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DISSERTATION ENTRY

Is India Ready for Credit Derivatives?

SUBMITTED BY

Ankit Khaitan – MBA (IB)

Email: ankitk_kd08@iift.ac.in; **Mobile:** (+91-9831385933)

Indian Institute of Foreign Trade (IIFT)
Kolkata Campus

EXECUTIVE SUMMARY

The credit derivatives market in India presents a plethora of opportunities with the rapid development of the financial markets and the increasing need of the corporates and other players to mitigate risk; credit derivatives seems to be the primary color with which the financial markets canvass can be painted. The regulator has been trying to come up with the guidelines but was impeded first by the East Asian Financial Crisis in 1998 and then the IT Bubble burst in 2000. The issue then was at the back burner for quite some time when finally the RBI, even amidst the Sub Prime Meltdown decided to come out with guidelines for the same.

The paper initially looks at the very basic structure of Credit Default Swaps and their features which have just been introduced in India.

The paper then goes on to discuss various reasons why the Credit Default Swaps are very pertinent in the Indian context. We look at developments such as the blitzkrieg credit growth in India because of the booming economy, the reforms in the Banking Sector in India; how Credit Derivatives can fit into the picture.

Further, the paper focuses on the issues which can encumber the growth of credit derivatives in India and some possible recommendations which could possibly ameliorate the situation. The illiquid bond market seems to be an insurmountable challenge considering the factors such as the poor quality of papers available; disclosure norms, private placement and stamp duty severely hamper the issue of corporate debt. The pressing fact which further raises eye brows is poor legal infrastructure to enforce Credit Derivatives.

However there are silver linings as well; the valuation which is among the most important factor for the reference obligation to be assessed is already happening in India. A large number of foreign banks operate this out of India for their other Operations outside India. So India already has the basic infrastructure set up to carry out valuations. To much glee the Securitization process in India is turning out to be fairly successful which paves further way for the growth of Credit Derivatives in India.

Thus we feel that growth of Credit Derivatives in India is virtually inevitable. Opportunities galore if it happens sooner because it is just the apt time for further consolidation of the financial markets. The development will further mature the financial markets and will create further avenues for the fledgling business environment in India.

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1. INTRODUCTION

A credit default swap is a credit derivative contract in which one party ‘sells’ risk and the counterparty ‘buys’ that risk. It is essentially an insurance contract, in which if a default (technically a ‘credit event’¹) occurs on the reference obligation (the ‘bond or bank loan’ on which the swap is written), the buyer of the swap receives a payment from the seller. To obtain this coverage, the buyer of the swap pays the seller a premium that is paid one-time upfront or over a period of time (**Refer Exhibit 1**).

A default swap acts like a put option on the reference obligation for the buyer of the swap. If there is a default, the buyer receives payment, which limits the buyer’s downside risk. Assuming the premium of the swap was paid upfront, the default swap becomes more valuable when the credit quality of the reference obligation declines and its value decreases. In that case, the default swap could be sold for a profit. The reverse is true from the seller’s perspective. The swap creates a long position in his books. If the reference obligation increases in value or credit quality, the default swap decreases in value below the price at which it was originally sold. The seller can then buy back the swap and realize a profit.

