

Can Credit Derivative Instruments be utilised by South African Banks to effectively hedge the credit risk they face in lending to the Small, Medium and Micro Enterprise Market ?

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1. Title Page :

***THE GRADUATE SCHOOL OF BUSINESS
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1. THE PROBLEM STATEMENT & OBJECTIVE OF THE STUDY

The objective of this research proposal is to explore the extent to which credit derivatives can be used effectively by domestic financial institutions, in particular, Commercial Banks to hedge the credit risk associated with lending to the Small, Medium and Micro enterprise (SMME) market segment, thereby making lending to this market segment an attractive and viable banking proposition.

SECTION A : INTRODUCTION

2. Background and Summary of the Proposal :

The financial services sector in South Africa has come under severe criticism from Government, trade unions and the unbanked, low income earners for not fulfilling their social responsibility, in terms of, not banking the Small, Medium and Micro enterprise (SMME) customer base. In particular, financial institutions have been accused of ignoring or not giving sufficient attention to the financial / credit needs of this market segment. These parties have argued that many of the domestic financial institutions are applying standard credit criteria to this market segment, which they feel is incorrect. This has often resulted in SMME's having their requests for credit facilities declined by domestic financial institutions and then having to resort to approaching unscrupulous "loan sharks" for credit facilities, which facilities are often made available to them at exorbitant interest rates. The alleged reluctance on the part of domestic financial services institutions to make available credit facilities, in the form of start-up business loans and asset-based finance to the SMME segment has possibly hindered economic growth, productivity, employment and resulted indirectly in a host of other social anomalies. Alister Ruiters of the Department of Trade and Industry has been publicly vociferous in his attack on domestic financial institutions (Business Day, August 18, 1999). It would appear these financial institutions are only prepared to do business with this market segment in partnership with Government, where Government bears a large proportion of the risk by providing guarantees or indemnities on behalf of the client. Examples of such guarantees include

Khula and Sizabantu guarantees issued by agencies controlled within the ambit of the Department of Trade and Industry.

Financial service institutions have defended their actions by countering that the credit risk attached to making loans available to the SMME market segment is often unacceptable to them. Many of these potential clients are characterised by adverse credit records, show little stability, in terms of, employment and domicilium and often do not have any tangible collateral available to support their loan requests. That is, the risk from lending to this market segment far outweighs the potential returns. Further, these financial institutions have argued that with South Africa having been accepted into the international fold and following the accelerated pace of globalisation, new markets have opened up for their shareholders. Hence, shareholders are requiring improved returns (capital gains and/or dividends); else they are at liberty to move their funds to other investment destinations. The pressure on domestic financial institutions to deliver consistently better returns on equity has been and continues to be a difficult one. This is exacerbated by the increasing competitive pressure from both retail competitors who are now offering financial services, such as Pick 'n Pay Financial Services, Woolworth's, and foreign financial institutions, who have entered the domestic scene. For many of the retail competitors the offering of financial services is seen merely as an extension of their product line. Existing infrastructure, in the form of, branches /outlets and technology are largely already in place. Further, they are not bound by the same liquidity reserve requirements imposed by the South African Reserve Bank (SARB), as are the domestic financial institutions they now compete against. Hence, the retail competitors' profit margins are likely to be higher.

Further, as many of the foreign financial institutions are not constrained by the same social responsibility obligations local financial institutions face and as they have not invested substantially in branch networks and other infrastructure in South Africa, their profit margins are higher and hence their returns on equity is likely to be significantly higher than the domestic financial institutions.

Following the increasing popularity of Credit Derivatives in countries, such as, the United States of America, the United Kingdom and India, it is my intention to explore whether this instrument can be used effectively by domestic financial institutions as an hedging tool to insure against what they might otherwise consider unacceptable risk in the SMME market segment. That is, will the use of credit derivatives make the lending of funds to this client base an acceptable or attractive proposition to domestic financial institutions.

However, we first need to define credit risk and credit derivatives before we proceed further. Creditex (Commentary, May 2001) defines credit risk as :

“the risk of loss following default.”

PriceWaterhouseCoopers defines a credit derivative as :

“a credit risk management instrument that allows a financial institution to transfer credit risk to another party”.

Having, in simple terms, defined what we mean by credit risk and credit derivatives, we proceed by suggesting how credit derivatives can be used as an effective hedging tool and also some of the possible shortcomings that may be associated with the use of credit derivatives in South Africa. Cheow and Chiu (Managing Credit Risks, May 23, 2001)

suggest credit derivatives have the potential to transform the way in which Commercial Banks do business. The impact of credit derivatives is likely to result in changes in Bank's operating and credit models of assessment, pricing policies and offer insight into how products and services may be developed and implemented. Traditionally Banks appear to have been involved in all aspects of lending from origination to administration, monitoring and collection. These authors suggest the resulting credit model emanating from the use of credit derivatives is likely to only concentrate on origination of the loan with the view of later selling-off the book itself or insuring the credit risk. This latter alternative involves credit derivatives.

We turn our attention to highlighting some possible constraints to the effective use of credit derivatives in South Africa. These are as follows :

- ♣ Lack of effective infrastructure
- ♣ Lack of liquidity
- ♣ Lack Of Transparency
- ♣ Restrictive Central Bank regulations and exchange controls
- ♣ limited number of large financial institutions

3. The Problem Statement and objectives of the Study : A detailed look

The objective of this research proposal is to explore whether credit derivatives can be used effectively by domestic financial institutions, in particular, Commercial Banks to hedge the

credit risk associated with lending to the SMME market segment, thereby making lending to this market segment an attractive and viable banking proposition.

The growing acceptance and popularity of credit derivatives in countries, such as, India and Australia prompts one to consider whether this instrument cannot be used effectively in the South African context. The research will need to consider such aspects as the risk rating of South Africa as an investment destination, the standing of local Commercial Banks internationally, the Commercial Bank's internal credit risk rating models applied to the SMME market segments, the local financial markets and exchanges/bourses, markets for credit derivatives and legislative constraints.

4. The Research Design and Methodology :

Research design involves defining the framework which links the various variables identified in the study. It guides the selection of sources and types of information and outlines procedures for each research activity (Cooper & Schindler, 2001).

4.1. The Research Approach :

An exploratory study approach has been adopted in order to gain a better understanding of the dilemma facing both Commercial Bankers on the one hand and their critics, namely Government, Unions and the SMME market segment on the other. A qualitative research approach has been adopted; in particular, in-depth interviewing and /or expert interviewing has been used together with document analysis. The research undertaken has analysed a selective, yet vast amount of the secondary data available on, for example, credit derivatives, risks associated with lending to the SMME market segments, South

African Reserve Bank (SARB) briefs and studies undertaken by the South African Department of Trade & Industry on the SMME market segments. An analysis of the secondary data on these issues pertaining to other developed and less developed economies has also been undertaken with a view to drawing on similarities and practical applications adaptable to the South African context.

Experience surveys have been undertaken with the relevant Commercial Bank senior executives involved with the SMME market segments, their treasury counterparts and the appropriate SARB and/or Department of Trade & Industry officials. The rationale behind this is questions, such as, what has been attempted in the past with limited success, who is involved in the decision-making, what potential problem areas and barriers can be identified and so on, has been addressed.

4.2. Sampling Design :

Whilst acknowledging the superiority of probability sampling, this technique does not lend itself to the objectives of this research study. Instead, this study will utilise non-probability sampling due to the fact the sample, it is believed, needs to be more purposive. In particular, it is proposed purposive and snowball-sampling techniques will be used in the study.

4.3. The Measurement Technique adopted & the Techniques used for data analysis :

The characteristics of sound measurement are that it must be valid, reliable and practical. As this study used interviews and questionnaires, the resulting response method does not

easily lend itself to comparability, ranking or rating techniques. Hence and in order to make the responses more qualitative the interviewee has been asked specific questions covering only one facet of the topic at any time and/or the respondent has been asked to judge one property at a time. In this way, the responses / data have been made qualitative thereby allowing for ranking or rating techniques to be used.

Some of the rating scales that the study has employed are simple category scales (where two mutually exclusive responses are rated, for example, important or unimportant), multiple response scales(checklist), the Likert scale (rating of statements expressing either a favourable or unfavourable attitude towards the subject matter) and stapel scales.

SECTION B : A SYNOPSIS OF THE SMME MARKET

We begin by reviewing the Small, Medium and Micro-enterprise market in South Africa, with a particular, focus on the problems encountered by this market segment in obtaining finance from domestic banks.

5. Financial Access for SMME's

This discussion document (A Draft Discussion Document - Department of Trade and Industry, Centre for Small Business Promotion, April 1998) was drafted with input from Government, parastatal agencies and the private sector with a view to highlighting the role of Small, Medium and microenterprises (SMMEs) in meeting the national objectives set out in the Government's Reconstruction and Development Programme and the Government's Macroeconomic Growth, Employment and Redistribution (GEAR) Strategy. Further, the document seeks to analyse the gaps in the supply of financial

services to SMMEs, with an examination of possible causes of insufficient financial services provision to SMMEs (including constraints by formal and alternative financial institutions) and concludes by suggesting ways to overcome some of these impediments.

The document suggests the SMME segment contribute approximately 60% of employment in the economy and 40% of output. SMMEs are also seen as one of the few ways by which the lowest-income people in South African society can gain access to economic opportunities. As such, SMMEs are believed to play a significant role in the South African economy, in terms of, employment creation, income generation and output growth. Given the historic skewness of the distribution of income and wealth in South Africa, it is believed investment in SMMEs, which are likely to create capacity for labour absorption and output growth, can play a major role in correcting the income and wealth imbalances.

The Government has, in the light of some of these findings, undertaken certain initiatives to promote the SMME sector. These initiatives included the establishment of a Small Business Centre under the auspices of the Department of Trade and Industry, the establishment of the Ntsika Enterprise Promotion Agency to provide non-financial assistance, the establishment of Khula Enterprise Finance Limited for the provision of wholesale loans, Khula Credit Guarantee Limited for loan guarantees to Commercial Banks, a pre-shipment export finance guarantee facility and the establishment of the Competitive Fund for consultancy advice on technology and marketing. Whilst these

initiatives have gone some way towards promoting and facilitating the formation of SMMEs, the major problem, being SMME's lack of access to finance, still remained.

