parties that deal with them and the economic system.



Warren Buffet¹

This statement by Warren Buffet, who is recognised as one of the best investors of his time, illustrates the current concern regarding derivatives and their impact on the economic system.

This study is specifically concerned with exploring the concept 'legal risk' as it pertains to derivatives traded by a merchant bank.² This is achieved mainly through a literature review of articles, textbooks, case law and conference notes, and some interviews that have been conducted with lawyers in the derivative industry. It should be noted that research material on legal risk in derivatives is limited as both derivatives and the concept of legal risk are relatively new developments within the financial markets. This study will not

¹ Kadlec, D. *Comeback Crusader* (2003) 17 March *Time Magazine* p 51.

² Also referred to as investment banks.

deal with every aspect of derivatives in detail, as the main focus is placed on legal risk and not on derivatives themselves.

2 History of derivatives

The earliest examples of derivative transactions can be found in the Code of Hammurabi, carved onto stone plates about 3 800 years ago. However, legend has it that derivatives stem from the feudal landowners of Japan from 1603-1868. Rice was sold in terms of standardised contracts in terms of which delivery was required within a four-month period, and these contracts were settled in cash through a clearing house. This is the earliest known form of a forward contract that was used.³ In the 17th century, options on tulip bulbs were traded on the Amsterdam stock exchange.⁴ In the 1920's the London coffee houses started contracting on the same basis for the pricing of rubber and tea.⁵

The roots of modern sophisticated mathematical derivatives pricing can be found in the work of the French academic Louis Bachelier in 1900.⁶ However, it was not until the 1970's and 1980's that derivatives, as we know them today, started to develop. Since 1948 the main development has occurred on the Chicago Mercantile Exchange (CME), where derivatives have been used to trade live cattle, pork bellies, grains, lumber and potatoes. In 1971, the CME drafted a paper on the need for a futures market in currencies after the collapse of the Bretton Woods agreement.⁷ The CME launched the International Monetary market in 1972, when they introduced futures contracts in seven currencies.⁸ There was interest rate volatility in 1973, which can be attributed to the Arab-Israeli war and the oil crisis.⁹ The Chicago Board

³ See chapter two, 4.3.1.

⁴ Field, P. ed. *Modern Risk Management: A History* (2003) Risk Books p 11.

⁵ See note 4, Field, p xxvi.

⁶ Boyle, P. and F. *Derivatives: The Tools that changed Finance* (2001) Risk Waters Group Ltd p 71.

⁷ According to the CME the date is in fact 1898.

www.cme.com/trading/prd/fx/trade/history1567.html *History of FX at CME* accessed 22 February 2005.

⁸ See note 4, Field, *ibid*.

⁹ Firth, S. *Derivatives Law and Practice* (2002) Sweet & Maxwell p v, 1-1 to 1-2.

Options Exchange (CBOE/CBOT) was consequently founded. The first interest-rate futures contract was launched in 1975.

The growth in mathematical modeling and in computer science enabled risk to be broken down into component parts, which could be managed separately.¹⁰ The Hong Kong Futures Exchange was established in 1976, and the London Traded Options Market, as well as the European Options Exchange in Amsterdam, was launched in 1978.¹¹ The UK abolished exchange controls in 1979. The first international trade link between futures exchanges was established between CME and the Singapore Exchange in 1984. The FTSE index for futures was launched in 1984. The CBOT established evening trading in 1987. In 1988 the Swiss Options and Futures Exchange opened as the first fully electronic derivatives exchange. The Tokyo International Financial Futures Exchange was launched in 1989, followed by the Deutsche Terminbörse in 1990. The Dow Jones Industrial Average Index for futures and options was launched in 1997. Currently the CME Exchange is still the largest futures exchange in the United States.¹²

In the 1970s, derivatives were initially traded by banks, bond market players, large firms in the United States, and the World Bank. This has changed and various types of organisations across the globe make use of derivatives. Initially transactions were small and one-offs. In 1981, the World Bank and IBM entered into a cross-currency swap worth US\$290 million. This was an historic event because it was the first of its kind, and therefore widely publicised. In 1982, the US Student Loan Marketing Agency, Sally Mae, began entering into large interest rate swaps.¹³

The explosive growth in derivatives began in the 1970s and was fuelled by deregulation, the growth in international trade, increased investment abroad, advances in information technology, and volatility in interest rates and exchange rates. The growth rate forced lawyers in various jurisdictions to

¹⁰ See note 4, Field, *ibid*.

¹¹ See note 4, Field, p xxxvii.

¹² See note 4, Field, *ibid*.

¹³ See note 4, Field, p 13, 16-17.

respond to their clients' needs by being increasingly creative with their documentation and deal structures. The volatility in exchange rates commenced when Richard Nixon severed the United States' relationship with other industrial nations who were parties to the 1944 Bretton Woods Agreement. This agreement fixed the exchange rates between various currencies instead of having floating exchange rates like we have today.¹⁴ Derivatives reshaped the borrowing and investment arena by eliminating the currency exposure of borrowers and investors who chose to transact out of their domestic jurisdictions.¹⁵ The increased sophistication of computer technology utilised to design and support these instruments further increased the volume of trade, which led to potential legal consequences, such as timing differences in deal confirmations.¹⁶

The importance of derivatives becomes obvious when considering the fact that the notional value of the global derivatives markets was \$102 trillion¹⁷ in December 1999. Activity in the over-the-counter derivatives markets continued to grow during the first half of 2005, albeit at a somewhat slower pace than in the preceding six months. According to the latest semi annual survey released by the Bank for International Settlements (hereinafter 'BIS'), notional amounts outstanding rose by 7% to \$270 trillion at the end of June, after a 14% increase during the second half of 2004. Gross market values, which measure the cost of replacing all contracts and thus represent a better measure of risk at a given point in time than notional amounts, rose by 16% to \$11 trillion.¹⁸ To put the actual size of these markets into perspective, the world's gross domestic product was \$30 trillion in 1999 with the total value of outstanding stocks and bonds being \$70 trillion.¹⁹ According to Firth²⁰ the value of the market was US\$388 billion in 1987 and is currently in the order of

¹⁴ See note 6, Boyle, *ibid*.

¹⁵ Jackson, C. *Legal Risk Optimisation* (2002) September *Risk Waters Group Risk Magazine* p 116-118.

¹⁶ Das, S. ed. *Swap and Derivative Financing* Revised edition (1994) Probus Publishers p 1341.

¹⁷ \$88 trillion is traded on over-the-counter markets and \$14 trillion on organised exchanges.

¹⁸ <http://www.bis.org/publ/rpfx05.htm%2017%20November%202005> Accessed 28 February 2006. <http://www.bis.org/press/p051117.htm> Accessed 28 February 2006.

¹⁹ See note 18, Jorion, p 114-115.

²⁰ See note 9, Firth, p 1-1.

US\$17,067 billion. According to Boyle²¹ the global value of derivatives was US\$102 trillion by the end of 1999 which is about ten times the value of the United States' gross domestic product. Field²² is of the opinion that the value was US\$197 trillion in 2003. The size of the market is clearly immense.

In July 1993 Jackson²³ said that the greatest risk facing the derivatives industry was not market, credit or operating risk but was in fact legal risk. Efforts were focused on refining pricing models, designing credit and market risk models. More recently emphasis has been placed upon the quantification and modelling of operational risk. Little or no resources are devoted to modelling and measuring legal risk.

Legal risks have always existed, but they have become more significant after derivatives were introduced to the markets.²⁴ Exchange-traded futures are standardised, which limits legal risk to a certain extent. However, the whole purpose of over-the-counter markets is to have tailor-made contracts for the counterparty, which results in ad hoc agreements, and could introduce legal risk into the derivatives transaction. Unfortunately it is not only the financial terms of the contract, the price, quantities and maturity, that are customised, but also the actual legal documentation, which leads to additional legal risk. There is a close link between legal, credit and market risk. When a counterparty loses a large amount of money on a transaction due to market risk or credit risk, there is a tendency to resort to legal action to recover some of these losses. For example when Procter & Gamble lost \$157 million on swaps arranged by Bankers Trust, this consumer company sued its bank and recovered its losses.²⁵

²¹ See note 6, Boyle, p 1.

²² See note 18, Jorion, p 11.

²³ See note 15, Jackson, *ibid.*

²⁴ See chapter three, 4.6.

²⁵ See note 18, Jorion, p 670.

3 Conceptualisation

The main concept that is investigated in this study is legal risk, specifically as it pertains to derivatives trading. The basic concepts of derivatives are discussed, and thereafter risk and risk management. The question is raised whether legal risk is indeed a form of risk and if so, whether it warrants the introduction of risk management processes. The question whether legal risk has an impact on derivatives is addressed and whether its impact is large enough to warrant the implementation of additional control measures is evaluated. A number of additional concepts and definitions need to be explained, which are dealt with throughout the study where relevant.

4 Problem statement

On the basis of the preceding thematic analysis and conceptualisation in which the field of research is identified, the research problem can be divided into the following questions:

1. What are derivatives?
2. What are the nature and objectives of derivatives?
3. What are the categories and the classifications of derivatives?
4. What is risk?
5. What is risk management?
6. What are the nature and objectives of risk management?
7. How is risk classified?
8. Is credit risk present in derivatives trading?
9. Are set-off and netting risks in derivatives trading?
10. What is legal risk?
11. Is legal risk present in derivatives trading?
12. Is legal risk classified into sub-categories, and if so, what are these?
13. What are the nature and objectives of legal risk management?
14. What is the relationship between derivatives and risk management?
15. Is there legislation that governs derivatives?

16. Is there legislation that governs derivatives in any foreign jurisdictions?
17. Is there legislation that governs derivatives in South Africa?
18. Are there any contractual and documentation issues with regard to derivatives?
19. What are the practical implementation issues with regard to legislation and contracts for derivatives?
20. What is the recommendation for an effective legal risk management system in a derivatives trading environment in a merchant bank?

5 Aim of Research

The concepts of both risk management and derivatives are relatively new - they have only been prominent for about twenty years. Legal risk management is an even more recent concept, which has only come to the fore in the past five years. In many instances, banks have not implemented legal risk management programmes. In the current study a merchant banking environment, as it pertains to the legal risks in derivatives, is investigated. The author of this study attempts to answer the question as to why derivatives are important, with reference to the history of these instruments, and consequently why legal risk is so important.

Derivatives are described and explained, and the relationship with legal risk explored. The current author explores the rapid growth, innovation and change that are apparently part of a derivative, and the consequences with reference to legal risk. The contribution that the current author intends to make to this field of research is to provide a study on legal risk in derivatives. As a secondary goal, the author intends to give an indication as to whether it is necessary to develop and implement a legal risk management programme in the derivatives trading environment in a merchant bank. The development and implementation of a legal risk management programme is not explored. This could form the basis of another study.

6 Research method

The research methodology entailed a literature study, commentary and case studies. In addition, some personal interviews were conducted and conferences, seminars and working groups attended. The relevant information obtained by these means was incorporated into this thesis.

Due to the international nature of derivatives, the research was not limited to South African law, and the position in South Africa is not always discussed as the South African law has not been tested in this regard. Due to the international nature of the subject, it can be assumed that problems that arise in other jurisdictions may well be applicable to South African law and that the courts and legislature will probably turn to these foreign legal systems for answers and guidance.

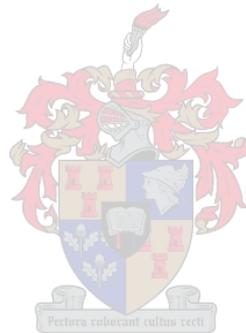
7 Limitations of the study

The study focuses on risk and derivatives. There are two aspects on which a large body of information exists but which are excluded from analysis in this study. Agricultural risks and mathematical aspects of derivatives are excluded. The scope of the study has some inherent limitations as the legal risks in derivatives are the main focus of the study, and not derivatives per se. Because the purpose is to research legal risk in derivatives, several aspects of derivatives are not discussed in detail. Only a cursory overview of derivatives is given and not all instruments are discussed. The quantification of derivatives has a strong mathematical basis and is also excluded from the ambit of the research.

8 Structure

Following the introductory chapter, the study is set out as follows: chapter two defines and describes derivatives, their nature and purpose in financial markets. Chapter three deals with risk and risk management, legal risk and derivatives and their relationship with legal risk. Various definitions of the

different types of risk that are relevant to derivatives are also discussed in chapter three. Two specific risks that apply to derivatives are credit and legal risk, a discussion of which is included. Chapter four entails an overview of derivatives legislation and documentation and the impact on legal risk. Chapter five contains the recommendations and conclusion.



CHAPTER 2

Nature and Purpose of Derivatives

- 1 *Introduction*
- 2 *Definitions*
 - 2.1 *Derivatives*
 - 2.2 *Bank*
 - 2.3 *Merchant Bank*
- 3 *Nature and objectives of derivatives*
 - 3.1 *Nature of a derivative*
 - 3.2 *Hedging and speculating*
 - 3.3 *Trading and performance*
 - 3.4 *The difference between common stocks and derivatives*
- 4 *Classification of derivatives*
 - 4.1 *Classification based on exchange or off-exchange trading or by structure of instrument*
 - 4.2 *Derivatives markets*
 - 4.2.1 *Exchange-traded derivatives*
 - 4.2.2 *OTC derivatives*
 - 4.3 *Classification based on the structure and mechanisms of derivatives*
 - 4.3.1 *Forwards and futures contracts*
 - 4.3.2 *Options*
 - 4.3.3 *Swaps and other derivatives*
- 5 *Conclusion*

1 Introduction

The purpose of this chapter is to define what a derivative is and briefly to explain how the derivatives markets operate. The nature and objectives of derivatives will be discussed, and thereafter the different types of derivatives, their classification and how they operate will be explored. This chapter is a necessary building block towards chapter three, where legal risk and the relationship with derivatives are explored. A common understanding of certain concepts in the derivatives-trading environment needs to be established before legal risk in the context of derivatives is discussed.

2 Definitions

2.1 Derivatives

One of the questions that forms part of the problem statement of this study, is “What are derivatives?”.¹ A number of different definitions explaining the nature of a derivative exist in the marketplace. These will be mentioned and then the preferred definition for purposes of this study will be highlighted at the end of this section. As neither international legislative guidelines nor legislation in specific jurisdictions provide a definition of what a derivative is, we are left with the attempts at definitions formulated by various authors on the topic.²

Wood³ defines a derivative as a private contract that has a value which is derived from an underlying asset price, rate or index, or movements in that price, rate or index. Derivatives contracts are contracts covering the difference between the agreed future price of an asset at a future date and the actual market price on that date. Derivatives are considered to be a type of insurance for financial assets, similar to ordinary insurance that is taken out to cover physical assets.⁴ He further states that the term derivative is a generic term used to describe financial instruments, which include futures, options, swaps and various other similar transactions.⁵

Firth⁶ defines a derivative as a transaction under which the future obligation of one or more of the parties is linked in some specified way to another asset or index, whether involving the delivery of the asset, or the payment of an amount calculated with reference to its value which is derived, but separate,

¹ See chapter one, 4.

² Petzel, T.E. ‘Derivatives: Market and Regulatory Dynamics’ (1995) *Journal of Corporation Law* p 104.

³ Wood, P.R. *Title Finance, Derivatives, Securitisations, Set-off and Netting* (1995) Sweet and Maxwell Limited p 207.

⁴ Wood, P.R. ‘Derivatives’ (2004) *Unpublished Article* p 2. This was e-mailed to the current author by Wood based on a discussion held at a conference.

⁵ See note 3, Wood, *ibid*.

⁶ Firth, S. *Derivatives Law and Practice* (2002) Sweet & Maxwell p 1-2.

from the value of the underlying asset or index. The parties' rights and obligations are treated and traded as if they constitute separate assets.

Jorion⁷ defines a derivative as a private contract that derives value from an underlying asset price, reference rate or index. This might be a stock, bond, currency or commodity. A derivative contract must specify the amount that will constitute the value of the derivative. This amount is known as the principal, notional or face amount. For example, grain will be bought at \$100 for a specified future date. The notional amount may be defined in terms of a currency, shares, bushels or any other unit.⁸ Notional amounts give an indication of equivalent values in cash markets. The liquidation values of these contracts are much less than their notional amounts. In fact, the value is about \$2,8 trillion, which is only three percent of the notional value of over-the-counter (OTC) contracts. For futures, which are marked-to-market daily, the market value is zero. Marked-to-market means that the derivative is valued at current market prices.

According to Boyle,⁹ a derivative is a contract that is used to transfer risk. The underlying risk may be anything from a fluctuation in energy prices to weather risks, or inflation and the risk of damage to an artwork by Picasso. These derivatives may be used very easily for speculation. However, most are based on financial securities like stocks, bonds and foreign exchange.

Feder¹⁰ prefers to define derivatives as financial products the structures and values of which refer to financially meaningful external items, also called underlyings. These underlying instruments can be anything tangible or intangible, for example commodities, stocks, bonds, interest rates, currencies or credit quality. A derivative product is formed by a contract. The contract can call for one of the parties to buy or sell the underlying. This is called a physical settlement arrangement. The alternative is to agree that one of the parties

⁷ Jorion, P. ed *Financial Risk Manager Handbook 2001-2001* (2001) Wiley Finance p 117.

⁸ *Ibid*, p 114.

⁹ Boyle, P and F *Derivatives: The Tools that changed Finance* (2001) Risk Waters Group Ltd p 1.

¹⁰ Feder, N.M. 'Deconstructing Over-the-counter Derivatives' (2002) *Columbia Business Law Review* p 677, 679.

buys or sells the economic equivalent of ownership of the underlying. This is called a cash settlement arrangement. These are also called contracts for differences.

Schmedlen¹¹ defines a derivative financial instrument as a bilateral contract that is linked to, or derives value from, the value of an underlying security, index or reference rate, whereas Flanagan¹² defines derivatives as financial instruments that derive value from an underlying asset. The latter definition is too narrow, because it does not refer to the contractual basis of the instrument.

Silver¹³ defines derivatives as contractual instruments or contracts that derive their value from the performance of underlying assets such as stocks, bonds, physical commodities and interest and currency exchange rates, while Johnson's¹⁴ definition is that a derivative is a financial contract the value of which depends on the values of one or more underlying assets, indices or asset values.

Hablutzel¹⁵ defines derivatives as a financial instrument or contract that by the agreed terms, at inception or upon the occurrence of a specified event, provides the holder with the right or obligation to participate in some or all of the price changes of an underlying, but does not require the holder to deliver the underlying, and Krawiec¹⁶ defines a derivative as a bilateral contract or payment exchange agreement, the value of which is linked to, or derived from, an underlying asset such as a currency, commodity or stock, reference

¹¹ Schmedlen, G. Jr. 'Broker-dealer sales practice in derivative transactions: a survey and evaluation of suitability requirements' (1995) *Washington and Law Law Review* p 1442.

¹² Flanagan, S.M. 'The Rise of a Trade Association: Group Interactions within the International Swaps and Derivatives Association' (2001) *Harvard Negotiation Law Review* p 213.

¹³ Silver, P 'Developments in banking law: 1998' (1999) *Annual Review of Banking Law 1999* p 23.

¹⁴ Johnson, C.A. 'At the intersection of bank finance and derivatives: Who has the right of way?' (1998) *Tennessee Law Review* p 6.

¹⁵ Hablutzel, P.N. 'Foreword: On the Borderlands of Derivatives: Rocket Science for the next millennium' (1996) *Chicago-Kent Law Review* p 1043.

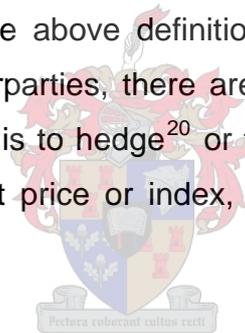
¹⁶ Krawiec, K.D. 'More than just "New Financial Bingo": A risk-based approach to understanding derivatives' (1997) *Journal of Corporation Law* p 6.

rate or index. Although a derivative has a complex structure, it is simply a contract.

Baird, Feinberg and Dawson¹⁷ define a derivative as a financial instrument that derives value from an underlying asset or index, and transfers the price risk of that asset or index among the parties to the transaction.

McGinity¹⁸ defines derivatives as financial instruments that derive their value from the performance of assets, interest or currency exchange rates or indices, whereas Kojima¹⁹ has a very simple definition: he states that a derivative is a financial contract of which the value is derived from a more fundamental underlying variable. This definition is problematic because of its broadness, which does not do justice to the complicated nature of derivatives.

The common elements in the above definitions are that there is a private contract between the counterparties, there are future rights and obligations, the purpose of the derivative is to hedge²⁰ or transfer²¹ risk, and the price is linked to an underlying asset price or index, which may be in virtually any form.



Based on the above a derivative may be defined as a private contract, with future rights and obligations imposed on all parties, used to hedge or transfer risk, deriving value from an underlying asset price or index, which asset or index may take on various forms.

¹⁷ Baird, B.A., Feinberg, L.D. and Dawson, M.A. 'Derivatives II: What are the obligations of Dealers and End-Users?' (1995) *Business Law Today* p 45.

¹⁸ McGinity, S. 'Derivatives-related bank activities as authorised by the Office of the Comptroller of the Currency and the Federal Reserve Board' (1996) *Chicago-Kent Law Review* p 1197.

¹⁹ Kojima, J.C. 'Product-based solutions to financial innovation: The promise and danger of applying the federal securities laws to OTC Derivatives' (1995) *American Business Law Journal* p 264.

²⁰ Hedging is the process that is used to lower the risk of the financial instrument or portfolio.

²¹ Transferring and hedging are not synonymous. Hedging refers to a process or act that reduces the risk. Transferring refers to the reassigning of or movement of the risk.

2.2 Bank

A bank is a public company that is registered to act as a bank in terms of the legislation of the jurisdiction in which it operates. A bank is regulated by some form of a reserve bank when conducting the business of taking cash deposits, cheques and bills of exchange, paying or receiving interest, lending and providing other financial services. A bank is a sui generis financial institution that accepts deposits and channels the money into lending activities. The bank also holds and safeguards cash and other reserves for future use.²² On the basis of a financial institution's charter and activities, the organisation will be considered a bank if it accepts deposits, provides a payment clearing system and grants loans.²³ Banks often use derivatives to reduce their financing costs. They may also use interest rate derivatives or they may lock in the price with a forward, future or option contract to reduce risk in the portfolio.²⁴

2.3 Merchant Bank

A bank that trades either over-the-counter or on an organised exchange is called a merchant or investment bank. The term 'merchant bank' is preferred in Europe and South Africa, while the United Kingdom, United States and other jurisdictions use the term 'investment bank'. These banks handle corporate and government transactions. They do not specialise in lending out their own funds, but they provide various financial services, like accepting bills arising out of trade and providing advice on acquisitions, mergers, foreign exchange and portfolio management. In some jurisdictions a merchant bank is distinguished from an investment bank. A merchant bank is a bank that enables merchants to accept credit cards by providing point of sale devices,

²² Section 1(1) *Banks Act* 94 of 1990.

²³ Van Jaarsveld, I.L. 'Domestic and International Banking Regulation and Supervision – Defying the challenges' (Vol 119 Part 1) *South African Law Journal* 72.

²⁴ McGinity, S. 'Derivatives-related bank activities as authorised by the office of the comptroller of the currency and federal reserve board' (1996) *Chicago-Kent Law Review* 1198.

systems and physical infrastructure.²⁵ The definition of a merchant bank has been deleted from the South African *Banks Act*²⁶ and the only definition that remains is that of a bank or bank holding company. Derivatives are mainly traded by merchant banks.

3 Nature and objectives of derivatives

This section discusses the nature and objectives of derivatives. The nature of a derivative is that it is a risk management tool, as discussed in more detail later in this section. The main objective when entering into a derivative agreement is either to hedge risk or to make a speculative profit. Another objective is to trade risk, after the risk has been reduced to its component parts. The main objectives of trading in derivatives are to hedge or manage currency and interest rate exposures and assets or liabilities; to reduce borrowing costs; to increase investment opportunities and synthetic investments; and to facilitate structured financing.²⁷

In the context of a derivative, the parties to the contract are legal entities and not natural persons. A derivative is a reciprocal agreement, because both parties have rights and obligations to deliver in terms of the contract.²⁸ A counterparty therefore is the other party to the contract. Both parties are counterparties to each other. Banks tend to dominate the OTC markets either as end users²⁹ or for their own hedging needs.³⁰

A company needs capital in order to operate. Capital is raised by selling shares in the company to outside parties, who are either investors or

²⁵ www.net5.com/terms-dictionary.html 'Merchant bank' Accessed 2 August 2004.
www.1stamericancardservice.com/Glossary.html 'Investment banking' Accessed 2 August 2004.
www.123merchants.com 'Banking - Merchant' Accessed 2 August 2004.

²⁶ *Banks Act* 94 of 1990.

²⁷ Mtshazo, Z *Introduction to derivatives* (September 2004) Corporate Lawyers Association of South Africa Magazine p 24.

²⁸ Hiemstra, V.G. and Gonin, H.L. *Trilingual Legal Dictionary* (1992) Juta p 495.

²⁹ End users are the intended beneficiaries in a derivative contract. The end user is the party who initiates the hedging or speculation transaction, which the merchant bank executes on his behalf.

³⁰ Johnson, C.A. 'Year 2000 Credit Risk and Derivatives: Insulating Banks from Counterparty Meltdown' (1998) *Banking Law Journal* p 934-935.

speculators. Equity is the risk-sharing part of a company's capital, and this is usually made up of ordinary shares. Thus investors or speculators obtain a portion of property through investing in the company by buying equity.³¹ The nature and objectives of derivatives, being hedging, speculating, trading, performance, and the way in which they differ from common stocks, are discussed in the following sections.

3.1 Nature of a derivative

The nature of a derivative is that it is either a risk management tool, or speculative instrument. Firstly, the risk is divided into standardised pieces. These components are traded in a market, so that there is a price for all to see. The parties to a derivative transaction want to either terminate or transfer a risk, or are willing to accept a risk. The party that wants to transfer the risk is the seller and the party accepting the risk is the buyer. Buyers will end up taking on the risk at market prices. The value of a derivative may change during the existence of the derivative. These movements in the value of a derivative are obtained from a combination of the notional amount and the underlying price or index. For example, the contract is for the sale of half a ton of grain, at \$100 on a specified future date. During the life of the derivative, the actual value of the grain fluctuates. If the price of the bushel of grain drops to \$90, then the derivative has a higher value than the underlying asset. The person who is selling the grain will make a profit. If the price increases to \$110, then the derivative has a lower value than the asset. The person who is buying the grain will make a profit in this instance. Derivatives are private agreements between two parties, and therefore the sum of all the gains and losses of the parties should be zero, because if one party gains, the other loses.³²

A derivate reallocates risk by isolating the risks in the transaction and moving them from one party to another.³³ It does not eliminate the risk, it simply

³¹ www.firstmerc.com/resource/glossary/html Accessed 2 August 2004.

³² See note 9, Boyle, p 2.

³³ See note 10, Feder, p 682.

repositions it. This process by which risk is systematically identified and then mitigated is referred to as risk management. This does not imply that the risk is reduced, but rather that the risk is controlled.

New types of derivatives are continuously invented. Weather derivatives are used for example by breweries to hedge the risk that their beer does not sell due to the weather being too cold. Electricity suppliers hedge the risk of liability in the instance of a power failure. A snow-plough manufacturer hedges the risk of a warm winter resulting in very little snow and a resultant drop in sales.³⁴ These examples all illustrate the constant innovation and change that is part of derivatives trading.³⁵

3.2 Hedging and speculating

The objectives of derivatives is either to hedge a risk or to speculate. A hedger buys or sells derivatives to reduce or eliminate the risk of adverse price movements. He therefore holds the opposite position to what he holds in the physical market. Even hedging may be disastrous if the exposure is not managed properly and becomes too large. This has occurred on a number of occasions, for example in the case of Metallgesellschaft.³⁶ Corporations use forward contracts to manage price risk. For example, if a forward contract is put in place by a gold mine to sell gold in a year's time at \$300 an ounce and the price drops below that value by the end of the year, then the seller will still be able to sell the gold at the pre-arranged price. If the price rises above the \$300 an ounce level, then the other party will be able to buy the gold and resell it at a profit on the cash or spot market. The question that arises is who would be interested in buying these options. The answer is that a party on whom the change in price would have the opposite effect would be willing to buy these options. In the example used here, a jewellery manufacturer would be willing to buy the option. The goldmine is hedging its risk and the jewellery manufacturer is speculating.

³⁴ See note 9, Boyle, p 8-9.

³⁵ See chapter one, 5.

³⁶ Discussed later in this section.

An example of a hedging transaction that did turn out as intended is the case of Metallgesellschaft Corporation (MG). In 1993 MG, the US marketing subsidiary of Metallgesellschaft AG, Germany lost \$1,3b in oil derivatives when oil prices declined. MG had to unwind a series of these oil market hedge transactions where the underlying physical delivery contracts were hedged. The difference between the MG case and other derivative disasters is that they lost the money while trying to hedge and not while speculating. The loss would not have been as severe if it had not been for differences in German and US accounting standards, which required the hedge to be dealt with in different ways.

This disaster resulted in various lawsuits. These were settled out of court and the settlements invariably had “shut-up” clauses³⁷ that specified that files were closed for outside inspection. Therefore most questions about this disaster remain unanswered and the full story will probably never be known.³⁸

The opposite of hedging is speculation. Speculation is when a party that has no exposure to the risk obtains such an exposure by entering into a forward contract.³⁹ The markets need these risk takers to help them function efficiently and provide liquidity. It leads to improved risk sharing and is a quick and efficient way of incorporating new information into market prices.⁴⁰ A speculator speculates on price fluctuations without having any specific interest in the underlying commodity. This is also referred to as gearing. When gearing the counterparty has the potential of making a large profit with a small outlay of capital by using options.⁴¹ When corporations buy derivatives, investors often take the opposite side of the transaction. Speculation may backfire and sink an investor if the exposure to one counterparty or to one

³⁷ “Shut up” clauses are clauses that prohibit the parties from disclosing information about the contract or settlement agreement to third parties.

³⁸ Gup, B.E. *Bank Failures in the Major Trading Countries of the World* (1998) Quorum Books p 30. Field, P *Modern Risk Management: A History* (2003) Risk Books p 485-493.

³⁹ Forward contracts are defined later in this chapter.

⁴⁰ See note 9, Boyle, p 4-5.

⁴¹ See note 4, Wood, p 11.

type of risk is too large.⁴² Both speculation and hedging are necessary for the markets to operate because speculation enhances liquidity. There is often a fine line that distinguishes hedging and speculation.

3.3 Trading and performance

Other objectives of derivatives are to trade the risk and to perform in terms of the derivatives contract. Trading is to buy, sell, barter or traffic an item or to exchange or give a commodity in exchange. In the case of a merchant bank, trading refers to the act of submitting an offer to buy or sell on an organised exchange. Trading must be distinguished from the clearing or performance of a transaction. Trading is when the members enter their offers to buy or sell on the system of the exchange. The system then matches these transactions. Clearing or performance is when actual payment is received or delivery is made.⁴³

3.4 The difference between common stocks and derivatives

For someone not familiar with financial markets and derivatives, there is no difference between common stocks and derivatives. After all, both are financial instruments that are held with the purpose of making a profit. This is not entirely correct because the objectives of derivatives differ from those of common stocks. Common stocks, or ordinary shares in a company, are deemed to be the forerunners of derivatives. The basic structure of stocks illustrates four concepts that foreshadowed later developments in derivatives. Firstly, the divisibility of the claim, i.e. the rights are split into identical pieces. Secondly, there is upside appreciation, entailing that when the stocks do well when the firm does well, so it is a way of sharing in the firm's good fortunes. Thirdly, there is downside protection in that the shareholders have limited liability, the maximum they can lose is the initial capital investment made to

⁴² See note 9, Boyle, p 108.

⁴³ See note 9, Boyle, p 108.

buy the shares.⁴⁴ Lastly there is an organised market where publicly listed companies' stocks are traded and the prevailing market prices normally reflect their current value.⁴⁵ Financial derivatives magnify these features.⁴⁶

4 Classification of derivatives

The problem statement requires investigation of the question of what categories of derivatives exist.⁴⁷ Derivatives may either be classified in terms of the manner in which they are traded, that is on or off exchange or in terms of the structure of the instruments themselves, which are futures or forwards, options and swaps.

4.1 Classification based on exchange trading or off-exchange trading or by structure of instrument

Derivatives may be classified in terms of the way they are traded. They are traded either OTC or on organised exchanges. The various types of derivatives are normally classified in the context of either being an OTC derivative or an exchange-traded derivative, as illustrated in diagram 1.

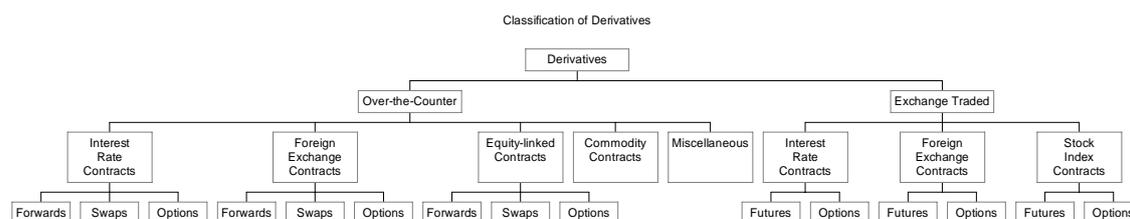


Diagram 1

⁴⁴ Please note that due to the complex nature of derivatives and the various instruments now available, this is not necessarily true.

⁴⁵ If you own 100 ordinary shares in General Electric, some authors are of the opinion that you actually own a tiny piece of this company. This opinion is currently under debate, but will not be explored any further for purposes of the current research.

⁴⁶ See note 9, Boyle, p 2-4.

⁴⁷ See chapter one, 4.

Sometimes derivatives are classified by the type of contract itself and not by the manner in which they are traded, as illustrated by diagram 2.⁴⁸

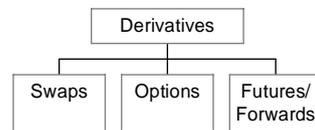


Diagram 2

According to Wood⁴⁹ the language used when dealing with derivatives is confusing because it is non-legal and imprecise. There are numerous types of transactions and the details with regard to tax, stamp duty and regulatory aspects are complex. However, the transactions are very simple, because they adhere to the normal rules of contract.

4.2 Derivatives markets

Derivatives have become a crucial part of business. On 7 May 2003, Alan Greenspan, the Chairman of the US Federal Reserve said that the OTC market “has played an important and successful role in the management of risk at financial institutions, a major element of their corporate governance”.⁵⁰ The initial growth in derivatives was in exchange-traded instruments, which are standard contracts, traded on organised markets like the London International Financial Futures Exchange (LIFFE) or the Chicago Board Options Exchange (CBOE).⁵¹ These exchanges are valuable to the markets because they put limits on the positions that any one firm may take. They continuously monitor the markets and may require additional funding if they

⁴⁸ See note 7, Jorion, p 114. www.finforum.co.za/markets/elecconts.htm accessed 2 July 2004 10-11;

See note 12, Flanagan, p 215-221.

⁴⁹ See note 3, Wood, p 207. Willa E. Gibson ‘Investors, look before you leap: the suitability doctrine is not suitable for OTC Derivative Dealers’ (1998) *Loyola University Chicago Law Journal* p 532.

⁵⁰ See note 44, Field, p xxxiii.

⁵¹ See *supra* on the development of these exchanges.

are concerned about positions or losses. This funding is known as *margin funds*.

These exchange-traded derivatives have been slowly replaced by OTC derivatives. These tailor-made products now account for about 85% of all derivatives. The major difference between these two types is that the exchange guarantees the exposure and the counterparty's risk is therefore limited to that of defaulting by the exchange, while an OTC derivative is only guaranteed by the issuer. The duration of the former also tends to be longer; they could be dated for up to 30 to 40 years. The counterparty is therefore exposed to credit risk. OTC derivatives are traded directly between the parties – they approach each other independently to enter into the contract. With exchange-traded derivatives the parties trade directly with the exchange and indirectly with the counterparty who is also a member of the exchange.⁵² In practice this means that the counterparties do not negotiate with each other – they negotiate directly with the exchange.

4.2.1 Exchange-traded derivatives

Exchange-traded instruments or derivatives are available in interest rate contracts, foreign exchange contracts and stock-index contracts. All three these types of exchange-traded instruments or derivatives are available as futures or options. Interest rate futures and options are the most common exchange traded instruments. Swaps cannot be traded on exchanges.⁵³

Large companies, mostly financial institutions, usually establish the exchanges. The exchanges are also known as clearing houses. Contracts with the exchange are between the members and the exchange itself. The members of the exchange are traders whose credit ratings, competence and integrity have been approved by the exchange. Outside investors enter into contracts with the members in turn, who then enter into identical contracts with the exchange. Thus there are two contracts in place for every hedging or

⁵² See note 9, Boyle, p 9-11.

⁵³ See note 7, Jorion, p 114. See note 4, Wood, p 24-29.

speculating transaction. Exchange-traded derivatives are much less flexible than OTC derivatives, because they can only be traded in standard trading amounts or “lots” and settled at specific maturity dates in March, June, September and December.⁵⁴

The advantages of exchange-traded derivatives are that the terms of the contracts and the size of the lots are standardised. This means that only the prices and transaction costs are settled each time. Liquidity is increased because it is easier to sell these products to other members of the exchange. The exchange does the administration to match and settle transactions. Counterparty credit risk is minimised, because the clearing-house becomes the counterparty and takes the risk from each trader. It is impractical for the traders to do the credit assessments of the counterparties when deals are done quickly. The exchange mitigates its risk by holding security against each trader. All the trades between the clearing-house and the trader are mutual, which means that the clearing-house can net the contracts on the insolvency of the trader, thereby reducing the exposures. The clearing house will look at what is owed by whom and set-off the debt between the counterparties. They will then simply pay the net amount, or receive the net amount, or claim the net amount from the insolvent party.

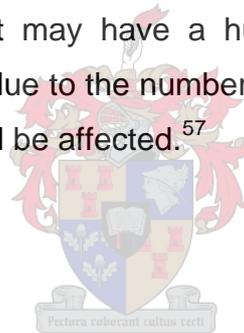
Each member of the exchange has to provide collateral to the clearing-house to the extent that its contracts are out-of-the-money. Collateral is called margin in the context of derivatives. The contracts are regularly marked-to-market to determine the margin required. The clearing-house is therefore never exposed to the credit risk of its members. The solvency of the clearing-house is enhanced by the initial capital reserves and guarantees it gets from its members upfront. A clearing house operates in a similar fashion to a bank in that it has to keep capital reserves to protect its counterparties against default by some of the members of the exchange. One of the services offered by the clearing houses is to have transactions marked-to-market. Contracts can be easily closed-out by simply entering into a reverse trade. The original

⁵⁴ See note 3, Wood, p 216.

and the reverse trades are then netted. The difference between an exchange-traded and an OTC derivative close-out is that the consent of the counterparty is normally required for closing out of an OTC transaction, while netting is allowed by virtue of being a member of an exchange because this is encompassed in the rules of the exchange. The clearing-houses can facilitate physical delivery if required. The clearing-houses keep market statistics, such as the volumes traded.⁵⁵ There is price transparency in exchange-traded derivatives, which is not apparent in OTC derivatives. Because of the involvement of the clearing house there is considerably more disclosure between the parties, which includes price transparency.⁵⁶

The disadvantages of exchange-traded derivatives are that standardisation results in less flexibility and that there is concentration risk in the exchange. Regulation of the exchanges is therefore of the utmost importance. If an exchange ceases to exist, it may have a hugely negative impact on the financial system as a whole, due to the number of banks and large corporates in various jurisdictions that will be affected.⁵⁷

4.2.2 OTC derivatives



Exchange-traded derivatives dominated the markets in the 1970s and 1980s, but the OTC market grew rapidly during the last decade of the 20th century and now accounts for about 85% of all derivatives.⁵⁸ A company that writes an OTC contract will often offset that risk by buying an exchange-traded instrument. This assists in pricing OTC products, because there are market prices available on the exchanges. It is not uncommon for OTC instruments to evolve into exchange-traded instruments. Standardised exchange-traded instruments have clear documentation that reduce uncertainty, which is important because these instruments often involve parties from different legal jurisdictions. These instruments are used extensively in countries where there is a trend towards deregulation, for instance, the electricity industry in Chile in

⁵⁵ See note 3, Wood, p 216-7.