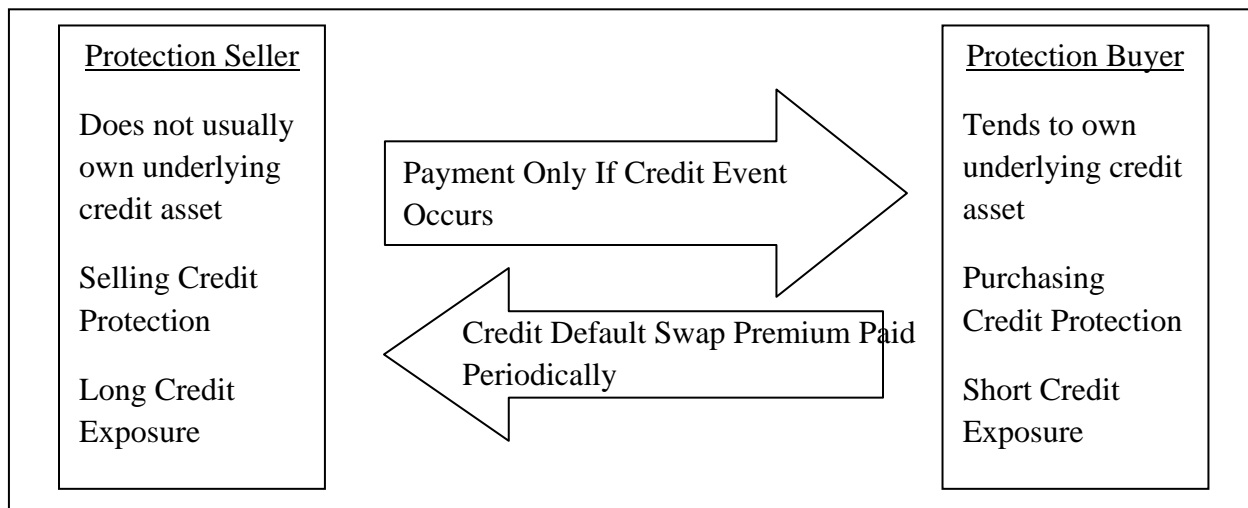


Exhibit 1: A Common Credit Default Swap Transaction

¹ Credit events that trigger payments are bankruptcy, obligation acceleration, obligation default, failure to pay, repudiation and restructuring.

2. IMPORTANCE FOR INDIA

Credit default swaps are an important financial instrument today and certain key characteristics of the Indian Economy further elevate their significance.

2.1 Growth of Credit with concentration in the few sectors

There is a growing need for credit in India which is seen to be at the rate of over 30% in recent years. With the growth in credit, risks associated with them also increase. This makes it important for banks to have modern risk management instruments to be able to diversify them. Along with this, we can see that the growth in credit is concentrated in a few sectors like industry. There is 100% growth in real estate loans (**Refer Exhibit 2**). Since Credit Default Swaps can transfer risks from the buyer to the seller, banks can use them to spread the sector specific risk to those who want exposure but don't have the necessary means.