5.1. Lack of Access to Finance :

Research undertaken per the Draft Discussion Document (April 1998) found SMMEs receive approximately 2.6% of investment capital flows, through formal and informal agents, which is considered grossly inadequate for achieving the growth levels budgeted for, in terms of the Government's macro-economic strategy. In particular, statistics from the Council of South African Banks reflected Commercial Banks were not actively utilising the Government's Khula indemnity scheme as a means of hedging their risk to this sector.

The reasons suggested in mitigation of this result, by the Government sector was that the structure of the formal banking sector in South Africa is such that most Banks concentrate on gaining and retaining the more profitable corporate business. The financial services and banking industry has few second tier financial institutions that act as intermediaries in attracting savings and onlending these funds to SMMEs. Another reason suggested is institutional investors (pension and insurance funds in particular) are risk averse and tend to invest in more conservative and low to medium yielding investments. Unfortunately, SMMEs do not fall into this category and are seen as being more high risk with volatile returns. The financial sector has come under criticism for not cross subsidising from their wealthy clients to SMMEs.

Further, given the focus of the formal banking sector of targeting larger, more profitable corporate clients, most their products and services were found to cater for this market. the result is that the formal banking sector offers a very small and limited product range to SMMEs. Non-Government organisations (NGO's) attempted to fill this void in the market, but have failed to reach a significant number of the SMME sector due to the NGO's lack of infrastructure. Further, it was found that despite the Johannesburg Securities Exchange (JSE) establishing the alternative investments market in the 1980's, it has not been effective in providing access to capital for SMMEs.

Unfortunately the lack of provision of finance for SMMEs by the formal financial sector, the paper found, often led to SMMEs having to resort to borrowing funds from alternative financial intermediaries, in most instances, at exorbitant interest rates/finance charges and sometimes illegally. Legislation has been passed in 2001 to regulate this industry. It remains to be seen, however, whether these regulations have had a positive or negative effect on the provision of finance to SMMEs.

Having highlighted, what has been identified by the authors of this Draft paper as the key problem areas to access to finance by SMMEs, the authors go on to suggest four objectives associated with access to affordable finance to SMMEs. These are listed below :

- ♣ to significantly increase the level of commercial and NGO lending and financial services to SMMEs at interest rates not inflated by unreasonable risk perceptions;

- ♣ to improve the outreach and efficiency of both conventional and alternative financial institutions, especially in unserved rural areas;
- ♣ to stimulate the provision of start-up and small scale equity products for SMMEs;
- ♣ to expand the number of SMEs listed on the JSE.

The paper concludes by suggesting a comprehensive and integrated policy framework and implementation approach should go some way towards addressing these problems. The draft discussion document goes further in trying to identify gaps in the supply of finance to SMMEs.

It is suggested the formal financial sector, in the main commercial and merchant banks, factoring companies and leasing institutions cater mostly for the small and medium (SME) sized enterprises. Similarly, parastatals involved in retailing funds also focus on small and medium sized enterprises. The result is that the survivalist and micro-enterprise sector are largely ignored by the formal banking sector, thereby forcing the latter enterprises to seek business finance from Non-Governmental Organisations and family. The authors of this document found this to hold true for both debt and equity finance.

It is further recognised in this draft document, existing formal financial institutions face high administrative costs and with the limited sophistication of entrepreneurs operating in this market, most financial institutions are unlikely to be successful in serving the full needs of the survivalist and micro-enterprise segment of the market. The challenge then

remains for the formal financial sector to find innovative ways to serve this segment profitably.

Recently, ABSA Bank, one of the big four banking institutions in South Africa, announced it expected a decrease of at least 100 cents in its share price following its earlier announcement regarding the discovery of inadequate bad debt provisions at its mass market lender UNIFER (The Star, Business Report, January 23 2002). However, the report written by Jodie Ginsberg goes on to point out that despite ABSA Bank's experience in this market, the formal financial sector is likely to remain optimistic about doing business in this high risk- high return market. The reason espoused for this outlook is the ABSA Bank experience was one of internal mismanagement as opposed to this market segment being fraught with problems. The article quotes statistics from the Micro Finance Regulatory Council which shows two million people use microloans, that is loans of under R100 000, but estimates up to six million people might need access to this kind of finance. The result, according to this article, is Government is putting ever-increasing pressure on retail banks to make financial services available to this market. According to Chris Stewart, Banking Analyst at Investec Asset Management : " There is money to be made in this business if you manage it correctly."

In February 2002, Saambou Bank's (South Africa's seventh largest bank) long-term rating was downgraded by Global Credit Ratings (GCR) from BBB+ to BBB and placed the rating on rating watch. The rating agency justified the downgrading by saying although the bank's improved liquidity and capital adequacy mitigated short-term risks to an extent, the

deterioration in its asset quality represented a significant risk facing the Group. Rating Agency Fitch also placed Saambou on rating watch in December 2001. The asset quality issue focuses on the substantial bad debt provisions raised on Saambou's microloan book. The microloan book also increased the bank's cost ratio significantly, which weakened its financial performance (Business Day, February 8 2002). Less than a week later the bank was placed under curatorship following a run on the bank. In one day depositors withdrew approximately one billion rand, which led to the Bank having to close its doors and freezing all accounts. It is uncertain at this point in time whether the downfall of Saambou Bank is due to mismanagement or due wholly to the bad debts provisions in the microloan / lower income market. However, the answer thereto is academic now.

What the ABSA/Unifer and Saambou incidents highlight is the lack of management ability to manage the risk inherent in lending to the microloan and Small, Medium and micro Enterprise Market. Further, it seems likely that other financial institutions will be more cautious in their foray into this market. Unless the risk can be sufficiently hedged so as to make doing business in this market profitable a more prudent and conservative approach is likely to be followed.

6. OBSTACLES TO INSTITUTIONAL INVESTMENT

The draft discussion paper suggest the following key challenges, namely;

(i) encouraging formal financial institutions to make finance and financial services more generally available to larger micro and to very small enterprises;

- (ii) encouraging the growth of alternative financial institutions providing finance to survivalist and micro enterprises, especially in informal settlements and rural areas, and;
- (iii) encouraging a greater availability of equity finance for smaller firms.

It is suggested these challenges be overcome by *(i) increasing the perceived profitability of SMME investments and (ii) improving the structure, regulatory framework and financing terms of the financial system.* (Italics inserted).

To elaborate on the above points, it is recognised that the profitability of any investment hinges on the costs of making the investment and the return received thereon. In the case of lending to the SMME and low income / mass market, the costs one would encounter is likely to include - overhead and administrative costs, cost of capital and the cost of default. However, it is countered these costs will not pose a problem provided pricing allows for cost-recovery and risk. The formal financial sector has often argued that the investment in SMMEs is more labour intensive thereby making the costs of servicing this market segment more costly / less profitable. With this in mind and when considering the local financial services sector, in particular, the Big four Banks operate inefficiently with cost to income ratios averaging in excess of 60% (compared to their overseas counterparts who have cost to income ratios of approximately 50%), it is unlikely the formal financial services sector will push vigorously to make significant inroads into this market given the existing perceived costs and returns

Further, it has been found the screening mechanism employed by Banks, for example, credit checks, business plans and collateral requirements result in loan applications being rejected as these factors commonly apply adversely to the previously disadvantaged entrepreneurs and the mass market. We define “previously disadvantaged” as anyone who previously did not have full/unrestricted access to all spheres of the economy, social and political fronts due to previous Government policies and legislation. That is, in many instances, these previously disadvantaged entrepreneurs have adverse credit records, produce poorly drawn up business plans and do not have acceptable collateral to offer the banks. On the flip side, it has been argued the formal financial sector does not fully understand the principle involved in lending to SMMEs and how to assess the level of risk appropriately, with the result loan applications are rejected.

Alternative financial institutions, in particular, microlending enterprises have been extremely successful in South Africa. However, it has been found that sustainability of these enterprises is a problem due to their inability to expand significantly without running into bad debt problems. The result has been a number of new microlending enterprises, which tend to however be small and localised. Some of these microlending enterprises tend to charge exorbitant interest rates as they were previously unregulated. However, Barbara Hogan, Chairman of Parliament’s finance portfolio committee, is drawing up draft legislation aimed at regulating financial service providers which she believes should extend to microlending enterprises (The Star, Business Report, January 23 2002). Ms Hogan believes that by excluding microlenders from the ambit of the Financial Advisory and Intermediary Services Bill (FAIS) could allow certain brokers to act recklessly.

Another alternative potential source of funding is equity funding raised on the Johannesburg Securities Exchange. The Exchange has the Development Capital Market (DCM) and the Venture Capital Market (VCM), on which smaller enterprises may raise equity. However, it has been found by the authors of the Draft Discussion Paper (April 1998) the activity level on these markets has been low. The reasons proffered for this is that investors perceive the risk attached to this sector to be unmanageable, with these enterprises generally having low turnover and price-equity ratios. Furthermore credible directors are not prepared to risk their reputations and sit on the boards of DCM/VCM enterprises. It has been noted, however, that marketing of small businesses on NASDAQ and the Alternative Investment Market of the London Stock Exchange has attracted attention from both investors and companies. The paper suggests perhaps a set of incentives and social responsibility guidelines may need to be introduced to encourage both brokers and investors to become involved in alternative markets.

We turn now to discuss whether the objectives of Bank's Act and the Mutual Bank's Act. Acts as an obstacle to providing finance to the SMME market segment.

6.1 The Bank's Act and the Mutual Banks Act :

The draft document (April 1998) suggests in successful financial markets, regulations play four critical roles, namely, maintaining safety and soundness, promoting competition,

protecting consumers and ensuring underserved groups have some access to capital.

Further, it is stated that the goals of economic well being and social objectives need not be contrary to each other. The American examples, in respect of the social objectives of the Community Reinvestment Act, Small Business Administration and Federal National Mortgage Association were found to re-enforce economic objectives. It would appear these Acts, if interpreted and used in the spirit in which they were drawn-up does not act as a stumbling block to accessing finance to the SMME market segment. Some parties have suggested we look at our country's past policies in order to ascertain reasons for the lack of access to finance for the SMME market segment.