⁵⁶ See note 4, Wood, p 26-29.

⁵⁷ *Ibid.*

⁵⁸ See note 9, Boyle, p 10, 18.

1982 and subsequently in many countries in South America, Europe, the US and Canada. The aim is to make these industries more competitive and efficient through these actions.⁵⁹

OTC derivatives are mainly divided into interest rate contracts, foreign exchange contracts, equity-linked contracts, commodity contracts and other miscellaneous derivatives contracts. Interest-rate and equity-linked contracts can be divided into forwards, swaps and options. On the OTC market, currency contracts are also widely used, especially in the form of outright forwards and foreign exchange swaps.⁶⁰ An interest rate swap is the most widely used type of derivative on the exchanges. OTC contracts tend to be longer dated than exchange-traded options. They sometimes even last for 40 years.⁶¹

The main advantage of OTC derivatives is that it is a risk-management tool. A bank can improve its creditworthiness by hedging its risk, thereby reducing its exposure. It effectively lowers the party's debt or hedges variable interest rates, depending on the risk hedged.⁶²

4.3 Classification based on the structure and mechanisms of derivatives

Another way of classifying derivatives is with reference to the structure of the instrument itself. There are basically only three types of derivatives, namely futures or forwards, options and swaps. A derivative contract may be to perform in the future⁶³, it may allow an option on an underlying instrument or it may be an agreement for a series of payments⁶⁴ over a specified time. These

⁵⁹ See note 9, Boyle, p 18-19.

⁶⁰ Foreign exchange swaps are a combination of spot and short-term forward transactions. A spot contract is one that is generally performed on the same or the following day, which is the shortest practical time to arrange settlement.

⁶¹ See note 3, Wood, p 208. www.finform.co.za/markets/eleconts.htm accessed 2 July 2004, p 10.

⁶² Johnson, C.A. 'Banking, Antitrust and Derivatives: Untying the antitying restrictions' (2001) *Buffalo Law Review* p 7.

⁶³ Forwards and futures.

⁶⁴ Swaps.

instruments are further categorised as either plain vanilla derivatives or exotic derivatives. Standard calls and puts are referred to as plain vanilla derivatives and more complex instruments are referred to as exotic derivatives, for example, straddles and credit derivatives.

There are numerous variations of derivative contracts, which include digital options, standard options, straddles (used by the infamous Nick Leeson), lookback options, Bermudan, American and Asian options, Barrier options, spread options and basket options. The differences between these instruments are not relevant to this discussion, but they do deserve mention.⁶⁵ When the strike price (also called delivery or exercise price) of the call (an option to buy) and the put (an option to sell) and their maturity dates are the same, it is called a straddle. In other words the simultaneous sale of a call and a put is called a straddle.⁶⁶

Another way of categorising derivatives is by referring to linear or non-linear instruments, which in essence refers to the mathematical modelling underlying the instruments.⁶⁷ Linear instruments are for example forward contracts, futures and swaps. There is an obligation on the parties to exchange payments according to a specified schedule. According to Jorion⁶⁸ forwards and futures are relatively simple to evaluate and price. Swaps are more complex, but can be reduced to portfolios of forward contracts. Options are non-linear instruments that are traded over-the-counter or on the exchanges.

4.3.1 Forwards and futures contracts

Forwards are OTC-traded private agreements and futures are standardised exchange-traded agreements. The basic purpose of forwards and futures are similar and therefore, for purposes of this study, no clear distinction is drawn between the two instruments. Forward contracts are private agreements to

⁶⁵ See note 9, Boyle, p 17, 22-34.

⁶⁶ *Ibid*, p 37.

⁶⁷ See note 7, Jorion, p 116.

⁶⁸ *Ibid*.

exchange a given asset for cash or another asset at a fixed point in the future. The terms of the contract will refer to the quantity, which will be the number of units or shares, the date and the price at which the exchange will be done. According to Wood⁶⁹, Feder⁷⁰ and Jorion⁷¹ forwards and futures refer to the same type of instrument, but forwards normally refer to OTC derivatives, while futures refer to exchange-traded derivatives. Flanagan⁷² states that a forward is simply a contract that cannot be performed until a specified date in the future. In a futures contract one party agrees to deliver, with the other party to perform, on a specified future date, known as the maturity date, a specified asset at a price, called the strike price, agreed at the time of the contract and payable on the maturity date.

Historically farmers went to a centralised place to meet buyers for their products. As markets developed, farmers realised that it would be beneficial to trade for delivery at some future date. Agreeing on the price in advance hedged against price variations in the anticipated production over the next year. This evolved into forward contracts. To avoid the possibility of losses, the farmer could enter into a forward sale of grain for rands or dollars. By doing this, the price would be locked up for delivery in the future. This means that the farmer has hedged against price movements.

The effect of a futures contract is to guarantee or “hedge” the price.⁷³ The effect of hedging is that the party who hedges himself protects himself against losses, but he also loses the chance to make a further profit. A forward contract may be referred to as being “long” or “short”. A “long” position implies buying the asset, and a “short” position implies selling. Derivative traders refer to the two legs of the contract, the buyer has the long position and the seller has the short position. As mentioned before, because this is a private contract, any gain to one party must be a loss to the other.

⁶⁹ See note 3, Wood, p 207.

⁷⁰ See note 10, Feder, p 698.

⁷¹ See note 7, Jorion, p 116. See note 9, Boyle, p 2-13.

⁷² See note 12, Flanagan, p 215-217.

⁷³ See also 3.2 above.

A contract to purchase a house is a forward contract, because there is a period between signing the contract and actually taking transfer and paying for the property. The buyer then has a long position in the forward contract or is “long the forward contract”. A derivatives trader would refer to the seller as being “short the forward contract”. The owner of the contract then has the obligation to buy the underlying asset or commodity at a fixed date in the future at a fixed price.

The price is called the delivery price or the contract price. The price is fixed at the inception of the contract and will not change even though the value of the underlying asset will probably change. The one party will therefore make a profit and the other a loss or simply no profit on the transaction.⁷⁴

There are contractual obligations on the parties involved in this kind of contract. For instance, the exchange must actually occur, even if there is a fluctuation in the price. If the exchange does not occur, it will constitute a default. This is one of the differences between a forward contract and an option – there is no choice to take delivery or not.⁷⁵

In South Africa a futures contract was previously defined by the Financial Markets Control Act,⁷⁶ now replaced by the Securities Services Act,⁷⁷ as a standardised contract where a person agrees to deliver or receive a certain quantity of corporeal or incorporeal things or money on a future date at a pre-arranged price or value. Therefore this definition may also be applied to a forward contract if necessary, but the intention of the legislator was to define a future for purposes of an exchange-traded derivative.

Futures are usually performed by the payment of the difference between the strike price and the market price on the fixed future date, and not by physical

⁷⁴ See note 9, Boyle, p 2-4.

⁷⁵ See note 7, Jorion, p 116.

⁷⁶ *Financial Markets Control Act* 55 of 1989.

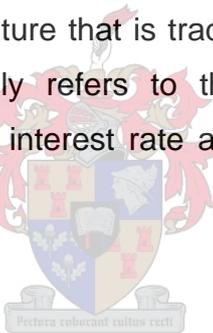
⁷⁷ *Securities Services Act* 36 of 2004.

delivery and payment in full on that date.⁷⁸ This payment is made by the counterparty, which is also a member of the exchange, and this payment is made on a market close-out date in March, June, September or December. Therefore they are called derivatives, because actual full performance in terms of the contract does not occur. However, the contract is based on, related to or derived from an ordinary commercial contract.⁷⁹ **A forward is thus a non-standard contract to perform on a specific date and price in the future.**⁸⁰

A futures contract is a standardised contract that will not be performed until a specified date in the future.⁸¹ The difference between a forward and a future is that a forward is a standardised contract traded on organised exchanges, while a future is not standardised and is traded OTC.

There is not only one type of future that is traded on the markets. The name for the specific future normally refers to the underlying instrument, for instance, commodity, currency, interest rate and stock index futures. These examples are discussed below.

4.3.1.1 Commodity futures



Commodity futures may be related to grain, oil, gold, copper, aluminium or any other commodity. The difference between a normal contract for the sale of grain and a derivative contract for the sale of grain is that there is no physical delivery of grain in a derivative contract. The parties trade the value of the grain and not the grain itself. This is usually done in an attempt to hedge risk. There will be another contract in place with a third party physically to deliver the grain, but this contract will be separate from the hedge. The

⁷⁸ Pietrzak, A.R. 'Derivatives and Emerging Securities Products' (1994) *American Law Institute – American Bar Association Continuing Legal Education* p 359.

⁷⁹ See note 3, Wood, p 207-208.

⁸⁰ The definition fits logically into the discussion here and is therefore not mentioned earlier in the chapter.

⁸¹ See note 12, Flanagan, p 215-216.

The definition fits logically into the discussion here and is therefore not mentioned earlier in the chapter.

derivative contract is cash-settled. In other words, one of the parties has to pay the other the difference between the agreed price or contract price and the market price of the grain on the maturity date. A derivative contract has the effect that the actual seller or producer of the grain is guaranteed to sell his grain for at least \$100 per bushel.⁸² If A decides to sell grain to B at \$100 in March, for delivery in September, A does so to fix the price of his grain crop in advance. If the market value of the grain is \$90 in September, A will make a profit, because B will have to pay A the agreed \$100. The reverse is also true: if the market value is \$110 in September, then A will make a loss of \$10. A hedged the grain price. A will have included this in the contract with B. A ensures that he will get at least \$100 for his grain, even if it is in lieu of a larger profit.

This type of contract must be one of the oldest derivatives and yet it is still problematic in the South African agricultural market especially due to mathematical pricing issues. Because of the fact that the main focus of this study is legal risk, the agricultural aspect will not be researched, because it is not caused by legal risk.

4.3.1.2 Currency futures



When dealing in currency futures, the difference between the contract price and the market price is again cash settled at the maturity date. There is no exchange of gross currency amounts.

An example would be where A, in Britain, sells goods to B, in the United States, in March. The payment of for example \$100 is only due in September. A decides to hedge himself against currency fluctuations and sells the \$100 to C at £50 sterling, also for delivery in September. The reason A decides to hedge is so that he does not make a loss due to currency fluctuations. If the \$100 is worth £45 in September, A does not suffer the loss of £5. Conversely,

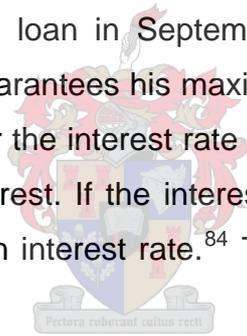
⁸² See note 3, Wood, p 208.

the opposite also applies; if the dollar strengthens against the pound, and the \$100 is worth £55, then A does not make a profit of £5.⁸³

4.3.1.3 Interest rate futures

Interest futures are strictly speaking loan contracts, but the terminology refers to buying and selling interest rate futures. The person who hedges himself against interest rate risk in this way pays or receives the difference between the contract interest rate and market interest rate at maturity. Again the person does not pay the full amount of interest, but only the difference between the contract rate and the market rate at maturity.

An example would be where A agrees to borrow \$100 from B in September for a year at an interest rate of 10% per annum. A does this because he is certain that he will need the loan in September and he wishes to fix the interest rate in advance. A guarantees his maximum cost of borrowing, i.e. he hedges himself. In September the interest rate increases to 12%, so A avoids the extra expense of 2% interest. If the interest rate is 8% in September, A loses out on the 2% saving in interest rate.⁸⁴ The one party's loss is always the other party's gain.



4.3.1.4 Stock index futures

A stock market index is made up of a sample of shares listed on that exchange. This sample may also be called a basket of shares. An example of a stock index future contract would be where A agrees to sell the stocks comprised in a stock market index at 100 and delivery will take place in September. The reason A does this, is because he has a portfolio of stocks that are roughly the same as those used for the stock exchange index, and A is of the opinion that their value will decrease. If in September the index is worth 90, then A will make a profit of 10. However, if the value is 110, A will have made a loss of 10. Again A guaranteed the value of his portfolio, or

⁸³ *Ibid*, p 208-209.

⁸⁴ *Ibid*, p 209.

hedged it, by buying a derivative in a similar basket of shares to his own stock portfolio.⁸⁵

Because this is a derivative contract, A again does not agree to actually sell the stocks, but only to pay or receive the difference in price. This derivative is also cash-settled. If the derivative is cash-settled, the party who has lost makes a payment equal to the difference between the strike price and the prevailing market value. A close-out clause gives the right to terminate a contract upon certain specified events and to calculate a termination amount due to or from the defaulting party. If this is a cash-settled contract, the parties need to obtain a market quotation.⁸⁶

Wood⁸⁷ cites the following example to demonstrate how stock index futures are used for hedging and portfolio management: If an investor decides to invest \$100 in shares, he could borrow \$100 and buy the shares, but then he will have to pay interest on the amount borrowed and he will pay transaction costs on the shares. His other choice is to buy stock index futures, where he does not have to pay the value of the underlying upfront – saving the interest costs. He only has to cash-settle the loss at the end of the contract or receive the profit. The transaction still attracts some fees.

4.3.2 Options

Feder⁸⁸ defines an option as the right but not the obligation to buy or sell an item in the future at a set price. Boyle & Boyle define options as contracts that give the owner the right to buy or sell some asset at a fixed price at some future date or dates.⁸⁹ Options are instruments that give the holder the right to buy or sell an asset at a specified price on a specific date in the future. This specific delivery price is called the exercise price or the strike price.⁹⁰ The act

⁸⁵ *Ibid.*

⁸⁶ See chapter four, 3.

See note 7, Jorion, p 555, 684.

⁸⁷ See note 3, Wood, p 209-210.

⁸⁸ See note 10, Feder, p 692.

⁸⁹ See note 9, Boyle, p 5.

⁹⁰ See note 7, Jorion, p 133-134.

of buying, selling or accepting the underlying contract of an option is known as exercising the option.⁹¹ Options are non-linear derivatives and the value is usually calculated using the Black-Scholes pricing formula.⁹² The details of this formula are not relevant to this discussion, although it is also mentioned in the discussion of the failure of Long-Term Capital Market (LTCM).⁹³ The main difference between forwards or futures and options is that forwards and futures attract contractual rights and obligations, whereas options are only obligations.⁹⁴

Options can furthermore be divided into the two types already referred to above: vanilla options and exotic options. Vanilla options are also “calls” and “puts”. If a number of vanilla options are combined, they form the building blocks for more complicated exotic options, but vanilla options are more commonly used.⁹⁵ There are two sides to every option contract, the long position buys the option and the short position sells the option. There are thus four possible positions with an option: long call, short call, long put and short put.⁹⁶

Options may be further classified into European, American, Asian, Bermudan, Japanese and Russian options. These are all vanilla options. European options may be exercised at maturity only, whereas American options may be exercised before or at maturity.⁹⁷ An Asian option has a market price that is the average price of the term of the contract. A Bermudan option allows for the right to the option to be exercised on a number of set dates throughout the term of the contract. A Japanese option allows for early exercise of rights and a Russian option is a lookback option that can be exercised early. A lookback option allows for the option holder to purchase the underlying at either the highest or the lowest market price.⁹⁸ Most OTC options are European and

⁹¹ See note 9, Boyle, p 5.

⁹² See note 7, Jorion, p 133-134.

⁹³ See also chapter three, 4.2.2.

⁹⁴ Partnoy, F. 'Adding derivatives to the corporate law mix' (2000) *Symposium Business Law Education Corporate Finance* p 607.

⁹⁵ See note 3, Wood, p 210; note 7, Jorion, p 133-134; note 10, Feder, p 692.

⁹⁶ See note 95, Partnoy, p 604.

⁹⁷ See note 7, Jorion, p 134.

⁹⁸ See note 10, Feder, p 695.

most exchange-traded options are American.⁹⁹ Human imagination is the only limit on the types of options that can be created by combining different kinds of options.

The price of an option is fixed at the time the parties enter into the contract.¹⁰⁰ This price is known as an option premium.¹⁰¹ A spot price refers to the prevailing market price. The seller or granter of an option is the party that grants the option. The buyer is the party who is given the option to buy or sell. An option is “in the money” or profitable if the strike price is more than the market price. It follows that an option is “out of the money” or not profitable if the strike price is less than the market value.¹⁰²

As with other types of derivatives, an option does not result in an obligation to buy or sell the asset against the full price, but does result in a contract to pay the difference between the strike price and the market price if exercised. The maximum loss that a buyer can suffer is the loss of his premium, because he is not obliged to exercise his option. The seller of the option has unlimited risk because the buyer can insist on performance. Speculators in call options therefore expose themselves to more risks than in a wager, where the money at risk is just the amount wagered. Sellers normally protect themselves by buying the asset at the beginning of the contract or by putting contracts in place with the third party that owns the asset to perform if the buyer insists on it.¹⁰³

In South Africa an option, in the context of derivatives, was also previously defined by the *Financial Markets Control Act*¹⁰⁴ as a standardised contract whereby the person acquires the option to buy or sell a certain quantity of corporeal or incorporeal things or money before or on a future date at a pre-arranged price. This was replaced by the *Securities Services Act*,¹⁰⁵ but this

⁹⁹ *Ibid.*

¹⁰⁰ See note 3, Wood, p 210-211.

¹⁰¹ See note 9, Boyle, p 6.

¹⁰² *Ibid.*, p 37.

¹⁰³ See note 3, Wood, p 210-211.

¹⁰⁴ *Financial Markets Control Act* 55 of 1989.

¹⁰⁵ *Securities Services Act* 36 of 2004.

Act does not provide a definition of an option. The new Act came into operation on 1 February 2005. The Act is worded in such a manner that it ensures that all possible future products are covered. This more general wording might be an attempt to ensure that the law keeps up with the rapid pace of development in new products and structures.

4.3.3 Swaps and other derivative contracts

A swap is a privately negotiated agreement between two parties to exchange or “swap” a periodic stream of cash payments over a pre-arranged period, calculated in terms of a prearranged formula.¹⁰⁶ The duration of a swap is called the tenor, and the payments may be a sequence of fixed payments or variable payments.¹⁰⁷

An interest swap is concluded where each party agrees to make payments, equal to the interest on a specific amount, but the interest is calculated on a different basis for each party.¹⁰⁸ The one party pays a fixed rate of interest, while the other pays a variable or floating rate.¹⁰⁹ In a commodity swap the payments of the swap may be based on the market price of the commodity or on actual delivery of the underlying commodity, for instance zinc or electricity.¹¹⁰ An option to enter into an interest rate swap is called a “swaption”. An interest rate cap is where one party agrees to pay the other interest above a specified rate.¹¹¹

¹⁰⁶ Gibson, W.E. ‘Are Swap Agreements Securities or Futures?: The inadequacies of applying the traditional regulatory approach to OTC Derivatives Transactions’ (1999) *Journal of Corporation Law* p 382.

¹⁰⁷ See note 9, Boyle, p 5, 7.

¹⁰⁸ See note 3, Wood, p 212-213.

¹⁰⁹ See note 9, Boyle, p 8.

¹¹⁰ See note 9, Boyle, p 5, 8.

¹¹¹ See note 3, Wood, p 213.

5 Conclusion

Derivatives are therefore defined as private contracts, with future rights and obligations imposed on all parties, that are used to hedge or transfer risk, and they derive their value from an underlying asset price or index, which asset or index may take various forms. Derivatives are not only used for hedging a risk, but also for speculation. The nature of derivatives is that they divide risk into its component parts so that the risk can be traded. The trading activity is either a risk management tool or a means of speculation. Derivatives are classified in terms of the manner in which the instrument is traded or in terms of the structure of the instrument itself. Derivatives are mainly traded in two markets, namely organised exchanges and directly between counterparties as OTC derivatives. There are just three basic types of derivatives namely futures or forwards, options and swaps. All other derivatives are variations on or combinations of these basic types of derivatives. It is clear that derivatives are a very important part of the economy, which could potentially have detrimental effects on the world economy if risks are not properly managed.

The purpose of chapter two was to position and explain derivatives to ensure that there is a common understanding of the concepts related to derivatives. The purpose of chapter three is to explain and position risk, risk management and legal risk, along with specific risk disciplines, that have an impact on legal risk. Chapter three is structured similarly to chapter two with regard to definitions, objectives and the classification of risk and derivatives risk management specifically. It explores the relationship between legal risk and derivatives. Thereafter chapter four provides an overview of derivatives legislation and the impact on legal risk in various jurisdictions, including South Africa.

CHAPTER 3

The identification and classification of risk and legal risk, and their relationship with derivatives

- 1 Introduction
- 2 Definitions of risk and risk management
 - 2.1 Definition of risk
 - 2.2 Definition of risk management
- 3 Nature and objectives of risk management
- 4 Classification of different types of risk
 - 4.1 Operational risk
 - 4.2 Operations risk
 - 4.3 Market risk
 - 4.4 Systemic risk
 - 4.5 Credit risk
 - 4.5.1 Credit risk and legal risk in derivatives
 - 4.5.2 Pre-settlement
 - 4.5.3 Settlement risk
 - 4.5.4 Counterparty risk
 - 4.5.5 Margin
 - 4.5.6 Credit rating
 - 4.5.7 Nature and objectives of credit risk management
 - 4.5.7.1 Insolvency
 - 4.5.7.2 Set-off and netting
 - 4.5.7.2.1 Bilateral netting
 - 4.5.7.2.2 Multilateral netting
 - 4.5.7.2.3 Payment netting
 - 4.5.7.2.4 Netting by novation
 - 4.5.7.2.5 Close-out netting
 - 4.5.7.2.6 The ISDA Model Netting Act
 - 4.5.8 Credit risk management tools
 - 4.5.8.1 Credit derivatives
 - 4.5.8.2 Collateral
 - 4.5.8.2.1 Advantages of collateral
 - 4.5.8.2.2 Disadvantages of collateral
 - 4.6 Legal risk
 - 4.6.1 Definition of legal risk
 - 4.6.2 Classification of legal risk



	4.6.2.1	<i>Compliance risk management</i>
	4.6.2.2	<i>Contractual risk</i>
4.6.3		<i>Nature and objectives of legal risk and legal risk management</i>
	4.6.3.1	<i>Nature of legal risk</i>
		4.6.3.1.1 <i>Jurisdiction and cross-border issues</i>
		4.6.3.1.2 <i>Inadequate documentation</i>
		4.6.3.1.3 <i>Behaviour of financial institutions</i>
		4.6.3.1.4 <i>Lack of internal controls</i>
		4.6.3.1.5 <i>Financial innovation</i>
		4.6.3.1.6 <i>Inherent uncertainty of the law</i>
	4.6.3.2	<i>The objectives of legal risk management in derivatives</i>
4.6.4		<i>Legal risk management in derivatives transactions</i>
	4.6.4.1	<i>Technology</i>
		4.6.4.1.1 <i>A mathematical legal risk model</i>
	4.6.4.2	<i>Legal risk mitigation</i>
	4.6.4.3	<i>Legal risks associated with collateral</i>
	4.6.4.4	<i>Impact of legal risk on credit risk in derivatives</i>
	4.6.4.5	<i>Gaming or wagering and gambling</i>
	4.6.4.6	<i>Derivative contracts and insurance</i>
	4.6.5	<i>Conclusion on legal risk and management</i>
5		<i>Derivatives risk management</i>
6		<i>Conclusion</i>



1 Introduction

In the previous chapter the objectives of derivatives and the classification and types of derivatives were defined and discussed. The current chapter deals specifically with risk, risk management and legal risk. This chapter constitutes the main aim of the research, namely a determination of what legal risk is, how it is classified and how it relates to derivatives.

Derivatives are instruments that are used to mitigate risks, and therefore a discussion of the concept of risk is necessary when researching derivatives. As discussed in chapter two,¹ derivatives are used either to hedge a risk or to speculate. Banks generally use derivatives to hedge their own risk and not to

¹ See Chapter 2, 3.2.

speculate. Derivatives reposition the risk.² In the light of this derivatives seem to be economically advantageous; however, they may be risky even for large public corporations, mainly because of factors such as market fluctuations and counterparty defaults.³ Banks no longer only take deposits and lend money, they also trade in derivatives as a matter of survival, either to hedge their own risks or by acting as intermediaries for their customers.⁴ However, derivatives as risk management tools have their own inherent risks. The primary risks that are associated with derivatives are operational, market, systemic, credit and legal risks.⁵ These risks will be defined and discussed in this chapter, with legal risk being the most important for purposes of this study.

Following the above discussion, legal risk is researched and the question whether legal risk is present in derivatives trading is addressed. The classification, nature and objectives of legal risk are also discussed. Towards the end of this chapter, the relationship between derivatives and risk management is established and investigated.⁶

The reason for the research is that merchant banks have identified that operational and legal risks are important factors that need to be taken into account when trading in derivatives. However, because legal risk is a new concept and has not been properly researched and documented, it does currently materialise, and it then results in financial losses. The current author aims to help address the lack of knowledge on the concept of legal risk and legal risk management through this research. Because losses are hardly ever incurred through the materialising of only one risk factor, and because risks interact with and influence one another, legal risk cannot be researched in

² Feder, N.M. 'Deconstructing Over-the-counter Derivatives' (2002) *Columbia Business Law Review* p 679.

³ Johnson, C.A. 'The intersection of Bank Finance and Derivatives: Who has the right of way?' (1998) *Tennessee Law Review* p 15.

⁴ McGinity, S. 'Derivatives-related bank activities as authorised by the Office of the Comptroller of the Currency and the Federal Reserve Board' (1996) *Chicago-Kent Law Review* p 1196-1197.

⁵ Bish, S.E. 'A guide to narrow the derivatives' understanding gap and reduce losses: How to increase knowledge, controls and reporting' (1997) *Ohio State Law Review* p 549-550.

⁶ See chapter one, 4.

isolation. Other risks, such as credit, market and operational risk, have a definite impact on the legal risk in derivatives and are thus discussed before launching into a discussion of legal risk. Discussion of these other risk factors is also of importance in order to define and delineate legal risk, so that the question “Is legal risk a significant risk?” may be answered.

2 Definitions of risk and risk management

The concepts risk and risk management are defined in this section. These two concepts are relevant to derivatives because derivatives are tools used to manage risk in a merchant banking environment.⁷

2.1 Definition of risk

As stated in chapter one,⁸ it is necessary to answer the question: “What is risk?”. It is therefore necessary firstly to define risk and risk management, before the various forms of risk can be discussed and placed into context. There are various definitions of risk.

Various dictionaries⁹ define risk as an exposure to the chance of injury or loss or a hazard or dangerous chance. Risk is also defined as a hazard or chance of loss, along with the degree of probability of such a loss occurring and the amount, that an insurance company may lose.¹⁰ Every natural or juristic person is constantly exposed to conditions, events and conduct, that may cause an undesirable change in his particular situation. The possibility of these events occurring is uncertain, and the probability that these events may occur is called a risk. These definitions of risk are clearly too wide and aimed at the general public, economists and the insurance industry and can therefore not be used for purposes of this study.

⁷ See chapter one, 4.

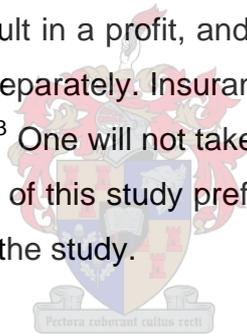
⁸ See chapter one, 4.

⁹ Steinmetz, S, (ed) *Webster's Desk Dictionary* (1993) Gramercy Books p 392. Summers, D. *Longman Dictionary of Contemporary English* (1991) Longman p 902. Hanks, P. *Collins Pocket Reference English Dictionary* (1990) Collins p 414.

¹⁰ See note 9, Summers p902.

Boyle¹¹ defines risk as the chance that a future event might happen with adverse consequences for one of the parties, which is very similar to insurance. The event is uncertain because the event may or may not occur. The current author agrees with this definition, although it could be expanded to include a reference to business success in general and not only to financial gain. This is different to insurance risk. For example, an airline may or may not lose your luggage when you travel. In business and investments the word “risk” has positive and negative meanings because risk involves the prospect of gain as well as the chance of loss. The higher the risk, the higher the potential gain. Insurance risks only pertain to negative risks.

Non-lawyers often compare derivatives to insurance, because derivatives are used to “insure” against detrimental market changes. Lawyers such as Feder¹² avoid this reasoning, firstly because insurance only covers downside risk while derivatives may result in a profit, and secondly because derivatives and insurance are regulated separately. Insurance generally does not divide a risk into its component parts.¹³ One will not take out insurance against the risk of making a profit. The author of this study prefers this definition because it is most relevant for purposes of the study.



The auditing firm Ernst & Young defines risk as an event or action that may adversely affect an organisation’s ability to maximise stakeholder value and to achieve its strategic business objectives. Risk arises as much from the possibility that these strategic objectives will not be realised as from the possibility that threats will materialise.¹⁴ KPMG defines risk as anything that may prevent an organisation from achieving a corporate objective.¹⁵ A combination of the Ernst & Young and KPMG definitions of risk will address all elements of a risk, and could read as follows: Risk is an event or action that may have an adverse effect on and prevent an organisation from achieving its

¹¹ See note 5, Feder, p 1-2.

¹² See note 6, Johnson, p 693.

¹³ *Ibid.*

¹⁴ Shimell, P. *The Universe of Risk* (2002) Financial Times Prentice Hall London p 5.

¹⁵ *Ibid.*

corporate objectives, because opportunities are not realised, or their materialisation is threatened.

Koh¹⁶ defines risk as the process whereby a company has to achieve success through processes, policies and procedures, yet a single factor such as internal control failures or actions by unsophisticated or unsupervised investment officials may result in a spectacular failure. The current author is not in favour of this definition because of the reference to a risk management process without a proper definition of risk.

In South Africa, the Association for Insurance and Risk Managers¹⁷ defines risk as the activity of protecting and profiting from corporate resources and assets. This definition is not really a definition of risk, but rather a definition of the risk management process. The King Code on Corporate Governance¹⁸, produced under the auspices of the Institute of Directors in South Africa, defines risk as uncertain future events that could influence the achievement of a company's objectives. These could be strategic, operational, financial and compliance objectives. Some risks must be taken in pursuing opportunity, but a company should be protected against avoidable losses. This definition of risk is preferred because it addresses all the components of risk, namely the uncertainty, the avoidance of loss and the broad categories of risk. The Institute of Risk Management South Africa (IRMSA) does not define risk in their Code of Practice.¹⁹ However, they do define risk management.²⁰

Various definitions of risk have now been discussed. Based on the above, the elements that are deemed the most important in a definition of risk in a derivatives trading environment are that it occurs in the future, it is uncertain, and may have either a positive or a negative impact. **For purposes of this**

¹⁶ Koh, J.L. 'The myth of procedure: derivatives investment reform in St. Petersburg' (1999) *Yale Journal on Regulation* p 261.

¹⁷ See note 15, Shimell, *ibid.*

¹⁸ King, M.E. *King Report on Corporate Governance for South Africa* (2002) Institute of Directors p 73-81.

¹⁹ Brier, S. et al *The Institute of Risk Management South Africa Code of Practice* (2003) RMSA p 5-10.

²⁰ See 2.2 below.

study, risk will be defined as uncertain future events, which may or may not occur, and which could have a negative impact on and prevent success in the organisation, or could have a positive impact and enable business success. Risk will be categorised into strategic and operational risk. One of the components of operational risk is legal risk and legal risk in turn includes compliance risk.²¹

2.2 Definition of risk management

No discussion of risk would be complete without reference to risk management, which is also part of the problem statement when considering the legal risks associated with trading in derivatives.²² Over the past two to three decades, risk management, and specifically enterprise-wide risk management, has become a stand-alone industry.

Feder²³ defines risk management as the control of risk by one or more trades. In the author's opinion this definition is too narrow because it implies that risk can only be controlled by derivatives trading. Therefore the assumption is made that this definition only needs to apply to risk management in the context of derivatives. The New York Federal Reserve defines risk management as a co-ordinated process for measuring and managing risk on a firm-wide basis.²⁴ This definition is too narrow, because it only addresses two elements of the risk management process, namely measuring and managing the risk.

Barlow defines risk management as a threat that internal and external events will adversely affect our ability to achieve our goals and hence impact on value-creation. Something good won't happen or something bad will

²¹ In 1986 Walter Wriston, the then chairman of CitiCorp published a series of essays entitled *Risk & Other Four-Letter Words*. Perhaps he already realised that within the next decade or two risk and risk management would become an industry by itself. As referred to by Field, P. *Modern Risk Management: A History* (2003) Risk Books p xxvi.

²² See chapter one, 4.

²³ See note 5, Feder, p 679.

²⁴ See note 15, Shimell, p.5.

happen.²⁵ Similar to the New York Federal Reserve, his definition is too narrow because he does not address the risk management process, and he defines risk but not risk management.

KPMG says risk management is about taking risks knowingly yet not unwittingly. An effective risk management structure allows an organisation to understand the risks in any initiative and take informed decisions on whether and how the risks should be managed. Risk management relates to how an organisation can better understand risk to improve performance and deliver on objectives.²⁶ This definition describes the end results achieved through a risk management process, but again it does not address the risk management process. Shimell says that risk management is about controlling risks, not being deluged by them.²⁷ Similar criticism to the definitions of the New York Federal Reserve, Barlow and KPMG would apply here. This definition is simply not comprehensive enough, because it does not address all the elements of a risk management process.

King²⁸ defines risk management as the identification and evaluation of actual and potential risk areas as they pertain to the company as a total entity. Thereafter the risk may be terminated, treated, transferred or tolerated. The risk is avoided (or terminated) by not entering into the deal in the first place. Or the risk is treated by putting controls in place prior to entering into the relationship, for example by legal vetting of the contract, ensuring that the counterparty has the capacity to contract and getting the correct documentation in place. The risk may also be transferred by buying insurance or by making use of a third party supplier. Lastly, the risk may be tolerated by deciding to accept the risk if the impact of a loss is not significant. This definition of risk management cannot be faulted, because it addresses all the components of a risk management process that the current author has found, through practical experience, to be relevant.

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ *Ibid.*

²⁸ See note 21, King, p 73-74.

The Institute of Risk Management of South Africa (IRMSA) does not define risk management, but they do define enterprise risk management. Enterprise risk management is the formal response to corporate risk. It is a structured and systematic process that is interwoven with existing management responsibilities. It is the process that responds to every conceivable risk in every part of the business.²⁹ The same criticism that has been raised against the definitions provided by the New York Federal Reserve, Barlow, KPMG and Shimell would apply here. This definition does not refer to the risk management process, which is a crucial part of managing risk.

Basel³⁰ defines risk management as a comprehensive risk measurement approach with a detailed structure of limits, guidelines and other parameters used to govern risk-taking and a strong management information system for controlling, monitoring and reporting risks. The current author does not favour this definition, although it contains all the component parts of a risk management programme. It leans towards a quantitative approach to risk management. The qualitative part of the programme is often neglected, which leads to adverse outcomes.

Bester³¹ defines risk management as a process that is used across the spectrum of management functions and business activities pro-actively, re-iteratively and dynamically to identify all relevant business risks and to allocate responsibilities to actively monitor, manage, eliminate, mitigate, reduce or control these risks to generate the desired outcomes, i.e. an adequate return on risk-adjusted capital, and to eliminate or reduce the impact of outcomes that could affect performance adversely. It is a process, that positively supports management to achieve business success through the implementation of effective control over strategic and operating business success and risk factors and to implement best-practice management. A business profits from taking risks, but will only generate a profit from its

²⁹ See note 17, Brier, p.10.

³⁰ Basel Committee on Banking Supervision *Risk Management Guideline for Derivatives* (1994) Bank for International Settlements p 6, www.bis.org Accessed 14 October 2004.

³¹ Bester, J.J.H. *A Business Success and Risk Management Framework* (2003) Unpublished document p 2.

activities if the risks are adequately managed and controlled. The current author supports this definition of risk management, because it addresses all component parts of the process. It is practical and can be implemented within any organisation.

A combination of King, Basel and Bester's definitions would be appropriate in a derivatives trading environment, because it addresses all the elements that the current author deems appropriate for a definition of risk management. **Risk management can therefore be defined as a process that is used by management pro-actively to identify all risks that pertain to the business into risk categories applicable to that business. Thereafter the management of the business assesses the risk and makes the decision to terminate, tolerate, treat or transfer the risk in order to ensure business success. Included in this process is regular monitoring and reporting on the risks identified.** For purposes of this study, risk management and the risk management process refer to the same action.

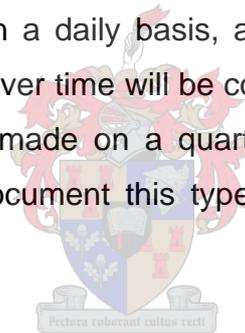
3 Nature and objective of risk management

The nature of risk is that it is inherent in all activities, whether in business or in everyday life. Businesses continuously run the risk of failure due to losses caused by risks manifesting. Similarly there are risks in everyday life as well. For instance when driving to the office, there is the risk of an accident, with the risk of loss resulting from such an accident. The nature of risk management, as it pertains to legal risk when trading in derivatives in a merchant bank, is therefore the process of ensuring that the risks faced by the bank are managed.³² The objective of risk management is to minimise losses and to ensure that the appropriate level of risk is accepted in order to maximise profits. One of the tools that is used in derivatives trading, to manage risk and optimise risk management, is marking-to-market.

³² See 2.2.

“Marking-to-market” may be defined as the action of establishing the fair market value of a contract on a daily basis. The value is the amount of money that would be paid if the contract was terminated and replaced with an equivalent contract at the current market rates.³³ In other words if the contract was sold, the value it would have for a willing and able buyer. Marking-to-market is used by derivatives traders to determine the price of financial instruments. This in turn ensures that the optimum level of risk is calculated, and this is the risk that is taken on by the bank.

Where credit issues are identified in a derivative transaction, the solution is to “mark-to-market” the derivative. To mark-to-market involves complicated calculations. Essentially the derivative is valued according to its market value at a specific point in time, in order to account accurately for the deal in the financial records to trade further in that instrument. The difficulty is that the market value will fluctuate on a daily basis, and thus the calculation of the actual mark-to-market value over time will be complicated. The adjustments to the mark-to-market value is made on a quarterly, monthly, weekly or daily basis. It is problematic to document this type of arrangement between the parties.



There is a cost implication attached to it, and the administrative burden makes the solution impractical. Some transactions may be so exotic that it is nearly impossible to have them marked-to-market, simply because similar transactions do not exist.³⁴ The concept may be explained by the following example: a Formula 1 Ferrari is an exotic car, and only one or two of these cars are produced per year. If Ferrari decides to sell such a car, it will be difficult to determine a price for the car because there are very few Formula 1 cars to compare it with, and because these cars are generally never sold. It is similarly difficult to price or mark-to-market exotic derivative transactions. Mark-to-market transactions may be settled by way of collateral or as absolute

³³ Firth, S. *Derivatives Law and Practice* (2002) Sweet & Maxwell p 5-1 to 5-2.

³⁴ Das, S. ed *Swap and Derivative Financing* Revised edition (1994) Probus Publishers p 1348.

payments. Interest will accrue on the payments made, and withholding tax may be involved in cross-border transactions.³⁵

The nature and objectives of risk and risk management in a derivatives trading environment may be deduced from the above. Derivatives are financial instruments in a banking institution, and therefore risk identification and risk management procedures apply equally to derivatives.