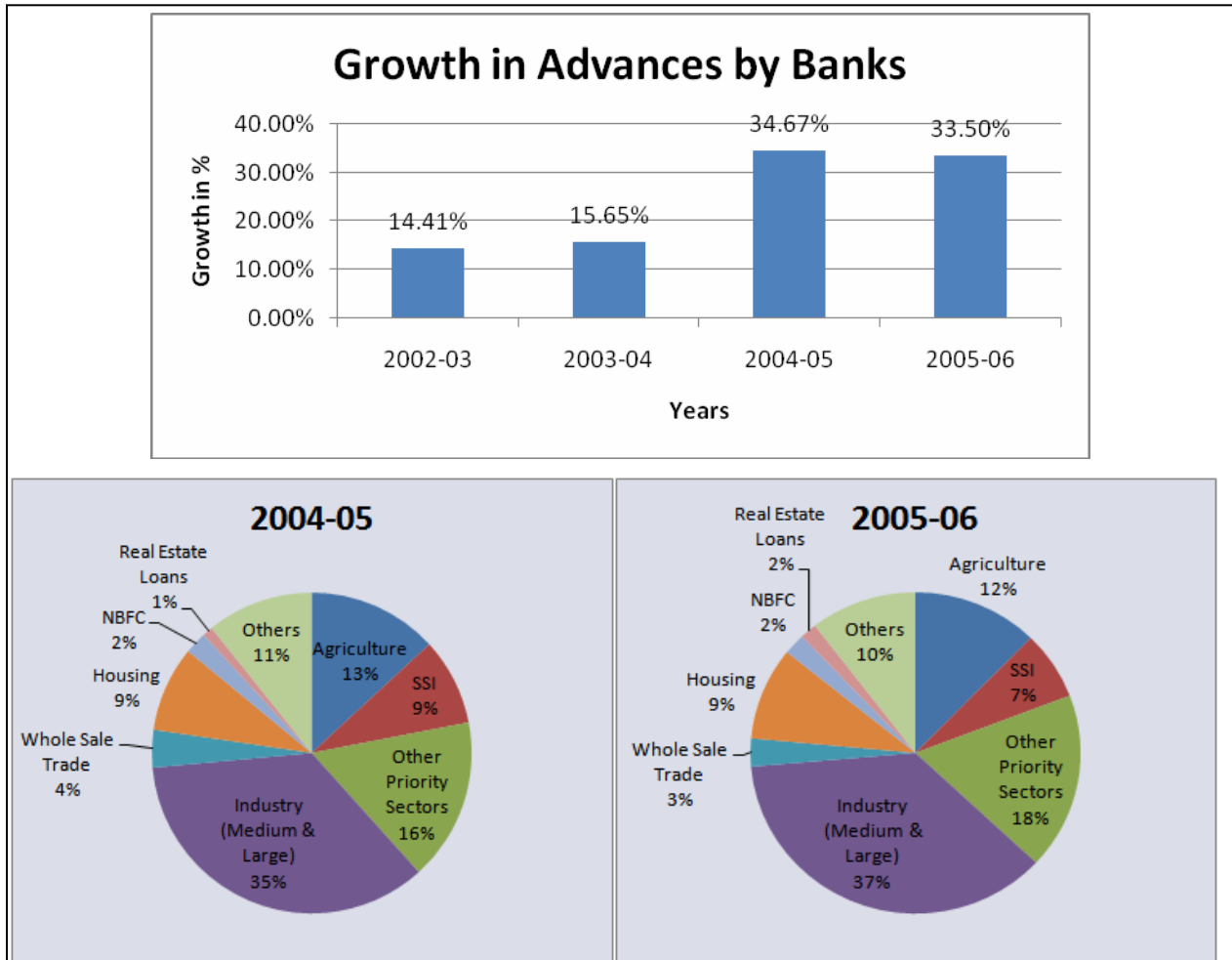


Exhibit 2: Advances by Banks (Growth & Composition)

2.2 Capital Adequacy Under Basel II

Since Indian banks now have to maintain Capital Adequacy at 9%, they can use default swaps to reduce these capital requirements. If they are used to hedge a banking book asset and trading book asset respectively, the capital requirement, C_b , is calculated using the following formulae

$$C_b = NP * [(w * r_u) + (1-w) * r_{ps}] * 8\%$$

$$C_b = NP * r_u * 8\% * (1-0.80)$$

Where,

NP = Notional Principal

W = a constant 0.5 for credit derivatives

r_u = risk weight of the underlying asset

r_{ps} = risk weight of the protection seller

In case of a banking book asset, the protection provider has a higher weight of 0.85 and the weight of the underlying is 0.15. Thus, by finding a protection provider that has a lower risk weighting than the underlying, the investor can reduce the amount of regulatory capital required. In the case of trading book assets which are more liquid, marked to market and of shorter term, Basel II provides 80% capital relief.

2.3 Efficient use of Capital

Banks in India face two broad issues: blockage of capital and loss of opportunities. Banks generally hold assets and hence credit risk until maturity. This results in blocking of capital and impairs growth through churning of assets. Also, due to exposure norms that restrict concentration of credit risk on their books, banks are forced to forego attractive opportunities on existing relationships. With the use of Credit Default Swaps, bank's blockage of funds can be reduced as the minimum capital required is now reduced and with the diversification of risk future opportunities can be exploited.

2.4 Reduced Cost of Borrowings and Better Pricing of Loans

A key objective of liberalization which is crucial to financial system is greater liquidity and volatility. If the RBI allows the market to develop, so that it becomes sufficiently liquid, this would be of considerable benefit in providing transparent market views of credit risk. This will

also help banks to judge whether they are pricing loans to appropriately reflect credit risk. It will also bring down the cost of borrowing because of the development of a secondary market.