7. Lack of Vital skills due to the past :

The Business Day, January 10 2002 published an interesting article under the heading Black Business needs state support. The article notes a World Bank Survey by Vandana Chandra, Jean Pascal-Nganou and Claire-Marie Noel entitled "Constraints to black empowerment at grass roots level and informal sector growth" which espouses the absence of collateral, credit records and business skills is not a sign of natural poverty among black owners of informal businesses but is the result of past discriminatory policies. One of the suggestions Chandra made, in terms of the article, is that policy makers need to support skills training for managing credit, thereby removing the perception that black people are unable to run a profitable business. This support, it is suggested needs to extend beyond assistance merely for new informal black firms but should be extended to those black firms who have already gotten off the ground. Other areas for Government

which the survey identified as being crucial was the restoration of safety and security, improving infrastructure and facilitating training.

The improvement of the business trading environment, sound support infrastructure and competent management gained through sound training will no doubt go some way to reducing what Bank's perceive as the business (environmental and management) risk of a business. The result is likely to lead to more favourable assessment of credit applications by Financial Institutions.

In the next sub-section we examine who are the likely participants in providing finance to the SMME market segment. We also look at potential local market players in the credit derivatives market.

8. Possible Market / Investor Participants :

The Institute for SME Finance actively promotes finance or capital for the emerging industry of small and medium enterprises (SMEs) in developing and transitional economies. Presently, the Institute defines SMEs as companies with an annual turnover of between \$100 000 and \$5 000 000. The companies are usually growth oriented entrepreneurs who lack access to non-asset based finance and require financial assistance from outside stakeholders to help their grow their businesses.

The Institute was launched in July 2000 after having been successfully piloted in Miami in the United States of America. The articles notes that in recent years the Institute has become more aware of the potential of the SME Market, especially in underserved markets and low-income areas throughout the world. Whether South Africa has been identified as falling into this category and as being a potential foreign direct investment destination by the Institute remains to be seen. However, we draw the readers attention to the potential such an Institute can serve by pooling together investors who can participate as the buyer of the credit default risk under a credit derivative. In such a scenario, local South African Banks of International standing can administer and source the credit application and sell the risk via the use of a credit derivative instrument in the market. The market can be potentially made-up of investors brought together by the Institute.

In an article entitled *New Asset Classes (Credit Derivatives 2001 - Issues and Opportunities by Citigroup)*, it is noted that as the credit derivatives market evolves, it tends to revolve increasingly around “small subsets of regularly traded names”. Hence in order to diversify the credit exposure, investors have been forced to look to other, less liquid investment opportunities. It was found that portfolio transactions that reference a bank’s commercial or industrial loan portfolio have been one outlet for this risk taking capacity. Also due to bank’s regulatory capital requirements, portfolio transactions were found to focus mainly on the investment-grade sector. This has in some instances been expanded to include obligors whose ratings have been linked to rating agencies’ scoring systems. These obligors are not generally traded in the single-name market and thus provide a certain degree of diversification. However, liquidity in obligors whose ratings

have been mapped or linked to rating agencies is much tighter. In the light of these findings, it will be interesting to reflect on whether these obligors will have the appetite to provide risk protection for an SMME portfolio of one of the “big four” South African Banks. Based on the sound ratings of these Banks it seems likely obligors will strongly consider contracting with them, as protection sellers, in credit derivative transactions..

In the next section we examine Credit derivatives in greater detail.

SECTION C : WHAT ARE CREDIT DERIVATIVES ALL ABOUT ?

In this section we commence by asking the question why hedge at all, that is, is it a zero-sum game or do shareholders benefit. We then take a look at how credit risk is generally managed at present, where after we launch into a more in-depth examination of credit derivatives and some applications of credit derivative instruments.

9. Why hedge at All ?

Hedging involves the minimising of risk. The question posed by Joseph Neu in a article entitled “Why hedge at all ?” is pertinent, in particular, from a shareholder viewpoint. That is, many academic arguments espouse that hedging, for example with the use of credit derivative instruments, is a zero sum game. Increasingly, the Treasury Departments are being requested to justify the costs/benefits of hedging and whether hedging is adding to shareholder value. Neu suggests that most hedgers realise that in the long run, hedging

may not lead to sustainable positive gains, but most hedgers realise that they are buying time with their hedges that will help in the shorter run. That is, waiting for zero sum equalisation could transcend a career or even the life of a firm. As a result of this type of thinking, it is becoming more important for treasurers to justify the benefits of hedging.

In the case of credit risk, the benefits can be best understood by looking at the components of credit risk. The actual credit spread is a combination of four factors, namely, particular company risk, sector spread, maturity of debt and supply and demand forces. This means that unless a Bank, for example buys the most tailored credit derivative, any hedge instrument will only protect a portion of the total credit exposure and leave the hedger with some residual basis risk. The treasurer will argue an 80 or 90 percent risk is still better than no hedge. And as new hedge products emerge, such as the various credit derivative instruments, the ability to match exposure with hedge will improve dramatically. Hence, the benefit to shareholders is hedging, by using credit derivatives insures against default or bad debts, which can lead to the loss on an investment as in the case of investors in Unifer and Saambou. The job of the Treasurer, however, is to ensure the cost of insuring against this risk does not outweigh the benefit. If this is properly managed, shareholder value will be enhanced.

In the ensuing sub-section we look at how credit risk is generally managed by banks

10. Managing Credit Risks

In an article (Managing Credit Risks May 23. 2001, Wee Cheow and Chua Kim Chiu), the authors note the management of credit risk is central to the success of any bank. As such, by allowing banks and other financial institutions to transfer credit risk from one party to another, credit derivatives have helped to enhance the efficiency and flexibility of credit risk management in these institutions. Credit derivatives now also allow these banks and other financial institutions to isolate and separate credit risk from the intrinsic influences of the underlying lending relationship. In so doing, participants can now view credit as a tradable commodity thereby allowing for increased focus on active credit portfolio management.

These authors believe credit derivatives have the potential to transform the fundamental lending model of many commercial banks. They go on to suggest the operating model for the Commercial bank's lending product will require re-assessing, which may extend to re-looking at how loans should be made, how services should be developed, priced and targeted, how risks should be assessed, priced and selected and how risk-oriented processes should be developed and implemented.

It is noted Banks involved in the commercial lending market have traditionally sought to contain all aspects of the lending process from origination to monitoring / administration within their operations. Hence once the risk has been accepted it would remain with the bank or financial institution until maturity. With the advent of credit derivatives the opportunity now presents itself where origination of a loan is undertaken with a view to possible ultimate distribution. *This distribution could take the form of securitisation (*

where the actual asset is disposed off) or by insuring against the credit risk (by way of a credit derivative).

These authors go on to suggest Credit Managers need no longer view a credit decision as simply binary, that is, accept or decline, but can use the originate manage and distribute (OMD) model. In this instance the financial institution will never have to make an outright rejection for any loan application *provided* it remains economically possible to lay off the risk to the market. The credit management function then assumes the role of managing portfolio risks of the institution, taking decisions at the margin for new transactions and changing the portfolio by way of secondary market sales, securitisation and credit derivative activities as necessary.

11. Credit Derivatives : new methods for risk management :

Natasha Beck (Credit Derivatives : new methods for risk management : Australian CPA March 2000), notes in global financial markets, credit derivatives have been trumpeted as revolutionary new products that enable, in particular, financial institutions, to manage selected credit risks separately from other types of financial risk, such as interest rate risk and foreign exchange risk. It is noted that financial institutions have used credit derivatives largely to hedge loans to guard against deterioration in the value of their investment portfolios, thus far. Beck reasons that the appeal of credit derivatives may be found in the fact that financial institutions restricted by internal

borrowing limits constrained by industry/geography/borrower can extend further credit to a particular borrower because the additional credit exposure beyond the normal credit limit is covered by the credit derivatives. Credit Derivatives may also be used by a Bank to restructure its concentration of credit risk between industries of geographic regions.

11.1. Risk Transfer :

The management of credit risk through credit derivatives is achieved by transferring credit risks to other parties that provide for payments to be received in the event of default or specific losses incurred. In many cases, there are two parties to the transaction, namely the protection buyer - the party who wishes to hedge against the credit risk and the protection seller - the party receiving a premium and in return undertakes to pay the protection buyer a specified amount should a specified credit event occur.

We examine four basic types of credit derivative structure, namely, total return swaps, credit default swaps, credit spread options and credit linked notes.

a) Total Return Swaps :

Total return swaps are the mostly used form of credit derivative according to Beck. They can be used by Banks to expand their loan book beyond their normal lending limits or by organisations that want to hold an asset to maturity but are not comfortable with the asset's credit exposure. A total return swap enables the holder to hedge the credit risk of

the loan/asset whilst retaining ownership. Reasons for maintaining ownership may include regulatory requirements of perhaps the desire to maintain a relationship with the borrower. In other words, a total return swap can provide cover for a partial or total loss in capital value of a specific asset, such as a loan or a bond.

The protection buyer undertakes to pay the protection seller for each defined period the amount of any interest received on the asset together with capital appreciation. In return the protection seller commits to pay a floating interest rate (usually based on a spread on an index such as LIBOR or JIBAR) plus any capital depreciation. Thus the protection buyer recovers any loss in value from the counter party.

The counter-party to the credit derivative could be an investor, that will use total return swaps to take on credit exposure to an industry/ market/country by entering into a transaction as the protection seller, on the basis of a belief of superior knowledge of experience in that market or merely as an investment which offsets the risk of other investments in the overall portfolio of investments. While a total return swap can provide insurance against loss on a specific credit / basket of credits, the relatively high cost of establishing the structure means it is often only worthwhile for covering credits of significant value.

b) Credit Default Swaps :

This structure is considered as the simplest type of credit derivative. They provide the right to receive payment in the event an agreed default occurs. They are not specifically related to the credit rating of the borrower or the asset being hedged. Their uses are similar to those of credit return swaps. *As distinct from credit return swaps, only the downside risk is included in the financial evaluation and the protection buyer preserves the right to benefit from any increase in value.* Credit default swaps are contracts in which the protection buyer can hedge the default risk of a counterparty/ basket of counterparties in return for the payment of a fee. A payment by the protection seller is prompted by the occurrence of a credit event, which must have been previously stated in reference to the underlying asset.