4 Classification of different types of risk

In order to ensure that the appropriate level of expertise is assigned to a particular risk category, risks are divided into logical categories as part of the risk management process. This is done to ensure that success is achieved and adverse outcomes are avoided. In the current author's opinion, risk may be broadly categorised into two areas, namely strategic risk and operating risk. Strategic risk will encompass strategic issues, for instance business management, competitiveness risk, external factors and human resource risk, which includes employing the right people to ensure success of the business. These risks are strategic imperatives and normally fall within the realm of responsibility of the chief executive officers. Operating risk will encompass the day-to-day operations of an organisation. These will include technology, systems and processes, financial risk, and operational risk. A number of risk types are discussed in this section. All of these are relevant to a discussion of derivatives because they have an impact on derivatives.³⁶

4.1 Operational risk

Operational risk is a type of operating risk.³⁷ Operational risk is a risk that is present in every organisation and refers to the risks incurred in the day-to-day running of the business. Therefore it is a risk that should be managed on a

³⁵ *Ibid.*

³⁶ These risks may also have an influence on the legal risk in derivatives and therefore a discussion of the various types of risk, which have an influence on derivatives, is of paramount importance.

³⁷ See 2.2 above.

daily basis. Derivatives trading is done on a daily basis by merchant banks and should thus be continuously managed and monitored. Operational risk has been said to be the possibility that a derivatives consumer's internal systems will fail to measure adequately, monitor effectively or control intelligently the risks to which the consumer is exposed.³⁸

Johnson³⁹ defines operational risk as the failure of a participant to monitor and control its own derivatives activities. This includes inadequate internal systems and control, human error and management failure, which is the failure of management to monitor the derivative traders' activities. Although this definition is too narrow to be used as a definition of operational risk, it is a useful definition in the narrow context of derivatives.

Krawiec⁴⁰ is of the view that operational risk is the risk of loss occurring as a result of inadequate systems or controls, human error or management failure whereas DeSanze and Sun⁴¹ state that operational risk is the risk associated with human error, system failures or procedural failures.

The Basel Committee on Banking Supervision (Basel)⁴² defines operational risk as the risk of direct loss due to inadequate or failed internal processes, systems and people or from external events. Basel specifically includes legal and compliance risk but excludes strategic risk.⁴³ This definition is widely criticised by the international banking fraternity because it is very wide, virtually saying that anything that is not credit, market or strategic risk is in fact operational risk. The reason this is unacceptable to the banking industry is

³⁸ See note 5, Feder, p 727.

³⁹ See note 6, Johnson, p 22.

⁴⁰ Krawiec, K.D. 'More than just "New Financial Bingo": A risk-based approach to understanding derivatives' (1997) *Journal of Corporation Law* p 39.

⁴¹ DeSanze, C.M. and Sun, J. 'Derivatives' (1994) *Annual Review of Banking Law* p 16.

⁴² The Basel Committee on Banking Supervision consists of the banking supervisors of the G10 countries and is housed at the Bank for International Settlements in Basel in Switzerland. The purpose of the Basel Committee is to level the playing field. They realised in the late 1980's that banks' capital reserves were being depleted through constant competition, and the purpose of the committee is to set minimum capital requirements for internationally active banks in order to protect their depositors and other stakeholders, as well as the financial system as a whole. (Current author's own words.)

⁴³ Bank for International Settlements *Basel Committee on Banking Supervision: The New Basel Capital Accord* (1998) www.bis.org accessed 14 October 2005. Jorion, P. ed *Financial Risk Manager Handbook 2001-2001* (2001) Wiley Finance p 650 and 730.

because it does not put sufficient emphasis on the importance of other risk factors like pure financial risk. It also significantly increases the amount of capital that will have to be held against operational risk, simply because the definition is so wide. Therefore the need to keep track of contract values and to make or receive payments on a daily basis is included in this definition.⁴⁴ The current author is not in favour of the inclusion of people risk in the definition of operational risk, because human resource risk is a strategic imperative. Operationalal risk is not be confused with operationss risk.⁴⁵

Based on the discussion of the definitions mentioned above, the current author prefers a combination of Johnson's definition along with certain elements of the Basel definition. **For purposes of this study operational risk is the risk of loss due to inadequate or failed processes, systems and technology leading to the materialising of financial, legal and compliance risk.**

4.2 Operations risk

Similar to operational risk, operations risk is actually part of operating risk. The term operations risk will not be used in this study, but no discussion of operating risk would be complete without at least a cursory mention of operations risk. Operationss risk is the risk of loss due to complexity in the systems and processes in the bank.⁴⁶ Operations settlement risk⁴⁷ is the risk of lost interest or fines due to failed settlements. For purposes of this study, operational risk will be deemed to include operations risk.

⁴⁴ See note 42, Jorion, p 537.

⁴⁵ See 4.2.

⁴⁶ See note 42, Jorion, p 603.

⁴⁷ See 4.5.3.

4.3 Market risk

Another risk that has a significant direct impact on derivatives and an indirect impact on legal risk is market risk. Jorion⁴⁸ defines market risk as the risk of fluctuations in the bank's portfolio(s) due to volatility or changes in the market prices. Feder's⁴⁹ definition of market risk is that it is the exposure to the possibility of market movements, which are movements in the price or rate of a given item.

Johnson⁵⁰ states that the most obvious risk taken by a borrower when entering into a derivative transaction is the possibility that the borrower has negotiated an economically unfavourable transaction. This type of risk typically occurs when the borrower makes a large bet through a derivative transaction that the market will move in a particular direction. The risk that the market will move in the opposite direction is commonly referred to as market risk. When attempting to manage market risk, lenders and borrowers should focus on the three main reasons for loss through market risk. Firstly, individual derivative transactions are "zero sum games" and therefore one party's gain is the other's loss. Both parties cannot make a profit from a derivative. Secondly, borrowers often lack the financial sophistication to understand fully the financial risks. Lastly, lenders do not encourage their borrowers to speculate on the movement of an index or asset value.

Krawiec⁵¹ defines market risk as the risk of loss from adverse price movements in the markets whereas Kojima⁵² defines market risk as the risk of suffering financial loss due to adverse movements in certain underlying economic factors, such as interest rates, currency rates, equity processes or

⁴⁸ See note 42, Jorion, p 286.

⁴⁹ See note 5, Feder, p 687.

⁵⁰ See note 6, Johnson, p 15.

⁵¹ Krawiec, K.D. 'More than just "New Financial Bingo": A risk-based approach to understanding derivatives' (1997) *Journal of Corporation Law* p 17.

⁵² Kojima, J.C. 'Product-based solutions to financial innovation: the promise and danger of applying the Federal Securities Law to OTC derivatives' (1995) *American Business Law Journal* p 272.

commodity prices. Karol⁵³ states that market risk is the risk that the price of the underlying asset may go up or down. In the current author's opinion this definition is too narrow and does not give an indication of the full severity of market risk.

Market risk has also been said to be the risk that the value of the asset underlying a derivative may move in a direction that reduces the value of the derivative, thus exposing the bank to derivative losses when market conditions change.⁵⁴ The current author is not in favour of this definition of market risk either because the authors simply focus on market risk in derivatives and not on market risk in general.

Based on the discussion above, a combination of the definitions of Jorion, Feder, Johnson, Krawiec, Kojima and Karol is recommended. **For the purpose of this study market risk is defined as the risk of loss due to adverse movements in certain underlying economic factors such as interest rates, currency rates, equity processes or commodity prices.**

One of the methods of managing market risk is to hedge against unfavourable movements in the capital markets by using derivatives.⁵⁵ Dealers usually manage market risk on a portfolio basis by combining offsetting positions to determine the net risk exposure, after which they hedge any net excess risk by means of futures, forwards, options or swaps. Managing market risk is closely related to pricing of derivatives. The Black-Scholes options pricing model⁵⁶ is used extensively by merchant banks in managing their derivatives risks.

⁵³ Karol, B.J. 'An overview of derivatives as risk management tools' (1995) *Stanford Journal of Law, Business and Finance* p 204.

⁵⁴ See note 41, DeSanze and Sun p 16. Schmedlen, G. Jr. 'Broker-dealer sales practice in derivative transactions: a survey and evaluation of suitability requirements' (1995) *Washington and Lee Law Review* p 1448.

⁵⁵ Waldman, A.R. 'OCT Derivatives and Systemic Risk: Innovative Finance or the dance into the Abyss?' (1994) *American University Law Review* p 1029.

⁵⁶ Developed by Fischer Black and Myron Scholes.

Market risk is a form of financial risk that is an operating risk.⁵⁷ However, the Bank for International Settlements Basel Committee⁵⁸ considers market risk to be a separate risk category. This distinction is not really significant for purposes of the current research. What is important is the impact of market risk management on the legal risk management process in derivatives. Market risk has a direct impact on derivatives and derivatives trading, because market movements will have an impact on the pricing of derivatives. Pricing issues are dealt with in the derivative contracts and will thus have an impact on legal risk as well. If the documentation does not adequately cater for pricing issues like marking-to-market and interest rate fluctuations, it might result in losses due to legal risk.

4.4 Systemic Risk

Systemic risk is a component of market risk.⁵⁹ Again a number of definitions exist of what systemic risk entails. Feder⁶⁰ defines systemic risk as the risk that the whole financial system will collapse because of the initial failure of just one or of a few players, whereas Waldman⁶¹ defines systemic risk as the inability of one bank to meet its contractual obligations, resulting in a domino effect, toppling one financial institution after another, and also as the reliance of investors on dynamic hedging strategies during a market disturbance, which could turn an otherwise containable market downturn into an illiquidity-driven crash. The current author is not in favour of the latter part of this definition at all. Banks and investors alone cannot cause systemic risk. What about speculators? Surely they cannot be classified as banks or investors?

Krawiec⁶² defines systemic risk as the risk that a disturbance will impair the efficient functioning of the financial system and, in extreme instances, cause

⁵⁷ See 4.

⁵⁸ Bank for International Settlements *Basel Committee on Banking Supervision: The New Basel Capital Accord* (1998) www.bis.org accessed 14 October 2005.

⁵⁹ See 4 and 4.3.

⁶⁰ See note 5, Feder, p 729.

⁶¹ See note 55, Waldman, p 1054-1055.

⁶² See note 51, Krawiec, p 47.

its complete breakdown, whereas DeSanze and Sun⁶³ define systemic risk as the risk that the financial difficulties of one institution will cause financial harm to other institutions and disrupt the operation of the financial system.

In South Africa systemic risk is defined by the *National Payment System Act*⁶⁴ as the risk that failure of one or more settlement system participants to meet their payment obligations, which results in other settlement system participants being unable to meet their payment or settlement obligations.

The current author favours a combination of the definitions above, with the exception of the latter part of Waldman's definition. **The preferred definition of systemic risk is the risk that the failure of one market participant will cause other market participants to fail, eventually spiralling out of control and causing the entire financial system to collapse.**

4.4.1 Systemic risk and legal risk in derivatives

Systemic risk is always relevant to a discussion of derivatives due to the large exposures that the counterparties have to one another. Annexure A provides a table of losses that can be attributed to derivatives trading, and that gives an indication of the size of losses and exposure to derivatives. If a counterparty is unwilling or unable to settle his derivative debt with his counterparty, it causes a domino effect, because the counterparty is then unable to settle his own liabilities. This domino effect could cause the global financial system to fail. Some examples of successful avoidance of systemic risk are the Development Finance Corporation (DFC), the Long Term Capital Market (LTCM) and the Italian Municipalities. These three cases are briefly discussed below.

The DFC ran into financial difficulties in 1989. Statutory managers were appointed in October 1989. They implemented a moratorium on claims that prevented creditors acting under New Zealand law from enforcing their rights.

⁶³ See note 41, DeSanze and Sun, p 16.

⁶⁴ Section 1 of the *National Payment System Act* 78 of 1998.

DFC held a swap portfolio of about NZ\$4 billion at the time. The majority of the swap contracts contained limited two-way payment provisions, also called a “walk-away” clause.⁶⁵ The statutory managers and the Reserve Bank of New Zealand decided to maintain payments on its swap portfolio, and began negotiations to transfer the entire portfolio to another institution.⁶⁶ A number of the counterparties with contracts where DFC was “in the money”⁶⁷ tried to terminate their contracts and realise windfall gains. The effect was that DFC would lose the money due to them and the counterparty would make a profit that would normally not be made.

With the exception of one counterparty, Security Pacific, all the counterparties agreed to either reinstate their contracts, or to pay out the termination amount that would have been payable if the contracts had not contained the limited two-way payment provisions. The reason most of these organisations agreed to co-operate was to avoid systemic risk, although the windfall gains would have been beneficial to them in the short term. Litigation was instituted against Security Pacific. The matter was settled out of court, and therefore the details of the dispute are unavailable.⁶⁸ The balance of the payments were successfully transferred to Barclays Bank PLC.⁶⁹ The result was that many of the counterparties were left in the position they would have been in had DFC not run into trouble and systemic risk was thus successfully avoided.⁷⁰

In the instance of LTCM systemic risk was also successfully avoided, although it is described as a “near miss” of systemic risk materialising. LTCM was a hedge fund founded in 1994 by John Meriwether, who was considered to be the best trader on Wall Street, and two mathematicians and Nobel Prize

⁶⁵ A “walk-away” clause gives the counterparty the right, but not the obligation, to terminate the contract upon certain specified events materialising. In the current example the counterparties are liable for payments to DFC, were in a position exercise their rights and cancel the contract, without having to pay the amounts due to DFC.

⁶⁶ Das, S. ed *Swap and Derivative Financing* Revised edition (1994) Wiley Finance p 1349.

⁶⁷ “In the money” means that DFC had paid money to the counterparty, and that by relying on the limited two-way payment provisioning, the counterparty would not have to pay the amount due by him, thereby making a profit that it would not have made if the contract had run full term.

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*

winners, Robert Merton and Myron Scholes. A hedge fund is an investment vehicle for wealthy investors. They are mostly unregulated, because the investors are presumed to be more sophisticated than the average investor. Their investment restrictions are mostly self-imposed. Hedge funds are essential to the functioning of the financial system, because they can absorb the risk that many market participants wish to shed. The opposite is that if a large hedge fund were to have a highly leveraged portfolio, it may be so vulnerable to unusual market movements that the stability of the entire financial system may be threatened. In the instance of LTCM, it was mostly caused by the Asian economic crisis in 1997.⁷¹ When LTCM was started in February of 1994, they had US\$1 billion in capital. This grew to US\$7 billion in November 1997, enabling them to return an amount of US\$2,7 billion to their investors. They lost US\$700 million in June 1998. This was followed by the Russian default in August of the same year which lost them another US\$1,7 billion. In September they lost US\$1,9 billion. They were bailed out in the same month with additional capital of US\$3,6 billion. The LTCM failure was so large that it endangered the world financial system. Even after the failure, the fund is still enshrined in secrecy and not all the details are public. In 1999 Meriwether placed the blame on the banks involved and claimed that LTCM was not to blame. This caused outrage, because the banks lost huge amounts of money in 1998 when they put up additional capital in order to save LTCM and the world economy. LTCM dissolved in December 1999. The legal risks associated with hedge funds are a specific subject that could be researched, but it will not be dealt with here.⁷²

Similar to the Development Finance Corporation and LTCM, the Italian municipalities ran into trouble with systemic risk. The use of derivatives by euro-zone sovereign governments came under scrutiny in mid-2003. Italy's government started devolving financial responsibility to its regions, provinces and municipalities, while it imposed an internal stability pact on them. The result was an explosion in the use of derivatives by these regional Italian governments and city authorities as these entities were debt-ridden and

⁷¹ See note 4, Boyle, p 144-153.

⁷² See note 22, Field, p 475-484.

struggled to fund growing expenditures. There are currently fears that systemic risk will arise because there is a measure of client ignorance combined with leveraged, exotic deals. The Italian Treasury is alarmed at the level of activity in this market and is lobbying the government of Silvio Berlusconi to ban exotic deals. The Bank of Italy is proposing to offer a derivatives mark-to-market service for local authorities. These options will mostly mature after the next local elections and there is some concern that the local administrators will eventually refuse to pay the banks on the basis that the contracts are *ultra vires* and unenforceable.⁷³

In all three incidents, systemic risk has been successfully avoided. If systemic risk does materialise in a derivative transaction, it triggers legal risk as well because it will almost definitely result in costly litigation and reliance on contracts.⁷⁴

4.5 Credit risk

Credit risk is a part of financial risk, which in turn is an operating risk.⁷⁵ Similar to market risk, Basel classifies credit risk as a separate risk category.⁷⁶ The problem statement requires research into the question whether or not credit risk, insolvency, set-off and netting play a part in derivatives trading. This section briefly discusses the key concepts of credit risk, pre-settlement and settlement risk, as well as credit ratings. Thereafter the nature and objectives of credit risk management are discussed. Two credit risk management tools, which pertain to derivatives, are discussed.⁷⁷ These are credit derivatives and collateral. Thereafter the impact of credit risk on legal risk in derivatives is analysed.

⁷³ Dunbar, N 'Italian municipalities using derivatives to stay afloat' (2003) *July Risk Magazine* p 17.

⁷⁴ See chapter four, 3.

⁷⁵ See 4.

⁷⁶ See 4.3.

⁷⁷ See 4.5.8.

Feder⁷⁸ defines credit risk as the exposure to the possibility that a counterparty will default on its obligations when due or as the risk of deterioration of the creditworthiness of a counterparty to a point where the counterparty will not be in a position to perform, in other words, the risk of insolvency. A credit derivative allows one party to transfer credit risk to another. Credit risk is divided into counterparty risk and settlement risk,⁷⁹ whereas Johnson⁸⁰ defines credit risk as the possibility that the other party may fail to perform.

Kojima⁸¹ defines credit risk as the risk of loss should a counterparty to a derivatives transaction fail to honour its future financial obligations. Such default may arise due to the insolvency of the counterparty. The current author is not in favour of this definition as it is too narrow. It restricts credit risk to derivatives, which is simply not true.

DeSanze and Sun⁸² define credit risk as the risk that a counterparty may default on a derivative contract. The same criticism as mentioned against Kojima's definition would apply here whereas Schmedlen⁸³ also defines credit risk as the risk of loss due to a counterparty's default on a derivatives contract a definition that is also too narrow in that it refers to derivatives alone.

Basel⁸⁴ defines credit risk as the risk that a counterparty will fail to perform on an obligation to an institution. Boyle⁸⁵ states that credit risk is the risk that one party in a transaction is unable or unwilling to fulfil the terms of the contract, while Jorion⁸⁶ states that credit risk is the risk of economic loss from the failure of a counterparty to fulfil its contractual obligations, usually in terms of a loan agreement. Credit risk originates from the fact that parties are unwilling

⁷⁸ See note 5, Feder, p 689.

⁷⁹ See note 5, Feder, p 722.

⁸⁰ See note 6, Johnson, p 16.

⁸¹ See note 52, Kojima, p 273.

⁸² See note 41, DeSanze and Sun, p 16.

⁸³ See note 54, Schmedlen, p 1451.

⁸⁴ Basel Committee on Banking Supervision *Risk Management Guideline for Derivatives* (1994) Bank for International Settlements p 11, www.bis.org Accessed 14 October 2004.

⁸⁵ See note 4, Boyle, p 155.

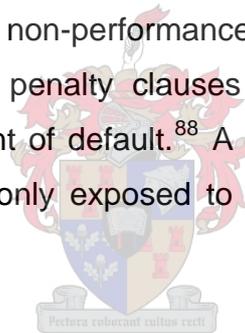
⁸⁶ See note 43, Jorion, p 287-288, 433 and 650.

or unable to fulfil their contractual obligations. At the most basic level it involves the risk of default on the asset, which may be a loan, bond or some other type of contract.⁸⁷

For the current study credit risk is defined as the risk of loss due to a counterparty defaulting on its obligations when they fall due or the risk that the counterparty's creditworthiness may decline significantly during the life of the contract.

4.5.1 Credit risk and legal risk in derivatives

Credit risk may lead to the materialising of legal risk in derivatives. Credit risk is closely linked to insolvency risk. An event of insolvency attracts legal consequences and therefore a derivative contract is drafted in such a manner that it discourages default or non-performance by one of the counterparties. This is achieved by adding penalty clauses to the contract, which entail penalty payments in the event of default.⁸⁸ A counterparty that enters into a derivative transaction is not only exposed to market risk, but also to credit risk.⁸⁹



In the current author's experience credit risk is the largest component of the Basel capital adequacy regime. It is assumed that because credit risk management is the oldest and best established form of risk management and because it makes up the largest portion of the day to day activities of a bank, it attracts the highest capital charge. It is therefore imperative in a study on the legal risk in derivatives trading to include the credit risk issues that pertain to derivatives.

According to Pietrzak⁹⁰ the United States Securities Exchange Commission recommends that the banking regulators institute two capital charges, one for

⁸⁷ See note 4, Boyle, p 12.

⁸⁸ See chapter four, 3.

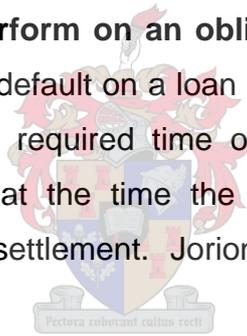
⁸⁹ See note 6, Johnson, p 17. See note 5, Feder, p 689-690. See note 55, Waldman, p 1047.

⁹⁰ Pietrzak, A.R. 'Derivatives and emerging securities products' (1994) *American Law Institute – American Bar Association Continuing Legal Education* p 364.

basic credit risk and one for credit concentration risk. Credit concentration risk is the risk that is caused by having a large exposure to one counterparty or by assuming too much credit risk overall. This is not in line with the current Basel thinking, which advocates a single capital charge for credit risk and is therefore not adopted world-wide. To a certain extent this capital charge will cover legal risk as well, because it is not always possible to determine which component of the loss is due to the materialising of credit risk and which component is due to legal risk.

4.5.2 Pre-settlement risk

Another concept that needs to be defined when discussing credit risk in the context of legal and credit risks in derivatives trading is pre-settlement risk. According to Jorion,⁹¹ **pre-settlement risk is the risk of loss due to the counterparty's failure to perform on an obligation during the life of the transaction.** This could be a default on a loan or a bond, or a failure to make the required payment at the required time on a derivative payment. Pre-settlement risk commences at the time the contract is concluded and it disappears at the time of settlement. Jorion's definition is accepted for purposes of this study.



4.5.3 Settlement risk

A risk that is closely related to pre-settlement risk is settlement risk. Jorion⁹² states that settlement risk has a short time span and it is a risk due to the exchange of cash flows. This risk arises as soon as an institution makes the required payment and exists until the offsetting payment is received. This risk is almost non-existent when the counterparties are within the same jurisdiction and geographical time zone. Where there is a foreign exchange transaction that occurs in different time zones, the risk is greater. If there is an operational problem, for instance systems downtime and this prohibits settlement, the resultant economic losses are minor and usually in the form of additional

⁹¹ See note 43, Jorion, p 434.

⁹² *Ibid.*

interest payments. In some cases the loss can be large, extending to the full amount of the transferred payment.

In order to understand settlement risk better, it is necessary to explain that the Bank for International Settlements⁹³ classifies the status of a trade during the settlement process as being revocable, irrevocable, uncertain, settled or failed. If the trade is revocable, the institution can still cancel the transfer without the consent of the counterparty. If the trade is irrevocable, the payment is regarded as having been sent by the one party, but the payment from the other party is still due. If the deal is uncertain, the payment from the other party is due, it has been sent, but it has not actually been received. If the deal is settled, the counterparty payment has been received. And lastly if the deal has failed, it has been established that the counterparty has not made the payment.

The Bank for International Settlements states that settlement risk occurs during the irrevocable and uncertain phases of the transaction, which can take from one to three days. An example of losses due to settlement risk is Aerostat Bank, which went insolvent in 1974.⁹⁴ The day Aerostat went insolvent, it had received payments from a number of counterparties but it had defaulted before making payments to counterparties. Feder⁹⁵ and Bloom⁹⁶ define **settlement risk as the risk that, on the settlement date, one party will meet all requirements in terms of the contract and the other will not.** This definition will be accepted for purposes of this study.

⁹³ Bank for International Settlements: *Committee on Payment and Settlement Systems Settlement Risk in Foreign Exchange Transactions* (1996) www.bis.org/publ/cpss17.pdf Accessed 26 November 2005.

⁹⁴ See note 43, Jorion, p 435.

⁹⁵ See note 5, Feder, p 724.

⁹⁶ Bloom, D.T. 'Derivatives Risk – How it is being addressed in the documentation' (1996) *Practising Law Institute: Corporate Law and Practice Course Handbook Series* p 348.

4.5.4 Counterparty risk

As mentioned⁹⁷ credit risk has two component parts – settlement risk, discussed above, and then counterparty risk. Jorion⁹⁸ defines counterparty risk as the risk that the counterparty will become insolvent during the life of the derivative transaction, prior to settlement.

Feder⁹⁹ and Bloom¹⁰⁰ **define counterparty risk as the risk that, on the settlement date, one party is not able to meet all requirements in terms of the contract due to financial difficulties or insolvency.** This definition is accepted for purposes of this study.

4.5.5 Margin

“Margin” may be defined as a type of security.¹⁰¹ OTC and exchange-traded derivative transactions may be supported by security. The exchanges normally require two forms of security, called “margin”. This is provided in the form of securities, cash or bank letters of credit. Initial margin is provided at the inception of transactions, whereas variation margin is provided when market rates on a transaction would cause a loss to the investor if a transaction were closed out immediately. The process of valuing a transaction according to fluctuations in market rates, as discussed above, is referred to as “marking-to-market”.¹⁰²

4.5.6 Credit rating

The last key concept that is relevant to a discussion of credit risk is that of credit rating. A credit rating is an assessment of one’s ability to repay debt,

⁹⁷ See 4.5. See note 5, Feder, p 689.

⁹⁸ See note 43, Jorion, p 434.

⁹⁹ See note 5, Feder, p 724.

¹⁰⁰ See note 95, Bloom, p 348.

¹⁰¹ Wood P.R. *Title Finance, Derivatives, Securitisations, Set-off and Netting* (1995) Sweet and Maxwell Limited p 226.

¹⁰² *Ibid.* See 3.

based on past performance.¹⁰³ For large corporates this rating is normally done by a credit rating agency like Fitch (IBCA), Moodies or Standards and Poors. This rating will be an alphabetical rating of AAA+ (which is a top class company not expected to default), AAA, AAA-, BBB+ (which becomes slightly more likely to default). The details of these ratings vary from agency to agency.

Credit ratings are applied when entering into loan agreements or when entering into derivative transactions. When entering into a loan agreement the lender assesses the ability of the borrower to repay the debt. In the instance of a derivative transaction, the one party assesses the risk that the counterparty may default on its obligations.¹⁰⁴ The credit rating is one of the factors that are taken into account when assessing the probability that a counterparty will default on its obligations when they fall due. The tool that is used to calculate the probability of default is called a scorecard, which is a mathematical model that takes various factors into consideration, for instance the credit rating, age of the company, type of industry, turnover and asset value, to name but a few.

The definitions and key concepts that are provided and explained in this section are the preferred definitions for purposes of the study. Some of the implications of these key concepts are expanded on in the rest of this chapter.

4.5.7 Nature and objectives of credit risk management

The following section discusses the nature and objectives of credit risk management. The nature of credit risk management is that it is a tool to manage the risk that a counterparty may default. The objectives of credit risk management are to ensure that adequate risk management policies and procedures are developed and implemented in a bank to ensure that credit

¹⁰³ www.dollarsandsense.com.au/index/cfm Accessed 2 August 2004.
www.americandreamaker.com/tools/glossary Accessed 2 August 2004.

¹⁰⁴ See note 6, Johnson, p 61-62. See note 7, McGinity, p 1198. Lindholm, J.A. 'Financial innovation and derivatives regulation – Minimizing swap credit risk under Title V of the Futures Trading Practices Act of 1992' (1994) *Columbia Business Law Review* p 100-101.

events such as insolvency, set-off and netting have the least possible impact on the bank. This is achieved through credit risk management tools like credit derivatives and collateral.¹⁰⁵ Another method that is used to decrease credit risk exposure is to decrease legal risk¹⁰⁶ by ensuring that agreements are enforceable.¹⁰⁷

4.5.7.1 Insolvency

One of the risks that a bank faces when dealing in derivatives is the risk that a counterparty may default on his obligations due to the insolvency of that counterparty. Insolvency needs to be discussed along with the legal risk in derivatives, because there is always the risk that one of the parties may go insolvent and is unable to perform in terms of the contract. The counterparty then needs to be certain of his position in law so that he suffers the smallest possible loss, or preferably none at all.¹⁰⁸

4.5.7.2 Set-off and netting

The problem statement¹⁰⁹ requires an investigation of whether or not set-off and netting play a role in derivatives. Set-off and netting refer to the same action in most jurisdictions, although English law makes some distinction between the two concepts.¹¹⁰ A netting clause is a provision that gives the right to set-off, or net, claims or payment obligations between two or more parties, with the goal of arriving at a single net payment. This clause is used to manage settlement risk.¹¹¹ Hval¹¹² also distinguishes set-off and netting. According to her netting refers to offsetting two or more assets and liabilities

¹⁰⁵ See 4.5.8.

¹⁰⁶ See 4.6.

¹⁰⁷ See note 103, Lindholm, p 104-105. Kruff, S.R. 'Cross-default provisions in financing and derivatives transactions' (1996) *The Banking Law Journal* p 216.

¹⁰⁸ See chapter four for a comparative overview. In *Re Bank of Credit and Commerce International S.A.* (No. 8) Ch D 1994 Feb.; March 9.

¹⁰⁹ See chapter one, 4.

¹¹⁰ In English law, the non-defaulting party is able to rely on statutory set-off.

¹¹¹ See note 43, Jorion, p 436, 685. Matthews, B.C. 'Capital adequacy, netting, and derivatives' (1995) *Stanford Journal of Law, Business and Finance* p 170-171.

¹¹² Hval, N. 'Credit risk reduction in the international over-the-counter derivatives market: Collateralizing the net exposure with support agreements' (1997) *International Lawyer* p 803-804.

or two or more cash flows, whereas set-off refers to the process whereby mutual debts owed between the two parties may be set off against each other and reduced to a single debt. For purposes of this study no such distinction is drawn and the terms set-off and netting are used interchangeably.

According to Wood¹¹³ there are three types of netting or set-off. The three types are payment or settlement netting, netting by novation and close-out netting. Amongst derivative traders, netting is a loose term that covers set-off of mutual debts, settlement netting and close-out netting.

One of the limitations of set-off in derivatives is that the claims must be of a monetary nature before set-off will be allowed in most jurisdictions. Physical set-off obligations, like having to deliver a hundred barrels of oil, may not be set-off. Another limitation is that only mutual rights and obligations may be set-off. Each party must be under an obligation to deliver something and have the right to demand delivery of money.¹¹⁴

Netting can be agreed to contractually, and due to the rapid growth in the derivatives markets it is advisable that netting be allowed. Not only does it reduce credit risk by lowering the effective amount owed between counterparties, but it also increases liquidity in the marketplace because more cash is available, which would otherwise have been tied up in these transactions.¹¹⁵

There is no consensus about whether the amounts owed must also be due and payable prior to the commencement of winding up, before netting can take place. According to Firth¹¹⁶ the amounts have to be due and payable before winding up may commence, but the *obiter dictum* in *Stein v Blake*¹¹⁷ states that the opposite is true. It further says that they do not even have to be due and payable at the date when calculation in insolvency has to be made as

¹¹³ Wood, P.R. 'Derivatives' (2004) *Unpublished article* p 37-43.

¹¹⁴ Wood, P.R. 'Derivatives' (2004) *Unpublished article* p 37-43.

¹¹⁵ See note 111, Hval, p 803-803-804.

¹¹⁶ See note 34, Firth, p 5-4 to 5-9.

¹¹⁷ *Stein v Blake* (1996) 1 AC p 243.

a mere contingent claim is sufficient. *Stein v Blake* would be difficult to apply in practice and therefore Firth's approach is recommended. Netting became important because of its significance in capital adequacy rules and in the assessment of credit risk by swap market participants for internal purposes, especially by banks.¹¹⁸ Netting is a method used by merchant banks to reduce their exposure or credit risk upon the other party's insolvency.¹¹⁹

4.5.7.2.1 Bilateral netting

Bilateral netting agreements are contracts where the two parties have entered into multiple transactions. Instead of settling one contract at a time the parties agree to satisfy all the obligations to each other on an aggregated basis. They net out the amounts owed to each other in the various transactions.¹²⁰ There are two banks involved in a bilateral netting agreement. The two banks do not make payment of the gross amounts owed to each other. Instead they add up the balances and only settle the net balance outstanding in each currency.¹²¹

4.5.7.2.2 Multilateral netting

Multilateral netting, also referred to as continuous linked settlements occurs where more than two banks need to settle. This process is facilitated by the Continuous Linked Settlements (CLS) Bank in the United States. These netting institutions provide a daily schedule of payments due on the following day. Payments are then delayed until both sides of the netting arrangement are in place. The benefit of such a system is that the counterparty risk is decreased to that of the netting institution. This system is similar to the National Payments Factories used by reserve banks in their local jurisdictions to effect payment between the local banks.¹²²

¹¹⁸ See note 35, Das, p 1357;

See note 34, Firth, p 5-1.

¹¹⁹ Allen & Overy Attorneys 'An Introduction to the Documentation of OTC Derivatives "Ten Themes"' (2002) Allen & Overy Attorneys – Opinions p 4.

¹²⁰ See note 41, DeSanze and Sun, p 21.

¹²¹ See note 43, Jorion, p 436.

¹²² *Ibid.*

4.5.7.2.3 Payment netting

With payment or settlement netting the parties could agree that if the payments fall due on the same day and in the same currency, only one net payment has to be made. This is beneficial, because of “daylight risk”. This risk entails that due to the time zones in which the parties operate, the one may effect payment, after which the other party may be declared insolvent before making the counter-payment.¹²³

4.5.7.2.4 Netting by novation

Netting by novation is essentially a sophisticated version of payment netting. The difference is that the payment obligations are terminated and replaced by an agreement to pay only the net sums. In practice each party maintains a running account for the other party that records the amount and currency that is due to be paid or received on any date. After each transaction the parties pass the appropriate debit and credit entries in the system. These are then confirmed in a prescribed format by the one party and the other party attempts to match the two confirmations. If the matching is successful, novation of the agreements takes place. *British Eagle International Airlines Ltd v Compagnie Nationale Air France*¹²⁴ found that novation operated if it occurred before the winding up of the insolvent company.

4.5.7.2.5 Close-out netting

Close-out netting¹²⁵ is similar to novation because it relies on the parties’ entering into a single master agreement at the beginning of the relationship. This sets out the general terms that will apply to any transaction between them. The intention is normally that each new transaction is simply an addendum to the master agreement. A close-out clause is a provision that

¹²³ See note 34, Firth, p 5-12/3 to 5-13. See note 112, Wood, p 38.

¹²⁴ *British Eagle International Airlines Ltd v Compagnie Nationale Air France* HL (1975) 2 All ER.

¹²⁵ Netting and Close-out netting are synonyms in the context of derivatives according to Allen & Overy. See note 117. See note 34, Firth, p 5-1.

affords a complying party the right to terminate a contract upon certain specified events and to calculate a termination amount due to, or due from, the defaulting party.¹²⁶

Until April 1993 no banking regulator recognised close-out netting for capital adequacy purposes although it was contained in the International Swaps and Derivatives Association (ISDA) Master Agreements. The ISDA regularly obtains various legal opinions in the leading jurisdictions. The jurisdictions have confirmed that netting would be upheld in insolvency. The regulators remain doubtful whether this is sufficient. The ISDA's views were confirmed by the Lamfalussy report in November 1990 by the Bank for International Settlements.¹²⁷ This report concluded that bilateral netting probably would be effective in all the major economies.¹²⁸ The strongest doubts that exist over netting are found in jurisdictions where common law is applied because the rules regarding netting has not been codified. Examples are the United Kingdom, Australia and Canada. The problem is that common law principles are applied to new situations.

The effect of insolvency legislation on close-out netting and termination provisions is uncertain. The first uncertainty is whether or not the termination provision is automatic or not. If the provision is automatic, it terminates the contract prior to the actual insolvency. If the provision is not automatic, the non-defaulting party will have the ability to exercise its contractual rights of termination.¹²⁹ The second uncertainty is whether the netting provisions provide the non-defaulting party with a concurrent claim in insolvency. The third uncertainty is whether these provisions will protect the non-defaulting party against the legislative rules that apply to specific institutions, for example banks. The fourth area finds application in the question whether limited two-way payment provisions or walk-away clauses are effective upon termination. The last area of uncertainty concerns whether a liquidator is able

¹²⁶ See note 43, Jorion, p 684.

¹²⁷ www.bis.org Accessed 1 October 2004.

¹²⁸ See note 35, Das, p 1357. See note 112, Wood, p 38-40.

¹²⁹ See 4.5.7.1.

to cherry pick profitable contracts out of a derivatives portfolio.¹³⁰ The uncertainties are problematic, and a workable solution has not yet been found.

The United States have adopted specific statutory rules in this regard with the *Financial Institutions Reform Recovery and Enforcement Act* in 1989. They also amended the Bankruptcy Code to bring it in line with this act. It provides certainty by allowing the non-defaulting party to exercise its right to terminate the contract after insolvency, but there is a window period of one day during which the liquidators may move the insolvent bank's business to a new entity without the non-defaulting counterparty being able to terminate the agreement. The counterparty has the right to access the collateral that is held as security. The counterparty also has the right to exercise netting or set-off provisions in the derivatives documentation in Australia. The Australian legislation was amended in the early 1990s and although it recognised netting agreements, it does not confirm the efficacy of these agreements in insolvencies.¹³¹ A voluntary close-out is a cancellation of a futures contract before the maturity date. This results in payment of the loss or gain. It is possible for the close-out to be initiated by the hedger entering into a reverse contract. Express rights to premature close-out are unusual in the OTC markets.¹³²

Insolvency is one of the greatest weaknesses to close-out netting because of the risk that a liquidator of an insolvent counterparty will fail to recognise or enforce a close-out netting agreement. Because most derivatives are traded cross-border, it increases the risk.¹³³

¹³⁰ See note 35, Das, p 1357-1358.

¹³¹ *Ibid*, p 1358-1359.

¹³² See note 100, Wood, p 218. See note 111, Hval, p 804-805.

¹³³ *Ibid*, Hval, p 805-806.

4.5.7.2.6 The ISDA Model Netting Act

ISDA published the 2002 *Model Netting Act*.¹³⁴ This was drafted with the intention that member countries adopt it as their own netting legislation. The Act is divided into two parts. Part I – Netting: defines various terms, including collateral and netting. The Act also lists a number of contracts that are expressly allowed, but the Central Bank of a specific country may also include other contracts in terms of section 2 of the Act. Section 3 expressly excludes all derivatives contracts from being gambling or wagering contracts. Section 4 deals specifically and extensively with the enforceability of a netting agreement.¹³⁵ Part II deals with multibranch netting and also provides a number of definitions in section 1. Section 2 deals with the enforceability of a multibranch netting agreement in an insolvency of a branch or agency of a foreign party. The main purpose of the Act, is to ensure legal certainty by allowing netting in a standardised format in all the countries that subscribe to the Model Netting Act. This has not been fully adopted into South African legislation yet.¹³⁶



4.5.8 Credit risk management tools

There are various tools available to manage credit risk. These include credit derivatives, collateral, mathematical modelling, behavioural scoring and the knowledge and experience of the credit risk manager, who needs to decide whether the bank wants to take the additional credit exposure to a specific counterparty. Only credit derivatives and collateral are relevant to a study of the legal risks in derivatives and are discussed below.

¹³⁴ Unnumbered suggested legislation.

¹³⁵ www.isda.org/ModelNettingAct.pdf. Accessed 2 December 2003.

¹³⁶ It influenced the drafting of the *Securities Services Act 36 of 2004*.