3. IS INDIA READY FOR CREDIT DEFAULT SWAPS

Familiarity with credit markets and their risks is a key requisite for the onshore investor community, as is a high degree of understanding of the legal and operational framework surrounding these instruments."While Indian investors are fairly familiar with the former, they do need to spend resources on the operational and legal aspects of credit derivatives," says Vermani at HSBC. There are lessons to be learnt from observing practices in the rest of the world, but there is no substitute for direct experience. Specifically, valuation and pricing of CDS will be crucial for the development of this market

3.1 Issues which can hinder the use of Credit Default Swaps

In this section we will see the challenges which India faces as it introduces Credit Default Swaps.

3.1.1 Illiquid Corporate Bond Market

Bond market in India is extremely illiquid mainly due to factors like huge number of private placements, high stamp duty, poor quality of papers available, incomplete access to information and absence of a centralized counter party for clearing and settlement (**Refer Exhibit 3**). These factors will make the actual delivery of the reference obligation not possible, as the asset might not be available in the market.

Solution: Several measures can be adopted to ameliorate the existing situation which will make the environment more congenial for the corporate bond market to exist in India

- The disclosure laws should be at parity across the board; the number 50 should be done away with. The number of issues should be limited to create benchmark; legislations regarding reissue and consolidation need to be changed.

- RBI should give some incentives to the bank to encourage them to raise capital beyond Tier 2 capital requirements through the corporate bond market. This will improve the quality of the papers available in the bond market and attract Retail Investors. Banks should also encourage high rated corporates to issue debt; this way they can shuffle their portfolio of term loan assets to adjust its asset liability mismatch and pave way for further vibrant primary bond market.

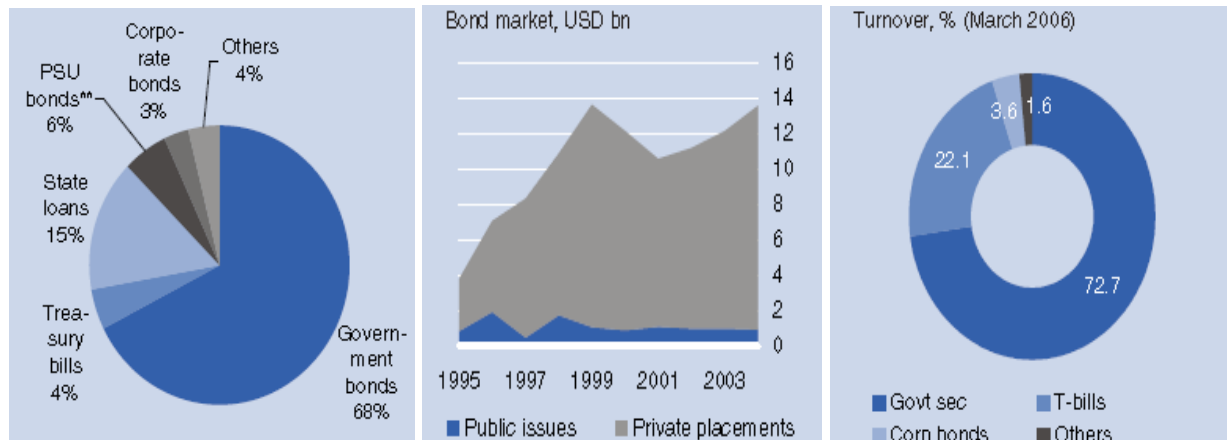


Exhibit 3: Local Bond Market (As of March 2006), Ratio of Private Placement to Public Issues by Corporates and Turnover in the Bond market

3.1.2 Taxation laws

Some provisions of the Income Tax Act, 1961 will have an adverse impact on credit derivatives. For instance, Section 60 of the Act contemplates transfer of income without transfer of assets which are the source of the income. In such a case, the income so transferred is chargeable to income tax as the income of the transferor and is included in his total income. Similarly, there are other sections in the Act which are an impediment to the progress of credit derivatives.

3.1.3 Additional Costs

There are two additional costs specific to India

(i) Stamp Duty

Every instrument by which property, whether movable or immovable is transferred attracts *ad valorem* stamp duty. Typically, the rate of stamp duty ranges from 0.5 per cent to as high

as 4 to 8 per cent of the value of transaction. These increase the price of the derivatives as in the case of default additional cost will have to be borne in transferring the asset by the buyer to the seller.