The contract terminates when a specified credit event or default of a payment occurs.

Although the transaction is usually concluded by cash payment of the amount of the loss, physical settlement is also possible, where the protection seller pays the protection buyer the full notional amount of the default payment and takes delivery of the bond.

c) Credit Spread Options :

A call/put option is the right but not the obligation to buy/sell. As such a credit spread option is an option on a specified borrower's credit's credit spread. Credit spread options could be appropriate where an investor believes a corporate's credit rating may change, thereby affecting its credit spread over the base bank rate, which in turn will affect the

principal value of the debt instrument. The investor then buys a credit-spread call to leverage from the credit upgrade/downgrade should it occur.

The option buyer pays a premium, which is either paid as a lump sum or is amortised over the term of the option. In turn, the option seller agrees to make a lump sum payment if a particular borrower's credit spread moves over a stated threshold.

d) Credit-linked Notes :

Credit linked notes were popular in international markets in the early 1990's. However, since then credit swaps and option instruments have largely replaced it.

The credit-linked note is an on-balance sheet note representing a synthetic corporate bond or loan with an embedded credit derivative in it. They are often issued by special purpose vehicles, and represent a way for institutional investors to participate in the corporate bank loan market. There are many different structures for credit linked notes. They apply where an investor invests in a special purpose vehicle that has been created to handle a financial transaction of a bank/broker with a third entity. The bank guarantees the performance of the special purpose vehicle that derives money from its investment. The direct credit risk lies with the special purpose vehicle but in reality is guaranteed by the bank.

Apart from the standard variations of credit derivative instruments mentioned above, it is now recognised that credit derivative instruments can be applied in more exotic ways. We encounter this in the next sub-section.

12. Credit Derivatives move beyond Plain Vanilla

Aggrawal (http://edgar.stern.nyu.edu/~sjournal/articles_00/cre) defines credit derivatives as privately negotiated bilateral contracts, which allows users to manage their exposure to credit risk. The example he uses is that of a bank concerned that one of its customers may not be able to repay a loan can protect itself against loss by transferring the credit risk to another party whilst keeping the loan on its book. This mechanism can be used for any instrument or basket of instruments provided an objective default price can be determined. In this way, the buyers and sellers of the credit risk can achieve numerous objectives, for example, concentration of risk in a portfolio can be reduced, the seller can have access to the portfolio without actually making the loan, etc.. Thus credit derivatives offer a flexible way of managing credit risk and present opportunities to enhance yields by purchasing credit synthetics.

Aggrawal goes on to define credit risk as the possibility that a borrower will fail to service or repay a debt on time. The degree of risk is reflected in the borrower's credit rating, which can be seen as the premium over the risk-free rate.

The market for credit derivatives is believed to be growing in leaps and bounds. According to Aggrawal the market of total credit derivatives outstanding is estimated at \$75 billion. Further, whilst traditionally credit derivatives were confined to use by banks, they are being used increasingly by Insurance companies, pension funds, mutual funds and corporate treasurers. *Aggrawal notes that existing derivative techniques have been used for emerging market debt and have been applied to corporate bonds and syndicated bank loans.* Hence these structures present investors with opportunities to diversify their portfolios and improve their yields by investing in areas that were previously not opened to them. It is believed credit derivatives will make credit risk pricing more efficient and help segregate credit risk from Market risk. That is, institutions best suited to manage a specific type of risk component will be in a position to buy only that portion of risk and warehouse/ package it.

13. Repackaging using Credit Derivative :

Bearing in mind the objective of this study is to explore to what extent credit derivatives can be used effectively to hedge the risk of lending to the SMME Market, we consider in this section whether repackaging using credit derivatives is perhaps a strong possibility of achieving this objective. When considering credit derivatives have thus far been used largely to hedge corporate and to some extent sovereign risk, we need to investigate whether the risk associated with lending to the SMME Market can be hedged effectively with the use of credit derivative instruments.

Repackaging, in this context, can be defined as the use of derivatives to take one risk profile and change it to another more satisfactory risk profile. The credit derivative market is viewed as having three main categories, namely,

- single name products, such as, default swaps, asset swaps and total rate of return swaps.
- the portfolio complex , such as, collateralised debt obligations (CDOs), synthetic CDOs, balance sheet synthetics and pure arbitrage CDOs
- the repackaging business, such as, credit linked notes and repackaged swaps.

If repackaging is viewed merely as risk management problem solving then all three of these categories have a role to play. It is often noted that in a vast majority of cases, the credit risk that requires repackaging is a risk the company has to take in order to do business. A credit default swap is a bilateral financial contract in which the protection buyer pays a periodic fee in return for a contingent payment by the protection seller following a credit event. In this instance the repackaging potential is quite obvious. For example, if Company X is dependent on a debt repayment stream from Company Y, in order to itself make payments to Company Z, then by Company X taking out a credit default swap with a Bank, it can cover the risk of Company Y defaulting on its repayments. Company X will pay the bank a regular fee in the knowledge that should a credit event be triggered, the bank will make payment.

The above is probably the most basic way in which a credit risk can be repackaged. One of the most exciting opportunities presented by credit derivatives is that they are extremely

flexible and can be structured to transform any credit risk or portion of credit risk. For example, a contingent credit swap could be used. In this instance, an additional trigger or event apart from the credit event is required.

The next section deals with the future potential of the credit derivatives market. That is, are credit derivatives merely a fad that will be short-lived or is it a growing market, which is likely to define the way we manage risk in the future ? After all if it is seen as a short-term phenomenon, then it is unlikely to be a potential long-term solution to hedging the credit risk inherent in the SMME market segment.

SECTION D : THE FUTURE OF CREDIT DERIVATIVES

14. Credit Derivatives - Five Years Out

In this section, we examine the responses of several prominent people in the derivatives field when asked to predict what can be expected, in respect of, credit derivatives in the next five years :1998 - 2002. In particular, the following questions were posed in an article (Credit Derivatives Five Years Out, <http://www.derivativesstrategy.com/magazine/archive/1997/0797rtbl.asp>), namely, how will banks manage the credit risk of their loan portfolios ? How will the products change the way institutional investors invest in the bond market?. How will international regulators view the capital adequacy of banks?. What effects will they have on other areas of the financial world ?

Blythe Masters, head of credit derivatives, at JP Morgan was one of the derivative specialists interviewed in the 1997 survey. In Blythe's view credit derivatives are expected to fundamentally change the way bank's price, manage, transact, originate and distribute their credit risk. He noted that presently global credit markets display discrepancies in the pricing of the same credit risk for different classes of assets, maturities, rating cohorts, time zones, currencies and so on. The discrepancies appear to have persisted because arbitrageurs have traditionally been unable to purchase obligations against shorting expensive ones in order to extract arbitrage profits. However, it is expected that as derivatives gain in popularity and liquidity improves, banks, borrowers and other credit players will exploit such opportunities similar to the experience regarding interest rate derivatives in the 1980's. The natural consequence of this is that credit-pricing discrepancies gradually disappear as credit markets become more efficient.

Blythe goes on to predict that banks will also adopt a more proactive approach to trading and managing credit exposure, which should see a corresponding decline in the holding period for loans. It is likely that banks will shed the exposure of borrowers with whom they have no meaningful relationships. Such transaction Blythe expects will occur both on a one-off basis and increasingly by way of bilateral portfolio swaps, which in a sense is a more effective way of ensuring a more suitably diversified portfolio.

Blythe goes on to suggest banks will increasingly have the ability to choose whether to act as passive lenders or as proactive return-on-equity driven originators of loans, traders,

servicers and distributors of loan products. The result from this is likely to be greater transaction frequency and the availability of up-to-date pricing, which is likely to lead toward the marking to market of loan portfolios. Credit derivatives will also bring about greater efficiency in pricing and greater liquidity. As such financial institutions, institutional investors and some corporates are likely to benefit from this.

Blythe envisages that just as the rapidly growing securitisation market is bringing investors of credit assets, the credit derivatives market will strip out and repackage credit exposures, which exposures would otherwise not naturally lend themselves to securitisation.

David Crammond, President of Intercapital predicted a greater “warehousing” of risk and increased re-distribution networks for credit products. The use of , what Crammond terms credit baskets through derivative packages will allow for microsyndication of credit exposures in the secondary markets. This will likely see risk management become further centralised and market price orientated. As such, institutional investors will have a completely broken out credit and will be in a position to trade and manage it actively through derivatives as they would trade and manage currency risks.

Crammond rightly in my opinions believes international regulators will have a challenging task as a result of the migration of credit risk and credit liquidity from banks. This aspect will be discussed in greater detail when we consider the recommendations of the Basel

Committee. In particular, the control of systemic risk is likely to become more difficult and will require a greater deal of co-operation between banks and regulators globally.

Crammond also envisages there will be more insurers who will become active in this market. After all credit derivatives is making inroads into the “premium” business area of credit enhancement.

Joyce Frost, Vice President - Credit Derivatives, Chase seems to think the credit derivatives market will continue to grow exponentially provided there is a knowledgeable user base, an accommodating regulatory environment and sufficient liquidity in the market place. She likens the growth in the derivative market to the rapid growth in the interest and currency derivatives markets in the 1980’s. She goes on to predict, however, the growth in the credit derivatives market is likely to be quicker than the latter due to the widespread familiarity with derivative products in general and the downturn in the credit cycle that will make risk management more important.

Frost predicts the largest users of credit derivatives by 2002 will be commercial banks, who will use the products primarily for risk management purposes. She goes on to suggest as credit derivatives gain in popularity we are likely to witness regional and industry-related credit indices to enable the more effective management of exposures on a portfolio basis. Frost also expects to see credit derivatives becoming a hit with insurance companies, investment banks, mutual and pension funds and corporates.