4.5.8.1 Credit derivatives

A credit derivative enables a bank to insure against events of default, rating downgrades¹³⁷ or any other credit event. For the first fifteen years of trading in credit derivatives, there was no standard documentation available. The problem with this is that *ad hoc* agreements do not always cover the legal risks adequately and this may result in significant financial losses.¹³⁸ Another problem that derivatives traders face is that credit risk may change significantly over the life of the contract, due to changes in the market.

There are two factors to consider in assessing credit risk in derivatives. The first factor is to assess what the replacement value of the contract is if the counterparty defaults at a specific date or at the present time. The second factor is, should the counterparty default at some point in the future, whether the question should be raised as to the potential exposure at that stage. The first is relatively easy to assess as one simply needs to obtain the market value of the derivative to establish what the replacement cost would be. The second is more difficult to determine because it relies on a subjective determination of what the replacement cost would be. Derivatives traders usually use historical data and pricing models to assess potential future exposures.¹³⁹

Credit derivatives are mostly used by banks and insurance companies. These derivatives are similar to guarantee transactions, but the terminology and transactions are different. In essence, the one counterparty transfers his credit risk exposure to another party, the latter being paid for the willingness to take on the prospective credit deterioration or default of a given entity.¹⁴⁰

¹³⁷ See 4.5.6 above.

¹³⁸ Finnerty, J.D. and Brown, M.S. 'An overview of derivatives litigation, 1994 to 2000' (2001) *Fordham Journal of Corporate Financial Law* p 136-137. Karol, B.J. 'An overview of derivatives as risk management tools' (1995) *Stanford Journal of Law, Business and Finance* p 203-204.

¹³⁹ See note 40, Krawiec, p 31.

¹⁴⁰ See note 5, Feder, p 690. See note 112, Wood, p 12.

The interest rate charged on a loan normally reflects the risk that the bank is taking on. If a bank only has one or two big customers, then the bank is exposed to concentration risk. Concentration risk refers to having your counterparties and therefore your credit exposures in one industry or in one geographical area.¹⁴¹ It has therefore been established that credit derivatives are used to reduce a bank's exposure to this risk. The bank purchases a credit derivative so that the third party pays if a certain credit event affects the bank's main customer. The most popular credit derivative is a credit default swap. An interesting example was where Bell's, a Scotch whisky firm, held a competition to find the Loch Ness Monster for £1m, as a marketing ploy.¹⁴² But just in case this mythical creature did exist, they took out insurance against it from Lloyd's of London. Lloyd's of London did not take out normal insurance to insure this risk. They put a credit default swap in place. A credit default swap is very similar to insurance. The protection seller is similar to an insurer. The triggering event is the insurance event on the one hand, in other words that the monster be found, and the credit event is the other event, namely that Bell's has to pay the prize money. The premium payments in terms of the swap, payable by Bell's, stop when the competition ends or when the monster is found. The Asian crisis in 1997 and the Russian default in 1998 highlighted the benefits of these derivatives.¹⁴³

Credit derivatives pass credit risk from one counterparty to another. They are used to split the credit risk component out of normal derivative contracts, or to hedge the credit risk that is part of a bank's normal day to day business, for example loans. They are normally traded on exchanges and not OTC.¹⁴⁴ Credit derivatives' main purpose, and also the reason why they were developed, is to mitigate concentration risk.

¹⁴¹ See note 22, Field, p 20.

¹⁴² See note 4, Boyle, p 156-165.

¹⁴³ See note 4, Boyle, p 156-165.

¹⁴⁴ See note 43, Jorion, p 551-552.

4.5.8.2 Collateral

Netting is a way of limiting the exposure to credit risk. Even after netting arrangements have been put in place, the exposure that remains may be such that the parties would prefer to use collateral to limit the exposure even further. Collateralisation refers to the provision of assets against an exposure, with the purpose of reducing the credit exposure of the recipient. Collateral was only recognised as an integral part of the OTC market in the early 1990's. It is estimated that about half of all OTC derivatives are collateralised.¹⁴⁵

Derivatives traders have both a wide and a narrow definition of collateral. The wide definition of collateral is that it is property pledged as guarantee of payment for an obligation or loan in order to protect against current and potential exposures.¹⁴⁶ The narrow definition of collateral limits it to credit support or margin, which also serves to reduce credit-related capital charges.

Collateral is used by market participants to reduce their credit risk or the risk of loss if their counterparty fails. This is used in exactly the same way as collateral in the form of residential mortgage. The bank will lend the individual the money and use the home as collateral.¹⁴⁷

Various types of collateral are used, some more popular than others. Cash is the most popular form of collateral. It accounts for about seventy percent of all collateral and is mostly found in the form of cessions. Government securities and equities are also forms of collateral, but these are less popular than cash. Securities are financial instruments such as stocks, bonds and debentures, which are issued to raise capital and are frequently used as collateral. The difference between a security and a derivative is that a derivative is a private contract between two parties, while a security is issued to raise capital.¹⁴⁸ A

¹⁴⁵ See note 34, Firth, p 6-1 to 6-2.

¹⁴⁶ Kellerman, D.F. (ed) *The Living Webster Encyclopedic Dictionary of the English Language* (1981) Delair Publishing Company Inc. p 197. Turing, D. *The Legal and Regulatory View of Operational Risk* (2003) Risk Books p 260. See note 43, Jorion, p 538.

¹⁴⁷ See note 117, Allen & Overy, p 5.

¹⁴⁸ See note 43, Jorion, p 114. Gray, B. *Beginners' Guide to Investment* (1993) Random House Business Books p 151.

derivative is generally used to hedge or guarantee the price at a specified date. Collateral may be provided by way of charging, or by title transfer, or by outright transfer. In the event of charging, the one party grants a security interest over the collateral in favour of the other, but not the proprietary interest. The result is that the collateral may be returned to the counterparty if the responsibilities are discharged. With title or outright transfer the party transfers its entire interest in the collateral to the other party. The counterparty in turn acquires a contractual right to the return of equivalent assets if the liabilities are discharged.¹⁴⁹ Collateral may be beneficial in the event of insolvency.

Counterparties do not have to make use of collateral to secure the credit risk in their deals on the OTC Market. They can use third party credit enhancement, issues of notes, repricing, options to terminate or a combination of these.¹⁵⁰ Third party enhancement may be compared with surety. What the bank will do in this instance is to obtain a guarantee for the counterparty's obligations from a third party. The counterparty can market the transaction by way of an issue of notes. This involves getting investors to invest in the transaction. They have the hope of high returns while the bank has reduced its risk exposure. Repricing will occur at periodic intervals at current market rates. If the repriced instrument has a different value to the previous value then payments will be made between the counterparties. This is similar to mark-to-market. The parties may also agree on the choice to terminate if one of their credit ratings falls below a certain level.

Collateral is a risk mitigant, because it reduces credit risk exposures. By using collateral, you are able to transform credit risk into other forms of risk, for instance settlement risk, market risk, legal risk, operational risk, default or correlation risk. None of these risks will result in a loss unless the counterparty defaults. The funding costs of running a collateral function might

¹⁴⁹ See note 34, Firth, p 6-2.

¹⁵⁰ See note 34, Firth, p 6-2 to 6-3.

be extensive and should be taken into consideration before embarking on establishing a collateral function.¹⁵¹

Although collateral is an effective way of reducing credit risk, it raises a number of other considerations. It is of the utmost importance to ensure that the collateral is enforceable, especially against the collateral provider, as well as third parties. The legal issues are often very complex and there might be a reluctance to address them upfront. This may be very costly in the long run, because the legal protection that is thought to be in place may not be effective when it becomes necessary to rely on it. Operational risks may play a role, there may be processing errors in taking the collateral, there may be human error, and there may be system failures or other external events that have an impact.¹⁵²

4.5.8.2.1 Advantages of collateral

The benefits of collateral are that it is a method to control credit risk and reduce it to an acceptable level.¹⁵³ Banks have implemented self-imposed credit limits that restrict the exposure they may have to specific counterparties. This in turn protects the capital of the bank, and thus the shareholders and depositors. Collateral may allow a bank to expand the number of counterparties that it deals with. It may reduce the level of regulatory capital required by a bank. Recourse to a court of law will almost never be needed where collateral is held, because the bank will simply close-out the transactions against which the collateral is due. All of these factors allow a bank or investment firm to price more competitively and the counterparty will be able to obtain better rates.¹⁵⁴

Participants in OTC derivatives markets do not always collateralise their relationships with counterparties, but there is an increasing trend to do this.

¹⁵¹ Discussion by *International Bar Association Working Party on Legal Risk* 24 October 2003, London.

¹⁵² See note 34, Firth, p 6-6 to 6-8.

¹⁵³ See 4.5.7.2 above.

¹⁵⁴ See note 34, Firth, p 6-1.

Collateral relationships are typically governed by New York, USA, English or Japanese Law. There is increasing pressure on parties to replace all these documents with the 2001 ISDA Margin Provisions, commonly referred to as the ISDA Credit Support Documents.¹⁵⁵

4.5.8.2.2 Disadvantages of collateral

In determining how much and what collateral should be established its disadvantages should be considered. As Das¹⁵⁶ firstly points out substantial stamp duty may be payable in some jurisdictions if security is taken. Secondly the validity and priority on insolvency of the security may depend on its registration. Thirdly, company searches will need to be done to ascertain the existence of competing security. The problem is that this is not available in all jurisdictions, as the security is often not recorded in a central register. Fourthly, in the United Kingdom and Australia a bank cannot take a bank account of the counterparty, held by themselves as security, and lastly, the counterparty does not necessarily have the legal capacity to provide security, for example local authorities, building societies and statutory authorities.¹⁵⁷

4.6 Legal risk

Legal risk is a form of operational risk and because operational risk management is part of the day-to-day management of derivatives, legal risk management also forms part of the management of derivatives trading.¹⁵⁸ A number of definitions are available on the matter; however, there is no market consensus as to what exactly legal risk entails.¹⁵⁹ Legal risk, although undefined, has become extremely important to a lawyer in today's financial world. The following quote by Partnoy illustrates this:

¹⁵⁵ See note 117, Allen & Overy, p 5.

¹⁵⁶ See note 35, Das, p 1348.

¹⁵⁷ See note 35, Das, p 1348.

¹⁵⁸ See 4 above.

¹⁵⁹ See 4 and 4.1 above.

Today, a practicing lawyer unaware of how derivatives may be used to create new risk-return profiles, add leverage, or satisfy regulatory requirements hardly has a chance of surviving even a cocktail party with sophisticated clients.

Frank Partnoy¹⁶⁰

The purpose of the very important next section is to define legal risk and discuss the nature and objectives of legal risk management, with specific focus on derivatives, legal risk will be classified and a number of reported and unreported precedents will be discussed where relevant.

4.6.1 Definition of legal risk

There are definitions of legal risk in the literature. There is no consensus in the banking industry on what legal risk exactly entails. This can be attributed to the fact that it is a new emerging field of risk management, and is not well established. Research is limited as not many researchers have investigated legal risk or legal risk management in depth because it is a new field of study. Industry bodies such as the Basel Committee on Banking Supervision (Basel) and ISDA have also not provided suggested definitions of legal risk and legal risk management in the way that has been done for credit, market and operational risk.

Jorion¹⁶¹ defines legal risk as the risk of reputational or financial damage due to fraud. But this definition is too narrow. The law does not only cover fraud, and therefore legal risk cannot simply be based on fraudulent activities.

The Basel Committee on Banking Supervision often provides internationally recognised definitions on various categories of risk.¹⁶² To date they have not attempted to define legal risk, other than by including it in the category of

¹⁶⁰ Partnoy, F 'Adding derivatives to the corporate law mix' (2000) *Georgia Law Review* p 600.

¹⁶¹ See note 43, Jorion, p 669.

¹⁶² Van Jaarsveld, I.L. 'Domestic and International Banking Regulation and Supervision – Defying the challenges' (Vol 119 Part 1) *South African Law Journal* p 77.

operational risk.¹⁶³ It is ironic that the Basel Committee simply ignores the issue that legal risk is not defined, but continues to define compliance risk and put out guidance notes on that subject, even though the management of compliance risk will not attract a regulatory capital charge, while legal risk will. For this reason the South African Banking Council has formed a Legal Committee and tasked it to formulate a definition of legal risk. This definition is to be applied in the South African banking industry.¹⁶⁴

Alexander¹⁶⁵ defines legal risk as the risk that a transaction proves unenforceable in law or has been inadequately documented. This includes legal uncertainties around the legal capacity of the banks' counterparties to enter into the transactions, the legality of derivative transactions and/or the recognition and effectiveness of netting arrangements in certain jurisdictions, or the effectiveness of collateral arrangements in insolvency. Alexander¹⁶⁶ mentions that legal risk may be defined in either a positive or a negative way. The positive definitions normally refer to the concept of legal risk itself, while the negative definitions refer to losses sustained due to legal risk. Alexander¹⁶⁷ provides both a wide and a narrow definition of legal risk. In the wide definition she explains that any event affecting a bank can be construed as a legal event, and therefore all risks facing a bank are legal risks. The wide definition is difficult to use in practice. The narrower definition is preferred, and this normally refers to losses suffered. When the term legal risk is used in the context of litigation or liability insurance, it primarily refers to civil liabilities, especially contracts and delict. In the derivatives markets it refers to the legal recognition of novel contractual arrangements that have not been tested in courts.¹⁶⁸

¹⁶³ See 4.1 above.

¹⁶⁴ Unfortunately this definition has not yet been formulated.

¹⁶⁵ Alexander, C ed *Operational Risk: Regulation, Analysis and Management* (2003) Financial Times Prentice Hall p 90.

¹⁶⁶ See note 154, Alexander, *ibid*.

¹⁶⁷ *Ibid*, p 76-77.

¹⁶⁸ *Ibid*.

Turing¹⁶⁹ defines legal risk as the risk that one is unable to enforce one's rights against or rely on obligations incurred by a counterparty in the event of default or a dispute. He mentions an older Basel Committee definition that states that it is the risk that contracts are not legally enforceable or documented correctly.¹⁷⁰ The Basel Committee definition has since been revoked. When dealing with legal risk in derivatives, it is important to note that it is not limited to contractual rights and obligations. It includes property rights, duties and rights under delict or statute as well as criminal law, for instance non-compliance with anti-money-laundering legislation.

Lloyds TSB combines legal and compliance risk¹⁷¹ in their Annual Financial Statements. They define legal and compliance risk as the risk of financial loss or reputational damage arising from failing to comply with the laws, regulations and codes applicable to the financial services industry. In contrast to this, Barclays PLC distinguishes between legal and compliance risk¹⁷² in their Annual Financial Statements 2002 and 2003. They define legal risk as the risk that their businesses are not conducted in accordance with the applicable laws and regulations, or the risk that contractual arrangements will either not be enforceable as intended or will be enforced against them in an unexpected or adverse manner, or the risk that tangible and intangible property, such as trade names and copyright, will not be adequately protected by the law from infringement, or the risk that they will be liable for damages to third parties harmed by the conduct of their business.

Feder¹⁷³ defines legal risk as the risk that parties to OTC derivatives contracts run that certain provisions will not be enforced. It includes the risk that the law will change during the life of the contract. It also includes the risk that attaches to the counterparty, for instance that the counterparty may not have the legal capacity to enter into the contract. Johnson¹⁷⁴ defines legal risk as the risk that a court may not enforce the derivative contract caused by inadequate

¹⁶⁹ See note 140, Turing, p 260-261.

¹⁷⁰ *Ibid.*

¹⁷¹ Lloyds TSB Annual Financial Statements 2002-2003; Risk Report.

¹⁷² Barclays PLC Annual Financial Statements 2002 and 2003; Risk Management Report.

¹⁷³ See note 5, Feder, p 728.

¹⁷⁴ See note 6, Johnson, p 21.

documentation, counterparties not authorised to enter into derivatives transactions and general legal uncertainty, whereas Schmedlen¹⁷⁵ defines legal risk as the risk of loss because a derivative contract is legally unenforceable. This includes the risks arising from insufficient documentation, insufficient capacity or authority of a counterparty, uncertain legality and unenforceability due to bankruptcy or insolvency.

For purposes of this study, legal risk is defined as the risk of loss primarily caused by legal unenforceability (i.e. a defective transaction, for instance a contract), legal liability (i.e. a claim) or failure to take legal steps to protect assets (for example intellectual property). To manage these risks the general principles of risk management may be applied. There is a perceived conceptual confusion as to what operational risk is, and because legal risk is included in this definition there is also confusion about the definition of legal risk.¹⁷⁶

4.6.2 Classification of legal risk

Risk is divided into various types, the most commonly used being credit, market and operational risk.¹⁷⁷ Legal risk is classified as a part of operational risk. Based on the causes of legal risk, there are two main components of legal risk. The first component is compliance risk, caused by cross-border dealing as well as the behaviour of financial institutions, a lack of internal controls, financial innovation and the inherent uncertainty of the law. The second component is contractual risk, caused by inadequate documentation. Alexander¹⁷⁸ says that one reason why many people believe that legal risk forms part of operational risk is that such persons consider fraud to be the most significant category of legal risk and also a legal issue.

It cannot be denied that fraud is a matter of legal relevance, because it results in legal liabilities for the perpetrator. However, the victim bank rarely faces

¹⁷⁵ See note 54, Schmedlen, p 1451-1452.

¹⁷⁶ See 4.1.

¹⁷⁷ See 4.1, 4.3 and 4.5.

¹⁷⁸ See note 154, Alexander, p 90.

legal risk in cases of fraud, because there is normally no legal uncertainty regarding the true position of the rights and duties of the parties involved. Therefore Alexander holds the opinion that pure legal risk and fraud should be analysed separately as independent types of risk. This opinion is supported. Legal risk is indeed a form of operational risk because the processes for managing legal risk are in essence the same processes that are used for managing operational risk¹⁷⁹. The components of legal risk, namely compliance and contract risk, will be discussed in greater details in the next section.

4.6.2.1 Compliance risk management

Some of the questions in the problem statement require investigation into the legislation, if any, governing derivatives in the international arena, in foreign jurisdictions and in South Africa.¹⁸⁰

Barclays defines compliance risk as the risk that arises from the failure or inability to comply with laws, regulations or codes applicable specifically to the financial services industry.¹⁸¹



One of the components of legal risk is compliance risk, which is the risk of losses occurring due to fines and penalties incurred because of non-adherence to statutes, regulations and industry codes. Derivatives are affected by statutes and regulations in some jurisdictions, therefore the derivatives markets are exposed to compliance risk.

4.6.2.2 Contractual risk

Another category of legal risk is contractual or documentation risk. Similar to compliance risk, this area is discussed at length in the next chapter.

¹⁷⁹ See 4.1.

¹⁸⁰ See chapter one, 4.

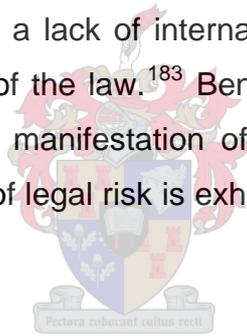
¹⁸¹ See note 167, Barclays.

4.6.3 Nature and objectives of legal risk and legal risk management

One of the questions in the problem statement refers to the nature and objectives of legal risk management.¹⁸² This is addressed by a discussion of legal risk management, with reference to the causes of legal risk, how legal risk affects derivatives and why legal risk in derivatives is different from legal risk in other financial instruments. The relationship between legal risk management and derivative transactions is explored.

4.6.3.1 Nature of legal risk

A number of common causes of legal risk exist. Broadly speaking the causes of legal risk may be categorised into jurisdiction and cross-border issues, inadequate documentation, the behaviour of financial institutions, which includes creative compliance, a lack of internal controls, financial innovation and the inherent uncertainty of the law.¹⁸³ Benjamin¹⁸⁴ mentions an array of factors that may lead to the manifestation of legal risk. But she is of the opinion that no list of causes of legal risk is exhaustive. These factors will now be discussed in greater depth.



4.6.3.1.1 Jurisdiction and cross-border issues

Legal risk arises where an institution enters into transactions in foreign jurisdictions. The local entity may be exposed to legal risk when contracting cross-border, because a transaction that may be enforceable in the domestic jurisdiction may be illegal in the jurisdiction in which the counterparty operates. Examples of clauses that may be unenforceable are set-off and netting.¹⁸⁵ It frequently happens that the laws of the different jurisdictions are in conflict. The parties will then either not be able to deal with each other, or

¹⁸² See chapter one, 4.

¹⁸³ These are discussed in more detail below, with references to the specific authors.

¹⁸⁴ Benjamin, J. *Sources of Legal Risk for Financial Institutions* (2003) Unpublished working paper for International Bar Association p 1-34.

¹⁸⁵ See 4.5.6.2.

they will have to amend the agreement to satisfy all the relevant legal requirements.¹⁸⁶

4.6.3.1.2 Inadequate documentation

Jorion¹⁸⁷ is of the opinion that legal risk arises when a transaction proves unenforceable in law. Legal risk also manifests in a contract that is not documented correctly. In other words a transaction cannot be consummated because there is some legal barrier preventing its completion.¹⁸⁸ This barrier may take on a number of forms, including inter alia: inadequate documentation; a regulatory prohibition on a specific counter party, where a specific party is by law not allowed to enter into the transaction; unenforceability of bilateral or multi-lateral close-out netting, as is the case in some jurisdictions; collateral arrangements in insolvency as collateral arrangements are not allowed in all jurisdictions; changes in law after the transaction had been entered into before a change in legislation that now alters the legal position; mistakes or a lack of consensus, which results in the documentation not reflecting the true intent of the parties or liability of agents, where the agents acted outside their authority.



According to Wood¹⁸⁹ the risks listed in the above paragraph could be mitigated by: using an industry-recognised master agreement; not dealing before the contracts are signed; defining each party's rights and obligations adequately, including specific credit events in the agreements; agreeing on fundamental clauses in the contract; agreeing on fixed amount payments; dealing with successors in title and agreeing on the calculation agent to be used. According to the current author these are sound principles and there is no harm in following these steps in derivative contracts.

¹⁸⁶ See note 145. Swartz, L.Z. 'ABC's of cross-border derivatives' (2000) *Practising Law Institute* p 1183-1218. Benjamin identifies cross-border business as a cause of legal risk, but does not expand on it. See note 191.

¹⁸⁷ See note 43, Jorion, p 669.

¹⁸⁸ Mostly due to unenforceability.

¹⁸⁹ See note 112, Wood, p 20-23.

4.6.3.1.3 Behaviour of financial institutions

Alexander¹⁹⁰ states that losses due to legal risk are normally attributable to legally flawed actions by the bank and its employees. Legal risk normally only arises when one of the parties has lost or is about to lose money on a transaction. This is when one party will seek to attack the legal nature of the transaction in an effort to minimise its loss.

One of the causes of legal risk that Benjamin¹⁹¹ also identifies is the behaviour of financial institutions, which includes limited legal awareness, failure to follow the legal advice that was obtained, creative compliance (which in essence means following the letter and not the spirit of the law) and outsourcing of non-core business, which may lead to a lack of control. Field¹⁹² gives an example of this by saying that there is a legal risk, specifically a contractual risk, when using third party software vendors.

A bank may incur liability through the actions of its employees or it may be unable to enforce rights in order to protect its interests. One of the reasons why this may happen is that the employees sometimes act on false assumptions or misunderstandings. They either negligently or wilfully disregard the requirements for compliance. In commercial transactions, as with any other transactions, compliance with the law of contract is extremely important.

Another behavioural problem that the current author experiences in financial institutions in general is opinion shopping. The management and staff of a financial institution do not make use of legal opinions if the opinions preclude them from taking the action that they intend to take. There is often a tendency to continue to gather legal opinions until one is obtained that supports their action. This opinion is then the one that is followed.

¹⁹⁰ See note 154, Alexander, p 76-77.

¹⁹¹ See note 191, Benjamin, p 1-34.

¹⁹² See note 22, Field, p 21.

4.6.3.1.4 Lack of internal controls

Tschoegl¹⁹³ states that the factual trading of derivatives is not a cause of legal risk; it is the lack of adequate controls in this process that is often the cause of legal risk. On the other hand the JP Morgan Group believes in a robust general risk management process that covers, but is not limited to, legal risk. Before any major deal is entered into, a due diligence exercise is performed. During the transaction, the legal risk gets measured, albeit in a qualitative way. The legal department will provide an opinion on the enforceability of the deal, and the derivatives trading desk will determine a level of confidence of probability of default. If necessary, the requisite adjustments are made to the credit model to mitigate the risk.¹⁹⁴

Few authors expressly identify a lack of internal controls as a cause of legal risk. However, it may possibly be concluded that most authors on the topic imply that there is some breakdown in internal procedures that causes legal risk losses.

When there is “star performer” syndrome in an organisation, as there was in Barings,¹⁹⁵ Orange County¹⁹⁶ and LTCM,¹⁹⁷ internal controls and audit procedures become even more important.¹⁹⁸ The “star performer” syndrome refers to the situation where there is a brilliant, normally young, derivatives trader in the bank. This “star” initially performs very well. Due to this success controls in his instance are reduced as the management believes and expects that this performance will continue and even improve. Because the value of derivatives trades are so high, they have the potential not only to sink the bank or any single organisation, as in the Barings case, but they can also

¹⁹³ Tschoegl, A.E. *The Key to Risk Management: Management* (2003) Wharton Financial Institutions Center p 11.

¹⁹⁴ See note 145. Bish, S.E. ‘A guide to narrow the derivatives’ understanding gap and reduce losses: How to increase knowledge, controls and reporting’ (1997) *Ohio State Law Journal* p 539-581.

¹⁹⁵ Discussed below.

¹⁹⁶ Discussed below.

¹⁹⁷ Discussed below. Wiener, W.H. ‘Recent market events and the foundation for global market crises: the experience of Republic National Bank’ (1999) *Fordham Finance, Securities and Law Forum* p 17-23.

¹⁹⁸ See note 4, Boyle, p 118, 135.

threaten the entire financial system, as in the LTCM case. Therefore it is important never to relax the internal controls around even the “star performers” of an organisation. This includes ensuring that the portfolio of derivatives is well diversified. If the portfolio is not diversified, in other words if there is concentration risk, the institution or bank will probably not survive events like Black Monday,¹⁹⁹ when the market fell by over twenty percent in a single day.²⁰⁰ The diversification of a portfolio can be controlled by proper procedures, which are audited regularly. The cases which are discussed in the remainder of this section all deal with legal risk losses caused by a lack of internal controls, coupled in some instances with an inadequate audit process.

Another case where a lack of adequate internal controls led to financial losses is *Procter and Gamble v Gibson Greeting Cards*.²⁰¹ *In casu* certain corporates lost billions of dollars and claimed to have been duped by greedy derivatives traders.²⁰² These claims were investigated by the Securities and Exchange Commission and the Commodities Futures Trading Commission. Bankers Trust was fined \$10m in the US in December 1994 – although they never denied or admitted to violating anti-fraud laws in the sale of derivatives.²⁰³ Bankers Trust had derivatives risk management policies in place that were superior to those of their competitors, but it was not good at actually following these policies. In two transactions in 1993 and 1994, Proctor & Gamble agreed to pay the bank a floating interest rate, pegged to complex formulae that made the swaps hypersensitive to rising interest rates. In return they received fixed payments, which was a gamble on London and German interest rates. The deal was risky and the bank was forced to buy \$3,4b of government long bonds to cover its own exposure to the trade. When the

¹⁹⁹ 19 October 1987.

²⁰⁰ See note 199, Tschoegl, p 11. Bennett, M.S. and Marin, M.J. ‘The Casablanca paradigm: Regulatory risk in the Asian financial derivatives markets’ (1999) *Stanford Journal of Law, Business and Finance* p 2-44.

²⁰¹ *Procter & Gamble Co. v. Bankers Trust Co.*, No. C-1-94-735 (S.D. Ohio, filed Feb. 6, 1995). *Gibson Greetings, Inc. v. Bankers Trust Co.*, No. C-1-94-620, (S.D. Ohio, filed Feb. 6, 1995). Also called “Bankers Trust Case”.

²⁰² *Ibid.*

²⁰³ Gup, B.E. *Bank Failures in the Major Trading Countries of the World* (1998) Quorum Books p 56-57. Sewell, T.A. Esq. ‘Regulating, Legislating and Litigating Derivatives’ (1994) *NBA National Bar Association Magazine* p 10-11. Rubinstein, A. ‘Common law theories of liability in derivatives litigation’ (1997) *Fordham Law Review* p 737-745.

Federal Reserve increased rates in February 1994, Proctor & Gamble's swaps made a loss of almost \$200m. Proctor & Gamble filed a lawsuit in October 1994 and ten days later Gibson Greeting Cards filed a similar lawsuit for \$23m. In December 1994 Bankers Trust was fined \$10m by the Securities and Exchange Commission and the Commodity Futures Trading Commission for breach of fiduciary duty, negligence, deception and cheating. Bankers Trust started equity derivatives trades in 1986.²⁰⁴ If the banks follow internal policies and verify adherence to policies by internal and/or external audits, losses like these can be avoided.

Orange County was one of the wealthiest counties in California, yet they declared bankruptcy in 1994. Robert Citron was elected as treasurer in 1972 and he was re-elected seven times, the last election being held in 1994. He acquired a reputation as an investment genius as his fund outperformed comparable funds by up to two percent per year. Citron's investment strategy was to bet on the direction of interest rates. Bond prices go up when interest rates go down. During the 1994 election campaign, John Moorlach, who ran against Citron for the position as treasurer, pointed out this gamble. He said that Citron had structured the portfolio on the assumption that interest rates would continue to decline. Moorlach's warnings were ignored and he lost the election, even though he identified the risks accurately. The use of derivatives is now banned in Orange County.²⁰⁵ Citron lost \$1,5b in the Orange County Investment Fund alone. The total loss amounted to \$1,6b out of an investment fund of \$7,5b when they declared bankruptcy in December 1994.

Robert Citron's investment strategy and the risks were very apparent in hindsight. He used short-term funds to invest in longer-term securities. He used financial leverage to increase the size of his portfolio. This was

²⁰⁴ See note 22, Field, p 19, 515-525. Buerstetta, G.E. 'Creating a flexible fiduciary duty rule for banks entering into proprietary derivatives contracts' (1996) *Annual Review Of Banking Law* p 396-427. Rosenthal, J.M. 'Incorporation may not mean sophistication: should there be a suitability requirement for banks selling derivatives to corporations?' (1996) *Chicago-Kent Law Review* p 1252-1269.

²⁰⁵ Gottsfield, R.L. (Hon.), Lopez, M.R. and Hicks, W.A. III 'Derivatives: What they are; what they cause; what's the law' (1996) *Arizona Attorney* p 34-35. Thompson, C.D. II 'Money for nothing – or dire straits? Public funds and the derivatives market' (1997) *University of Illinois Law Review* p 611-638.

successful as long as interest rates remained steady or declined. The 1994 rise in interest rates led to the losses.²⁰⁶ If Orange County had been audited by experts in the field of investments, specifically in the areas of bonds and interest rate volatility, the losses could have been minimised or altogether avoided. The star performer syndrome clearly contributed to the losses in Orange County. It is good practice to take a conservative approach to star performers by also subjecting them to strict audits.

In the Barings case, the background and facts are that the Barings Brothers Trading House was established in 1762 and financed the British armies during the American Revolution and the Napoleonic wars.²⁰⁷ The 232 year old Barings Brothers was the oldest British merchant bank and a pillar of the establishment in London when it was brought down in February 1995. Nick Leeson left school at 18 and started working as a bank clerk. He joined Barings in 1989 as a settlements clerk, after he had learned to record traders' purchases and sales at Morgan Stanley. He was offered a position in Singapore where the firm was setting up a futures trading operation. Leeson passed the exam to qualify to trade on the Singapore International Monetary Exchange (SIMEX) during the same year. He was promoted to head trader, with limited capacity, and general manager shortly thereafter. Because the firm viewed the transactions as low-risk, and to save costs, they allowed his responsibilities to expand.²⁰⁸

One of the characteristics of derivatives is that the price paid to enter into the contract is often small in relation to the size of the risk. He eventually traded and recorded his own transactions. This is never desirable. Initially he was able to hide the large positions he held because his management did not understand the deals he was putting together, no proper audits were

²⁰⁶ See note 22, Field, p 497-509. See note 208, Gup, p 56-57. Roberts, L 'Suitability claims under rule 10B-5: Are public entities sophisticated enough to use derivatives?' (1996) *University of Chicago Law Review* p 801-835. Gibson, W.E. 'Investors, look before you leap: The suitability doctrine is not suitable for OTC derivatives dealers' (1998) *Chicago Law Journal* p 527-581.

²⁰⁷ See note 4, Boyle, p 14.

²⁰⁸ See note 199, Tschoegl, p 4- 6. McKown, J.E. and Purcell, A.T. 'Enforcement actions involving derivatives: BT Securities Corp. and beyond' (1996) *University of Cincinnati Law Review* p 117-136. See note 208, Gup, p 50-51.

conducted, there were no properly documented audit trails in place and there was a lack of segregation of duties. Leeson was able to write the deal and do the back office accounting. The operation was small and inadequately staffed. Therefore due to the lack of segregation of duties he was able to write off his losses in the now infamous account 88888. Because he was able to hide his losses in this account, he was able to increase profits. This resulted in large incentive bonuses. Leeson's trading activities went undetected due to a failure of management and a lack of internal controls.²⁰⁹

On 17 January 1995 an earthquake struck Kobe. The Tokyo stock market fell sharply and Leeson tried to sustain the market by buying stock index futures. He was somewhat successful but the market started to fall again. The Singapore Exchange (SIMEX) began asking questions about the large positions and volumes he was trading. Barings flew a top executive to Singapore to appease SIMEX, but immediately began investigating and when they scrutinised the accounts discrepancies were uncovered. On 23 February 1995 the 29 year-old Nick Leeson disappeared with his wife. Barings had to admit that their losses were more than double the firm's capital of £440m. Three days later, on 26 February, the Bank of England put Barings into liquidation.²¹⁰ The bank lost more than £800m (\$1,300m) and Leeson received a six and a half year prison sentence.²¹¹

Johnson Matthey Bank failed in October 1984 due to inadequate internal and external controls. At the time, they were rescued by the Bank of England.²¹² One of the criticisms of the Barings-case was that Nick Leeson was not an expert on derivatives and should never have been allowed to be in charge of the offshore office. This statement is ironic, because LTCM were advised by some of the brightest minds in the industry, including Nobel Prize winners, yet

²⁰⁹ See note 4, Boyle, p 11, 141.

²¹⁰ See note 199, Tschoegl, p 4- 6.

²¹¹ See note 22, Field, p 527-529. Samuelson, C.A. 'The fall of Barings: Lessons for legal oversight of derivatives transactions in the United States' (1996) *Cornell International Law Journal* p 767-806. Dozier, M.H. 'Barings' ghost: Item 305 in sec regulation S-K and "Market risk" disclosures of financial derivatives' (2000) *Georgia Law Review* p 1417-1481. Presti, V. 'Barings bar none: The financial service agreement of the Gats and its potential impact on derivatives trading' (1997) *Maryland Journal of International Law and Trade* p 160-164.

²¹² See note 156, Van Jaarsveld, p 71 and 90.

LTCM also went under.²¹³ The Barings collapse was so widely publicised that it even resulted in a Hollywood film, *Rogue Trader*, in 1999.²¹⁴

It is noted that Barings, and specifically Nick Leeson, were subjected to internal audits. However, the audit staff were junior and accepted Leeson's explanations without question. A proper audit would have picked up the notorious 88888 account and the losses and ultimate closure of the bank could have been avoided.

In the instance of Daiwa Bank, the Bank was established in 1872 and changed its name to Daiwa Bank after the US Occupation of Osaka during the Second World War. Iguchi Toshihide joined the New York branch of Daiwa in 1976. By 1979 he was promoted to Executive Vice-President and Head of Government Bond Trading in New York, where he only answered to himself. He was viewed as a dedicated and trustworthy employee, whose commitment led him to only take two or three days leave at a time. In 1982 Toshihide lost between US\$50 000 and US\$200 000. A loss of this size was of no significance to Daiwa, but being an embarrassment to Toshihide, he tried to hide it. He ended up spending the bulk of his career trying to conceal this loss, which resulted in even greater losses. In his attempt at concealment he started raiding customer accounts. He even started committing fraud in order to cover his losses. The internal controls and regular audits in the bank failed to disclose the problem, because the supporting documents were forged as well, giving the deals a legitimate appearance. On July 24, 1996 Toshihide confessed everything in a letter to the President of Daiwa Bank. The total loss amounted to US\$1,1billion and the bank paid a criminal fine of \$340million to the United States for market misconduct. The conclusion of this ordeal was the revocation of Daiwa's banking licence in the US.²¹⁵

An analysis of this case reveals that it is very similar to the Barings failure. The common denominator is that there was a star performer whose rogue

²¹³ See note 4, Boyle, p 11.

²¹⁴ See note 22, Field, p 465.

²¹⁵ See note 199, Tschoegl, p 6-8. See note 208, Gup, p 42.

trading went undetected by proper internal control procedures in the form of internal audits.

The Sumitomo Corporation was founded in the 16th century and was primarily a mining corporation. Hamanaka Yasuo (“the Hammer”) joined Sumitomo in 1970. He was later sent to London to learn the London Metal Exchange’s business. In 1984 he started entering into unauthorised speculative futures transactions to try and sustain the section’s profitability. In 1987 his trading activities and losses had climbed to such an extent that the London Metal Exchange issued a warning over his volume of trading. He continued to enter into fictitious trades to create an impression of success. In 1996 Sumitomo discovered that a statement from a foreign bank did not match the records in their own treasury department. Hamanaka was dismissed and the total losses amounted to US\$2,6bn. In addition to this loss Sumitomo had to pay fines to various exchanges amounting to almost US\$160m.²¹⁶

Again it is evident that there is a star performer in the Sumitomo case in the form of “the Hammer”, whose rogue trading activities could have been detected a lot earlier by means of an internal audit. This could have saved the Sumitomo Corporation a large amount of money as well as the incalculable damage to the reputation of the organisation.

The Irish Provincial Bank was established in 1825. It merged in 1966 with two other Irish Banks and Allied Irish Bank was formed. In 1983 they bought First Maryland Bank, whose name was changed to AllFirst Bank in 1999. This was a small regional bank. John Rusnak joined it in 1993 and he was one of two traders in the foreign exchange trading room. From 1997-1999 he lost about US\$104m. He lost \$691m in the five years before he was caught. He was able to hide his losses by using a trading practice called historic rate rollover, which enables a trader to defer recognition of his losses. This is not illegal but should be a signal that something suspicious is going on, especially when it continues to be utilised by a specific counterparty.

²¹⁶ See note 199, Tschoegl, p 8-10. See note 208, Gup, p 42. See note 22, Field, p 466.

Rusnak falsified foreign exchange (FX) option trades throughout 2001 in an effort to cover up huge losses on spot and forward dollar-yen trades. He entered into fraudulent contracts with banks in the Far East, because time zones made it difficult to authenticate the validity of these contracts. In 2002 management became concerned about the amount of funding he required and started investigating his trades.²¹⁷ Again it was a failure of controls that resulted in the losses.²¹⁸

During January 2004, it became public that National Australia Bank lost A\$180m in unauthorised foreign-exchange option trading.²¹⁹ Apart from the financial loss, this resulted in reputational damage, both to the company and its directors.

In conclusion a lack of internal controls was the cause of legal risk in all the abovementioned cases. Internal controls, which include an adequate internal and/or external audit function, operate like slices of a Swiss cheese. One can only hope that the holes do not line up and allow the risk to pass through.²²⁰

Field²²¹ has a different view on this and states that there are ten steps that, if applied, minimise the overall legal risk in trading in derivatives. These are firstly, to have a clear distribution of responsibilities and segregation of duties to prevent fraud. Secondly, to continually improve on and follow basic risk management standards. Thirdly, to ensure proper internal controls, supervisors, check trades against confirmations, adherence to trading limits; control cash flow, introduce anti-collusion controls, counterparty controls and check cash trades against paper gains. Fourthly, to have a holistic risk management approach, which includes legal risk management. Fifthly, to have an effective escalation process. Sixthly, to re-assess remuneration policies and in the seventh place to listen to the regulators. In the eight place

²¹⁷ See note 199, Tschoegl, p 18-20. See note 22, Field, p 466.