In essence, Frost is of the opinion the increased use of credit derivatives will add more efficiency and liquidity to the market place, reallocating credit exposures more optimally to those investors best experienced to manage them. This is expected to lead to a fundamental decline in system-wide risk as credit derivatives continue to breach barriers to investment and risk management, thereby broadening the investor base for credit exposure and further empowering users to manage exposures more efficiently, credit spreads are likely to decline or narrow.

Shaun Rai, Acting Head of Credit Derivatives - CIBC Wood Gundy speaking on behalf of his firm estimates the credit derivative market will grow from an estimated \$150 billion total notional outstanding in 1997 to more than \$1 trillion by 2002. The reasons they espouse for this expected growth in the credit derivatives market is that firstly the aggregate market for credit risk is believed to be large. This then provides broad scope for the application of credit derivatives. Secondly the market is still highly segmented by geography, product and term which provides extensive opportunity for the use of credit derivatives to extract value from pricing differences, credit perceptions to risk aversion among different types of investors. Thirdly, CIBC notes that financial institutions are focusing more resources on developing sophisticated management tools that will enable them to identify risks and opportunities resident in their portfolios.

Credit derivatives, it is expected, will be used extensively to respond efficiently to these new opportunities. In particular, Rai believes the resulting enhanced portfolio analysis arising from the use of this sophisticated management tools will reveal an under-

diversification in many institutions. As a result there will be an increased desire by these financial institutions to diversify their portfolios and this will create an opportunity to use credit derivative transactions to improve their diversification.

The result, as also predicted by Blythe, will be increased efficiency in this market, reduced cost of credit to borrowers globally and credit risk will be migrated to the best, most experienced manager of that particular exposure.

Kaufman, Head Global credit derivatives at BankBoston, seems to concur with the views already expressed above. That is, the greater use of credit derivatives will likely lead to improved liquidity in the market, pricing and efficiency will also improve as will information systems and tools to provide management with more accurate and timely risk profiles. Kaufman goes on to add that it is likely that regulators will shift the capital framework to an internal model application (that is, a model developed specifically for a particular financial institution/segment as opposed to a generic model implemented by the regulator) that quantifies credit risk more precisely and recognises the benefits of diversification.

In the next sub-section we examine some potential obstacles to growth of the credit derivatives market.

15. Obstacles to Growth in the Credit Derivatives Market:

The following factors have been identified as factors or obstacles to growth of the credit derivative market :

lack of effective infrastructure, lack of liquidity and the lack of transparency.

a) Lack of Infrastructure :

Cheow and Chiu are of the opinion banks need to develop a more sophisticated and integrated infrastructure capable of responding to the expanding volumes and increasing complexity of credit products. The failure to do so, it is mooted could impair growth and heighten operational risks within the financial institution. Existing configurations generally fail to provide an overview of portfolio data at a level sufficient for the effective portfolio management. Further these configurations also lack the systems capabilities to interface. Hence it is suggested banks need an integrated business generation model capable of providing end-to-end support for the new credit model.

b) Lack of Liquidity :

It is noted that whilst the credit derivative market is relatively liquid, the lack of standardised credit derivative contracts and definitions has acted as a stumbling block in dealing with these instruments. Further the lack of common information technology platforms for trading and settlement purposes has also contributed to the lack of access to the market thereby leading to less liquidity. Moves to standardise the derivatives contracts and definitions contained therein together with a common IT Platform for trading and

settlement is likely to lift the present restrictions on trade and also improve liquidity in the derivative market.

c) Lack of Transparency :

Due to the issues surrounding the lack of liquidity in the credit derivatives market, namely the absence of a suitable IT Platform, this also leads to inadequate data and hence a general lack of transparency. Further due to the definitions in different countries being non-standardised, it becomes difficult to collect and collate objective data. JP Morgan has introduced an online credit derivative trading platform (morgancredit.com / ORBIT), whence the prices are available during trading hours in the US, Europe and the Asian - Pacific countries. The site also provides data for individual credits and credits sorted by geographic and industry sectors.

We turn our attention next to examine some current issues pertaining to credit risk and the management thereof.

16. Current Issues :

16.1. The Allocation of Risk and Liquidity in capital markets: Market Makers and Arbitrageurs

Saito's paper (The Allocation of Risk and Liquidity in capital markets: Market Makers and Arbitrageurs) focuses on the consequences of recent developments of financial technology and explores policy implications for the proper operation of capital markets. In particular, this paper attempts to highlight the interaction between risk allocation in capital markets and the liquidity allocation in money markets.

Saito suggests that jointly with the action of noise traders, the behaviour of investors armed with advanced financial technology sometimes yields a drastic decrease in asset prices, and causes the liquidity crisis in asset markets. The example, he cites is that of a simultaneous trigger of a dynamic hedging strategy and the active over-the-counter trading of sophisticated financial derivatives. Market makers and arbitrageurs to which liquidity is not immediately available, will not be in a position to set asset prices properly. As a result asset prices may remain far below fundamentals for a long time. On the other hand, commercial banks may loan money to arbitrageurs without properly evaluating the arbitrageur's position fully, and hence make excess liquidity provision for them.

Arbitrageurs with too much liquidity, Saito notes are likely to take more risky positions. Should asset prices move against their positions, and the potential risk they have taken is realised, arbitrageurs may be forced to liquidate their positions. Such action may lead to speedy sales of assets, which will increase supply of the assets leading to a drop in the asset price well below fundamentals.

He goes on to suggest that given this likelihood, the proper formation of assets prices require the proper allocation of liquidity to both market-makers and arbitrageurs. That is,

the smooth functioning of money markets basically backs the effective functioning of capital markets. The close link between money-markets and capital markets suggests, according to Saito, that monetary authorities and central banks are indirectly yet importantly responsible for the order of capital markets due to their significant impact on money markets. It is noted monetary authorities monitor bank loan activities such that banks may not make excess provision of liquidity to arbitrageurs, while central banks provide liquidity promptly in the case of a liquidity crunch. Saito concludes that a combination of the above measures is a pre-condition for the operation of a modern capital market.

16.2. Credit Risk Management

Toshifumi (IBJ-DL Technology Co. Ltd) views one of the principle roles of financial institutions as being that of taking financial risk of others through financial contracts. Hence, he concludes financial risk management is one of the crucial issues financial institutions need to concentrate on as part of the management of their business.

As regulatory authorities proceed with financial deregulation, banks are required to brush up their risk management systems. It is noted in such situations, many banks are trying to improve their methods and formations of the credit risk management to get up-to-date with the changes in circumstances of the banking industry.

The new framework of credit risk management based on quantitative methods, which we will discuss in greater detail in Section E, according to Toshifumi calls for the following assumptions, namely, the occurrence of default of the counterparty is a probabilistic event and secondly the default losses should be analysed statistically as the total credit portfolio. In this paper, Toshifumi introduces us to what he terms “a risk measurement method” and “ a series of risk control methods” as the quantitative tools for the credit risk management.

According to Toshifumi the first step of quantitative credit risk measurement is to calculate the expectation of the default of loss of the credit portfolio. The elements of the calculation we are advised are the default probabilities for each credit grades of the counterparty, the credit exposure and the rate of recovery from collateral for each credit contract. The second step, Toshifumi suggests is to calculate the *possible excess loss* over the *expected loss* (italics mine) due to not well diversified credit portfolios within a certain confidence limit. The third step is then to calculate the potential shift of the expected loss due to movement of the elements of the expectation calculation within certain confidence limits. He goes on to suggest three possibilities for this shift, namely, (1) due to the movement of the default probabilities, (2) due to the movement of the credit exposure and (3) due to the movement of the recovery rate. These steps of credit risk measurement can be harmonised with the market risk measurement, Value at Risk (VAR) calculation, and is intended to go toward the total risk management.

Toshifumi goes on to espouse there are two categories for credit risk control methods.

One category is those methods to protect us from exceeding the previous level of credit risk and the other is those to refine the risk structure afterwards.

The risk protection methods include (1) pricing guidelines so as to keep enough expected revenue, (2) exposure limits for each counterparty to keep the diversification effect within certain level, and (3) exposure limits for each industry block or regional blocks to keep the default probability movement effect within a certain level.

The risk structure refinement methods include (1) risk elimination methods using asset liquidation or asset securitisation, and (2) risk hedging method using credit derivatives.

Toshifumi notes there are many issues to be addressed for such quantitative methods to be deeply used in daily risk management activities of the financial institutions. These issues are

- (1) the mark-to-market measurement for credit risk, (2) storage of the historical default data and refinement of the parameter estimation methods, (3) refinement of the credit rating system with refinement of the rating method and improvement of the disclosure of the financial data,
- (4) growth of the secondary market of credit and (5) improvement of the Basle regulation.

We examine the regulatory issues concerning credit derivatives below.

SECTION E : REGULATORY ISSUES CONCERNING CREDIT DERIVATIVES

17. Evolutionary Changes in Banking and Bank Regulations

The focus of a paper (Evolutionary Changes in Banking and Bank Regulations (Kazuhito Ikee, Keio University and Takahiro Nagata, Dai-ichi Life Research Institute) is that of banking business and bank regulations. According to these authors the fundamental driving force was a change in the overall banking environment, which can be divided into the following areas :

- (1) economic conditions,
- (2) technical basis, and
- (3) corporate governance. Banks adjusted their action in response to the environmental changes. For example, it is noted in the United States, the change in the banking business affected not only the development of highly sophisticated risk management systems but also the scope of banking business. As a result of these changes, supervising authorities were forced to revise the framework of bank regulations.

These authors note that in fact the United States Federal Regulatory Agencies and the Bank of International Settlements (BIS) changed not only regulations but also their attitude towards the regulation of the banking business. This led to Banks not simply accepting the new regulations and attitude but themselves became proactively involved in influencing the formulation of new legislation.

18. New Regulatory Capital Framework :

The Basle Committee on Banking Supervision

18.1 Framework for Internal Control Systems in Banking Organisations

The Basle Committee on Banking Supervision issues a framework for evaluating the internal control systems as part of its ongoing efforts to enhance supervision through guidance and sound risk management practices. Effective internal controls are believed to be a critical aspect of bank management and a foundation for the safe and responsible operation of banking organisations. It is thought an effective and efficient system of internal control is likely to ensure banking organisations achieve their goals and objectives, long-term profitability targets are met and reliable financial and managerial reporting is maintained. Such a system of internal control will also assist banks comply with laws and regulations, policies and rules as well as decrease the risk of unexpected losses and thereby tarnish a bank's image. In what follows we discuss the recommendations of the Basle Committee, who have drawn a wealth of information from member countries, to outline a number of principles for use by supervisory authorities when evaluating a bank's internal control systems. This can be particularly relevant to the South African Reserve

Bank, who may have much to gain from these experiences, when considering South African Banks are still relatively new players in the international banking arena. Further, the increasing popularity of more sophisticated hedging instruments, such as credit derivatives, are likely to necessitate a re-look at capital adequacy requirements and internal control systems in place.

The Basle Committee on Banking Supervision has been prompted in part as a result of the significant losses incurred by several international banks. Their analysis of the problems related to these losses indicate these losses could have been avoided had the banks maintained effective internal control systems. It is thought such systems would have prevented or enables the earlier detection of the problems that led to the losses, thereby limiting damage to the banking organisation. The principles recommended by the Committee are intended for general application and it is suggested supervisory authorities should use them in assessing their own supervisory methods and procedures for monitoring how banks structure their internal monitoring systems. The Committee goes on to suggest that banking supervisors use the principles recommended by them in evaluating internal control over all on and off balance sheet activities of banks and consolidated banking organisations.

The ensuing paragraphs contain a discussion of the recommendations of the Committee, specifically in respect of, operational risk management, enhancing bank transparency, sound practices for loan accounting, credit risk, disclosure and related matters, Bank's interaction with highly leveraged institutions and the new Basle capital accord.

The Basle Committee noted that managing operational risk is becoming an important feature of responsible risk management practice in modern financial markets. The most important types of operational risk involve breakdown in internal controls and corporate governance. It is noted such breakdowns can lead to financial losses through error, fraud, or failure to act timeously and bank officials acting outside of their mandates in either an unethical or risky manner. Other aspects of operational risk include major failure of information technology systems. These aspects are of particular significance in the derivatives markets, where cross border transactions are common place and electronic trading platforms are used. The Basle Committee interviewed representatives from thirty major banks from different member countries and the following common themes emerged :

18.1.1. Enhancing Bank Transparency

The Committee presupposes that markets contain disciplinary mechanisms that can reinforce the efforts of supervisors by rewarding banks that manage risk effectively and penalise banks that manage their risk in an inept and imprudent manner. It is, however, noted market discipline can only work if market participants have access to timeous and reliable information thereby enabling them to assess a their activities and risks inherent in those activities. Improved public disclosure is thought to strengthen the market participant's ability to encourage safe and sound banking practices. Prudent banking supervision coupled with market discipline, the Committee considers is critical to promoting long-term stability of both individual institutions and the banking systems. The

effectiveness of this interaction it is felt is dependent on public disclosure. The document goes on to recommend that supervisors focus their efforts on encouraging high-quality public disclosure at a reasonable cost. Supervisors can be pro-active in this regard by enhancing comparability by promoting the use of supervisory definitions and reporting classifications in public disclosure. Supervisors are also encouraged to promote the compliance with disclosure standards and ensure to the standards ensure reliable information.

The Basle Committee suggests the following broad categories of information should be disclosed in appropriate detail in order to achieve a satisfactory level of bank transparency

:

- financial performance
- financial position including capital, solvency and liquidity
- risk management strategies and practices
- risk exposure including credit risk, market risk, liquidity risk and operational, legal and other risks
- accounting policies
- basic business, management and corporate governance information.

18.2. Sound Practices for Loan Accounting, credit risk disclosure and related matters :

The Committee considered the aspects of recognition and measurement of loans, establishment of loan loss or bad debt allowances, credit risk disclosure and related matters. It was found those accounting treatments generally and loan accounting treatments, in particular, can significantly affect the accuracy of financial and supervisory reporting and related capital calculations. Moreover, sound accounting and disclosure practices ensure enhanced transparency that can facilitate the effective supervision and market discipline of financial institutions.

The Basle Committee found three primary concerns of supervisors are a) the adequacy of an institution's process for determining allowances, b) the adequacy of the total allowance and
c) the timely recognition of identified losses through either specific allowances or charge-offs or write-offs.

18.2.1. Bank's Interaction with Highly Leveraged Institutions

The Basle Committee has noted that in recent years there has been an increase in the magnitude and complexities of the activities of highly leveraged institutions. Highly leveraged institutions have been described by the Committee as financial institutions having the following characteristics, namely; a) they are subject to little or no direct regulatory oversight, as a significant proportion operate through off-shore financial centres; b) they are subject to limited disclosure requirements; and c) they take on high debt in relation to their own means. Further the scope of the interaction between highly

leveraged institutions and mainstream financial institutions, such as banks and securities firms has also increased. This has necessitated the need for a full understanding and management of risks generated from these activities, that is, the risk both to direct creditors and possibly to the financial system as a whole. They found that the recent near collapse of the long-term capital management market highlighted the deficiencies in banking institution's risk management practices with respect to some highly leveraged institutions. The responsibility rests with banks to manage these risks in a safe and prudent manner, particularly when considering risk that is prevalent both to direct creditors and to the financial system as a whole. Further given the potential for systemic disruptions, the Committee has looked into the aspect of the feasibility of direct regulations of highly leveraged institutions. This concern appears to be similar to that of local banks trying to do business with the Small and Medium enterprise market segment. The management of risk inherent in the SMME sector, only goes to re-iterate the Committee's view that these risks need to be managed in a safe and prudent manner, following the collapse of Saambou Bank and the ABSA/ Unifer debacles.

18.2.2. What are sound practices for Highly Leveraged Institutions ?

The following concerns have been identified by the Committee as regards mainstream banks and the business they have concluded with highly leveraged institutions, namely;

- ♣ in many cases there has not been an appropriate balance among the key elements of the credit risk management process, with an over reliance placed on security / collateral;
- ♣ insufficient weight was placed on in-depth credit analysis of the HLI involved and the effective measurement and management of exposures
- ♣ in some cases, competitive forces and the desire to conduct business with certain counterparties may have led to banks to make exceptions to their credit standards or policies.

The Committee has recommended, the management of the above risk be managed within the ambit of each bank's credit policy on overall credit management. Further, the report on settlement procedures and counter-party risk management related to over-the-counter (OTC) derivatives published by the Committee on Payment and Settlement systems in 1998 was thought to be relevant and it was recommended this report be used by banks as a guide.

18.3. The New Regulatory Capital Framework :

In a brief (Global Banking Brief - Oxford Analytica / Citibank , September 1999), it is suggested the recent regulatory initiative by the Basle Committee indicate trends towards a more flexible supervision of banks. That is, the proposed capital framework will promote

a more accommodating and accurate reflection of banking risks in the calculation of regulatory capital requirements.

The proposals if adopted as initially proposed are likely to lead to result in the following :

- ♣ It is thought global banks are likely to benefit more than domestic banks as the new proposals will reduce capital costs for banks that have well-developed credit risk management systems, and large and high quality asset portfolios amenable to securitisation;

- ♣ the securitised loan market and the use of other credit risk hedging instruments is expected to grow, as the new framework seems likely to lower capital charges for this type of business. In particular, the proposals create a strong incentive for banks to securitise certain kinds of corporate debt and issue more of certain kinds of securities,

- ♣ the new rules will probably place more focus on the judgements of bank management and perhaps credit rating agencies.

SECTION F : THE APPLICATION OF CREDIT DERIVATIVES IN S.A.

Up to this stage, we have covered a broad spectrum of issues ranging from the lack of access to finance by the SMME market segment in South Africa, possible providers of finance to this market, how banks presently manage their credit risks, credit derivatives instruments and whether these instruments hold the answer to hedging the credit risk inherent in the SMME market segment.

In this section we examine the South African situation more closely. We look at the present use of credit derivatives in the South African market, whether South Africa can gain access to a credit derivatives trading platform and whether there will be sufficient liquidity in the Corporate bond market to facilitate the use of credit derivatives. Further, we examine some key issues contained in the South African Reserve Bank's paper on credit derivatives, whether regulations and policies on credit derivatives are aligned to the Basle Committee recommendations and if so will this result in domestic financial institutions looking to focus more on the credit derivatives market. We conclude this section by examining the thoughts and comments to certain questions posed by the writer to some local specialists and interested parties in this field.

19. The use of Derivatives in South Africa :

In this section we examine the extent to which derivatives are used in the South African market. Lynn Bolin (The use of Derivatives in South Africa :FOW,, October 2001) investigated the recent developments in South Africa and found that recent developments

in the South African market resulted in the use of derivative instruments becoming more popular among financial institutions, corporates and traders alike. In particular, the drop in the Government's borrowing requirements, favourable credit rating outlook and improved inflation expectations have created a bullish market in bonds and interest rate swaps. At the same time the volatile equity market pushed more participants into equity derivatives. It is noted that there have been high levels of interest in structuring and trading credit derivatives in the first half of 2001.

Bolin notes that contrary to the market trend in other parts of the world, a healthy market in credit derivatives has come about in South Africa, despite the lack of a domestic corporate bond market. In response to demand from asset managers to invest in higher yield paper, banks have created synthetic credit-linked notes, which goes some way in compensating for the absence of a corporate bond market. The notes are similar to bonds with the credit default risk contained in their structure. Investors have the option of choosing any amount they want as a recovery value, and Bolin found that they usually opt for a 0% or 50% recovery in the event of default by the corporate. Pricing of the note is based on the Johannesburg inter-bank accepted rate (JIBAR), with the spread over JIBAR determined by the risk associated with the particular company, as measured by credit risk models employed by Banks.

Bolin found that the local demand for the credit-linked notes is large and unprecedented. According to the traders the reasons for this are :

- the drop in Government bond yields over the past six months from just over 12% to all-time lows under 10%;
- a general shortage of Government bonds;
- a lowering of inflation expectations following the targeting of inflation by the South African Reserve Bank.