²¹⁸ See note 4, Boyle, p 153-154.

²¹⁹ Foley, K *Rogue forex trading hurts lender* (2004) *Business Day*, January 14 p 6.

²²⁰ Crouchy, M. *et al* 'Model Selection for Operational Risk' (2003) SAS p 145.

²²¹ See note 22, Field, p 466-467, 469-473.

to have insolvency protection in place. The ninth issue is to consider carefully outsourcing and lastly it is to understand the psychology of the traders. This is a very helpful list. However, it should not be seen as the be-all and end-all of internal controls in a merchant bank, or any other organisation.

One has to ask the question whether a lack of legal risk management is the cause of these disasters? In many of the cases, the dealers had a halo of stardom and were therefore given a lot of freedom in their investments. They were not subject to the normal controls and audit procedures that other dealers were. These disasters were thus not caused by poor legal risk management, but by a lack of check and balances in the trading rooms and back-offices. The likelihood is that there will be more of these events due to the increased complexity of the markets, pressure to maintain cost-efficiency, operations in small, remote, often offshore, locations, a lack of adherence to internal controls, collusion between traders and supervisors and a lack of ownership of the risk by management. The sad reality is that it boils down to human nature as there is a tendency not to learn from negative experiences. The only possible solution is to ensure that firms are adequately capitalised, in order to minimise systemic risk like LTCM.²²²



4.6.3.1.5 Financial innovation

Another cause of legal risk that Benjamin²²³ identifies is the nature of financial markets, which implies rapid evolution and financial innovation. This leads to a mismatch between settled law and practice, financial services that are offered in new market sectors and convergence of the different financial market sectors: banking, insurance, derivative and capital markets, into one.

²²² Born, B. 'International regulatory responses to derivatives crises: the role of the U.S. Commodity Futures Trading Commission' (2001) *Northwestern Journal of International Law and Business* p 607-640.

²²³ See note 191, Benjamin, p 1-34.

Legal risk in derivatives is closely linked with developments in electronic money, the internet and mobile payments.²²⁴ Alexander²²⁵ mentions that innovation, like e-commerce or information-technology based automation of banking operations, complex financial instruments and other innovative transactional techniques leads to additional legal risk, because they are inevitably surrounded by legal uncertainty. These innovations have not been tested in a court of law and they frequently develop so rapidly that there are no legal rules that govern them. Should a rule apply it may be unable to cope with the new demand.

4.6.3.1.6 Inherent uncertainty of the law

Benjamin²²⁶ identifies problems with the law itself as a cause of legal risk. This includes bad law, where the financial institution, in the normal course of its legitimate business, needs to comply with differing and inconsistent legal requirements and political concerns whereby the courts will favour the weaker party as a matter of policy. This manifests itself when there are differing interests and the financial institution is the stronger of the two parties involved. More problems arise through inaccessible law, where the law's application in concrete situations is unclear and unpredictable judicial reasoning, which is exacerbated by a lack of knowledge of financial markets by a presiding officer.

This is a problem in the banking industry at present in South Africa. There is a perception in the market that the South African Reserve Bank (SARB), the Financial Services Board (FSB) and, to a lesser degree, the Department of Trade and Industry are at odds over many issues that affect banks. Examples of these are the *Financial Advisory and Intermediary Services Act*²²⁷ and the *National Credit Bill*.²²⁸ The *National Credit Bill* is not relevant to the current

²²⁴ Cohen, S.S. 'Financial Services Regulation: A mid-decade review colloquium' (1995) *Fordham Law Review* p 2006-2013.

Bank for International Settlements *Survey of developments in electronic money and internet and mobile payments*. www.bis.org/publ/cpss62.pdf Accessed 2 August 2004.

²²⁵ See note 154, Alexander, p 80-82.

²²⁶ See note 191, Benjamin, p 1-34.

²²⁷ *Financial Advisory and Intermediary Services Act* 37 of 2002.

²²⁸ *National Credit Bill* B18B – 2005.

research because it applies to extending credit in South Africa below a certain threshold. The current author assumes that the value of derivatives contracts will be far above the threshold value, therefore the Bill will not be discussed.²²⁹ As far as the *Financial Advisory and Intermediary Services Act* is concerned, the FSB has seen this as an opportunity to gain more control over banks and take away some of the power of the SARB.

Benjamin²³⁰ mentions that many of the rules that apply to financial institutions are referred to as “soft” law, because it is not common law and has not been codified or tested. Soft law are industry codes, for instance in South Africa it would be the King Code on Corporate Governance and the Code of Banking Practice, practice notes issued by the South African Reserve Bank or the South African Receiver of Revenue, and guidance could be issued by the Banking Council. Banks are not obliged to adhere to soft law, although peer pressure normally does force them to follow soft law rules. “Hard” law consists of common law or industry practices that have been encapsulated in legislation or tested in a court of law.²³¹

Uncertainty in law is an external factor that might impact on even the most ethically run of organisations. The law is sometimes regarded as settled and knowable. However, the law is complex and some norms may be obscure. There might also be unpredictable judicial reasoning or unexpected changes to legislation that results in a situation where an organisation suddenly finds itself non-compliant with the law, or even worse, uncertain about its position in law. In such an instance, nobody will be able to predict how the judiciary or supervisors will resolve potential disputes.

Legislation cannot deal with all specific variations on a situation and seeks to set general rules and principles. It is therefore unwise to attempt to comply with the letter of the law, yet it is advisable to comply with its spirit. Many banks attempt to protect themselves against this variation on legal risk by

²²⁹ The impact of the Financial Advisory and Intermediary Services Act is discussed in chapter four.

²³⁰ See note 191, Benjamin, p 1-34.

²³¹ See note 153, Partnoy, p 227-235.

obtaining expert legal opinions. The benefit is that the bank has the assurance that at least one senior lawyer has applied his mind to the matter.²³² The problem is that the law is not always clear and lawyers may disagree on the matter. Even where the current state of the law is known with a great degree of certainty, there is always the risk that the law will change, as frequently happens with tax laws, exchange controls and international trade sanctions.²³³

Alexander²³⁴ mentions that uncertainties about the requirements and effects of the law itself and/or the inefficiency of the country's legal system may lead to losses due to legal risk. She differentiates between the inherent uncertainty of the law and inefficient legal systems. Her reasoning for the distinction is not clear and will thus be disregarded.

Alexander²³⁵ further mentions that the degree of expertise of the judges and regulators in a particular jurisdiction and their knowledge of various types of financial activities carried on by a bank will have a definite impact of the legal risk carried by the bank(s). In countries where administrative and judicial incompetence or corruption is prevalent, legal risk increases dramatically because there might be a political flavour to the law in question. The general willingness of the market participants to litigate will increase or decrease the legal risk to the counterparties. For instance, United States-based organisations are perceived to be more litigious than for example those market participants based in the United Kingdom.

It is apparent that the law pertaining to derivatives is not well established. A number of questions remain unanswered, for instance set-off and netting, and therefore derivatives law is a grey area with a number of uncertainties that still

²³² See 4.6.3.1.3.

²³³ See note 154, Alexander, p 80-82. Jackson, C.H. 'Have you hedged today? The inevitable advent of consumer derivatives' (1999) *Fordham Law Review* p 3226-3254. Krawiec, K.D. 'Derivatives, corporate hedging, and shareholder wealth: Modigliani-Miller forty years later' (1998) *University of Illinois Law Review* p 1039-1104.

²³⁴ See note 154, Alexander, p 76-77.

²³⁵ *Ibid*, p 82-85.

need to be cleared up.²³⁶ It may be concluded that it is not possible to find one specific cause of legal risk. Legal risk is seldom caused by a purely legal event, for instance a contract that is unenforceable. Legal risk is very often the result of another risk, for instance a lack of internal controls or financial innovation. There are a number of causes of legal risk, namely cross-border trading, contractual risk, the behaviour of financial institutions, non-adherence to basic internal controls as well as the inherent uncertainty of the law. This list is not exhaustive and there may be other causes of legal risk which were not identified here. It is therefore apparent that there are quite a few legal difficulties that may be encountered when trading in derivatives.²³⁷ Due to the inherent uncertainty of the law, specifically in derivatives, the parties mostly settle their disputes out of court. This does not help to create precedents and legal certainty.

4.6.3.2 Objectives of legal risk management in derivatives

Legal risk and legal risk management in derivatives agreements is different from other contracts, because derivatives and derivatives markets are highly complex. This complexity needs to be documented accurately to avoid legal risk materialising.²³⁸ Due to this complexity the objective of legal risk management in a merchant bank is to manage the legal risk to a level that is appropriate and acceptable to the specific bank's risk appetite. The cost of legal risk management and loss if legal risk materialises may therefore also be much higher than for other contracts. The cost of legal risk is divided into the direct and indirect costs.

Direct costs may be legal fees, damages and the loss resulting from the unenforceability or rescission of a contract. Indirect costs are made up of senior management time spent on deciding whether to instigate litigation; whether to settle; the resources to be devoted to the matter; the actual preparation for trial and giving testimony. The front and back office also spend

²³⁶ See 4.1.

²³⁷ See chapter one, 4 and 3.

²³⁸ See 3.

their time producing various internal reports, which could include daily mark-to-market and profit and loss reports. They also need to reconstruct, and thereby explain, the original pricing of the transactions in question. Litigation could cause reputational risk to the organisation, and it could also result in exposure of internal policy, which has an indirect cost implication.²³⁹

According to Jackson,²⁴⁰ derivatives have only existed in mainstream capital markets since 1981. Many conflicts were resolved or settled out of court to avoid the public exposure of being amongst the first to litigate on the issue. Therefore there are very few court decisions to help with the interpretation of these contracts. In many jurisdictions, the regulatory status of the product is uncertain. The core problem is that old laws are being applied to new products. The current author would argue that Jackson's view of legal risk is too limiting, because litigation is not necessarily instituted.²⁴¹

The IFCI Financial Risk Institute, which is a non-profit organisation established by various market participants, issued descriptions of the major risks that face regulators in the derivatives markets. These risks included credit, markets, settlement, liquidity, operational and legal risks.²⁴² The purpose of a merchant bank is to manage funds on behalf of customers. This is done in various ways, mostly by dealing in different types of financial instruments, which include derivatives. In many areas of law legal principles and rules have been developed and expounded over a long period of time. This cannot be said to be true of derivatives as a means of reducing legal risk. The legal framework of the derivative market was shaped by the market participants and not by legislators. The courts were not involved in shaping the derivatives legal landscape, and even when they were involved, it was disappointing.²⁴³

²³⁹ Jackson, C. 'Legal Risk Optimisation' (2002) *Risk Waters Group Risk Magazine September* p 116-118. Emert, J. 'Management of legal risk in derivatives – Development of policies and procedures' (1996) *Practising Law Institute* p 316-325.

²⁴⁰ See note 242, Jackson, p 116-118.

²⁴¹ See note 145.

²⁴² See note 154, Alexander, p 75-76.

²⁴³ See note 34, Firth, p v.

4.6.4 Legal risk management in derivatives transactions

The last factor identified in the problem statement that affects the nature and objectives of legal risk management in derivatives is the actual legal risk management process that the merchant bank follows. Legal risk²⁴⁴ is distinguished from legal risk management. Legal risk refers to the actual risk of loss due to legal incidents.²⁴⁵ Risk management refers to the process of identifying the risk and then making the decision to transfer, treat, tolerate or terminate the risk.²⁴⁶ It may therefore be deduced that legal risk management refers to the process of identifying the risk and then transferring, treating, tolerating or terminating the risk. The legal risk management process in derivatives contracts is therefore not that different from any other risk management process. The complexity of the contract provides a challenge to the legal risk manager, but this is not insurmountable.

In the current author's opinion a proper legal risk management programme is critical to good corporate governance in a derivatives trading environment in a merchant bank. A legal risk management programme should form part of an overall risk management strategy for a bank. This strategy includes a risk management policy, which in turn includes an operational risk management policy. The operational risk management policy should in turn include a legal risk management policy. The legal risk management policy should be supported by a legal risk management process. This process should entail a robust risk identification process, guided by the recognised causes of legal risk.²⁴⁷ Once the risks have been identified the bank should make the decision to terminate, tolerate, treat or transfer the risk. It is best practice to make these decisions at a bank risk committee level and to keep proper records of such decisions.

It is therefore apparent that legal risk is present in derivatives trading and the specific legal risks that are problematic include legal compliance, due to the

²⁴⁴ See 4.6 and 4.6.1.

²⁴⁵ See 4.6.1.

²⁴⁶ See 2.2.

²⁴⁷ See 3.1.

lack of adequate legislation and contractual risks.²⁴⁸ Although legal risk is a significant risk when trading in derivatives, it is not the only risk and might not be the biggest risk. Other risks like credit²⁴⁹ and market²⁵⁰ risk may be just as significant. One of the factors that adds to the severity of the impact of a legal risk materialising is the lack of legal certainty that surrounds the derivative market. To a large extent this is an area of law with many questions and uncertainties.²⁵¹

4.6.4.1 Technology

The use of technology is important for refined pricing and risk modelling, as well as for managing legal risk. In times of crisis it is important to know immediately which counterparties are involved and how the close-out provisions of the relevant documents operate. These documents could be reviewed manually, but given the volumes, it is too time-consuming. Institutions should have online automated access that immediately alerts them to any document that has an exception to their standard close-out policy, and they should then determine exactly how that exception operates. Also, a large exposure to a single counterparty should be closely monitored. Technology could be used to alert the credit and market risk managers if it goes above a certain level.

²⁴⁸ See 4 below.

²⁴⁹ See 4.5.

²⁵⁰ See 4.3.

²⁵¹ See chapter one, 4 and 4.6.3.1.6.

4.6.4.1.1 A mathematical legal risk model

Jackson suggests that a mathematical legal risk model should be developed and established in the banking industry to determine the cost of legal risk. She states that legal risk (LR) is a function (f) depending on several variables and suggests the following formula:

$LR = f(D, R, P, C, Lo, J, Ch, I, T, E, Cr, St, L, S)$, where,

D – Documentation

R – Regulation

P – Type of products

C – Type of counterparties

Lo – Location of counterparties

J – Judicial decisions

Ch – Choice of law or legal environment

I – Initial mark-to-market

T – Technology

E – Exposure to counterparties

Cr – One's own credit rating

St – One's own corporate structure

L – One's own lawyers

S – One's own staff



A legal risk model is a starting point in identifying a firm's optimum level of legal risk. The aim of quantifying legal risk is not to eliminate legal risk altogether, but instead to determine the optimum level of legal risk exposure. Commercial banks normally assign a credit risk rating to each counterparty, and the same could be done for legal risk. An institution would then be forced to decide when to take additional legal risk exposure, based on the products, counterparties and jurisdictions involved.²⁵²

²⁵² *Ibid.*

However, most of the factors set out above are impossible to quantify accurately. Even if a firm decides to quantify all these factors, it is a calculation that is open to inaccuracies and will therefore not give a true indication of legal risk, and one will not be able to compare the legal risk exposure of different firms. If one of these variables cannot be quantified, the formula becomes useless. Another criticism is that this is not a model to calculate legal risk, yet she assumes that legal risk and the cost of legal risk are synonymous. The formula is also not all-inclusive. It neglects to take the inherent uncertainty of the law into account. Lastly the formula can be criticized in the light of the events in LTCM.²⁵³ In LTCM the mathematical model was developed and applied by Nobel prize winners and LTCM failed.

What tends to happen with a mathematical formula such as this one, is that all organisations end up using it, even if there are inherent flaws. After a while the formula is not questioned any more and ends up simply being fed data, with the organisation acting blindly on the answers produced. There is always a need for human intuition and talent when dealing in complex instruments such as derivatives. A mathematical model does not have all the answers. The solution proposed is to make use of a mathematical model as one of the tools that enables quick but accurate decision-making. A combination of a mathematical model along with a proper legal risk management process and intelligent staff using these two tools as business enablers will result in the correct decision. This will in the long run be a competitive advantage that will result in increased profitability.

4.6.4.2 Legal risk mitigation

Although there is no legal risk model, this does not mean the industry has done nothing to mitigate legal risk. On the contrary, standardised documents were obtained, credit support agreements came into existence, and legal opinions for various aspects such as netting²⁵⁴ and collateral²⁵⁵ were

²⁵³ LTCM is not a reported case.

²⁵⁴ See 4.5.6.2.

²⁵⁵ See 4.5.7.2.

developed. Legislation was developed in the United States to deal with fraud, regulatory reforms and close-out netting. But the focus was qualitative and not quantitative. Qualitative risk management refers to the words used in the risk management process. 'Qualitative' includes risk management theory, the policy and processes followed by the bank and the general risk management culture²⁵⁶ that exists in a bank. In the context of legal risk, this is the policy and process that is followed by the bank. Quantitative risk management refers to the numbers and mathematics, which include actual losses and prediction of losses. In the context of legal risk it would for instance be litigation costs.

The Group of Thirty (G30) Report that was published in July 1993 introduced the concept of "independent risk oversight". They recommended that independent market and credit risk management functions be established and that they should have clear authority, independent from the dealing and trading function.²⁵⁷ It could be argued that these should be extended to include a legal risk management function.

4.6.4.3 The legal risks associated with collateral

Many of the risks that apply to derivatives in general also apply to collateral,²⁵⁸ for instance jurisdiction and conflicts of law, attachment requirements, perfection requirements and rehypothecation, the capacity to provide collateral, covenants (negative pledge, permitted indebtedness, permitted loans or guarantees and permitted derivatives) and lastly the risk that the collateral is not enforceable depends on the enforceability of the underlying obligation.²⁵⁹ Certain procedural steps may not have been taken, for example the bank may have failed to comply with registration requirements, which has the effect of not having perfected the security. In the event of insolvency this might result in the bank losing its priority. Different jurisdictions may also understand and apply the different types of security differently.

²⁵⁶ The culture could be risk averse or alternatively prone to taking huge risks.

²⁵⁷ See note 22, Field, p 23, 138.

²⁵⁸ See 4.5.7.2.

²⁵⁹ See note 145.

4.6.4.4 Impact of legal risk on credit derivatives

The legal risks that pertain specifically to credit derivatives²⁶⁰ are that credit derivatives could be construed as insurance. There is a specific regulatory framework that applies to credit derivatives. The legal risk in credit derivatives is very pertinent in South Africa and England, because there is uncertainty as to whether it falls within the law of guarantees or insurance. The use of credit derivatives in mitigating risk, may result in unforeseen other risks materialising. For example, where a bank buys protection against a specific loan it could constitute a breach of confidentiality. It could be a form of insider trading because the trader bought the derivative, knowing full well that the asset will decline due to some, as yet, undisclosed event.²⁶¹

4.6.4.5 Gaming or wagering and gambling

When a derivative contract is dissected into its component parts, it might be construed as a gaming, wagering or gambling²⁶² contract because it is open to abuse by speculators who want the benefit of a windfall gain. In certain jurisdictions derivatives might be regarded as wagering contracts, for example in the United Kingdom in terms of the British Gaming Act, 1845. Laws like this one are intended to protect individuals and to control speculators.

Whether the transaction is legal or illegal depends on the intention of the parties. If they intend it to be a commercial sale or a borrowing contract it is legal. If it is a contract for differences, where at least one party had a legitimate commercial interest to protect, then it would also be regarded as legal. In other words, hedging is legal. However, if the only intention of the derivative transaction is speculation, then the contract is illegal in the United Kingdom. If a contract is illegal it is null and void and cannot be enforced. The

²⁶⁰ See 4.5.7.1.

²⁶¹ See note 112, Wood, p 12.

²⁶² There is a difference between the concepts gaming, wagering and gambling. The details thereof are not relevant here and will not be discussed. The terms are used as synonyms in this study.

problem with this is that a derivative contract is an instrument with an extremely high value, often running into millions of rands. If the contract is suddenly considered to be unenforceable, the counterparty in the other jurisdiction will suffer a significant loss.

Many countries have introduced exceptions to the gambling laws to remove the threat of nullity or unenforceability in the cases where there is either a satisfactory alternate system of protection, or the contracts are entered into by sophisticated institutions that do not need the protection of gaming legislation. These countries include the United Kingdom,²⁶³ Belgium,²⁶⁴ France,²⁶⁵ Germany,²⁶⁶ the Netherlands²⁶⁷ and South Africa.²⁶⁸ In some jurisdictions, for instance in Illinois State in 1982, cash-settled derivatives were classified as gambling by the courts.²⁶⁹ The courts found that physical delivery is necessary for the contract not to be considered null and void. Physical delivery would in many instances be impractical or even impossible. How would one for instance physically delivery in the case of a weather derivative? Initially it was thought that a derivative on temperature changes could not be allowed, because it is a pure gamble whereas the contract must represent an economically viable commodity. Until the mid-1990s derivatives against unknown future events like the weather were considered gambling, yet a decade later weather derivatives have developed into recognised instruments.²⁷⁰ The question that is raised is whether these contracts are indeed enforceable or whether the merchant banks simply cannot afford to challenge them in court? The current author is of the opinion that the merchant banks would not want to challenge these contracts, because they are lucrative and if these contracts are suddenly unenforceable, a large revenue stream is cut off. If it was not for the work of trade organisations like the Commodity Futures and Trading Commission, these contracts would still

²⁶³ In 2000.

²⁶⁴ In 1934 and 1939.

²⁶⁵ In 1885, 1985 and 1993.

²⁶⁶ In 1986 and 1989.

²⁶⁷ In 1986.

²⁶⁸ See note 100, Wood, p 225. See note 112, Wood, p 45-46.

²⁶⁹ Boyle does not make reference to specific case law, and the current author could not obtain specific references.

²⁷⁰ See note 4, Boyle, p 8-9.

not have been sanctioned.²⁷¹ The challenge for the local legislators is not to outlaw all derivatives in an attempt to protect investors. The legislator has to find a way of distinguishing legitimate investments from illegitimate wagers.

A wager may well be enforceable if a legitimate interest in the subject matter of the wager exists. This is then also the reason for the enforceability of insurance and hedging contracts. Both insurance and hedging contracts are entered into to protect against a pre-existing risk and not against a risk that was created by the parties themselves. For example, betting on the outcome of a horse race would be an example where the parties created the risk, but if the breeder insured or hedged against poor performance or illness of his horses, he would be protecting himself against a pre-existing risk.²⁷² In South African law the difference between insurance and wagering, is that insurance is aimed at indemnifying the party against an uncertain event and the risk of loss. It is a form of protection and gives rise to a civil obligation. On the other hand, wagering is not aimed at indemnification. Payment of a wager will be undertaken on the occurrence of an uncertain event regardless of any loss caused by the event.²⁷³ It also based on an uncertain event, but there is not a risk of loss. The motive for the agreement is profit and it is a natural obligation. In the South African common law a gambling or wager contract does not attract any legal obligations for any of the parties involved.²⁷⁴ The wagering contract is unenforceable.²⁷⁵ The parties who perform in terms of an illegal contract are affected by the *par delictum* rule, which means that the party who performs in terms of an illegal contract is precluded from taking action to refund his loss.

The Gambling Act 51 of 1965, Gambling and Betting Act 13 of 1994 and National Gambling Act 33 of 1996 are taken into account along with the common law to establish whether the transaction is in fact wagering. In *S v*

²⁷¹ *Ibid*, p 17.

²⁷² In South Africa, gambling is governed by both the common law and legislation.

²⁷³ Reynecke, M.F.B. and Van der Merwe, S. et al *General Principles of Insurance Law* Butterworths 2002 p 28.

²⁷⁴ *Ex turpi vel iniusta causa non oritur actio.*

²⁷⁵ See note 273, Reynecke p 60-61.

*Goncalves*²⁷⁶ the court ruled that if subordinate legislation²⁷⁷ banned the use of certain instruments, but was too widely worded, it would be *ultra vires*.²⁷⁸ In *Van Staden v Prinsloo*²⁷⁹ the court ruled that regard must always be given to the public policy when contracts are entered into. The contract may be legal but is unenforceable due to public policy.²⁸⁰ If a debt arises out of a legal betting transaction, it may be set off against an ordinary debt.²⁸¹

According to Wood²⁸² there is a very fine line between gambling and a legitimate transaction. It often boils down to the specific facts. Where the parties agree not to deliver physically or pay in terms of a contract, but only to settle the difference, it constitutes a wager. If it can be proven that the parties were hedging, it cannot be construed as gambling, but if they were speculating, it might be considered gambling and the transaction will be null and void.

In the current author's opinion, in South African law gambling is not illegal, but does give rise to an unenforceable obligation in terms of the common law. It may therefore be concluded that gambling legislation does not affect derivatives.



4.6.4.6 Derivatives contracts and insurance

Some derivatives contracts are similar to insurance, because one party pays a premium in return for the agreement that the other party pays on the occasion of a future event, which may or may not occur. The United Kingdom and the United States generally do not consider derivatives contracts to be insurance contracts.²⁸³ Because derivatives are not universally accepted yet,

²⁷⁶ *S v Goncalves* 1975 (2) SA 51 (T).

²⁷⁷ *Contravention of Gambling Act 51 of 1965. Sema and Another v Minister of Safety and Security and Others* 1995(2) SA 401 (O).

²⁷⁸ *Gibson v van der Walt* 1952(1) SA 262 (AD).

²⁷⁹ *Van Staden v Prinsloo* 1951 (3) SA 637 (T).

²⁸⁰ A subsequent promise to perform will also be unenforceable on the same ground.

²⁸¹ *Nichol v Burger* 1990 (1) SA 231 (C). *American Palace v Minister of Safety and Security and Others* 2000(4) SA 88 (B).

²⁸² See note 112, Wood, p 45-46.

²⁸³ See note 100, Wood, p 225-6. See note 112, Wood, p 46.

it might be construed as insurance in some jurisdictions. This is problematic because the two jurisdictions may treat the same transaction according to completely different rules. This will lead to unintended legal consequences for the parties. The party in jurisdiction A, where derivatives are recognised, might be liable for an insurance claim and payout in jurisdiction B, where derivatives are not recognised.

4.6.5 Conclusion on legal risk and management

The problem statement requires investigation whether legal risk is present in derivatives and if so, whether legal risk has a significant impact or is simply another risk factor.²⁸⁴ This led to the question whether there are specific legal risks that are associated with derivatives.

It is apparent that legal risk is present in derivatives trading and the specific legal risks that are problematic are those of legal compliance and contractual risks.²⁸⁵ Although legal risk is significant when one is trading in derivatives, it is not the only risk and might not be the biggest risk. Other risks like credit²⁸⁶ and market risk²⁸⁷ may be just as significant. One of the factors that add to the severity of the impact of a legal risk materialising is the lack of legal certainty that surrounds the derivative market. To a large extent this is an area of law with many questions and uncertainties. It has therefore been established that legal risk is one of the risk factors that need to be taken into account when trading in derivatives.

Legal risk²⁸⁸ is distinguished from legal risk management. Legal risk refers to the actual risk of loss due to legal incidents.²⁸⁹ Legal risk management refers to the process of identifying the risk and then transferring, treating, tolerating or terminating the legal risk.

²⁸⁴ See chapter one, 4.

²⁸⁵ See chapter four.

²⁸⁶ See 4.5.

²⁸⁷ See 4.3.

²⁸⁸ See 4.6.1 and 4.6.2.

²⁸⁹ See 4.6.1.

Therefore the last factor the current author identifies that affects the nature and objectives of legal risk management in derivatives is the actual legal risk management process that the merchant bank follows. The legal risk management process in derivatives contracts is not that different from any other risk management process. The complexity of the contract poses a challenge to the legal risk manager, but this is not insurmountable.

A proper legal risk management programme is critical to good corporate governance in a derivatives trading environment in a merchant bank. A legal risk management programme should form part of an overall risk management strategy for a bank. This strategy includes a risk management policy, which in turn either includes an operational risk management policy or provides for the creation of an operational risk management policy. The operational risk management policy should in turn either include, or make provision for, a legal risk management policy.²⁹⁰ The legal risk management policy should be supported by a legal risk management process. This process entails a robust risk identification process, which is guided by the recognised causes of legal risk.²⁹¹ Once the risks have been identified the bank should make the decision to terminate, tolerate, treat or transfer the risk. It is best practice to make these decisions at a bank risk committee level and to keep proper records of such decisions.

5 Derivatives risk management

As described in the problem statement to this study,²⁹² the question of the relevance of risk management in trading derivatives needs to be discussed. According to Basel²⁹³ managing the risk in derivatives is no different to managing the risk in any other part of a bank. Derivatives have been described as weapons of mass destruction²⁹⁴ due to the inherently high risk that attaches to the instruments. It is imperative that a sound risk

²⁹⁰ See 4.1.

²⁹¹ See 4.6.2 and 4.6.3.

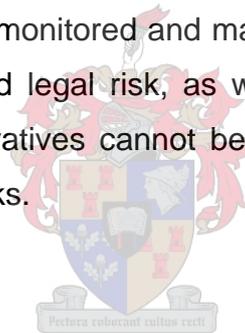
²⁹² See chapter one, 4.

²⁹³ Basel Committee on Banking Supervision *Risk Management Guideline for Derivatives* (1994) Bank for International Settlements 1-17, www.bis.org Accessed 14 October 2004.

²⁹⁴ See chapter one, 1.

management process be implemented and adhered to in a derivatives trading environment.

A sound risk management process that is entrenched in the culture of the bank will protect the bank against adverse exposures. This entails breaking down the risk into its component parts through a properly documented risk management policy. This policy should be set at the board level and should be implemented by all senior managers. Taking this policy down to a derivatives trading desk should not be too difficult. The policy will need to be supported by means of a proper risk reporting process at the dealer level. The management team of the derivatives desk should ensure that they adequately understand the risks and exposures of the desk. This will avoid adverse outcomes like those encountered by Barings and National Australia Bank.²⁹⁵ Although derivatives are highly sophisticated contracts, they are simply contracts and if the risks are monitored and managed by experts in the areas of market risk, credit risk and legal risk, as well as by senior management there is no reason why derivatives cannot be used successfully as low-risk instruments by merchant banks.



6 Conclusion

The problem statement requires that the questions about risk and risk management, their nature and objectives and their classification be investigated. The questions also refer to credit risk, set-off, netting and legal risk and legal risk management specifically. Thereafter it also questions the classification, nature and objectives of legal risk, as well as the relationship between risk management and derivatives.²⁹⁶

It has now been established that risk is indeed present in derivatives trading due to the nature of derivatives, and that legal risk is a relevant risk factor. Although legal risk is one risk amongst a number of risks that manifest in derivatives, it is a significant risk because the research, literature, experience

²⁹⁵ See 4.6.3.1.4.

²⁹⁶ See chapter one, 4.

and scientific knowledge in this regard are all in their infancy. It has also been established that although legal risk may be caused by various events, it has two sub-categories. These sub-categories, as they apply to a merchant bank derivatives trading environment are documentation or contractual risk on the one hand and regulatory risk on the other hand. The events that may cause legal risk are jurisdiction, inadequate documentation, the behaviour of financial institutions, a lack of internal controls, financial innovation and the inherent uncertainty of the law. These may lead to litigation and to subsequent financial losses. The current author considers a legal dispute between counterparties that does not necessarily end up in court as the materialisation of legal risk.

Despite the risks of trading in derivatives, a number of reasons exist why derivatives trading is beneficial. It provides significant financial benefit to market participants if used prudently. It can improve a counterparty's creditworthiness, because he has hedged his risks. It can lower the cost of borrowing and manage existing assets and liabilities.²⁹⁷

Risk management has become a separate concept and is applicable to a derivatives trading environment. Legal risk cannot be isolated and managed separately. It has to be identified and managed in conjunction with the other risks that are present in derivatives, namely credit, market, operational, operations and systemic risk.

According to the King Report²⁹⁸ the functions of risk management processes are to assign responsibility and accountability for risk management, to collect, analyse and report to management quantitative and qualitative information on risks taken by business, to develop and enforce risk standards, policies, methodologies, limits and controls, and to identify and help resolve problems associated with risks taken by the business.²⁹⁹ The King Report stresses the

²⁹⁷ See note 6, Johnson, p 23.

²⁹⁸ See note 22, *ibid.*

²⁹⁹ *Ibid*, p 3.

importance of managing the risks, and not only the products associated with hedging and mitigating the risks.³⁰⁰

Legal risk is a form of operational risk. A legal risk management policy and process must be developed and implemented in a merchant bank in order to manage the legal risk exposure of the bank. The policy specifies the risk appetite of the merchant bank and describes the risk governance structures that have been established or are in the process of being established. The policy also includes the basic legal risk management process followed by the bank. This includes the manner in which the bank decides whether to tolerate, transfer, treat or terminate the legal risk. The legal risk management policy is then applied to the derivatives trading environment by adopting and adapting the process to make it suitable for a derivatives trading environment.

Regular risk reports, which reports are submitted to the risk or audit committees or the board of directors, are recommended. These reports should contain information on the effectiveness of the legal risk management programme. The board of directors should regularly review the efficiency and effectiveness of the risk management programme. Through an effective legal risk management process, legal risk is not eliminated, but is managed to a level that is acceptable to the specific merchant bank.

³⁰⁰ *Ibid*, p 7.

Annexure A

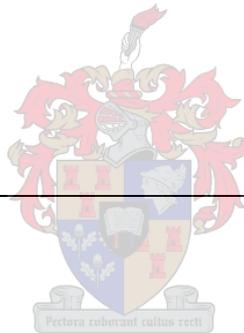
Table of derivative losses

Year	Entity/Entities	Amount lost
1989	Hazell v Hammersmith & Fulham	£750m
1989	Development Finance Corporation	NZ\$4b
1990	British and Commonwealth Merchant Bank	Unknown
1990	Drexel v Midland Bank	Unknown
1991	Bank of New England	US\$185m (Positive)
1991	Bank of Credit and Commerce International	Unknown
1993	Metallgesellschaft	Unknown
1994	Bankers Trust (Procter & Gamble and Gibson Greeting Cards)	\$200m plus \$10m fine
1994	Orange County	\$1,6b
1995	Barings Brothers	£800m (\$1,300m)
1996	Daiwa Bank	US\$1,1b
1996	Sumitomo Corporation	US\$160m
1997	Long Term Capital Market	US\$3,6b
2000	Peregrine v Robinson	\$87,5m
2000	California Power Failure	Unknown
2002	Allied Irish Bank	\$691m
2003	Italian Municipalities	Unknown
2003	Mahonia Ltd v JP Morgan Chase Bank	\$135m
2004	National Australia Bank	Unknown

CHAPTER 4

An overview of legislation and regulations pertaining to legal and contractual risks

1. *Introduction*
2. *Legislation*
 - 2.1 *Foreign jurisdictions*
 - 2.2 *South Africa*
3. *Contracts and documentation issues*
 - 3.1 *Ad hoc contracts*
 - 3.2 *Master agreements*
 - 3.3 *ISDA*
 - 3.4 *Other jurisdictions*
 - 3.5 *South Africa*
4. *Practical implementation*
5. *Conclusion*



1. Introduction

The previous two chapters dealt with an overview of derivatives, risks, specifically legal risks, and the relationship between these. The questions of what derivatives are, what risk and the various risk disciplines are and how these relate to derivatives have now been addressed. The current chapter deals with derivatives in various jurisdictions, with specific reference to the applicability to them of South African law. This chapter also answers the questions in the problem statement¹ that deal with the legislation that govern derivatives locally and in foreign jurisdictions as well as the questions concerning the contractual and documentation issues in derivatives. The practical implementation issues are also discussed. This chapter further contains a brief comparative analysis of the approach adopted in other countries in order to establish whether a similar approach can and should be

¹ See chapter one, 4.

followed in South Africa, or whether the South African approach is already advanced enough so that it is not necessary to adopt the approaches of the foreign jurisdictions.

2. Legislation

Derivatives are not highly regulated instruments, especially OTC derivatives. However, there are certain pieces of legislation that are applicable to derivatives. These are discussed in the sections that follow. The analysis will commence with the legislation that is applicable to derivatives in foreign jurisdictions and thereafter focus on that which applies to the South African derivatives trading environment.

For purposes of this study, which is limited to the legal risk of derivatives in a merchant bank, the focus will be on banking legislation. Banking legislation is categorised into two components, namely legislation that governs the activities of a bank and legislation that creates and directs the activities of bank supervisors.²

“Hard law” refers to statutes, regulations and precedents that are generally accepted. “Soft law”, by contrast, is not binding and enforceable, but the market participants strongly encourage each other to follow it, for instance Practice Notes used by trade associations like the ISDA.³

It has been suggested that a separate forum be created for dispute resolution in derivatives and that this be housed by the ISDA. According to the Financial Markets Law Panel the problem with creating alternative dispute resolution forums is that it creates a shadow world of law that is never tested and thus does not become precedent. It is also important that judges start to come to grips with the new market trends.⁴

² See note 156, Van Jaarsveld, p 72.

³ See chapter four, 3.3.

⁴ See note 145, *ibid.*

Regulatory restrictions and classifications are a crucial legal risk factor for derivatives. For example until the enactment of the Commodity Futures Modernisation Act of 2000, United States counterparties faced the possibility that their in-the-money contracts would be voided by their counterparty if the transactions were found to be illegal off-exchange futures contracts. In the early stages of the derivatives markets, derivatives were regulated by accident, if at all.

In many jurisdictions the existing general law and statutes had an adverse effect on derivatives, although it was unintentional because these legal requirements were developed and put in place before the existence of derivatives transactions.⁵ Gaming and wagering⁶ legislation for example created uncertainty as to the validity of swap contracts and this forced the counterparties to transact their business in other jurisdictions where these limitations did not exist. Therefore it is of the utmost importance that the counterparties select an appropriate governing law and jurisdiction for their transactions⁷. In some jurisdictions minor adjustments to the legal rules would remove the legal uncertainty. For instance, prior to 1994 the Canadian Interest Act required that a contract disclose the interest rate on a 365 or 366 day basis, otherwise an interest rate of 5% applied.⁸ This rule was easily removed.

Since the 1980s it was possible to distinguish two broad streams of regulatory development. The first was lobbying by the swap market participants to assist the development of the derivatives markets by removing areas of legal doubt or by introducing new concepts and legal regimes to apply specifically to the derivatives transactions. The second stream of development consisted of the efforts made by the regulators to come to grips with the derivatives market in its various forms, and to draft regulations to address areas of concern. The conflict between these two streams is inevitable because regulators want to

⁵ See note 156, Van Jaarsveld, p 72.

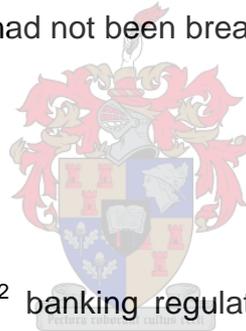
⁶ See 4.5.3.

⁷ See note 156, Van Jaarsveld, p 72.

⁸ See note 35, Das, p 1354.

control and limit the market, while the market participants want to trade freely and innovate without restrictions.⁹

In the case of *Mahonia Ltd v JP Morgan Chase Bank*¹⁰ in 2003, JP Morgan Chase was charged with aiding and abetting Enron's securities fraud by assisting them in manipulating their financial results through a series of complex structured financial transactions, in the form of a set of forward contracts. These transactions were used to report loans from JP Morgan to Enron as cash from operating activities. The structural complexity of these transactions had no legitimate business purpose. They were solely intended to mask the loans from JP Morgan. The special purpose vehicle used by Enron was called Mahonia, which was sponsored by JP Morgan. The latter had to pay \$135m in penalties to the Securities and Exchange Commission. When the case was heard on merits the court found that Generally Accepted Accounting Practice (GAAP) had not been breached – or at least that this was not proven.¹¹



2.1 Types of regulations

According to Van Jaarsveld¹² banking regulation can be divided into three main areas, namely prudential regulation, investor protection and structural regulation. Prudential regulation dictates the internal management practices of a bank and deals with corporate governance, for example capital adequacy, liquidity, solvency and risk management processes. Investor protection deals with the prevention and detection of fraudulent activities and unsound investments. Structural regulation limits the type of activities in which a bank may engage. It is used to determine whether a financial institution is indeed a bank.