Currently in South Africa four banks are actively trading in credit derivatives, namely, Standard Corporate and Merchant Bank, GENSEC Bank, ABSA and Investec. It would also appear likely a few international banks may be looking to become active in this market. Presently, the low spreads have kept the international banks away from this market in South Africa. From a local banking perspective, it is noted that present exchange control rules do not permit local banks to take much of their funds offshore. This has created increased liquidity in the local market that has resulted in too much local money chasing too few credits. Bolin argues that the relaxation of exchange controls is likely to lead to a rise in prices and a widening of spreads, which is then likely to attract international banks to this market.

Standard Corporate & Merchant Bank (SCMB) appears to be the largest trader in credit derivatives in the local market. According to Ian Sargent, the Head of Credit Derivatives at SCMB the bank has completed over R13 billion in trades for roughly the first six months of 2001. Deal sizes are said to average R50 - R100 million and about four trades a week are done. There have been a few deals in excess of R1 billion.

Regulations governing the credit derivatives market have not yet been finalised by the South African Reserve Bank (SARB). A working group has however draft proposals that are based on international best practice and are similar to those used in the UK market. The report is expected to be finalised shortly. However, it must be noted that the lack of formal regulations has not hindered trade as it would appear banks are well informed about risk reporting guidelines and liase closely with the SARB on their derivative transactions. The development of this new market is likely to see the development of a liquid and accurately priced corporate bond market in South Africa.

20. Is it possible for an Emerging Market like South Africa to gain access to a Credit Derivative Trading Platform ?

A new venture for online trading of credit derivatives, **creditex** INC. announced that it has raised more than \$10 million of venture funding from five big participants in the credit derivatives market. The participants included Bank of America Corp., Suisse Group's Credit Suisse First Boston, Dresdner Kleinwort Benson unit, Societe Generale AG and UBS AG. The most common form of credit derivative lets a company, such as a Bank buy credit protection against debt default by another company. Hence Banks use credit derivatives to hedge their risk to lending to specific clients, while traders use them to place bets on a company's credit quality.

Until recently, all trading on **creditex** has been with derivatives for single companies. However, Societe Generale recently conducted the first *portfolio trade* on **creditex** (

italics mine). The French bank bought \$283 million of credit protection on 18 corporations to which it had credit exposure. It marketed the trade anonymously and bought it from one buyer. Since this trade several other credit portfolios have traded over **creditex**. *In June 2001, creditex began trading emerging markets debt.* The focus thus far has been on Latin America and Eastern Europe sovereigns and corporates. The site is attempting to return investor confidence to economies in these regions. Dik Blewitt, Director of North American marketing in New York, noted that as the economies of emerging markets have improved, investors have become increasingly more comfortable trading underlying credits. It is expected that with **creditex**'s entry into this market other new counterparties would also be attracted which will likely provide more transparency with regards to pricing and encourage existing players to be more active in the market. At the time of writing, plans were afoot at **creditex** to expand its London office's operations into Asia.

However, **creditex** is not the only online trader in this market. Chase Manhattan Corp. and Internet Capital Group in July 2001 invested \$9.5 million in a rival venture called CreditTrade, which is operated by Mutant Technology Group in London. CreditTrade uses a combination of online and telephone-based technology.

It seems a likely extension that these trading platforms could be extended to South Africa as traders gain greater comfort from trading with emerging markets. South Africa has sound and consistent economic policies entrenched, good corporate governance, a well developed banking sector and a Government committed to a healthy economy and globalisation of trade and services.

21. Does the link-up of the Johannesburg Securities Exchange and the London Stock Exchange present any opportunities to the local financial market ?

The Johannesburg Securities Exchange (JSE) recently concluded an important arrangement with the London Stock Exchange (LSE), which could facilitate South African companies having dual primary listings in both Johannesburg and London. This is expected to stop the exodus of South African blue chip companies seeking a primary listings offshore. Further, the transformation of the JSE into a world class exchange was boosted when it adopted the trading system of the LSE , namely,- Stock Exchange Electronic Trading Service (SETS). This will allow the JSE access to key technologies from the LSE as well as easier access to global capital and markets. Whilst the change has only just been introduced, it is expected in time trading volumes will increase and liquidity in the market will improve, in particular, in the corporate bond market, as a result of the link-up with the LSE. The increased level of liquidity in the corporate bond market coupled with global trends in the credit derivatives market will likely result in substantially more trade in credit derivative instruments in the South African Financial Market. This is likely to be boosted should South Africa continue with its present economic and financial policies, ensure good governance and continue to develop good infrastructure.

22. South African Reserve Draft Proposal on Credit Derivative Instruments

The South African Reserve Bank's Annual Report for 2001 contains a section on credit derivative instruments. In particular, the report notes that the introduction of credit derivative instruments is a relatively recent innovation in the financial markets. The credit derivative instrument is seen as a contract in terms of which the credit risk associated with a financial asset is isolated from the other risks associated with a financial asset. Further, the credit risk is transferred from one counter-party, the protection buyer to another party, namely the protection provider / seller. The SARB Annual Report notes that the current regulatory framework in South Africa does not provide for the use of credit derivatives instruments in the mitigation of credit risk. Yet, we are aware that certain banks in South Africa, for example, Standard Corporate and Merchant Bank, GENSEC, ABSA and Investec are actively trading credit derivatives.

The SARB Report goes on to note that the failure of banks has often been the result of excessive credit exposure to particular borrowers that are vulnerable to the same economic shocks. Given this understanding the SARB has come to realise that the development of a market for the transfer of credit risk has the potential to improve the stability and efficiency of capital markets. Further, credit derivative instruments may improve the ability of banks to separate credit risk from funding. The Report suggests that global credit derivative instruments outstanding may have been as high as USD 1 trillion at the end of 2001. Given the potential threat of the exponential growth of the credit derivatives market to the global financial system, especially in times of economic downturn, some regulatory authorities appear to have expressed growing concern.

The proposed Basle Capital Accord has acknowledged the latest developments in this market. Following the latest regulatory and market developments around credit derivatives, The SARB Supervision Department established a working group in order to formulate legislation for the regulatory treatment of credit derivative instruments in South Africa. The SARB envisages making changes to the banking legislation to accommodate credit derivative instruments in 2002. Below, we examine some of the issues contained in the Draft Paper on Credit Derivative Instruments, presently being circulated for comment.

22.1. Key terms defined :

At the time of writing this report, the South African Reserve Bank (SARB) had issued a draft paper regarding proposed amended regulations to provide for the regulatory and supervisory treatment of Credit Derivative instruments. Interested parties had until the 30 April 2002 to submit their comments to the SARB. As the official policy and regulations concerning credit derivative instruments are still being finalised in South Africa, the writer was unable to obtain any additional comment from the regulators.

In this section, the proposed regulations as contained in the Draft Paper is considered. In particular, we look at the definitions of the various terms encountered in the credit derivatives market the SARB has proposed as well as capital adequacy proposals. We have not deemed it necessary to discuss the proposed changes to the SARB Returns and Reports required from banks. This is then compared briefly with the Basle Committee recommendations.

22.1.1. Proposed Definitions of Key Terms :

The SARB has defined credit-risk mitigation as the reduction of a bank's credit risk exposure by obtaining collateral or guarantees or credit derivative instruments. Further, the Reserve Bank suggests that a reduction in the credit-risk exposure of the reporting bank will be allowed to the extent that the bank achieves "an effective and verifiable transfer of risk". It would seem the onus shall be on the reporting bank to show that an effective and verifiable transfer of risk has occurred.

The SARB goes on to note that the term credit derivative instrument is a general term used to describe various contracts designed to transfer credit risk from one party (protection buyer) to another part (protection seller). In return, the protection seller receives a premium or interest-related payment for contracting to make payment to the protection buyer. Importantly the payments are linked to the credit standing of a reference asset or assets. The Bank defines two types of credit derivative instruments, namely, funded credit-derivative instruments and unfunded credit derivative instruments. Funded credit derivative instruments encompass cash instruments where repayment of the principal amount is linked to the credit standing of a reference asset. For example, a credit-linked note issued by a Commercial Bank and linked to a particular credit exposure. The Bank proposes looking at credit-linked notes in a similar way as it does cash colateralised transactions for risk mitigation purposes. Unfunded credit derivative instruments provide

credit protection similar to that of a guarantee, for example, credit default swaps and total return swaps. Hence, for credit mitigation purposes it is proposed unfunded credit derivative instruments be treated in a similar way to guarantees.

The SARB considers the term material threshold, which is sometimes embodied in credit derivative instruments. In essence, such a condition may require a significant loss to be incurred on the underlying instrument before the credit derivative instrument is triggered. The SARB has proposed that where the percentage of loss to occur before the protection seller is obliged to make payment is high, this shall not be recognised for credit-risk mitigation purposes. This brings us to the definition of settlement. It is noted that settlement may take the form of cash settlement or physical settlement. Cash settlement requires a cash settlement to be calculated by a party specified for that purpose in the contract. The cash settlement amount will be the reference value minus the final value of the referenced obligation following a credit event. Physical settlement on the other hand calls for the delivery of an obligation of the underlying referenced entity specified in the contract in return for the cash settlement of the reference amount. It is noted when physical settlement occurs, problems normally associated with the valuation of the reference obligation following a credit event are avoided. At this point it is appropriate to define how the SARB defines as the minimum event for it to be considered as being a credit event, in terms of, the contract.

A credit event includes bankruptcy, repudiation, any moratorium on the repayment of the principal or interest amounts due, any application for protection from creditors, payment

default (failure to pay the principal or interest amounts due), any reduction in the rate or amount of interest payable or the amount of scheduled interest accruals, any reduction in the amount of principal or premium payable at maturity or at the scheduled redemption dates, any change in the ranking of the priority of payment of any obligation - causing the subordination of such obligation ;and any postponement or other deferral of a date or dates for either payment or accrual of interest or the payment of principal or premium. We turn next to examine the proposed risk weighting.

First we consider the risk weighting of the protection buyer or the seller of the credit risk.

The SARB Proposes that where a bank is a protection buyer it may substitute the risk weighting of the underlying or reference credit exposure with the risk weighting relating to the protection provider or seller. This likely lower risk weighting relating to the protection seller shall apply to the outstanding amount of the transaction or exposure covered by the credit derivative instrument provided all the conditions contained therein are adhered to.