⁹ Ibid, p 1354-1355.

¹⁰ www.sec.gov/litigation/litreleases/lr18252.htm accessed 2 August 2004. Securities and Exchange Commission v. J.P. Morgan Chase & Co., [2003] 2 Lloyds Rep 911 QB; 2004 EWHC 1938 (QB Comm Ct); Case No. H-03-28-77 (MH) (S.D. Tx.).

¹¹ Hugo, CF *Internal Examiner Comments* February 2006.

¹² Van Jaarsveld, I.L. 'Domestic and International Banking Regulation and Supervision – Defying the challenges' (Vol 119 Part 1) *South African Law Journal* p 72-73.

According to Wood¹³ derivatives legislation contains the rules that determine which entities are authorised to deal in these instruments, in order to monitor solvency, competence and honesty, and also to monitor which investors are allowed to buy these products. This aims to protect the unsophisticated retail public. The legislation sets out the rules for fair conduct. These are rules against market-rigging, false markets, misleading statements, negligent advice and inadequate documentation. Derivatives legislation also prescribes the level of solvency of traders, in other words the level of capital that authorised institutions must maintain to protect the state and investors against systemic risk. It may also try to control speculation. The main risk in speculation is that counterparties will become insolvent and not perform, which may in turn affect the solvency of the non-defaulting party. Derivatives are based on the securities and commodities markets, and these are prone to sudden and volatile price movements. Therefore the value of a derivatives contract may change very quickly.

2.2 Self-regulation versus external regulation

Swap market participants are keen on the idea of self-regulation. Regulators are increasingly concerned about aspects of the swap market and are developing and implementing controls.¹⁴ The theory behind encouraging self-regulation is that the market participants will know what the market needs, and owing to peer pressure and by consensus they will actually regulate themselves. The banking regulators are concerned about the credit risks to the banks and the systemic risk to the international financial system if banks and their subsidiaries hold large derivatives portfolios. There is also a perceived lack of understanding among senior bank management of the nature of the products traded and the risks involved in trading in them.

¹³ See note 100, Wood, p 222-223. See note 112, Wood, p 43-44.

¹⁴ See note 35, Das, p 1355. Anderson, R.L. 'The treasury department's role in regulating the derivatives marketplace' (1997) *Fordham Law Review* p 775-778. Sorkin, I.R. 'Reacting to a regulatory investigation into derivatives market activity' (1997) *Fordham Law Review* p 755-759.

Securities regulators are concerned about the spread of derivatives products into the retail industry, where investor protection issues become significant. Commodities regulators are concerned about the movement of business from the controlled exchanges to the OTC market. The current author is of the view that one of the dangers of government regulations is that the regulators are battling to keep up with the rapid developments in the market, because new products are constantly developed, while old products are refined and transformed. The greatest risk the markets therefore face is that the regulators will attempt to regulate the market to such an extent that innovation will be stifled, whereas constant innovation has been the most notable characteristic of these markets.

One specific problem faced by regulators is the international nature of these markets. Any regulation that is contemplated needs to be in line with international practice and legislation in other jurisdictions. If a restrictive law is introduced in a specific jurisdiction, the business will simply be transferred to another less restrictive jurisdiction. The efforts of the Basel Committee on Banking Supervision regarding capital adequacy is an example of the importance of a concerted international effort. The Federal Reserve in the United States and the Bank of England were instrumental in introducing a risk-based capital adequacy approach, but soon realised that imposing new rules in their own jurisdictions would put them at a distinct competitive disadvantage and it would result in banking business moving to banks in less restrictive jurisdictions. The Basel Committee in Switzerland coordinated the adoption of the Basel Accord by banking regulators in all the major economies.¹⁵

2.3 Foreign jurisdictions

This section provides a comparative overview of the treatment of derivatives and derivatives legislation in Australia, the European Union, the United

¹⁵ See note 35, Das, p 1355-1356. Cuccia, C. 'Informational Asymmetry and OTC Transactions: Understanding the need to regulated derivatives' (1997) *Delaware Journal of Corporate Law* p 197-219.

Kingdom, the United States of America and internationally. One of the questions that is asked is whether there is legislation that governs derivatives trading¹⁶

2.3.1 Australia

In Australia, derivatives are regulated by the Corporations Law. The Corporations Law was reviewed in the early 1990's. Prior to the review all futures contracts were traded on the exchanges, while OTC derivatives were basically not allowed. The definition of futures contracts was extremely broad and covered many of the OTC derivatives. The definition specifically excluded plain vanilla contracts, i.e. interest rate and currency swaps, forward interest rate agreements and forward exchange agreements. Other contracts that were included are commodity and equity derivatives. Parties were allowed to apply to the Australian Securities Commission for exemptions.¹⁷ Since the review of the Corporations Law in the early 1990's, the situation in Australia is now that OTC derivatives are allowed.



2.3.2 European Union

Banking and investment services directives provide for a free trade area in the European Union (EU) for plain vanilla derivatives, where the business is regulated by a home supervisor in an EU member state.¹⁸ The result is that any merchant bank within the EU may trade OTC and exchange-traded derivatives without fear of illegality or unenforceability.

2.3.3 United Kingdom

Until 1998 the Bank of England was the sole regulator of banks in the UK. The regulation of deposit-taking institutions was transferred to the Financial

¹⁶ See chapter one, 4.

¹⁷ Das, S. ed *Swap and Derivative Financing* Revised edition (1994) Wiley Finance p 1356-1357.

¹⁸ Wood, P.R. 'Derivatives' (2004) *Unpublished article* p 45.

Services Authority in 1998 in terms of the *Bank of England Act 1998*.¹⁹ Derivatives were previously either regulated by the Bank of England's London Code of Conduct or the *Financial Services Act 1986*.²⁰ The *Financial Services and Markets Act 2000* now governs all financial services in the United Kingdom.²¹ In the United Kingdom, traders in derivatives are required to be licensed and they are subjected to financial and conduct-of-business rules. These rules are not strictly applied when dealing with sophisticated institutions. A trader needs authorisation from the Financial Services Authority (FSA) before he will be allowed to deal. The FSA also takes the lead in regulation of derivatives. The exchanges are also regulated.²²

Insolvency does not necessarily lead to the termination or repudiation of the contracts that the company has entered into. It may inevitably lead to termination, but the other party must first demand payment.²³ In English Law²⁴ the administrator of an insolvent estate will be allowed to "cherry-pick" the transactions that he wishes to honour. It may not be clear which transactions will be profitable and which not when the administrator elects to disclaim certain contracts. Market movements may turn an unprofitable contract into a profitable one, and vice versa.²⁵ It is thus a gamble even if the administrator is allowed to cherry-pick.²⁶ The whole purpose of the statutory netting provision in the UK is to avoid cherry-picking, although it is allowed under their insolvency legislation.²⁷

In the instance of the British and Commonwealth Merchant Bank in 1990, the bank held a derivatives portfolio of over two hundred transactions with more than fifty counterparties when an administrator was appointed in June 1990. These counterparties included other financial institutions, local authorities and

¹⁹ Van Jaarsveld, I.L. 'Domestic and International Banking Regulation and Supervision – Defying the challenges' (Vol 119 Part 1) *South African Law Journal* p 90.

²⁰ Wood P.R. *Title Finance, Derivatives, Securitisations, Set-off and Netting* (1995) Sweet and Maxwell Limited p 223.

²¹ See note 5, Van Jaarsveld, p 90.

²² See note 4, Wood, p 44-45.

²³ Firth, S. *Derivatives Law and Practice* (2002) Sweet & Maxwell p 5-2 to 5-3.

²⁴ Section 178 of the *Insolvency Act 1986*.

²⁵ See note 9, Firth, p 5-3 to 5-4.

²⁶ See 2.2.

²⁷ See note 9, Firth, p 5-12/1.

corporates. Most of the contracts contained limited two-way termination provisions. The administrator ceased payment on all ISDA-documented derivatives on the basis that the automatic termination provision in the 1987 master agreement was effective. By mid-June 1990 most of the portfolio had been transferred to Barclays PLC under documentation with the individual counterparties, which provided for reinstatement of the terminated ISDAs.²⁸

2.3.4 United States of America

In May 2003 the Federal Reserve Chairman, Alan Greenspan, said that the success of the OTC market could not have been achieved if it had not been for the counterparties' freedom from regulatory constraints.²⁹ However, two bodies regulate derivatives trading in the United States. These are the Securities and Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC).³⁰ The Federal Reserve Bank has some authority as well, but derivatives are mainly regulated by the SEC and CFTC. The SEC operates in terms of the *Securities Act of 1933*.³¹ This definition of securities includes stocks, bonds, debentures and any call, put, straddle, option or privilege on any security, deposit or group of index securities. This Act prohibits the trading of futures contracts and certain options outside certain designated exchanges, regulated by the CFTC. There are certain exceptions,

²⁸ See note 3, Das, p 1350. Gup, B.E. *Bank Failures in the Major Trading Countries of the World* (1998) Quorum Books p 49.

²⁹ Leon, R. 'The regulation of derivatives and the effect of the Futures Trading Practices Act of 1992' (1994) *Journal of Law and Policy* p 321-345. Field, P. *Modern Risk Management: A History* (2003) Risk Books p xxxiv. Schmedlen, D.G. Jr. 'Broker-dealer sales practice in derivatives transactions: a survey and evaluation of suitability requirements' (1995) *Washington and Lee Law Review* p 1455-1470. Puleo, F.C. 'Derivatives: A banker's primer' (1996) *The Banking Law Journal* p 768-783. McGinity, S. 'Symposium on Derivative Financial Products' (1996) *Chicago-Kent Law Review* p 1197-1245. Kojima, J.C. 'Product-based solutions to financial innovation: The promise and danger of applying the Federal Securities Laws to OTC derivatives' (1995) *American Business Law Journal* p 260-339. Born, B. 'International regulatory responses to derivatives crises: the role of the U.S. Commodity Futures Trading Commission' (2001) *Northwestern Journal of International Law and Business* p 607-640. Tormey, T.A. 'A derivatives dilemma: The treasury amendment controversy and the regulatory status of foreign currency options' (1997) *Fordham Law Review* p 2323-2332.

³⁰ *Securities Act, 1933. Securities and Exchanges Act, 1934. Investment Company Act, 1940.*

³¹ Madison, A.D. 'Derivatives regulation in the context of the Shingle theory' (1999) *Columbia Business Law Review* p 274-278. Maready, W.K. Jr. 'Regulating for disaster: Federal attempts to control the derivatives market' (1996) *Wake Forest Law Review* p 885-922.

for instance for certain sophisticated investors.³² The CFTC³³ was established by the *Commodity Exchange Act* of 1982³⁴ and regulates the trading of futures contracts and commodity options.

Despite the apparently clear distinction between the SEC's and CFTC's jurisdiction, there are many new innovative products that do not fit neatly into a specific category. In an attempt to remedy this situation the *Commodity Exchange Act* was amended to provide for a SEC-CFTC Jurisdictional Accord. The Accord states that the SEC has jurisdiction over securities and options. The SEC's jurisdiction includes instances where the situation where the parties have the right, but not the obligation, to receive the future value of a security. The CFTC has jurisdiction over futures contracts. The CFTC has to consult the SEC before approving the trading of futures contracts. Despite the attempt to clarify jurisdictional issues, these two federal agencies continue to be at odds.³⁵

When dealing with a counterparty in the US, the United States Bankruptcy Code affords the insolvent borrower the advantage of an automatic stay. An automatic stay entails that the lender may not take legal action or exercise any remedy against the defaulting borrower once the borrower has become insolvent. This is specifically available to OTC derivative market participants

³² See note 6, Wood, p 224. Huang, P.H. 'A normative analysis of new financially engineered derivatives' (2000) *Southern California Law Review* p 483-497. Cohen, S.S. 'Financial Services Regulation: A mid-decade review colloquium' (1995) *Fordham Law Review* p 2014-2029. Cowhig, M.T. and Misra, S.A. 'Development in Banking Law: 1995' (1996) *Annual Review of Banking Law* p 28-38.

³³ Albrecht, W.P. 'Regulation of Exchange-Traded and OTC Derivatives: The need for a comparative institution approach' (1995) *Journal of Corporation Law* p 112-129. Petzel, T.E. 'Derivatives: Market and regulatory dynamics' (1995) *Journal of Corporation Law* p 100-110. Erwin, S.C. 'CFTC Regulation: Use of derivatives in investment management' (2001) *American Law Institute – American Bar Association Continuing Legal Education* p 109-144.

³⁴ Webb, C.R. 'Salomon Forex, Inc. v Tauber – The "Sophisticated Trader" and foreign currency derivatives under the Commodity Exchange Act' (1994) *North Carolina Journal of International Law and Commercial Regulation* p 592-600. Stout, L.A. 'Why the law hates speculators: regulation and private ordering in the market for OTC derivatives' (1999) *Duke Law Journal* p 721-737. Gibson, W.E. 'Are swap agreements securities or futures?: The inadequacies of applying the traditional regulatory approach to OTC derivatives transactions' (1999) *Journal of Corporation Law* p 388-393.

³⁵ Cunningham, D.P. and Abruzzo, C.T. 'Regulating Derivative Securities and Transactions in the US' (1995) *International Financial Law Review* p 16-17. See note 4, Wood, p 45; Puleo, F.C. 'Derivatives: A Banker's Primer' (1996) p 769-777. See note 18, Webb, p 592-600. Silver, P. 'Developments in Banking Law: 1998' (1999) *Annual Review of Banking Law* p 24-29.

based in the US. The Code does not allow set-off to occur without the approval of the Bankruptcy Court. Therefore counterparties dealing with US-based organisations should take extra care when assessing the credit risk of the US counterparty. It is advisable to assess the possibility of a counterparty defaulting on a derivatives transaction on the same basis as a counterparty defaulting on a loan.³⁶ Fortunately the Code makes a specific exemption from the automatic stay in the instance of derivatives transactions. The exemption allows set-off and netting during insolvency, for derivative transactions.³⁷ Accordingly it is of the utmost importance that derivatives transactions to which United States legislation applies are sufficiently documented and worded in such a manner that there can be no dispute as to whether the transaction is a derivatives transaction or not.

In the case of the Drexel³⁸ insolvency, the group holding company in the US applied for insolvency protection in February 1990. This did not directly affect Drexel, the derivatives trading subsidiary, but because the parent company was the guarantor of certain of the derivatives, it resulted in an act of default according to some of the contracts. Drexel had a portfolio of over 1500 derivatives, with more than 200 counterparties. Limited two-way payment provisions were included in many of these contracts. Between mid-February and the end of May 1990 the portfolio was unwound by negotiation with the individual counterparties. Drexel initially tried to sell the portfolio in its entirety, but was unsuccessful. Some of the counterparties took the opportunity to make windfall gains. This resulted in litigation. Drexel failed to overturn the counterparty's reliance on the limited two-way payment clause. The court ruled in *Drexel v Midland Bank*³⁹ that the limited two-way payment clause constituted a valid liquidated damages clause and was enforceable, that the clause was not contrary to public policy, because the amount liquidated has a

³⁶ Johnson, C.A. 'At the Intersection of Bank Finance and Derivatives: Who has the Right of Way?' (1998) *Tennessee Law Review* p 22-23,62. See note 21, Puleo, p 781-783. Dugan, J.C. 'Derivatives: Netting, Insolvency and End Users' (1995) *The Banking Law Journal* p 644-646.

³⁷ See note 22, Johnson, p 22-23.

³⁸ Verini, J 'Michael Milken's Minions Profit from Debt' (2001) *The New York Observer*, 5 February p 29. See note 3, Das, p 1350.

³⁹ *Drexel Burnham Lambert Products Corporation v Midland Bank Plc*, 1992 US DC, SD of NY, 92 CIV 3098.

reasonable relationship with the probable loss, and requiring Drexel to forgo the investment gain was not a penalty, forfeiture or unjust enrichment.⁴⁰

The Bank of New England was declared insolvent in January 1991, but its financial problems had already been public knowledge in early 1990. The root cause of its financial difficulties was imprudent real estate lending. During the twelve months prior to the liquidation the bank was put under administration of the Federal Deposit Insurance Corporation, and the Bank of New England derivatives traders were able to reduce the derivatives portfolio from US\$30 billion to under US\$7 billion. In this process they realised a profit for the year and left a residual portfolio with a net positive value of US\$185 million. After the insolvency the residual portfolio was transferred by the Federal Deposit Insurance Corporation to the new bank⁴¹ created to assume Bank of New England's assets and liabilities.⁴² Another case to which insolvency law in the US applied is that of Orange County, which declared bankruptcy in 1994.⁴³

2.3.5 Developments in the international arena: Bank for International Settlements



The guidance provided by the Bank of International Settlements and the ISDA has an impact on legislation in general and therefore needs to be considered. The Bank for International Settlements has provided comprehensive guidance on specific issues relating to derivatives, but nothing with regard to derivatives legislation. The ISDA has created the *Model Netting Act*, which attempts to resolve some of the cross-border credit risk issues.⁴⁴

⁴⁰ See note 3, Das, p 1351.

⁴¹ This is called a "bridge bank" in the USA.

⁴² See note 3, Das, p 1350. Gup, B.E. *Bank Failures in the Major Trading Countries of the World* (1998) Quorum Books p 103-104.

⁴³ See chapter three and see also note 21, Field, p 497-509. See note 28, Gup, p 56-57.

⁴⁴ Partnoy, F. 'The shifting contours of global derivatives regulation' (2001) *University of Pennsylvania Journal of International Economic Law* p 421-495. See chapter three, 4.5.6.2.

2.3.6 Conclusion on legislation in foreign jurisdictions

The main problem with the regulatory environment within which derivatives instruments are internationally governed is the lack of a co-ordinated approach. Other financial products like insurance and deposit-taking banking activities are not treated in an identical fashion worldwide. However there are broad similarities in the of treatment of these activities. There are certain basic principles that are adhered to. These are the establishment of a local and sometimes also international governing body or bodies that are tasked with supervising the activities of the banks or insurance companies. For instance the South African Reserve Bank, and the US Federal Reserve Bank are the local supervisors, and the Bank for International Settlements is the international supervisor of banks. There is nothing comparable for derivatives. Derivatives legislation and supervision of derivatives trading are ad hoc, differ significantly from jurisdiction to jurisdiction and do not deal with all relevant issues. There is no comprehensive framework for derivative supervision.

2.4 The position in South Africa

One of the questions that is raised in the problem statement is whether derivatives are recognised in South African law.⁴⁵ Various derivative contracts are indeed recognised.⁴⁶ For instance, trading in maize, sunflower, wheat, wool, sugar and copper can be cited. Financial Institutions are mostly regulated and supervised by the South African Reserve Bank (SARB) and the Financial Services Board (FSB). Historically the Department of Finance governed all financial institutions, but in 1971 it transferred supervision of all non-banking financial institutions to the FSB and of all banks to the SARB. Currently foreign exchange contracts may only be entered into with Reserve Bank authorisation. The SARB was created to address poor monetary conditions from the time of the First World War, caused by an illegal outflow of

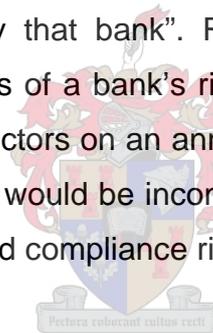
⁴⁵ See chapter one, 4.

⁴⁶ See note 5, Van Jaarsveld, p 81. Falkena, H. et al *Financial Regulation in South Africa* (2001) SA Financial Sector Forum p 11-22.

gold from South Africa and the experiencing of cash flow problems by domestic banks.⁴⁷

2.3.7 The Banks Act

The South African *Banks Act*⁴⁸ governs the activities of all banks in South Africa, including merchant banks. The *Banks Act* does not address the issue of derivatives per se, but it deals specifically with risk management.⁴⁹ This Act lists a number of risks that has an influence on a bank, specifically operational risk and “any other risk regarded as material by that bank”. Legal risk is therefore definitively recognised as part of the risk portfolio of a bank, because it is one of the forms of operational risk.⁵⁰ But even if there is a dispute over the classification of legal risk as a form of operational risk, it is submitted that legal risk would in any event fall under the category “any other risk regarded as material by that bank”. Regulation 38 of the *Banks Act* requires that the effectiveness of a bank’s risk management programmes be assessed by the board of directors on an annual basis. In the current author’s opinion, such an assessment would be incomplete without the inclusion of an efficient and effective legal and compliance risk management framework.



2.3.8 The Securities Services Act

Another act that is applicable to merchant banks in South Africa is the *Securities Services Act*⁵¹ which came into effect on 1 February 2005, it amends, repeals and consolidates the *Stock Exchanges Control Act*,⁵² the *Financial Markets Control Act*,⁵³ the *Custody and Administration of Securities Act*⁵⁴ and the *Insider Trading Act*⁵⁵. It has led to some amendments to the

⁴⁷ Van Jaarsveld, I.L. ‘Domestic and International Banking Regulation and Supervision – Defying the challenges’ (Vol 119 Part 1) South African Law Journal p 83.

⁴⁸ *Banks Act* 94 of 1990.

⁴⁹ Section 1 and regulation 38 of the *Banks Act* 94 of 1990.

⁵⁰ See chapter three, 4.1.

⁵¹ *Securities Services Act* 36 of 2004.

⁵² *Stock Exchanges Control Act* 1 of 1985.

⁵³ *Financial Markets Control Act* 55 of 1989.

⁵⁴ *Custody and Administration of Securities Act* 85 of 1992.

⁵⁵ *Insider Trading Act* 135 of 1998.

Companies Act and the *Insolvency Act*⁵⁶. The main aim of the Act is to improve and clarify the existing financial market legislation, and it regulates some previously unregulated matters. This legislation is necessary in the South African derivatives industry. The legislature attempts to clarify specific uncertainties concerning derivatives in South African law. Previously it was uncertain whether set-off, netting and collateral clauses were enforceable in South Africa. Although this Act attempts to rectify the legal uncertainty, legal certainty remains elusive as merchant bankers in their ingenuity are continuously create complex new products. In their attempts to manage various other risks, legal risk may actually be caused.

2.3.9 The Financial Advisory and Intermediary Services Act

The Financial Advisory and Intermediary Services Act 37 of 2002 was enacted to regulate the rendering of certain financial advisory and intermediary services to clients. At present there is uncertainty as to whether the intention of the legislature was to include derivatives trading in this Act. The way in which the act is currently drafted creates uncertainty in the banking industry, because derivative trading activities may be construed as rendering an intermediary service. The South African Banking Association, along with the South African merchant banking fraternity, has approached the Financial Services Board for clarity on the matter but this has not been forthcoming.

2.3.10 The Financial Services Board and South African Reserve Bank Acts

Both the *Financial Services Board Act*⁵⁷ and the *South African Reserve Bank Act*⁵⁸ are applicable to financial institutions in South Africa. Generally speaking the main regulator for merchant banks is the SARB. However, there may be products used by the bank which are regulated by the FSB. In the

⁵⁶ *Insolvency Act* 24 of 1936.

Companies Act 61 of 1973.

⁵⁷ *Financial Services Board Act* 97 of 1990.

⁵⁸ *South African Reserve Bank Act* 90 of 1989.

current author's opinion, merchant banks are therefore regulated by both the Financial Services Board and the South African Reserve Bank. The nature of the financial instrument will determine which regulator is the main regulator of that bank. For instance, if the bank sells an insurance product, the main regulator is the FSB and if the bank takes deposits, then the main regulator is the SARB. The general rule for Financial Advisory and Intermediary Services transactions is that if the financial institution gives financial advice or renders an intermediary service, the FSB will have authority. Derivatives are not that easily classified, because a transaction may be construed as giving advice or rendering an intermediary service, which entails that the deal falls under the jurisdiction of the FSB. The same deal may be cross-border, and therefore exchange control rules will apply, which in turn gives the SARB jurisdiction.

2.3.11 The Policy Board for Financial Services and Regulation Act

The purpose of the *Policy Board for Financial Services and Regulation Act*⁵⁹ is to establish a board and committees to advise the Minister of Finance on policy matters that relate to financial services and regulation, on instruction of the Minister or of its own accord. Based on the current perceived power play between the FSB and the SARB, it is recommended that the Minister or the Board investigate the possibility of establishing one financial services regulator for the South African financial services industry.

2.3.12 The Financial Intelligence Centre Act

The *Financial Intelligence Centre Act*⁶⁰ has been operational in South Africa since 2002. In terms of this Act, banks are considered to be accountable institutions. The effect of this is that there are onerous duties placed on banks to prevent, combat and report suspicious transactions and also to ensure that they know who they are dealing with. The effect is that the derivatives trading process is hampered, because "Know your customer (KYC)" documentation needs to be obtained before a deal may be done between counterparties.

⁵⁹ *Policy Board for Financial Services and Regulation Act* 141 of 1993.

⁶⁰ *Financial Intelligence Centre Act* 38 of 2001.

This is not problematic for counterparties with whom a merchant bank deals on a regular basis, or if the counterparty is domiciled in a jurisdiction that is approved by the United Nations' Financial Action Task Force (FATF). The reason why it is less problematic is that the counterparty only needs to be "KYC'd" once and may then trade in derivatives as before.

Matters do become problematic if there is a one-off deal between a South African merchant bank and a foreign counterparty, because the KYC process is not quick or easy where foreign legal entities are involved. The South African merchant bank concerned will need to obtain original legal registration documents not only for the counterparty, but also for every related party and shareholder who holds more than 25% of the shares in the foreign counterparty. The effect is that the South African merchant bank is placed at a competitive disadvantage to counterparties in other jurisdictions, because the "KYC" process adversely affects the South African banks' turnaround times. The only other country that has such onerous requirements is the US.⁶¹

2.3.13 The National Credit Bill

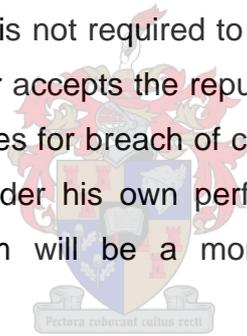
The South African *National Credit Bill*⁶² is expected to be enacted in April 2006. Currently there is uncertainty about the thresholds, that will determine which types of transactions will fall within the ambit of the act. The banking industry has lobbied with the Department of Trade and Industry to exclude merchant banking. They are also requesting a threshold that would ensure that large corporate credit deals, as envisaged in derivatives trading and credit derivatives, are excluded. The banks are also concerned about the definitions clause, which effectively includes derivatives in the ambit of bill, because all credit agreements which have an effect in South Africa are deemed to be included in the bill. The merchant banking fraternity is comfortable that the intention of the legislature is not to include merchant banking and credit derivatives, within the ambit of the National Credit Bill.

⁶¹ Author's own opinion based on practical experience.

⁶² *National Credit Bill* B18B - 2005.

2.3.14 Insolvency law and regulation in South Africa

Under South African common law, the insolvency of a party to a contract does not automatically terminate that contract, unless there is a contractual stipulation to this effect. The operation of the contract is suspended pending the appointment of a liquidator for the insolvent party. The liquidator must decide whether contracts concluded by the insolvent party are to be continued or terminated.⁶³ This statement must not be misconstrued. It is sometimes said that the liquidator has the right to cherry pick transactions, in other words he has the right to choose to continue with contracts that are favourable to the insolvent estate and to terminate those that are prejudicial to the insolvent estate. But the liquidator is not entitled to cancel a contract unilaterally. The creditor may not demand specific performance from the liquidator, but he may claim damages in lieu of specific performance.⁶⁴ If a liquidator elects to terminate a contract, then he is not required to perform any of the obligations of the insolvent. If the creditor accepts the repudiation of the contract, he has a concurrent claim for damages for breach of contract. If he chooses to reject the repudiation, he must tender his own performance and then institute a concurrent claim. This claim will be a monetary substitute for specific performance.⁶⁵



If a liquidator elects to abide by contracts, then he is bound by such election. The requirement is that such election be made in the interest of all the creditors and he must then perform all the insolvent's outstanding obligations in terms of these contracts. The liquidator is not entitled to demand performance from the solvent party without first tendering performance in full himself.⁶⁶

⁶³ Meskin, *Insolvency Law and its Operation on Winding-up*, Butterworths (1990) p 5-53.
Bryant & Flanagan (Pty) Limited v Muller and Another NNO 1978 (2) SA 807 (A) 812.

⁶⁴ *Bryant & Flanagan (Pty) Limited v Muller and Another NNO* 1978 (2) SA 807 (A) 812.

⁶⁵ *Ex Parte Liquidators of Parity Insurance Company Limited* 1966 (1) SA 463 (W) 471.

⁶⁶ *Cohen NO and Others v Verwoerdburg Town Council* 1983 (1) SA 334 (A) 352.

In South African law, insolvency only sets in once a court declares the person or legal entity insolvent.⁶⁷ Insolvency is the process under which a financially troubled debtor is declared insolvent or unable to meet his debt payments. The assets of the debtor are distributed to creditors according to insolvency law and the debtor is discharged from his liabilities for the remaining unpaid debt.⁶⁸ In the event of an insolvency that affects a company within the jurisdiction of South Africa, the Insolvency Act⁶⁹ will apply. The operation of this act is rather limited when it comes to cross-border insolvencies, for instance in multi-currency transactions. The *Cross-Border Insolvency Act*⁷⁰ was enacted in 2000 to deal with this issue by amending the *Insolvency Act*. This Act came into operation on 28 November 2003.

The General Assembly of the United Nations adopted a resolution on 15 December 1997, which recommends that the member states review their legislation on cross-border insolvency in the light of the model law on cross-border insolvency of the United Nations. South Africa has realised the need to implement legislation to align itself with the United Nations position. The legal framework in South Africa is aimed at strengthening co-operation between the courts in South Africa and those in other jurisdictions as well as at enhancing legal certainty for trade and investment. This framework also promotes fair and efficient administration of cross-border insolvencies that protects all parties, and protects and maximises the debtor's assets. Lastly, it facilitates the rescue of financially troubled businesses, while protecting investment and preserving employment. The ambit of the Act is such that foreign court decisions may be recognised during South African insolvency proceedings.

A South African counterparty to an ISDA master agreement could only be subjected to bankruptcy, composition or rehabilitation, for example curatorship, receivership judicial management or voluntary arrangement, in terms of the Insolvency Act 1936. If a counterparty wishes to enter into a 1992 ISDA master agreement with a South African entity, it is important to give due

⁶⁷ Dednam, M.J. 'n *Praktiese benadering tot Insolvensiereg* (1993) Digma p 3.

⁶⁸ Jorion, P. ed *Financial Risk Manager Handbook 2001-2001* (2001) Wiley Finance p 684.

⁶⁹ *Insolvency Act* 24 of 1936.

⁷⁰ *Cross-Border Insolvency Act* 42 of 2000.

consideration to the statutes that govern these entities, as well as to section 35B⁷¹ of the *Insolvency Act* in the event of the winding up of such an entity.

The Insolvency Act is often simply incorporated by reference in other legislation. For a company incorporated under section 344 of the *Companies Act* insolvency means that the insolvent party is unable to pay its debts as they fall due. Generally insolvency means that the liabilities of the insolvent party exceed its assets, or that the insolvent party has given notice to its creditors that it is unable to pay any of its debts. “Events of default” and “termination events” are the terms used in the ISDA master agreements and in South African law both refer to the institution of insolvency proceedings.⁷²

The liquidation of a company or other juristic person or the sequestration of a natural person effects a concurrence of creditors (*concursum creditorum*). The insolvent estate is frozen and a creditor is unable to act in a way that alters or prejudices the rights of other creditors.⁷³ The *concursum creditorum* is deemed to have become effective if a final liquidation order has been granted and on presentation of the application for the winding up of the company to the Registrar of the High Court.⁷⁴ It has been held that a liquidation application has been presented when it is filed with the Registrar of the High Court. This may happen minutes or months before the liquidation order is granted.⁷⁵ The effect is not that a company is in liquidation as soon as an application for liquidation is presented, but if a final liquidation order is granted, the liquidation is retrospectively deemed to have become effective when the liquidation application was presented to the court.

It is necessary to distinguish between the liquidator’s right to cherry pick under the common law and the effect of section 35B of the *Insolvency Act* on this right. Sections 35A and 35B were included in the Act in 1995 to deal

⁷¹ See chapter three 4.5.7.1.

⁷² Hutton, S. *The 1992 master agreements: Enforceability of close-out netting provisions in South Africa* www.isda.org/opinions accessed 18 November 2002.

⁷³ *Walker v Syfret NO* 1911 AD 141, at 166.

⁷⁴ Section 348 of the *Companies Act* 61 of 1973. *Venter NO v Farley* 1991 (1) SA 316 (W), at 352. *Rennie NO v South African Sea Products Limited* 1986 (2) SA 138 (C).

⁷⁵ *Rousseau v Malan* 1989 (2) SA 451 (C) at 459.

specifically with netting in the financial markets. Section 35A(1) defines the terms exchange, exchange rules, market participant and transaction for purposes of insolvency. In section 35A(2) it is determined that if one of the market participants is sequestrated before fulfilling all its obligations, the exchange or other market participants are entitled to terminate all these transactions, and the trustee of the insolvent estate shall be bound by it. No claim arising from such a termination may exceed the amount due in terms of the rules of that exchange.⁷⁶ If the rules of the exchange provide for set-off or netting, then the trustee of the insolvent estate shall be bound thereby.⁷⁷ Set-off and netting are therefore specifically allowed in South Africa under certain circumstances.

Section 35B(1) defines an agreement as any agreement that provides for delivery, exchange, settlement or payment on a future date of a price, currency, interest rates, exchange rates, indices, gold, precious base metals, financial instruments,⁷⁸ securities⁷⁹ or any other commodity as specified by the Minister of Finance or by notice in the Gazette.⁸⁰ If any obligation in an agreement, whether immediately claimable or not, has not been fulfilled at the time of liquidation of the insolvent party, then the right of the solvent party to claim specific performance shall be replaced by a claim for payment of damages as at the time of insolvency. This claim shall be deemed to constitute a liquidated claim for purposes of netting.⁸¹ Any agreement to netting between the parties shall be binding on the liquidator if the agreement had been concluded before the date of insolvency and settlement was already due at the date of insolvency or would become due on a date after insolvency.⁸²

A liquidator will not be able to cherry pick transactions that are agreements as defined in section 35B. Section 35B provides for the acceleration of

⁷⁶ Section 35A(3) of the *Insolvency Act* 24 of 1936.

⁷⁷ Section 35A(4) of the *Insolvency Act* 24 of 1936.

⁷⁸ *Financial Markets Control Act* 55 of 1989.

⁷⁹ *Stock Exchanges Control Act* 1 of 1985.

⁸⁰ Section 35B (1) of the *Insolvency Act* 24 of 1936.

⁸¹ Section 35B (2) of the *Insolvency Act* 24 of 1936.

⁸² Section 35B (3) of the *Insolvency Act* 24 of 1936.

outstanding obligations arising out of executory agreements on the insolvency of a party thereto, which agreements had been concluded prior to such insolvency, but which were to be settled on a date after the insolvency. In terms of section 35B such obligations are replaced by liquidated claims for damages, which may be set-off against each other if the original agreement provided for the set-off.

2.3.15 South African Futures Exchange

The South African Futures Exchange (SAFEX) may have an impact on the legal risk in derivatives in a South African merchant bank. It is accepted that the SAFEX member acts as a representative of the Exchange, and the contract is concluded either between the client and the other customer or between the client and the other broker. The contract is then matched or cleared by the clearing house. This means that the Exchange takes an equal and opposite position to each party to the trade, because the SAFEX member acts as intermediary on behalf of the counterparties. Thus each trade is substituted by two new trades.

Based on the comparative analysis of derivatives regulation in various jurisdictions, it is recommended that a similar approach be followed in South Africa,⁸³ so that the market will not be over-regulated. Over-regulation tends to stifle innovation. The current author's recommendation would be to allow the market participants to develop their own regulations and self-regulate the industry. This would amount to creating common law for the industry instead of attempting to codify this vast and ever-changing industry.

2.3.16 Conclusion on South African legislation

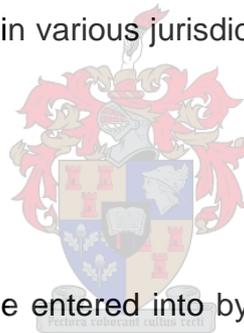
Based on the above comparative analysis it is clear that the South African law is currently unable, and will probably remain unable to keep pace with the developments in derivatives. The question whether derivatives are traded in

⁸³ See chapter one, 4.

more than one jurisdiction or only domestically has been answered in this section. It is apparent that derivatives are traded in various jurisdictions. The jurisdiction in which the derivative is traded has an impact on the legal risk profile of the derivative. Jurisdiction is a factor that increases legal risk because the different jurisdictions do not give an equal degree of recognition to derivatives.

3. Contracts and documentation issues

Derivatives documentation does not only refer to the actual contracts that are signed between the parties, but also to the deal confirmations and other supporting, back-office documents that are used to reflect the agreement between the two counterparties.⁸⁴ This section is dedicated to discussing ad hoc derivative agreements, master agreements and the ISDA, followed by a discussion of the legal status in various jurisdictions, and specifically in South Africa.



3.1 Ad hoc agreements

Derivative agreements may be entered into by means of either standardised written agreements or by drafting a new one specific to every transaction (hereinafter ad hoc agreements). According to Das,⁸⁵ when drafting a derivative agreement, especially ad hoc agreements, the attorney needs to consider a number of practical issues in order to limit legal risk. The first issue that the attorney needs to take into consideration is to ensure that the documentation adheres to the essentialia of a contract. There might be statutory or regulatory restrictions and prohibitions that either impact on or prohibit totally, the proposed transaction or its structure, for example gaming and wagering legislation, insurance legislation, exchange control rules, securities industry legislation or futures industry legislation. There might be jurisdiction issues and possible conflicts of law that require resolution.

⁸⁴ Stuart, A. *Discussion held on 4 July 2003.*

⁸⁵ See note 3, Das, p 1341.

Taxation issues like income tax, withholding tax⁸⁶, value added tax or stamp duties may have a huge impact on the transaction and should be considered when documenting the agreement.⁸⁷

The attorney also needs to consider whether there are any particular transaction risks that are accentuated by the proposed transaction structure, like insolvency. The problems that are normally encountered by attorneys are that they have to draft documents under time pressure, because the transaction is imminent. When the attorneys only hear of the transaction after the event, there is pressure on them not to point out any problems. This leads to inadequate documentation because the lawyer does not have time to apply his mind to the transaction and cover all the necessary elements in the contract.

Turing⁸⁸ also has a practical approach to drafting ad hoc derivative agreements and recommends that a number of issues be considered when drafting these contracts. The attorney should look at the obligations for all the counterparties and capture these as accurately as possible. This includes remedies if one of the parties does not perform. He also refers to using the “what-if” approach. This approach simply entails imagining the worst case scenario and dealing with it in the contract. Similarly to Das, he also recommends that jurisdiction issues be considered upfront, because not all transactions are allowed in all jurisdictions, for example three-way set-off. It is also a good idea to capture the governing law in the documentation and not leave that component open to interpretation. The contract may also incorporate master agreements⁸⁹ and deal confirmations. Turing analysed the main causes of unenforceability of a contract. He came to the conclusion that agreements are unenforceable where the counterparty did not have the authority to incur the obligation, where there is a statutory rule invalidating the

⁸⁶ Withholding tax is normally payable by import-export businesses.

⁸⁷ See note 21, Puleo, p 778-781.

⁸⁸ Turing, D *The Legal and Regulatory view of Operational Risk* (2003) Risk Waters Group Ltd p 261-262.

⁸⁹ See 4.2.2.

clause, or where the rights envisaged in the contract are not enforceable in the jurisdiction.⁹⁰

The building blocks of a derivative agreement are the same as those of any other agreement to pay money or deliver goods.⁹¹ Only the ones that are essential to derivative agreements are discussed here. These provisions are unique to derivatives and should not be confused with the essentialia of a contract. It stands to reason that these provisions will be very brief if the contract is put in place for a single transaction and the parties are in the same jurisdiction. If, on the other hand, the agreement will be used as a master agreement and the parties are in different jurisdictions, these provisions will be expansive.⁹²

The agreement includes clauses that set out the parties' payment obligations and any conditions precedent to these obligations arising. These include definitional and mechanical provisions, for instance how the interest rate is calculated or how the quantum of the periodic payments is calculated.

Provisions dealing with circumstances when and where payments should be made may vary according to the jurisdictions involved. The allocation of withholding tax is an example of this.⁹³ These clauses are called payments and settlements clauses. All payments or physical deliveries take place on business days. Set-off and netting provisions may also be included into this section. The parties may also include clauses on how they are going to elect the manner of execution of the contract and how this will be communicated, for example by telephone, fax or e-mail. It should stipulate whether there are automatic exercise options, when the counterparty is in the money. It should also deal with the exercise days and cut-off times prior to settlements.⁹⁴

⁹⁰ See note 71, Turing, p 260-261.

⁹¹ See note 3, Das, p 1342.

⁹² *Ibid.* Geckeler, P.M. 'Municipal derivatives use and the suitability doctrine' (1996) *Washington University Journal of Urban and Contemporary Law* p 288-314. Buerstetta, G.E. 'Creating a flexible fiduciary duty rule for banks entering into proprietary derivatives contracts' (1996) *Annual Review of Banking Law* p 395-431.

⁹³ See note 74, *ibid.*

⁹⁴ See note 6, Wood, p 218.

Protection provisions, such as bank capital adequacy provisions to ensure that the bank is adequately capitalised in the event of a corporate failure, may also be included in the agreement. This will normally not be necessary in a jurisdiction where statutory capital is held according to the international Basel Capital Accord.

The agreement also deals with representations, warranties and undertakings relating to the parties, as opposed to the transaction itself.⁹⁵ It also includes credit support provisions, for example collateralisation and guarantees, events of default or termination agreements and provisions dealing with the consequences of these events.

Credit provisions are built into the contracts to protect the parties. This is normally done to protect a party's rights in the event of insolvency. Each party will consider the credit support it requires. This is often based on the credit rating of the other party. The credit rating is provided by Moodies, Standards and Poors, Fitch or an internally developed model, and it reflects the likelihood of a credit default by the party concerned. The parties will agree on the circumstances in which the contract may be terminated and the consequences of such a termination.⁹⁶

“Boilerplate provisions” is a term that is used to refer to all the standard provisions in a derivative.⁹⁷ The absence of these provisions does not mean that the transaction would fail, but some matters may be difficult to determine because they are left to the general law of the jurisdiction involved. It may also lead to inconvenience for one or both counterparties. For instance, if there is no governing law clause, the general law of the jurisdictions involved will determine the appropriate governing law by applying legal precedent.⁹⁸ Market disruption may make it difficult or impossible to obtain a fair price on a valuation date for a forward or option contract on an index, equity share or

⁹⁵ See note 3, Das, p 1342.

⁹⁶ See note 3, Das, p 1343.

⁹⁷ See note 68, Stuart.

⁹⁸ See note 3, Das, p 1343.

bond. This poses a risk to the users of this market and should be dealt with in the provisions of the contract.⁹⁹

In *Peregrine v Robinson*¹⁰⁰ the court ruled on the enforceability of certain clauses of the master agreement for Multicurrency and Cross Border Derivatives (1992) of the International Swaps and Derivatives Association Inc. Peregrine was a financial services provider, incorporated in Hong Kong. On 12 January 1998 the board of directors of its parent company resolved to seek the appointment of a provisional liquidator to the company and on 16th January 1998 provisional liquidators of Peregrine were appointed in Hong Kong. Robinson was a department store operator incorporated in Thailand. At the time of the litigation it was in the process of initiating a restructuring of its debts under the supervision of the court. This constituted an event of default. Prior to 1998, Peregrine and Robinson entered into various derivative transactions. One specific contract, on 20 November 1997 determined that Robinson would pay Peregrine 25 annual instalments of US\$6,85 million, beginning in November 1998, in terms of a swap transaction. The parties did not dispute the fact that English law would apply to the contract. The non-defaulting party, Peregrine, was allowed to determine the settlement amount, which was in fact US\$9,694,901, based on three market quotations.

Peregrine submitted that in this case the use of the market quotation measure to calculate the amount payable did not produce a commercially reasonable result because it grossly undervalued Robinson's obligation. This was demonstrated by the extent of the discrepancy between the then discounted value of Robinson's obligation and the figure obtained by market quotation. The possibility that a market quotation might not produce a commercially reasonable result is one that is expressly dealt with in the definition of the settlement amount in the ISDA definitions. It requires that the settlement amount be calculated by reference to the defaulting party's actual loss rather than a market quotation. Accordingly, instead of using market quotation

⁹⁹ See note 6, Wood, p 218-219.

¹⁰⁰ *Peregrine Fixed Income Ltd (In Liquidation) v Robinson Department Store Plc* [2000] Lloyd's Rep. Bank. 304 [2000] C.L.C. 1328 2000 WL 1027115 2000 WL 1027115.

Robinson should have used the alternative measure, being actual loss, for the purposes of calculating the settlement amount. That would have resulted in an amount payable under Section 6(e) US\$87,3 million.

The court enforced the contract, but decided that the settlement amount determined according to market quotation was too low to be commercially reasonable. The court ruled that Robinson had to pay an amount based on loss, which was about \$78m higher than the payment of \$9,5m due under the market quotation.¹⁰¹

In the case of the California power failure in 2000, the State of California underinvested in electricity infrastructure throughout the 1990s. Electricity was deregulated in 1996. The State's economy boomed, which put an increased demand on electricity supplies. A number of factors pushed electricity prices up and the State's two largest suppliers were on the brink of insolvency due to margin squeeze. The summer of 2000 was one of the hottest, with low rainfall, which reduced the availability of hydro-electric power. This was followed by the coldest winter since 1911. Both these factors increased the demand for electricity and because of environmental legislation that restricted the full use of power generation capacity, scheduled and unscheduled power cuts were common.

The price caps imposed by the regulators were, in hindsight, not the best choice. Price caps that protect consumers from the signals of higher spot prices do not create any incentive to reduce demand and lead to higher prices in the long term. They also deter new entrants to the market at a time when they are needed for the long-term solution. They furthermore deter current market participants from dealing with long-term solutions. These price caps would not have been such a problem in California if the utility companies were able to hedge the risk through fixed-price forward contracts. Forward contracts are efficient risk mitigation tools to handle price caps. But the utility

¹⁰¹ Jackson, C. *Legal Risk Optimisation* (2002) September *Risk Waters Group Risk Magazine* p 116-118.

companies in California were not allowed to enter into long-term forward contracts due to regulatory constraints.¹⁰²

Ad hoc agreements are necessary because it is not always practical to use standardised master agreements. For example, an exotic derivative simply cannot be forced into a standardised contract. In the current author's opinion ad hoc agreements only become problematic when they do not properly document all relevant issues. This in turn leads to a lack of documented consensus between the counterparties and may lead to disputes, litigation and financial losses.

3.2 Master agreements

The ISDA is the best-known and most widely used organisation that provides master agreements for use by market participants. There are various references to the ISDA in this section, simply because the ISDA has become synonymous with master agreements. The section following the current section is dedicated to the ISDA in particular.

Derivatives were a novelty until the early 1980s, but as they became more widely used, the market participants did not want to document each derivative on a case-by-case basis. They needed to standardise the terms and conditions to aid liquidity and certainty, reduce costs, and reduce or eliminate the delay between the commercial agreements and the legally binding agreement. In other words, it was used to speed up the process and create some level of legal certainty.

The expansion of the international capital markets in the 1980s was largely due to the evolution of derivatives. It reached the point where the majority of capital market issues were dependent on their associated derivative transactions for success. Therefore any delay in establishing whether the

¹⁰² Boyle, P and F *Derivatives: The Tools that changed Finance* (2001) Risk Waters Group Ltd p 21-22.

counterparty was committed to a particular derivative transaction became unacceptable to financial institutions.

Certain industry associations in the United Kingdom and Australia developed codes of standard terms, which could be incorporated by reference. At the same time many organisations developed their own version of master agreements. These agreements allowed for transactions to be documented by exchanging letters or telexes setting out the financial details of the transaction. These contracts operated in two ways. They were incorporated by reference into the individual contracts. This involved multiple contracts. The other option was that the parties concerned entered into a permanent contract, which was then supplemented by each individual transaction. Each new transaction became an annexure to the agreement. It was a single contract that grew over time. This became the generally accepted practice as the advantages of netting were realised.¹⁰³

These in-house agreements were a definite improvement, but they did not overcome the delays that were experienced in the finalisation of agreements. They also created problems where parties had their own master agreement.

In 1984 some key players, including Sally Mae and Salomon Brothers, realised that the industry would benefit from a set of standardised terms. They formed the ISDA in 1985.¹⁰⁴ ISDA started producing standard documents for general industry use in 1985.¹⁰⁵

Initially all derivatives were known as swaps, but the industry started using this term for specific instruments during the late 1980s and early 1990s. The ISDA subsequently changed its name to the International Swaps and Derivatives Association in 1993.¹⁰⁶

¹⁰³ See chapter three, 4.5.6.2.

¹⁰⁴ See note 29, Field, p 18-19.

¹⁰⁵ See note 3, Das, p 1344.

¹⁰⁶ See note 29, Field, p 18-19.

3.2.1 Key features of master agreements

The ISDA has published various documents which allow market participants to use these efficient and flexible “building blocks” as they deem fit.¹⁰⁷ The master agreement has two parts: the printed form and the schedule. The printed form is the first section and the intention is that the parties simply sign it and not make any amendments to the agreement itself. The schedule is the second section and this is what is negotiated and agreed on by the parties. This allows the parties to make certain choices, amend provisions on the printed form and include any additional provisions. One of the choices that the parties need to make is whether the contract will be governed by the laws of the United States or the laws of the United Kingdom. This is true for all contracts, wherever concluded, and not only for those concluded in the US or UK.

3.2.2 Advantages of master agreements to derivatives in general

The advantages of using master agreements as opposed to ad hoc agreements are that the terms have been considered in depth and are more likely to be legally sophisticated and safe. It saves time if each transaction is not documented separately. It may improve the efficacy of netting, and contract standardisation is essential for a fast-paced market with high volumes.¹⁰⁸

3.2.3 Disadvantages of master agreements

Although the master agreements have improved the efficiency of the dealing process, there are some disadvantages to using master agreements. These include the following; where no documentation is put in place before dealing, the parties might insist on excessive adherence to these agreements; it does

¹⁰⁷ Allen & Overy Attorneys ‘*An Introduction to the Documentation of OTC Derivatives “Ten Themes”*’ (2002) Allen & Overy Attorneys – Opinions p 2.

¹⁰⁸ See note 6, Wood, p 217.

not deal with non-standard transactions; and it does not sufficiently deal with mark-to-market arrangements.¹⁰⁹ These limitations are discussed next.

3.2.3.1 No documentation before dealing

Many transactions are initiated before a master agreement is negotiated and executed. Paragraph 84 of the Bank of England Code of Conduct states the following:

*In more complex transactions like swaps, institutions should treat themselves as bound to a deal at the point where the commercial terms of the transactions are agreed. Making swap transactions subject to agreement on documentation is not best practice. Principals must make every effort to progress the finalisation of documentation. The Bank believes it should be possible for this to be accomplished within two months of the deal being struck; and regards longer than three months as excessive.*¹¹⁰

This practice leads to legal risk, especially if one party wishes to add to the terms and conditions in the standard ISDA master agreement.¹¹¹ It might be difficult to prove that consensus was reached on such a term or condition if it was not documented when the contract was actually concluded. One of the parties may default before the documentation is put in place, which may have dire consequences for the other party in insolvency proceedings. The latter will not be able to rely on the documentation. One of the greatest strengths of the derivatives markets is the flexibility to tailor the agreements to meet the exact needs of the parties and to mitigate specific and often highly sophisticated risks.¹¹²

¹⁰⁹ See note 3, Das, p 1345.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

¹¹² *Ibid.*, p 1346.

3.2.3.2 Excessive adherence to the master agreement

It may be tempting simply to complete a master agreement, and not to consider the appropriateness of the terms. This will create a problem if the two counterparties have different credit ratings. The ISDA agreements do not deal with all possible issues. The 1987 and 1992 ISDA agreements provide a useful starting point for documenting transactions between counterparties. There are instances where the transaction should be treated as a loan, and the documentation should reflect this. If a master agreement is already in place between the parties, it should be amended to reflect the true nature of the rights and obligations that exist between the parties.

Derivatives counterparties, especially financial institutions know that interest rate and currency volatility is present in markets, and therefore derivatives can generate substantial termination payments.¹¹³ Thus the parties should apply to derivatives transactions the same analytical skills that are applied to assess and document loans.¹¹⁴

The credit rating of a counterparty might decline over the term of the agreement, and that makes it necessary to include termination or default events into the agreement, for instance clauses that deal with negative pledge undertakings or provision for the event that a credit rating might drop below a certain grade.

3.2.3.3 Non-standard transactions

According to Das¹¹⁵ the tendency in the market is to try and squeeze non-standard transactions into the master agreements. Before entering into a non-standard transaction that is governed by an existing master agreement that is in place between the counterparties, it should be considered whether it is necessary to incorporate the terms of an ISDA addendum or the additional

¹¹³ Termination payments refer to penalties that are payable if the contract is ended prematurely.

¹¹⁴ See note 95, *ibid*.

¹¹⁵ *Ibid*, p 1347.

ISDA definitions. The parties should also determine whether the transaction is essentially a credit support agreement. They should ascertain whether there is a legal opinion on a similar agreement to the one that they intend to enter into. Such an opinion may indicate legal difficulties. The age of the current legal opinion should be taken into consideration. Depending on the age of the opinion, it might be prudent to obtain a new one. They should determine whether it is safe to assume that the rules applicable to normal derivatives will apply, although it is a non-standard transaction.¹¹⁶

3.2.3.4 Main terms of master agreements

As mentioned before, where a master agreement is in place between two counterparties, all individual trades will be governed by the master agreement. This will either occur automatically or by express incorporation in the confirmations.¹¹⁷ The main terms that are usually included in the master agreements are discussed in the following section.

3.2.3.4.1 Absolute payments

Absolute payments are payments that are made in full and final settlement. The disadvantages of absolute payments are that in many jurisdictions the tax effects are unclear. It is uncertain whether these payments are deductible or assessable and it is uncertain whether the governing law will characterise the payments as payments by way of security.¹¹⁸

3.2.3.4.2 Deal confirmations

The parties must exchange confirmations after each trade. The master agreement will stipulate the form and content of these confirmations and also that oral transactions are intended to be immediately binding contracts. The parties will also stipulate the time within which confirmations have to be

¹¹⁶ *Ibid.*

¹¹⁷ See note 6, Wood, p 218. See note 4, Wood, p 31-37.

¹¹⁸ See note 100, *ibid.* See note 4, Wood, p 31-37.

exchanged. The procedure for matching confirmations to their respective master agreements, if they are unmatched, will also be set out.¹¹⁹

Most trades in the OTC markets or exchanges are evidenced by the exchange of confirmations between the dealers. The reason for a deal confirmation is that it provides the best evidence of the agreement, because it is in writing. Most legal systems do not require the transactions to be in writing to be effective. Tape recordings may also be used as evidence. Tape recordings may impact on the right to privacy if it is not disclosed to the other party that the conversation is being recorded.¹²⁰ It should be the ideal to carry out a transaction in terms of a master agreement, because most of the terms are agreed and documented upfront. The deal confirmation simply acts as an addendum to the contract.¹²¹ The deal confirmations mean that the parties document the agreement reached on the economic terms of the contract only, because the legal and credit agreement is included in the master agreement. It is necessary that the deal confirmation states that it supplements, forms a part of and is subject to the master agreement between the parties. This ensures that the provisions of the agreement govern transactions documented in the confirmations.¹²²



Oral confirmations are intended to be immediately binding contracts. The parties reduce the oral confirmations to writing after each trade and the agreement should stipulate the time within which these written confirmations should be delivered.¹²³ This is especially relevant when dealing with a foreign counterparty, in a different time zone.

Confirmations come in two forms: the long-form and the short-form. The long-form contains the economic terms of the transaction. The short-form does not contain all the terms necessary to document the economic terms of the

¹¹⁹ See note 100, *ibid.*

¹²⁰ *Ibid*, p 220-222. Baird, B.A., Feinberg, L.D. and Dawson, M.A. 'Derivatives, II' (1995) *Business Law Today* p 45-48. Author unknown 'The Italia Express' (1992) *The Financial Times, February 12*, p 92.

¹²¹ See note 100, *ibid.*

¹²² See note 91, Allen & Overy, p 2.

¹²³ See note 6, Wood, p 2, 218.

transaction. It relies on standard terms and provisions that are already contained in another document. For instance the ISDA Definitions. This enables the use of “shorthand” terms in the confirmation and it avoids having to set out various operational provisions. It should be quicker to complete a short-form confirmation than a long-form confirmation.¹²⁴

Unlike the long-form confirmations, which are stand alone documents, short-form confirmations are supported by a set of definitions. The short-form confirmation then simply refers to the relevant definition. It does not repeat the definitions in the confirmation document.¹²⁵

3.2.3.4.3 Payments and settlement

Payments and settlements will always occur on business days. In many jurisdictions the parties have to agree to the netting of settlements before their governing law will allow it. They will also agree on the method of payment where there is cash settlement or physical delivery.¹²⁶

3.2.3.4.4 Tax grossing-up

This clause will deal with the fact that all payments should be made without any deduction or withholding of any tax, except where there is a law that requires the tax to be deducted or withheld. The affected party must notify the other party of these requirements and pay the relevant authorities the full amount required. This party must then send an official receipt to the other party.¹²⁷

Until the end of the 1990s taxation legislation regarding derivatives was either non-existent or inadequate, depending on the jurisdiction. This is rapidly changing, with countries drafting and enacting legislation that deals with

¹²⁴ See note 91, Allen & Overy, p 3.

¹²⁵ *Ibid*, p4.

¹²⁶ See note 6, Wood, p 218.

¹²⁷ Conlon, S.D. and Aquilino, V.M. *Principles of Financial Derivatives: US and International Taxation* (2004) RIA p 1-7.

derivatives specifically, for example the Finance Act 2002 in the United Kingdom.¹²⁸

3.2.3.4.5 Voluntary close-out

When an event of default occurs, the non-defaulting party can suspend performance and is allowed to cancel all existing transactions. The defaulting party must pay the amounts already due and unpaid, as well as any other cost that the non-defaulting party incurs to replace the contracts in the market.

The agreement may provide a broad indemnity against losses or it may stipulate a formula in the form of a liquidated damages clause. This is normally used for foreign exchange contracts, by reference to market quotations for replacement contracts. If there are any profits due to the defaulting party, it is common practice to pay over the profits to him. The reciprocal amounts due either way are then netted or set off to arrive at a single value payable.¹²⁹

A close-out is where a futures contract is cancelled before its maturity date, which results in payment of the gain or loss. Sometimes the close-out is caused by the hedger entering into a reverse contract.¹³⁰ Wood¹³¹ explains this with the following example:

In March Joe agrees to sell Bill \$100 at £50 for delivery in September. In August the price of \$100 for delivery in September is £45. Joe then enters into a reverse contract with Bill to sell £45 (the current market price) at \$100 for delivery in September. Hence in September Joe pays \$100 and receives \$100, receives £50 and pays £45. He makes a profit of £5. The effect of the close-out is to fix his profit at £5 in August. If he had waited until September, his \$100 may have been worth £55 in

¹²⁸ See note 9, Firth, p 9-9 to 9-13.

¹²⁹ *Ibid*, p 221.

¹³⁰ *Ibid*, p 218. Kruff, S.R. 'Cross-default provisions in financing and derivatives transactions' (1996) *The Banking Law Journal* p 217-240.

¹³¹ *Ibid*.

which case, by selling at £50, he would have made a loss. In practice, many contracts on exchanges are closed-out in advance in this way.

3.2.3.4.6 Market disruption

A market disruption clause provides for the postponement of the determination of an exercise price, the value of the underlying security or index until after specified events have occurred or have finished. Market disruption¹³² can make it difficult or impossible to obtain a fair price for a forward contract or option on an index, equity share or bond. This type of event is where trading in certain markets is either suspended or limited. It may also be that extraordinary events caused the market not to reflect a true value.¹³³ Examples of market disruptive events are the terrorist attacks on the USA on 11 September 2001 and the Russian default in the late 1990s.¹³⁴

Where transactions are physically settled, there are two types of disruption events: market disruption and settlement disruption. Market disruption is where a seller cannot purchase shares in the market to satisfy a call option, because the exchange on which the shares are traded has been closed. Settlement disruption occurs where the seller of a call option holds the shares it intends to use to cover the call option in a clearing house, but the clearing house was closed because of a systems failure.¹³⁵ If a correction to an index is announced following a determination and a payout on an index option, the seller may be obliged to pay or receive an amount as a result of the original error.¹³⁶

3.2.3.4.7 Adjustments and extraordinary events

In the case of single shares or basket share options, the documentation usually includes provisions adjusting the strike price or the number of options

¹³² See 3.9 and 4.3.3.2.

¹³³ See note 6, Wood, p 219.

¹³⁴ See note 6, Wood, p 218-219.

¹³⁵ *Ibid.*

¹³⁶ *Ibid.*

in the event of certain changes affecting the underlying equities. Adjustment provisions are designed to give the buyer any benefits it would have received if it had held the underlying equities directly. The adjustment clause will either include a complicated formula to calculate the adjustments that need to be made or give discretion to a calculation agent to make such adjustment as are necessary to preserve the economic equivalent of the options prior to the relevant adjustment event. The formula approach is normally used where all the shares are held in one jurisdiction, the discretion approach is normally used where the shares are from markets in various jurisdictions. Another approach is to link the adjustment provisions to the adjustments made by the relevant exchange. Shares transactions may be closed out if extraordinary events occur, for instance when the issuer merges with another company or goes into liquidation.

3.2.3.4.8 Representations and warranties

These clauses are in the usual format and refer to status, power and authority to act, no conflict with law or contracts, official consents, legal validity, no default, no material litigation and tax representations by each party.¹³⁷



3.2.3.4.9 Termination for illegality

If a party's obligations become illegal in his jurisdiction, due to a change in law, he may initiate a close-out. All the transactions are cancelled and the parties pay each other after netting.¹³⁸

3.2.3.4.10 Events of default

This clause lists the following events as events of default: failure to pay or deliver, breach of agreement (this includes any obligation in terms of the agreement) and default by the credit support provider. A credit support provider is not defined by ISDA, but in terms of the schedule to the master

¹³⁷ See note 6, Wood, p 220.

¹³⁸ *Ibid.*

agreement, the parties are free to provide their own definition. Other events of default listed are misrepresentation, defaulting under a specified transaction, cross-default, where more than one party causes a default with the result that performance is moved to an earlier date, bankruptcy and mergers where the new entity fails to assume all the obligations.¹³⁹

3.2.3.4.11 Calculation agent

The calculation agent is one of the parties or an independent third party who does the calculations necessary in terms of the agreement. Calculations are then deemed final, in the absence of a manifest error. The agent's liability is limited by an exclusion of liability clause.¹⁴⁰

3.2.3.4.12 Miscellaneous

Miscellaneous clauses may be included to determine, for instance, where notices will be served, whether tape recordings will be accepted as evidence, how default interest will be calculated, or to provide for currency indemnity, enforcement costs, set-off, netting, assignments, waivers and remedies.¹⁴¹ One of these clause will be the law and forum clause, which will deal with the governing law, jurisdiction and waivers of immunity.¹⁴² The counterparties may also choose to include a vis maior or acts of God clause.¹⁴³

3.2.3.5 Validity of oral contracts

Dealers often enter into verbal contracts over the telephone. The question is asked whether a binding contract arises at the time of the verbal agreement, or only when it is confirmed by fax, e-mail or another form of deal confirmation, or when the parties sign more formal documents. Normal contractual principles should apply and therefore the verbal agreement will

¹³⁹ Clause 5(a) of the ISDA agreement. See note 6, Wood, p 220.

¹⁴⁰ *Ibid.*

¹⁴¹ *Ibid.*

¹⁴² *Ibid.*

¹⁴³ *Ibid.*, p 221.

already constitute a valid contract, although it may be difficult to prove. A subsequent deal confirmation will simply document the agreement. However the confirmation may, however, vary or supplement the original agreement. Such a variation or supplement should be agreed afresh with the counterparty, or else it should stand as it was initially verbally agreed. In the current author's experience this occurs by means of a recorded telephone conversation between the derivatives traders.¹⁴⁴ The problem with this argument is that it will be difficult to obtain evidence to prove the verbal agreement.

3.2.3.6 Capacity

Certain institutions may not have the capacity to enter into derivative contracts. These may include statutory corporations, building societies and similar savings institutions, insurance companies, municipalities and international organisations.¹⁴⁵

Local authorities in the UK started using derivatives in the early 1980s. Many used interest rate swaps to help manage their portfolios. The size and risk profiles of their swap books became considerable, especially among opposition Labour-run councils, which were attempting to evade spending controls imposed by the Conservative Government. By 1987 some councils were effectively taking leveraged bets on interest rate movements. They bet against rising interest rates and used deep discount swaps to obtain upfront funding in exchange for paying above market interest rates.¹⁴⁶

On 24 February 1988 the London borough of Hammersmith and Fulham (Hammersmith) entered into their first transactions in the London Money and Capital Market. During 1988 and 1989 Hammersmith entered into 592 swaps, with an aggregate notional amount of GBP6 billion. Most of these were interest rate swaps. Hammersmith was not hedging its debt obligations. It was

¹⁴⁴ *Ibid.*

¹⁴⁵ *Ibid.*, p 222. David T. Bloom 'Derivatives Risk – How it is Being Addressed in the Documentation' (1996) *Practising Law Institute* p 345-359.

¹⁴⁶ Field, P. *Modern Risk Management: A History* (2003) Risk Books p 531-533.

gambling on interest rate movements. It was even acting as intermediary for other councils who could not enter into swaps because of government-imposed spending caps. At one point it had a £6 billion book of interest rate swaps and swaptions on an outstanding debt of only £390 million. The interest rates in the United Kingdom almost doubled from 1988 to 1989. Hammersmith lost the gamble. The plug was pulled on Hammersmith's massive swaps book in 1989.¹⁴⁷

In February 1989, Hammersmith's district auditor, acting through the Audit Commission for local authorities, started proceedings to have the transactions declared void on the basis that they were beyond the power of local authorities.¹⁴⁸ The subsequent default and legal battle involved 130 UK local authorities and 75 banks. It cost the banks concerned £750m and it focused derivatives providers' minds on legal risk.¹⁴⁹ The city councils did not have the authority to enter into these transactions, and therefore acted ultra vires. The swaps were declared invalid and the cities were not responsible for the losses.¹⁵⁰

The Divisional Court ruled during May 1989 that the derivatives were ultra vires and therefore invalid. The matter was taken to the Court of Appeal, which ruled that the swaps were valid to the extent that they were used for interest rate management. It also ruled that swaps entered into to hedge an underlying exposure were lawful, while speculative deals were not. The House of Lords confirmed the Divisional Court judgement, which stated that

¹⁴⁷ *Ibid* Stutts, W.F. 'The Derivative as Fiend: Killer Bunny or Trojan Rabbit?' (2001) *Texas International Law Journal* p 828-833.

Hazell v. Hammersmith and Fulham London Borough Council and Others, (1990) 2 W.L.R. 1038 CA (Civ Div).

Hazell v. Hammersmith and Fulham London Borough Council, (1992) 2 App. Cas. 1, 27-28, 37 (Appeal taken from Q.B.).

Hazell v. Hammersmith and Fulham London Borough Council, 2 W.L.R. 372; 1 All E.R. 545 (H.L. 1991).

¹⁴⁸ *Ibid*. See note 130, *ibid*.

¹⁴⁹ See note 131, *ibid*.

¹⁵⁰ See note 49, Jorion, p 670-671. Sienko, D.C. 'The Aftermath of Derivatives Losses: Can Sophisticated Investors Invoke the Suitability Doctrine against Dealers under Current Law?' (1995) *DePaul Business Law Journal* p 107-131. Rosenthal, J.M. 'Incorporation may not mean Sophistication: Should there be a Suitability Requirement for Banks Selling Derivatives to Corporations' (1996) *Chicago-Kent Law Review* p 1249-1269.

all the derivative transactions were deemed void due to the local municipality's lack of capacity.¹⁵¹ This offered the council a way out of its loss-making position.¹⁵²

The impact of this judgement was devastating on the counterparties because the portfolio was out of the money. The result was that the counterparty banks had to absorb the losses amounting to \$178 million. The court did not realise that its decision would have such a large impact on the markets. The court merely considered the authority of the local municipality based on its interpretation of the statutory powers of the municipality. It also did so at the instigation of the auditors of the municipality. The court did not consider the financial implications of declaring the transactions unenforceable. The judges did not have an idea of the identity, size and number of transactions that would be affected by their judgement.¹⁵³ Hammersmith was not the only local authority actively involved in the swaps market, and the ruling resulted in many other transactions being void.

Subsequently banks have tried to control their legal risks by verifying that their counterparties indeed have the capacity to enter into the proposed transactions. The case highlighted two issues, namely whether the local authorities had the capacity to enter into these transactions, and to what extent counterparties could recover payments under swap contracts which were later found to be void.¹⁵⁴

For many years, the Hammersmith loss was the greatest single loss in the derivatives markets.¹⁵⁵ The Hammersmith case illustrates the importance of involving lawyers in the derivatives process, to ensure that the fundamental issues are dealt with in the contracts. A lawyer will determine whether the *essentialia* of a contract have been agreed and whether the counterparty has

¹⁵¹ See note 131, *ibid.*

¹⁵² Geckeler, P.M. 'Municipal Derivatives Use and the Suitability Doctrine' (1996) *Washington University Journal of Urban and Contemporary Law* p 285-314.

¹⁵³ Alexander, C ed *Operational Risk: Regulation, Analysis and Management* (2003) Financial Times Prentice Hall p 81.

¹⁵⁴ See note 131, *ibid.*

¹⁵⁵ See note 49, Jorion, p 671.

the legal capacity to enter into the contract. The counterparties in the Hammersmith case did in fact seek legal counsel, and the opinions said that the local authorities had the capacity to enter into these agreements, but there was room for argument to the contrary. The lesson financial institutions should learn from this is that if a legal opinion reaches a conclusion, but there is definite room for argument to the contrary, the opinion should be treated with great caution. In Australia this type of opinion is referred to as “the better view” argument.

The ability to enter into derivative contracts cannot be assumed, even when dealing with financial institutions. In Australia, building societies and credit unions are specifically prohibited from entering into domestic currency-denominated derivatives, except for hedging purposes. There are even more restrictions on any form of foreign currency derivative. In the United Kingdom, building societies have limited power to enter into swaps. In South Africa, there are similar restrictions on insurance companies.

In South African law, companies may be held accountable for their ultra vires acts.¹⁵⁶ Agreements with partnerships, trusts, close corporations, clubs, government departments and the like will have to be handled with caution to avoid a similar situation as in the Hammersmith case.¹⁵⁷

3.3 Specific master agreements: the ISDA

Over 90% of the world's 500 largest corporations use derivatives to help manage their risk.¹⁵⁸ One of the tools used in managing derivatives belongs to trade organisation such as the ISDA. Not only does the ISDA provide a set of master agreements, that are kept updated, but they also provide protocols, definitions and opinions of the enforceability of various aspects of derivatives in the different jurisdictions.

¹⁵⁶ *Companies Act* 61 of 1973.

¹⁵⁷ See note 130.

¹⁵⁸ Over 90% of the world's 500 largest companies use derivatives to help manage their risks, according to new ISDA survey, April 9, 2003. <http://www.isda.org/index.html/> Accessed 10 December 2005.

3.3.1 Benefits of belonging to the ISDA

3.3.1.1 Opinions

The ISDA offers a service to its members by obtaining legal opinions in advance. ISDA will brief legal counsel, in jurisdictions with ISDA members, to provide opinions on various aspects of derivatives and master agreements. These will for instance deal with the enforceability of certain sections of the master agreements, such as set-off and netting. One of the main benefits of the ISDA to its members is access to legal opinions, but only ISDA members may obtain these opinions as a result of their membership.

There are netting opinions for 36 jurisdictions available from the ISDA. These opinions deal with whether the close-out netting provisions in the master agreement would be enforceable against a number of entities incorporated in a specific jurisdiction.¹⁵⁹ Collateral opinions for 28 jurisdictions are available from the ISDA. Similar to the netting opinions, these opinions deal with whether the provisions in the credit support documents would be enforceable. But why do we need these opinions in the first place, if these contracts are governed by English or US law? The reason for these opinions is that the regulators require legal opinions in support of close-out netting before they will recognise it for banks' capital purposes. They also require that these opinions be updated annually. This will be extended to collateral opinions as well in future.¹⁶⁰

3.3.1.2 User guides

The ISDA publishes user guides that are available to their members. These guides give practical explanations that assist in the application of the master agreements. The user's guides are used to assist market participants' understanding of ISDA agreements. The guides contain explanations of

¹⁵⁹ See note 91, Allen & Overy, p 5.

¹⁶⁰ *Ibid*, p 6.

provisions contained in the ISDA documents as well as discussions of additional provisions that the parties might like to consider including in their documentation. In addition to this, the ISDA publishes commentaries to supplement the formal ISDA documents.¹⁶¹

3.3.1.3 Protocols

Protocols are used by ISDA members to amend a number of contracts simultaneously. If you have contracts with a number of counterparties and you want to amend all of them in a certain way, then you would normally have to negotiate the amendment with each counterparty individually. Protocols enable parties to amend all of their contracts at once, or multilaterally. This has both time and cost-saving benefits.¹⁶² The relationship between a master agreement and a protocol is that the master agreement is agreed between the counterparties, but users may amend the master agreements, by using protocols. A protocol only comes into effect once the one party signs up to the protocol, by delivering an adherence letter to the ISDA and the counterparty also agrees to amend the contract by signing up to the protocol.

The protocols contain a number of amendments called “annexes”, and the parties may choose which amendments they wish to apply by specifying these in their adherence letters. If the parties specify different annexes in their adherence letters, they are deemed to agree only on the annexes they have both specified. The ISDA is responsible for checking that the letters are completed correctly and that the letters of the adhering parties are displayed on their website.¹⁶³

3.3.1.4 ISDA definitions

ISDA definitions are the different booklets of standard definitions published by the ISDA for use in documenting different types of derivative transactions.

¹⁶¹ *Ibid.*

¹⁶² *Ibid.*

¹⁶³ *Ibid.*

www.isda.org/publications Accessed 1 October 2004.

Short-form deal confirmations rely on these definitions, by stating that they incorporate a specific set of definitions. These definitions are not entirely comprehensive. It is still up to the parties to document the economic terms of the transaction. There is freedom of contract and the parties are allowed to amend the terms of the definitions or include additional provisions.¹⁶⁴

3.3.1.5 The ISDA Model Netting Act

In April 1993 the Basel Committee on Banking Supervision proposed certain amendments to the 1988 Basel Capital Accord.¹⁶⁵ One of these proposals dealt specifically with netting agreements. They proposed that bilateral netting arrangements be recognised for the purposes of calculating capital adequacy in derivative portfolios.¹⁶⁶ This was probably the forerunner of the ISDA Model Netting Act.

The ISDA published the 2002 Model Netting Act.¹⁶⁷ This was drafted with the intention that member countries adopt it as their own netting legislation. This Act is divided into two parts. Part I – Netting: defines various terms, including collateral and netting. It also lists a number of contracts that are expressly allowed, but the central bank of a specific country may also include other contracts in terms of section 2 of the Act. Section 3 expressly excludes all derivatives contracts from being gambling or wagering contracts. Section 4 deals specifically and extensively with the enforceability of a Netting Agreement.¹⁶⁸ Part II deals with multibranch netting and also provides a number of definitions in section 1. Section 2 deals with the enforceability of a multibranch netting agreement in an insolvency of a branch or agency of a foreign party.

¹⁶⁴ *Ibid*, p 3.

¹⁶⁵ See note 3, Das, p 1359.

¹⁶⁶ See note 3, Das, p 1359.

¹⁶⁷ The act is unnumbered.

¹⁶⁸ www.isda.org/masteragreements Accessed 10 December 2005.

3.4 Other jurisdictions

The ISDA master agreements, protocols and opinions have been utilised in various jurisdictions, for instance Canada, Japan, the US, the UK, France, Germany and various other European Union members, as well as in countries in Asia-Pacific, Central and Eastern Europe, Latin America and South Africa.¹⁶⁹

3.5 South Africa

South African merchant banks attempt to have the derivative agreement signed as soon as possible, preferably before the agreement is entered into. South Africa also makes extensive use of ISDA master agreements. Therefore the process is simplified because the deal confirmation already incorporates the ISDA agreement by reference.¹⁷⁰ The ISDA agreements are therefore only negotiated and signed once.

South Africa also has a few financial institutions that are members of ISDA and are therefore able to utilise the agreements, protocols, user guides and opinions. The ISDA has also tasked South African legal firms to draft the ISDA opinions that apply in this jurisdiction.

4. Practical implementation

A key stumbling block that has prevented the derivatives market from taking off in the 1970s was documentation. There were no standard documents or terms for these deals. This resulted in lengthy negotiations, had huge cost implications and caused delays.¹⁷¹ The importance of accurate terms of contract, that reflect the intention of the parties cannot be over-emphasized. This may be best explained by an example: The results of the US presidential election in 2000 were to be announced on 7 November. Suppose that three

¹⁶⁹ www.isda.org/members Accessed 15 October 2005.

¹⁷⁰ See note 68, Stuart *ibid*.

¹⁷¹ See note 131, Field, p 18-19.

months earlier, securities corresponding to the two candidates, Al Gore and George W. Bush were trading on an electronic market. The Gore instrument promised to pay \$100 on 7 November if Gore were to win and the Bush instrument promised to pay \$100 if Bush won. The results of the Florida vote were contested and the outcome was only known on 13 December 2000. They should either have provided for it in the contracts or alternatively a third security would have solved the problem, a rare event security that would pay \$100 if no outcome were known on 7 November.

Therefore it is of the utmost importance to define the terms of these contracts very precisely, and to be mindful of all eventualities.¹⁷² It is necessary to assess the risks accurately, in order to be able to split it into its component parts, to be able to hedge. The constant innovation that characterises the derivatives market means that derivatives lawyers are continually challenged to analyse correctly and document the contractual arrangements to which their clients agree.¹⁷³ Derivatives contracts are either encompassed in documented agreements or in deal confirmations. The documented agreements are either drafted ad hoc for particular deals, or master agreements are used. Legally sound, preferably tested, documents like mandates and standard dealing agreements are used as protection against legal risk and rogue trading in any treasury¹⁷⁴ environment.¹⁷⁵

5. Conclusion

There is specific legislation that governs derivatives, both in foreign jurisdictions and in South Africa. The specific pieces of legislation were discussed earlier in this chapter. One of the problems in South Africa that will need to be resolved in order to minimise the legal risk associated with trading in derivatives in a merchant bank, concerns the unresolved issues between the FSB and the SARB.

¹⁷² See note 86, Boyle, p 46.

¹⁷³ See note 3, Das, p 1341.

¹⁷⁴ *Treasury* is the area in a merchant bank that deals in the markets on a day-to-day basis. It is also referred to as the trading operations (Current author's opinion).

¹⁷⁵ Kihlbom, E. and Foulkes, A. *Rogue Trader?* (2002) KPMG LLP Banking Survey Africa p 23.