Risk weighting, in respect of, the protection seller or the buyer of credit risk treats the position as if the protection seller has a direct exposure to the reference asset. Further, if protection is provided by way of a funded credit-derivative instrument, the protection seller, upon conclusion of the contract , is exposed to the total credit risk relating to the referenced asset and the funds placed with the protection buyer. The exposure at risk will be restricted to the maximum amount specified in the credit derivatives contract. On the other hand, if the protection seller entered into an unfunded credit derivatives contract, the seller is exposed to the credit risk of the reference asset only. Having defined some of the key terms pertinent to credit derivative instruments we turn in the next section to discuss

what the SARB has proposed as the minimum requirements relating to credit derivative instruments.

22.2. Minimum Requirements relating to Credit-Derivative Instruments :

The SARB categorised the minimum requirements relating to credit-derivative instruments into general requirement and specific requirements. As a general requirement the SARB proposes that any bank wishing to engage in credit derivative transactions will need to obtain the prior written approval of the Exchange Control Department, in respect of, any such transaction involving a non-resident person. Further, it is proposed that should such written approval be given then the bank must also adhere to the specific requirements proposed and discussed below.

The specific requirements allows for protection from a credit derivative contract to be recognised, in terms of regulations to the extent that (1) such protection was not already elsewhere in the DI 400 Form and (2) such protection can be realised by the reporting bank under normal market conditions. In the case of the latter, the following conditions should be met, namely;

1. the credit protection shall represent a direct claim on the protection provider;
2. the credit protection shall be linked to specific exposures, such that “the extent of the cover is clearly defined and incontrovertible”;
3. there is no clause in the contract that would allow the protection seller to unilaterally cancel the credit protection;

4. there is no clause in the contract that could prevent the protection seller from being obliged to payout in a timely manner;
5. the credit protection shall be legally enforceable in all relevant jurisdictions;
6. the protection seller has no formal recourse to the protection buyer in respect of losses incurred by the protection seller;
7. in the case of a funded single named credit-derivative contract, the protection buyer shall have no obligation to repay any funding received from the protection seller except at termination or as a result of a defined credit event;
8. Robust risk-management process shall be employed
9. risk management systems of the reporting bank shall be adequate;
10. as a minimum, the credit events defined above shall be included
11. asset mismatch conditions are met.

23. What the specialist in the area had to say :

Standard Corporate and Merchant Bank (SCMB) is the largest player in the South African credit derivatives market with deals totalling approximately R20 billion have been concluded. According to Lance Basserabie, a Credit Derivatives Specialist at SCMB, the rest of the credit derivatives market in South Africa makes up for an additional R5 to R10 billion worth of nominal contracts. This view is also shared by Munkonge Kafula, a credit derivatives specialist with Investec Bank, who also estimates the size of the credit derivatives market in South Africa to be valued at R30 billion.

In response to the question what is the most common type of credit derivative instrument used by SCMB, Bassarabie advised the credit linked note are used most frequently. In essence the client sells the protection to the Bank on a reference entity and places the entire amount on deposit with the Bank at the same time. The note then pays coupons and a redemption amount. At Investec, credit linked notes and colaterised debt securities were the most common types of credit derivative instruments employed. Presently, as far as SCMB are aware the biggest players in the credit derivatives market locally are the major South African Banks, a few of the international banks operating offices locally, asset managers, insurers and structuring houses. Kafula also confirmed these market players and went on to add that Investec sometimes contracted in the credit derivatives market with international banks with local exposures. It is noted the credit derivatives market is still in an embryonic stage in South Africa. As such positions are not easy to hedge and most players provide pricing only on a very limited number of entities. Investec's credit derivatives specialist, Kafula notes however there is a growing demand for this type of hedging instrument in the local financial market.

Bassarabie advises that due to the lack of corporate bonds available in South Africa, there is an increased demand for yield enhanced fixed income products through credit derivatives. In most instances, SCMB finds itself being the protection buyer which results in a yield pick-up for the client. There has been the occasional request for pricing to hedge risk on a particular client's exposure. This is expected to increase as more clients become educated in credit derivatives. SCMB has traded with international protection sellers, in particular, international banks. However, according to Bassarabie, liquidity in this market

is low due to the lack of big player. This then makes positions difficult to hedge and those that are hedge reflect large spreads. This is a view shared by Investec.

When asked whether credit derivative instruments could be used to effectively hedge the risk inherent in the SMME market segment, Basserabie felt that currently this was not possible. He elaborated by saying there is currently no demand for assuming the exposure of these smaller companies and therefore the risk would not be possible to hedge. It was likely this would magnify the spread that currently exists on the credit prices of the larger companies. He then goes on to add that to use credit derivative instruments to effectively hedge the risk of the SMME lending, the corporate bond market in South Africa would need to be developed more and liquidity and appetite would be necessary.. Kafula is of the opinion credit derivative instruments can be used the inherent risk found in lending to the SMME market in the future. He went on to add that this could best be achieved by using collateralised debt obligations, securitisation and baskets.

Basserabie concluded by noting the credit derivatives market is not yet fully fledged in South Africa. For this to happen, legislation will need to be passed, market consensus on standards of trading reached and buy-in from the Authorisation of Unit Trusts achieved. Kafula concurred with this opinion also noting that there is only a fledging corporate bond market in South Africa and enabling legislation for Banks still needed to be finalised

SECTION G : CONCLUSION :

24. Conclusion :

The objective of this paper was to examine whether credit derivative instruments can be used in the Small, medium and micro-enterprise market to hedge the inherent risk

Commercial Bankers perceived in lending to this market segment. It has been identified and recognised that the major banks in South Africa do not have the appetite to lend in any significant level to the SMME market segment for a host of reasons. This paper notes some of the following reasons espoused by some banks for not wanting to increase their exposure to this market significantly, namely, adverse credit records of the people behind the businesses, the owners / managers have shown instability, in terms of, previous employment and domicilium and often these parties do not have any collateral of value to support the facilities requested. In defence of the SMME segment, various government departments and non-governmental organisations have countered that the major banks in South Africa are more interested in doing business with large and more profitable corporate clients and in so doing are ignoring their social responsibility to assist the SMME segment. Some of these parties have gone on to argue that these banks do not possess the expertise and relevant credit models to suitably assess the credit risk of SMME clientele. In essence, these parties have argued, normal bank lending criteria is not applicable to the SMME market segment. Thus far the result has been access to finance for SMMEs has been limited to funds raised through banks where Government acts as a guarantor by providing certain guarantees and /or indemnities, borrowings through micro-lenders (sometimes at exhorbitant interest rates) and loans secured through family and friends.

The Draft Discussion Paper by the Department of Trade and Industry's Centre for Small Business Promotion (1998) noted the SMME segment contributed to 60% of employment in the economy and 40% of output. In the light of this and given the importance of the SMME market to a small, growing economy like South Africa, the author felt it was important to investigate whether a suitable mechanism or means could be identified, which had the potential of unlocking the value in the SMME market and thereby grow the South African economy at large. The growing popularity of credit derivative instruments internationally and to some extent locally provided the author with the idea of using a corporate finance tool, namely credit derivatives, to hedge the risk of a bank's SMME Loan portfolio (a non-traditional use for credit derivatives). Thus far credit derivatives have been used by large multi-national corporations, international banks and insurance companies to hedge corporate and sovereign debt. The study then goes on to highlight certain constraints to using credit derivatives on a large scale in South Africa. These constraints include the lack of suitable infrastructure, lack of liquidity, lack of transparency, central bank regulations and exchange controls and the lack of a significant number of large financial institutions in the local market. The focus of the paper then turned to one of examining whether these constraints could be overcome.

The paper proceeded to examine trends in other developed markets for credit derivatives, most notably, the United States of America, the UK, India and Australia. The trends noted were as follows -credit derivative trading platforms were being extended to make them more accessible to emerging markets, market players were looking for higher returns /

bigger spreads which allowed for a higher risk appetite and the Basle Committee recommendations on credit derivatives was gaining acceptance. At the same time it was noted that credit derivative instruments were being used in more exotic ways thereby moving beyond the plain vanilla type usage. This presented opportunities for the South African market to be more innovative in the way credit derivative contracts were packaged. We also noted the views of some international derivative experts on where the credit derivatives market was heading. After all if credit derivatives was going to be a short-term fad, it seems almost pointless in looking in that direction for a medium-term solution to hedging credit risk in the SMME market. However, the experts in this field were unanimous in predicting the credit derivatives market is set to grow in leaps and bounds. Further, following the circulation of the Basle Committee recommendations on credit derivatives, enabling standards and capital adequacy requirements, uniform definitions and terminology and supervisory requirements and credit models appeared to gain wide acceptance. This, we construed as a positive step towards establishing an enabling framework within which the players in this market could abide by.

The study then proceeded to examine the South African market for credit derivatives more closely. In particular, the author focused on whether there were developments in the local economy that would help overcome the constraints we identified in establishing a fully fledged credit derivatives market in South Africa , in particular, the lack of infrastructure, liquidity, transparency, Central Bank Regulations and exchange controls. We found there are developments at the Johannesburg Securities Exchange, in particular the link-up with the London Stock Exchange and the common SETS trading system to be used, provided

the South African market with greater opportunity to gain access to liquidity and to grow our Corporate Bond market. Also, the South African Reserve Bank has currently circulated a Draft Paper on Credit Derivatives for further discussion and comment. The paper appears to be closely aligned to the Basle Committee recommendations and as such it is likely to be in line with international norms. Should this paper be accepted in its present format, then the enabling regulations and exchange controls shall be put in place, which will contribute to a growing credit derivatives market in South Africa. This will also lead to greater transparency following the SARB return and reporting requirements. The specialists interviewed seem to agree the credit derivatives market in South Africa is still at an infancy stage. However, given the steps in the pipeline to overcome many of these constraints, the market is likely to grow. Should this occur, there is likely to be opportunities to use credit derivative instruments to hedge the risk of lending to the SMME market. In this case, local banks will then assume the role of originators, managers and distributors of SMME loans, with the risk of default passed on to the protection seller in return for a premium.

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