It may also be concluded that there are certain problems that arise from the contracts and other documents used in derivatives trading because of the cross-border nature of derivatives contracts . ISDA master agreements are an effective way of managing the legal risk in derivatives. The reason for this is that the ISDA attorneys have done in depth research prior to drafting the agreements, and the ISDA also provides opinions on agreements concerning the various aspects of derivatives trading. This results in some degree of legal certainty. At least ISDA members will be able to establish before entering into the contract, what the likely interpretation is of specific clauses in specific jurisdictions. Utilising ISDA master agreements is a preventative measure that limits legal risk.

The limited two-way payment provision or walk-away clauses that allow parties to “walk away” from the contract in the event of default creates problems, because there are doubts as to its legal enforceability in many jurisdictions. It is argued that a court may hold that this clause constitutes an unenforceable penalty, an unacceptable forfeiture of property, or is contrary to public policy. The nature of these concerns will vary between jurisdictions, but this will not be resolved until an authoritative superior court decision is made or legislation is adopted to clarify the matter. The clause delivers windfall gains to parties purely by chance. This is commercially unacceptable because it is to the detriment of other creditors and an insolvent counterparty.¹⁷⁶ If a counterparty tries to retain such a windfall gain, and is determined to defend it in court, it will most likely cause tremendous damage to this party’s reputation, because the public perception will be that it condones unethical behaviour, simply because the general public will not understand the mechanics of the deal. Even where the contracts contained limited two-way payment clauses, and the party was entitled to the windfall gain, the court is likely to rule in favour of the defaulting party.

¹⁷⁶ See note 3, Das, p 1351. See note 49, Jorion, p 677.

The parties started adapting the 1987 ISDA master agreement to include a full two-way payment provision. The 1992 ISDA master agreement recognised the difficulties and a limited two-way payment provision is now available alongside a full two-way payment provision. In April 1993 the Basel Committee on Banking Supervision issued a consultative proposal, which recognised the acceptability of bilateral netting agreements for calculation of capital adequacy requirements. It proposed to exclude any agreement that contains a limited two-way payment clause. The reason for this is to prevent windfall gains that might induce systemic risk.

Automatic termination provisions also lead to difficulties because they have an impact on attempts to dispose of a swap portfolio in an orderly manner. In many jurisdictions making use of the automatic termination clause is of no benefit to the non-defaulting party. This was recognised in the 1992 ISDA master agreement, and the non-defaulting party now has a choice to rely on the automatic termination clause. This is especially useful in jurisdictions where the non-defaulting party would otherwise be impacted by insolvency legislation.

It might be concluded that the South African legislation is adequate with regard to derivatives, in that it is codified where necessary, and there is some internal regulation built into the system as well. The only concern that is raised relates to the uncertainty about the jurisdiction of the SARB and the FSB. This concern is similar to the concern about the jurisdiction of the CFTC and the SEC in the US. This uncertainty could very easily be rectified by amending the Banks Act to include all banking activities, excluding those products which are definitely within the jurisdiction of the FSB, by cross-referring to the FSB Act. A catchall phrase could be added that ensures that the SARB, or FSB, has jurisdiction in case of uncertainty. This would create legal certainty.

In South Africa the *Banks Act*¹⁷⁷ requires the board of directors of a bank to establish an effective risk management programme for any risk that is

¹⁷⁷ See note, 34, regulation 38.

regarded as material to the business of that bank. It is submitted that legal risk is a significant risk in a merchant bank and should therefore be included in the risk management programme and be subjected to regular review by the board of directors to ensure that it is effective.

International guidance on derivatives is inadequate. For as long as the market continues to grow rapidly in an innovative fashion, the law cannot keep pace. Legislation is often problematic, rather than helpful. Self-regulation is more effective and timeous than legislation and precedents. There might be some value in considering legislation in the relevant jurisdictions. However the current author submits that it is probably more valuable for a lawyer in a merchant bank to research industry practices, standards, procedures and codes and act thereon. The derivatives trading fraternity has almost created their own common law through industry best practices, which are largely uncodified.

Appropriate legislation, supplemented by a large component of self-regulation, will go a long way towards reducing the legal risks associated with trading in derivatives in a merchant bank.



CHAPTER 5

Conclusion

- 1 *Introduction*
- 2 *Conclusion*
- 3 *Recommendations*
- 4 *Implications for further research*
- 5 *Concluding statement*

1. Introduction

The focus of this research has been legal risk, specifically as it pertains to derivatives trading. This is an area of the law that has never been properly researched and documented. The reasons for the lack of research available in this field is partly due to a lack of understanding of legal risk in the banking environment on the side of academics, owing to a lack of practical experience, and partly owing to a lack of interest from banks to invest time and money into the necessary research. This study addresses this need because it provides a definition of legal risk, examines its causes and breaks down legal risk into its component parts. It provides the basic tools for identifying legal risk and it goes some way towards providing the basic building blocks of a legal risk management programme, as it pertains to a derivatives trading environment.

Once merchant bankers in a derivatives trading environment have learnt accurately and timeously to identify and manage the causes of legal risk, the management of legal risk will become a more exact science in the same way as credit and market risk management, and it will be possible to control the risk more effectively. Given the history of the development of credit and market risk models and risk management tools, it could take as long as twenty years to develop and implement a proper legal risk management programme into a derivatives trading environment.

2. Conclusion

The main concept that has been investigated in this study is legal risk in derivatives. The basic concepts of derivatives were dealt with, followed by a discussion of risk and risk management. The current author has questioned whether legal risk is indeed a form of risk and whether it warrants risk management processes to be initiated in order to manage legal risk. The question whether legal risk does have an impact on derivatives has been addressed and have been found not to warrant the implementation of additional control measures.

This study has examined the questions that arise when considering legal risk in the context of derivatives. This has included having to define legal risk and derivatives and how they relate to each other. In order to define legal risk it has been necessary to start with the definition of what risk is. The purpose of the research has been to investigate legal risk and legal risk management as it pertains to derivatives. Legal risk management has only become a separate discipline in the past five years. In many instances, banks have not implemented legal risk management programmes.



In the current study a merchant banking environment, as it pertains to the legal risks in derivatives, has been investigated. This study addresses the importance of derivatives, with reference to the history of these instruments. This is linked to the importance of legal risk. Derivatives have been described and explained, and the relationship with legal risk explored. The present author has explored the rapid growth, innovation and change that are part of a derivative, and the consequences of legal risk. The present author has achieved the secondary goal by having provided an indication as to whether it is necessary to develop and implement a legal risk management programme in a merchant bank derivatives trading environment. What has not been explored is the development and implementation of a legal risk management programme, which could form the basis of another study.

The research methodology has entailed a literature study, as well as commentary and case studies. In addition, a few personal interviews have been conducted and conferences, seminars and working groups attended. The relevant information obtained by these means has been incorporated into this thesis.

Owing to the international nature of derivatives, the research has not been limited to South African law and the position in South Africa has not always been discussed as South African law has not been tested in this regard. Due to the international nature of the subject it may be assumed that problems that arise in other jurisdictions may well be applicable to South African law, and the courts and the legislature would probably also go to these foreign legal systems for answers and guidance.

The aim of the research¹ has been to determine whether legal risk is a significant risk in derivatives trading and therefore increases the risk profile of a merchant bank. The purpose of the research was also to define and classify risk, legal risk and legal risk management, and to explore how these concepts are interrelated.



In answer to the questions raised in the problem statement,² derivatives are defined in chapter two as private contracts, with future rights and obligations imposed on all parties, that are used to hedge or transfer risk, and which derive their value from an underlying asset price or index, which asset or index may take various forms. The nature of a derivative as discussed in chapter two, is that it divides risk into its component parts so that these are then traded and used either to hedge the risk or to speculate. Derivatives may be classified in terms of the manner in which the instrument is traded, either exchange-traded or OTC, or in terms of the structure of the instrument itself, being plain vanilla futures or forwards, options and swaps. It is concluded that all derivatives are variations or combinations of these plain vanilla instruments.

¹ See chapter one, 5.

² See chapter one, 4.

The questions about risk, risk management, the nature and objectives thereof, classification, credit risk, set-off, netting, legal risk and legal risk management are addressed in chapter three. Chapter three is also used for further research into the classification, nature and objectives of legal risk, as well as the relationship between risk management legal risk and derivatives.³ Legal risk is not the only risk that is present in derivatives. Some of the other risks are also discussed. These include systemic, market and operational risk. Although there are various risks attached to trading in derivatives, the valuable contribution that these instruments make as risk management tools far outweigh the risks, because there are financial benefits to the market participants who use these instruments prudently. For instance the counterparty that is able to demonstrate that it has hedged its risks will be able to improve its credit rating.⁴

Chapter three also provides the reasoning for the inclusion of legal risk in the category of operational risk. Therefore a legal risk management policy and process, may be aligned with the operational risk management policy and process of the bank. It is concluded that such a policy and process are necessary to manage and mitigate the legal risks that pertain to derivatives in a merchant bank. The policy may stipulate the risk appetite of the bank and also prescribe the risk governance structures that are applicable to the bank. Because of the complexity and value of the derivatives, proper governance is invaluable and assists in avoiding systemic risk. The legal risk policy includes the basic legal risk management process followed by the bank. This includes the processes for establishing whether to tolerate, transfer, treat or terminate the risk. It is advisable to develop a legal risk management policy and process for the merchant bank as a whole, and thereafter adopt and adapt the policy and process for the derivatives trading room. This ensures an aligned, uniform approach throughout the organisation, while maintaining specific risk standards for derivatives.

³ See chapter one, 4.

⁴ Johnson, C.A. 'The intersection of Bank Finance and Derivatives: Who has the right of way?' (1998) *Tennessee Law Review* p 23.

Regular risk reports may be submitted to the board of directors, risk and audit committees of the bank. These reports deal with the effectiveness of the transfer, treatment, toleration and termination of risks in the bank. The board may wish to review the efficiency and effectiveness of the risk management programme on a regular basis. It is not advisable to manage legal risk in such a manner that it is eliminated, because this implies avoiding the risk altogether. Avoiding the risk means that the bank cannot do business because of the possibility of incurring legal risk through any of its activities. Legal risk should be managed such that it minimises losses due to the materialising of legal risk, while maximising profits.

In South Africa, banks are guided by the King⁵ Code on Corporate Governance. According to the report the functions of risk management processes are to assign responsibility and accountability for risk management, to collect, analyse and report to management quantitative and qualitative information on risks taken by business, to develop and enforce risk standards, policies, methodologies, limits and controls, and to identify and help resolve problems associated with risks taken by the business.⁶ King stresses the importance of managing the risks and not only the products associated with hedging and mitigating the risks.⁷ The conclusions applicable to legal risk may therefore be applied to derivatives trading in South Africa.

Chapter four provides an analysis of derivatives legislation in various jurisdictions. There is specific legislation that governs derivatives both locally and internationally. A problem that South Africa faces with regard to derivatives trading is the perceived power struggle between the SARB and the FSB. There are also some problems that arise with the actual documentation used in derivatives trading. These are to a large extent addressed by utilising the ISDA Master Agreements, which are continuously updated and researched. Membership of the ISDA is also beneficial because the ISDA obtains legal opinions within the various jurisdictions and on various topics

⁵ King, M.E. *King Report on Corporate Governance for South Africa* (2002) Institute of Directors p 73-81.

⁶ Field, P. *Modern Risk Management: A History* (2003) Risk Books p 3.

⁷ *Ibid*, p 7.

upfront, and not only when legal opinions become necessary. This creates some degree of legal certainty, because ISDA members are able to establish what the likely interpretation in a specific jurisdiction is, before entering into the transaction.

It is concluded in chapter four that South African legislation is adequate with regard to derivatives. There is a balance between self-regulation and external regulation. The legislature aims to regulate the market to avoid speculation while ensuring that risk mitigation is allowed. The concern that remains is the uncertainties regarding the jurisdiction of the SARB and the FSB. This may be compared to the jurisdictional issues that exist between the CFTC and the SEC in the US.

In general it can be concluded on the basis of the research presented in the previous chapters that there are significant risks in trading in derivatives in a merchant bank, one of which is legal risk, but legal risk cannot be singled out as the risk factor with the highest impact. It is important to manage this risk just like any other risk, whether it is strategic, reputational, credit or operational risk. Legal risk is often the result of not managing these other risks properly, as was illustrated in, for instance, the *Barings* case.⁸ However, it is found that there are certain pure legal risks like the lack of capacity to contract, such as in the *Hammersmith* case,⁹ which may have dire consequences. It is also important to put a properly drafted, legally vetted agreement in place before dealing in order to manage legal risks. There is a perception that derivatives are responsible for spectacular corporate failures. This may be true, but there are also less publicised events where derivatives were instrumental in achieving a successful result, like in the *Development Finance Corporation*¹⁰ event in 1989.

The jurisdiction of the counterparties will have a definite influence on the transaction, because there may be legal uncertainty about the specific

⁸ See chapter three.

⁹ See chapter three.

¹⁰ See chapter three.

instrument in one of the jurisdictions. This specifically applies to netting and collateral. One of the risks that seems to be diminishing is the risk that a derivative may be considered as gambling or insurance in some jurisdictions. The reason for this is that it is slowly being recognised as accepted business practice. For instance, until the mid-1990s weather derivatives were considered pure gambling contracts in most jurisdictions, and therefore not allowed. A decade later weather derivatives have become quite common. Also, in a large-scale default¹¹ the parties do not tend to cling to their pure legal position and windfall gains. They usually understand the magnitude of the impact that the event may have. They therefore give consideration to the wider market conditions and systemic risk and will usually bail out the defaulting party, as illustrated in the *Development Finance Corporation, Bank of New England, British Commonwealth and Merchant Bank* and *Drexel* cases.¹²

Therefore legal risk is a significant risk of trading in derivatives. It is amongst other risk factors, one contributor to the risk profile of a merchant bank. The legal risks that arise in trading activities should be carefully managed in a similar manner to the management of credit, market or operational risk.



3. Recommendations

Based on the conclusions discussed in the previous chapters, there are four recommendations that can be made with regard to the legal risks and legal risk management of derivatives in a merchant banking environment. Firstly, the legal risks that pertain to derivatives in a merchant bank need to be identified by means of a vested risk management policy or framework in the merchant bank. This policy includes a legal risk management policy, or establishes a legal risk management policy separate from, but aligned with the risk policy. The legal risk management policy includes compliance with legislation. The policy determines that legal risk management reports need to be submitted to the board of directors of the merchant bank, or the audit, or

¹¹ See chapter three.

¹² See chapter three.

risk committee of that bank. These reports need to be submitted on a regular basis.

The committee also needs to take a view on the effectiveness of the legal risk management programme within the organisation. This should be achieved by means of a compliance monitoring programme, internal audit reports and loss reporting for legal risk losses, along with the regular risk reports. This ensures that the committee is able to identify trends and ensure that corrective action is taken timeously. This assists the committee in setting the legal risk appetite and limits that pertain to the merchant bank's, derivatives trading activities.

The second recommendation is to create a derivative to hedge the legal risk in derivatives. Credit, market, operational, weather and many other risks are split out of the transaction and hedged by means of derivatives contracts. The current author therefore recommends that legal risk also be separated from the underlying asset, price or index and be hedged by means of a derivative agreement.

As a third recommendation a banking environment where the board of directors becomes involved in and supports the risk management process is crucial to proper risk management. Currently the boards tend to perceive the risk management functions in their organisations as a necessary evil, which cuts into their profits because they are not profitable. These risk teams are often called "back-office" staff, which is a slightly derogatory term in the banks. This implies that the staff who are part of the risk team is not the best qualified, innovative and best performing members of the merchant banking team, as they are not at the coal face. They are often sidelined and not kept informed of decisions that affect the risk profile of the bank. Until the perception that risk management is a costly luxury is eradicated, legal risk management processes cannot be implemented properly. At present, resources simply do not exist to research, develop and implement a programme to identify legal risk and thereafter make an informed decision whether to transfer, tolerate, treat or terminate the legal risks that face the merchant bank.

The last recommendation is that jurisdictions which participate in derivatives trading consider membership of and active participation in industry associations such as ISDA. If all jurisdictions adopt similar legal principles with regard to derivatives, a large part of the legal uncertainty in derivatives trading is eliminated. This would for instance include adopting the ISDA Model Netting Act.

4. Implications for further research

The basic legal risk and compliance aspects have been researched in a merchant banking environment in the current work. Further work could focus on the development and implementation of legal and compliance risk management policies in a merchant banking environment, including a legal and compliance risk management programme. If the focus of such a study is on the South African derivatives trading merchant banking environment, regulations 38 and 47 of the *Banks Act*¹³ may form the basis of the study. The study may also include the practical implementation issues related to the King II Report on Corporate Governance as well as the recommendations of the Institute of Risk Management of South Africa.¹⁴

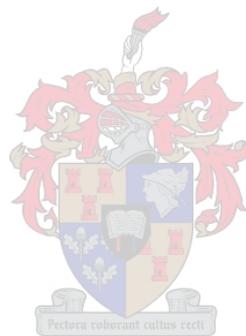
5. Concluding statement

This thesis aims to provide a comprehensive document on legal risk in derivatives. It proves that legal risk is a significant risk that should be taken into account in a derivatives trading environment. It will enable a merchant bank to identify the causes of legal risk applicable to the bank's environment, and will form the basis of the development of a legal risk management programme to mitigate these risks and implement processes and procedures effectively and efficiently to manage legal risk to a level acceptable to the bank. This research also serves as an introduction into derivatives, risk, risk management and legal risk to the legal fraternity because it provides a

¹³ Act 94 of 1990.

¹⁴ See chapter three.

compendium and classification of derivatives, risk, risk management and legal risk.



Bibliography

Case law

American Palace v Minister of Safety and Security and Others 2000(4) SA 88 (B).

British Eagle International Airlines Ltd v Compagnie Nationale Air France HL (1975) 2 All ER.

Bryant & Flanagan (Pty) Limited v Muller and Another NNO 1978 (2) SA 807 (A) 812.

Cohen NO and Others v Verwoerdburg Town Council 1983 (1) SA 334 (A) 352.

Drexel Burnham Lambert Products Corporation v Midland Bank Plc, 1992 US DC, SD of NY, 92 CIV 3098.

Ex Parte Liquidators of Parity Insurance Company Limited 1966 (1) SA 463 (W) 471.

Gibson Greetings, Inc. v. Bankers Trust Co., No. C-1-94-620, (S.D. Ohio, filed Feb. 6, 1995).

Gibson v van der Walt 1952 (1) SA 262 (AD).

Government v Thorne and Another NNO 1974 (2) SA 1 (A).

Hazell v. Hammersmith and Fulham London Borough Council and Others, (1990) 2 W.L.R. 1038 CA (Civ Div).

Hazell v. Hammersmith and Fulham London Borough Council, (1992) 2 App. Cas. 1, 27-28, 37 (Appeal taken from Q.B.).

Hazell v. Hammersmith and Fulham London Borough Council, 2 W.L.R. 372; 1 All E.R. 545 (H.L. 1991).

Hilton v Barker Booth & Eastwood (HL) 3 February 2005.

In Re Bank of Credit and Commerce International S.A. (No. 8) Ch D 1994 Feb. 9, 10, 11; March 9.

Item Software (UK) Ltd v. Kouroush Fassihi, Mandy Liddiard, Rams International Ltd, Isograph Ltd Case No: A3/2003/0311 CA (Civ Div).

Moody v Cox (1917) 2 Ch 71.

National Westminster Bank plc v Morgan (H.L. 1985).

Nichol v Burger 1990 (1) SA 231 (C).

Peregrine Fixed Income Ltd (In Liquidation) v Robinson Department Store Plc (2000) C.L.C. 1328.

Procter & Gamble Co. v. Bankers Trust Co., No. C-1-94-735 (S.D. Ohio, filed Feb. 6, 1995).

Rennie NO v South African Sea Products Limited 1986 (2) SA 138 (C).

Rousseau v Malan 1989 (2) SA 451 (C) at 459.

S v Goncalves 1975 (2) SA 51 (T).

Sara Frost v James Finlay Bank Ltd (H.L. 2002).

Securities and Exchange Commission v. J.P. Morgan Chase & Co., Case No. H-03-28-77 (MH) (S.D. Tx.).

Sema and Another v Minister of Safety and Security and Others 1995 (2) SA 401 (O).

Sinclair Investment Holdings S.A. v. Versailles Trade Finance Limited (In Administrative Receivership), Anthony V. Lomas, Robert W. Birchall Case No: HC 03 00091 Ch D.

Stein v Blake (1996) 1 AC p 243.

Swain v Hillman (2001) 1 All E.R. 91.

Van Staden v Prinsloo 1951 (3) SA 637 (T).

Venter NO v Farley 1991 (1) SA 316 (W) p 352.

Verity & Spindler v Lloyds Bank plc (H.L. 1995).

Walker v Syfret NO 1911 AD 141, p 166.

Williams & Glyn's Bank v Barnes (H.L. 1981).

Literature

Pietrzak, A.R. 'Derivatives and Emerging Securities Products' (1994) *American Law Institute – American Bar Association Continuing Legal Education* p 359.

Albrecht, W.P. 'Regulation of Exchange-Traded and OTC Derivatives: The Need for a Comparative Institution Approach' (1995) *Journal of Corporation Law* p 112-129.

Alexander, C. ed. *Operational Risk: Regulation, Analysis and Management* (2003) *Financial Times Prentice Hall* p 75-77, 80-85, 90.

Allen & Overy Attorneys 'An Introduction to the Documentation of OTC Derivatives "Ten Themes"' (2002) *Allen & Overy Attorneys – Opinions* p 2-6.

Anderson, R.L. 'The Treasury Department's Role in Regulating the Derivatives Marketplace' (1997) *Fordham Law Review* p 775-778.

Author unknown 'The Italia Express' (1992) *The Financial Times*, February 12, p 92.

Baird, B.A., Feinberg, L.D. and Dawson, M.A. 'Derivatives II: What are the Obligations of Dealers and End-Users?' (1995) *Business Law Today* p 45-48.

Barclays PLC Annual Financial Statements 2002 and 2003; Risk Management Report.

Benjamin, J. 'Sources of Legal Risk for Financial Institutions' (2003) *Unpublished working paper for International Bar Association* p 1-34.

Bennett, M.S. and Marin, M.J. 'The Casablanca Paradigm: Regulatory Risk in the Asian Financial Derivatives Markets' (1999) *Stanford Journal of Law, Business and Finance* p 2-44.

Bester, J.J.H. *A Business Success and Risk Management Framework* (2003) *Unpublished document* p 2.

Bish, S.E. 'A Guide to Narrow the Derivatives' Understanding Gap and Reduce Losses: How to Increase Knowledge, Controls and Reporting' (1997) *Ohio State Law Journal* p 539-581.

Bloom, D.T. 'Derivatives Risk – How it is being Addressed in the

Documentation' (1996) *Practising Law Institute: Corporate Law and Practice Course Handbook Series* p 345-349.

Born, B. 'International Regulatory Responses to Derivatives Crises: the Role of the U.S. Commodity Futures Trading Commission' (2001) *Northwestern Journal of International Law and Business* p 607-640.

Boyle, P and F *Derivatives: The Tools that Changed Finance* (2001) Risk Waters Group Ltd p 1-12, 14, 17-19, 21-35, 37, 46, 71, 108, 118, 135, 141, 144-167.

Brier, S. et al 'The Institute of Risk Management South Africa Code of Practice' (2003) *RMSA* p 5-10.

Buerstetta, G.E. 'Creating a Flexible Fiduciary Duty Rule for Banks Entering into Proprietary Derivatives Contracts' (1996) *Annual Review of Banking Law* p 395-431.

Christie, R.H. *Law of Contract* (2001) Butterworths p 423.

Cohen, S.S. 'Financial Services Regulation: A Mid-Decade Review Colloquium' (1995) *Fordham Law Review* p2006-2029.

Conlon, S.D. and Aquilino, V.M. *Principles of Financial Derivatives: US and International Taxation* (2004) *RIA* p 1-7.

Cowhig, M.T. and Misra, S.A. 'Development in Banking Law: 1995' (1996) *Annual Review of Banking Law* p 28-38.

Cuccia, C. 'Informational Asymmetry and OTC Transactions: Understanding the Need to Regulated Derivatives' (1997) *Delaware Journal of Corporate Law* p 197-219.

Cunningham, D.P. and Abruzzo, C.T. 'Regulating Derivative Securities and Transactions in the US' (1995) *International Financial Law Review* p 16-17;

Das, S. ed. *Swap and Derivative Financing Revised edition* (1994) Probus Publishers p 1341-1359.

Dednam, M.J. *'n Praktiese Benadering tot Insolvensiereg* (1993) Digma p 3.

DeSanze, C.M. and Sun, J 'Derivatives' (1994) *Annual Review of Banking Law* p 16, 21.

Discussion by International Bar Association Working Party on Legal Risk 24

October 2003, London.

Dozier, M.H. 'Barings' Ghost: Item 305 in Sec Regulation S-K and "Market Risk" Disclosures of Financial Derivatives' (2000) *Georgia Law Review* p 1417-1481.

Dugan, J.C. 'Derivatives: Netting, Insolvency and End Users' (1995) *The Banking Law Journal* p 644-646.

Dunbar, N. 'Italian Municipalities Using Derivatives to Stay Afloat' (2003) *Risk Magazine*, July p 17.

Emert, J. 'Management of Legal Risk in Derivatives – Development of Policies and Procedures' (1996) *Practising Law Institute* p 316-325.

Erwin, S.C. 'CFTC Regulation: Use of Derivatives in Investment Management' (2001) *American Law Institute – American Bar Association Continuing Legal Education* p 109-144.

Falkena, H. et al *Financial Regulation in South Africa* (2001) SA Financial Sector Forum p 11-22.

Feder, N.M. 'Deconstructing Over-the-Counter Derivatives' (2002) *Columbia Business Law Review* p 677, 679, 682, 687, 689-690, 692-693, 695, 698, 722, 724, 727-729.

Field, P. ed. *Modern Risk Management: A History* (2003) Risk Books p xxxiii, xxxiv 3, 11, 18-21, 23, 138, 465-467, 469-473, 475-493, 497-509, 515-525, 527-529, 531-533.

Finnerty, J.D. and Brown, M.S. 'An Overview of Derivatives Litigation, 1994 to 2000' (2001) *Fordham Journal of Corporate Financial Law* p 136-137.

Firth, S. *Derivative Law and Practice* (2002) Sweet & Maxwell p v, 1-1 to 1-2, 5-1 to 5-9, 5-12/1, 5-12/3 to 5-13, 6-1 to 6-3, 6-6 to 6-8, 9-9 to 9-13.

Flanagan, S.M. 'The Rise of a Trade Association: Group Interactions within the International Swaps and Derivatives Association' (2001) *Harvard Negotiation Law Review* p 212-264.

Foley, K. 'Rogue Forex Trading Hurts Lender' (2004) *Business Day*, January 14 p 6.

Geckeler, P.M. 'Municipal Derivatives Use and the Suitability Doctrine' (1996) *Washington University Journal of Urban and Contemporary Law* p 285-314.

Gibson, W.E. 'Are Swap Agreements Securities or Futures?: The Inadequacies of Applying the Traditional Regulatory Approach to OTC Derivatives Transactions' (1999) *Journal of Corporation Law* p 382, 388-393.

Gibson, W.E. 'Investors, Look before you Leap: The Suitability Doctrine is not Suitable for OTC Derivatives Dealers' (1998) *Chicago Law Journal* p 527-581.

Gottsfeld, R.L. (Hon.), Lopez, M.R. and Hicks, W.A. III 'Derivatives: What they are; what they cause; what's the Law' (1996) *Arizona Attorney* p 34-35.

Gray, B. *Beginners' Guide to Investment* (1993) Random House Business Books p 151.

Gup, B.E. *Bank Failures in the Major Trading Countries of the World* (1998) Quorum Books p 30, 42, 49-51, 56-57, 103-104.

Hablutzel, P.N. 'Foreword: On the Borderlands of Derivatives: Rocket Science for the Next Millennium' (1996) *Chicago-Kent Law Review* p 1043.

Hanks, P. *Collins Pocket Reference English Dictionary* (1990) Collins p 414.

Hiemstra, V.G. and Gonin, H.L. *Trilingual Legal Dictionary* (1992) Juta p 495.

Huang, P.H. 'A Normative Analysis of New Financially Engineered Derivatives' (2000) *Southern California Law Review* p 483-497.

Hval, N. 'Credit Risk Reduction in the International Over-the-counter Derivatives Market: Collateralizing the Net Exposure with Support Agreements' (1997) *International Lawyer* p 803-806.

ISDA Master Agreements.

Jackson, C. 'Legal Risk Optimisation' (2002) *Risk Waters Group Risk Magazine, September* p 116-118.

Jackson, C.H. 'Have you Hedged Today? The Inevitable Advent of Consumer Derivatives' (1999) *Fordham Law Review* p 3226-3254.

Johnson, C.A. 'At the Intersection of Bank Finance and Derivatives: Who has the Right of Way?' (1998) *Tennessee Law Review* p 6, 15-17, 21-23,61-62.

Johnson, C.A. 'Banking, Antitrust and Derivatives: Untying the Antitying Restrictions' (2001) *Buffalo Law Review* p 7.

Johnson, C.A. 'Year 2000 Credit Risk and Derivatives: Insulating Banks from Counterparty Meltdown' (1998) *Banking Law Journal* p 934-935.

Jorion, P. ed *Financial Risk Manager Handbook 2001-2001* (2001) Wiley Finance p 114-117, 133-134, 286-288, 433-436, 537-538, 551-552, 555, 603, 650, 669-671, 677, 684-685, 730.

Kadlec, D. 'Comeback Crusader' (2003) *Time Magazine*, March 17 p 51.

Karol, B.J. 'An Overview of Derivatives as Risk Management Tools' (1995) *Stanford Journal of Law, Business and Finance* p 203-204.

Kellerman, D.F. ed. *The Living Webster Encyclopedic Dictionary of the English Language* (1981) Delair Publishing Company Inc. p 197.

Kihlbom, E. and Foulkes, 'A. Rogue Trader?' (2002) *KPMG LLP Banking Survey Africa* p 23.

King, M.E. *King Report on Corporate Governance for South Africa* (2002) Institute of Directors p 73-81.

Koh, J.L. 'The Myth of Procedure: Derivatives Investment Reform in St. Petersburg' (1999) *Yale Journal on Regulation* p 261.

Kojima, J.C. 'Product-based Solutions to Financial Innovation: the Promise and Danger of Applying the Federal Securities Law to OTC derivatives' (1995) *American Business Law Journal* p 260-339.

Krawiec, K.D. 'Derivatives, Corporate Hedging, and Shareholder Wealth: Modigliani-Miller Forty Years Later' (1998) *University of Illinois Law Review* p 1039-1104.

Krawiec, K.D. 'More than just "New Financial Bingo": A Risk-based Approach to Understanding Derivatives' (1997) *Journal of Corporation Law* p 6, 17, 31, 39, 47.

Kruft, S.R. 'Cross-default Provisions in Financing and Derivatives Transactions' (1996) *The Banking Law Journal* p 216-240.

Leon, R. 'The Regulation of Derivatives and the Effect of the Futures Trading Practices Act of 1992' (1994) *Journal of Law and Policy* p 321-345.

Lindholm, J.A. 'Financial Innovation and Derivatives Regulation – Minimizing Swap Credit Risk under Title V of the Futures Trading Practices Act of 1992' (1994) *Columbia Business Law Review* p 100-101, 104-105.

Lloyds TSB Annual Financial Statements 2002-2003, Risk Report.

Madison, A.D. 'Derivatives Regulation in the Context of the Shingle Theory' (1999) *Columbia Business Law Review* p 274-278.

Maready, W.K. Jr. 'Regulating for Disaster: Federal Attempts to Control the Derivatives Market' (1996) *Wake Forest Law Review* p 885-922.

Matthews, B.C. 'Capital Adequacy, Netting, and Derivatives' (1995) *Stanford Journal of Law, Business and Finance* p 170-171.

McGinity, S. 'Derivatives-related Bank Activities as Authorised by the Office of the Comptroller of the Currency and the Federal Reserve Board' (1996) *Chicago-Kent Law Review* p 1196-1198, 1199-1245.

McKown, J.E. and Purcell, A.T. 'Enforcement Actions Involving Derivatives: BT Securities Corp. and Beyond' (1996) *University of Cincinnati Law Review* p 117-136.

Meskin, P.M. ed. *Insolvency Law and its Operation on Winding-up* (1990) Butterworths p 5-53.

Metzger, L.M. 'Recent Market Events and the Foundation for Global Market Crises: Hedge Funds' (1999) *Fordham Finance, Securities and Tax Law Forum* p 5-16.

Mtshazo, Z. Introduction to Derivatives (September 2004) *Corporate Lawyers Association of South Africa Magazine* p 24.

Partnoy, F. 'Adding Derivatives to the Corporate Law Mix' (2000) *Georgia Law Review* p 600.

Partnoy, F. 'Adding Derivatives to the Corporate Law Mix' (2000) *Symposium Business Law Education Corporate Finance* p 604, 607.

Partnoy, F. 'Financial Derivatives and the Costs of Regulatory Arbitrage' (1997) *Journal of Corporation Law* p 227-235.

Partnoy, F. 'The Shifting Contours of Global Derivatives Regulation' (2001) *University of Pennsylvania Journal of International Economic Law* p 421-495.

Petzel, T.E. 'Derivatives: Market and Regulatory Dynamics' (1995) *Journal of Corporation Law* p 100-110.

Pietrzak, A.R. 'Derivatives and Emerging Securities Products' (1994) *American Law Institute – American Bar Association Continuing Legal Education* p 364.

Presti, V. 'Barings Bar None: The Financial Service Agreement of the Gats and its Potential Impact on Derivatives Trading' (1997) *Maryland Journal of International Law and Trade* p 160-164.

Puleo, F.C. 'Derivatives: A Banker's Primer' (1996) *Journal of Corporation Law* p 768-783.

Reynecke, M.F.B. and Van der Merwe, S. et al *General Principles of Insurance Law* Butterworths 2002 p 28.

Roberts, L. 'Suitability Claims Under Rule 10B-5: Are Public Entities Sophisticated Enough to Use Derivatives?' (1996) *University of Chicago Law Review* p 801-835.

Rosenthal, J.M. 'Incorporation may not mean Sophistication: Should there be a Suitability Requirement for Banks Selling Derivatives to Corporations' (1996) *Chicago-Kent Law Review* p 1249-1269.

Rubinstein, A. 'Common Law Theories of Liability in Derivatives Litigation' (1997) *Fordham Law Review* p 737-745.

Samuelson, C.A. 'The Fall of Barings: Lessons for Legal Oversight of Derivatives Transactions in the United States' (1996) *Cornell International Law Journal* p 767-806.

Schmedlen, G. Jr. 'Broker-dealer Sales Practice in Derivative Transactions: a Survey and Evaluation of Suitability Requirements' (1995) *Washington and Lee Law Review* p 1442, 1448, 1451-1452, 1455-1470.

Sewell, T.A. Esq. 'Regulating, Legislating and Litigating Derivatives' (1994) *NBA National Bar Association Magazine* p 10-11.

Shimell, P. 'The Universe of Risk' (2002) *Financial Times Prentice Hall London* p 5.

Sienko, D.C. 'The Aftermath of Derivatives Losses: Can Sophisticated Investors Invoke the Suitability Doctrine against Dealers under Current Law?' (1995) *DePaul Business Law Journal* p 107-131.

Silver, P. 'Developments in Banking Law: 1998' (1999) *Annual Review of Banking Law* 1999 p 23-29.

Sorkin, I.R. 'Reacting to a Regulatory Investigation into Derivatives Market Activity' (1997) *Fordham Law Review* p 755-759.

Steinmetz, S. ed. *Webster's Desk Dictionary* (1993) Gramercy Books p 392.

Stout, L.A. 'Why the Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives' (1999) *Duke Law Journal* p 721-737.

Stuart, A. Discussion held on 4 July 2003.

Stutts, W.F. 'The Derivative as Fiend: Killer Bunny or Trojan Rabbit?' (2001) *Texas International Law Journal* p 828-833.

Summers, D. *Longman Dictionary of Contemporary English* (1991) Longman p 902.

Swartz, L.Z. 'ABC's of Cross-border Derivatives' (2000) *Practising Law Institute* p 1183-1218.

Thompson, C.D. II 'Money for Nothing – or Dire Straits? Public Funds and the Derivatives Market' (1997) *University of Illinois Law Review* p 611-638.

Tormey, T.A. 'A Derivatives Dilemma: The Treasury Amendment Controversy and the Regulatory Status of Foreign Currency Options' (1997) *Fordham Law Review* p 2323-2332.

Tschoegl, A.E. 'The Key to Risk Management: Management' (2003) *Wharton Financial Institutions Center* p 2, 4-11, 18-20.

Turing, D. 'The Legal and Regulatory View of Operational Risk' (2003) *Risk Waters Group Ltd* p 260-262.

Van Jaarsveld, I.L. 'Domestic and International Banking Regulation and Supervision – Defying the Challenges' (Vol 119 Part 1) *South African Law Journal* p 71-73, 77, 81, 83, 90.

Verini, J. 'Michael Milken's Minions Profit from Debt' (2001) *The New York Observer*, 5 February p 29.

Waldman, A.R. 'OCT Derivatives and Systemic Risk: Innovative Finance or the Dance into the Abyss?' (1994) *American University Law Review* p 1029, 1047, 1054-1055.

Webb, C.R. 'Salomon Forex, Inc. v Tauber – The “Sophisticated Trader” and Foreign Currency Derivatives under the Commodity Exchange Act' (1994) *North Carolina Journal of International Law and Commercial Regulation* p 592-600.

Wiener, W.H. 'Recent Market Events and the Foundation for Global Market Crises: the Experience of Republic National Bank' (1999) *Fordham Finance, Securities and Law Forum* p 17-23.

Wood, P.R. Title Finance, Derivatives, Securitisations, Set-off and Netting (1995) *Sweet and Maxwell Limited* p 2, 207-213, 216-226.

Wood, P.R. 'Derivatives' (2004) *Unpublished Article* p 2, 11-12, 20-29, 31-50.

www.americandreamaker.com/tools/glossary Accessed 2 August 2004.

www.bis.org Accessed 14, 15 October 2004.

www.bis.org Accessed 26 November 2005.

www.bis.org/publ/.cpss17.pdf Accessed 26 November 2005

www.bis.org/publ/cpss62.pdf Accessed 2 August 2004

www.dollarsandsense.com.au/index/cfm Accessed 2 August 2004.

www.finforum.co.za/markets/eleconts.htm Accessed 2 July 2004, p 10.

www.firstmerc.com/resource/glossary/html Accessed 2 August 2004.

www.isda.org/index.html Accessed 10 December 2005.

www.isda.org/opinions Accessed 18 November 2002.

www.isda.org/masteragreements Accessed 10 December 2005.

www.isda.org/ModelNettingAct.pdf Accessed 2 December 2003.

www.net5.com/terms-dictionary.html Accessed 2 August 2004.

www.1stamericancardservice.com/Glossary.html Accessed 2 August 2004.

www.123merchants.com Accessed 2 August 2004.

www.sec.gov/litigation/litreleases/lr18252.htm Accessed 2 August 2004

Statutes

Banks Act 94 of 1990.

Companies Act 61 of 1973

Contravention of Gambling Act 51 of 1965

Cross-Border Insolvency Act 42 of 2000.

Custody and Administration of Securities Act 85 of 1992.

Financial Advisory and Intermediary Services Act 37 of 2002.

Financial Intelligence Centre Act 38 of 2001.

Financial Markets Control Act 55 of 1989.



Financial Services Board Act 97 of 1990.

Insider Trading Act 135 of 1998.

Insolvency Act 24 of 1936.

National Credit Bill 2005.

National Payment System Act 78 of 1998.

Policy Board for Financial Services and Regulation Act 141 of 1993.

Securities Services Act 36 of 2004.

South African Reserve Bank Act 90 of 1989.

Stock Exchanges Control Act 1 of 1985.

Insolvency Act 45 of 1986 (United Kingdom).