Solution: The two tier structure stamp duty should be done away with; certain cap should be put on the maximum duty paid and the paid duty should be in proportion to the size of the issue.

(ii) Compulsory Registration

Under the Registration Act, 1908 transfer requires compulsory registration. This also imposes additional costs to the transaction.

3.1.4 Mergers & Acquisitions

In an acquisition the acquiring company buys back most of the debt from the target company, and fails to guarantee the remaining debt, or there may be no debt outstanding, which means there is no longer a relationship between the debt and the derivative contract. The buyer of the contract in this case has no bond to deliver and thus the contract falls through. This problem can specially arise in India due to the large number of mergers and acquisitions happening.

3.1.5 Legal Issues

The most pronounced issues plaguing the Credit Derivatives Market in India are the Legal Issues. Credit derivative transactions are negotiated over the counter and thus involve high degree of counterparty risk. Failed or delayed payments by sellers of protection could leave the buyers exposed to unexpected credit risk on loans and bonds. The ability of a protection buyer to enforce payment following a defined default event indeed seems to be a far fetched fantasy considering the state of the Indian Judicial System. Some separate legal entity has to be established which takes care of the above situation.

3.1.6 Fragmented Banking Sector

The Banking Sector in India is extremely fragmented; i.e. large banks have urbanized products and small banks including co-operatives thrive on rural credit. Thus the loan profile of the banks is not complimentary. This makes it difficult for banks to find counterparties as a lot of banks are operating in diverse markets and they aren't sure of the needs of other banks.

However Indian banking canvas is witnessing large scale consolidation. Large numbers of big banks have acquired smaller banks and this process is going to continue.

3.1.7 Back Office Gaps

Credit derivatives as an instrument for hedging have a huge potential and can grow really fast. This was seen in other countries resulting in a lot the deals fell through. The reason was mainly because of the large number of deals some were left unsigned and thus there was no contract. This creates an un-hedged position which was supposed to have been hedged.

Thus in India proper back end operations need to be set up which take care of the documentation and other impending measures so that all the deals have proper documentation and the legalities settled.

3.2 Positives for India

3.2.1 Valuation

Valuation is one of the most important factor which needs to be considered before introducing credit derivatives. It is a very complex procedure, but India already has a basic structure for valuation. This can be interpreted from the fact that a lot of foreign banks have already outsourced their valuations to India. The fact is highlighted by the statement of Banerjee of Deutsche Bank (one of the largest players in derivatives). He says, "Derivatives operations is an essential business, reconciliation is time sensitive and even data sourcing has a criticality attached to it. More then 60% of our worldwide derivatives team works out of India."

Example of Valuation of Counter Party Risk

Counterparty Credit Charge =

$$(100\% - \text{Recovery Rate CP}) * \text{Prob Joint} \{ \text{CP In default RE Rating} = R \} * \text{Op Rating} = R$$

Where,

CP = Counterparty

RE = Reference Entity

N = Number of time periods, t

R = Rating of the Reference Entity in time t

Op = Price of an option to replace a risky exposure to RE in state R at time t with a riskless exposure: -

- (i) When RE has defaulted, value is (100% - Recovery Rate RE)
- (ii) When RE has not defaulted, value is (100% - MTM of Credit Swap, based on credit spreads)

3.2.2 Accounting

Off Balance Sheet Accounting of credit derivatives ravaged foreign banks as they did not maintain adequate capital for these exposures. But RBI has not allowed off balance sheet accounting for derivatives in India. Because of this banks will have to maintain adequate capital to satisfy Basel II norms and will be protected in case of future loss.

3.2.3 Securitization

Securitization has been quite successful in India (**Refer Exhibit 4**). This has been due to the growing need for diversification of risk by Indian Institutions and India possessing strong fundamentals to support this instrument. If we take securitization as a proxy for credit derivatives, we can be more or less sure that India has the basic structure for appropriate implementation.

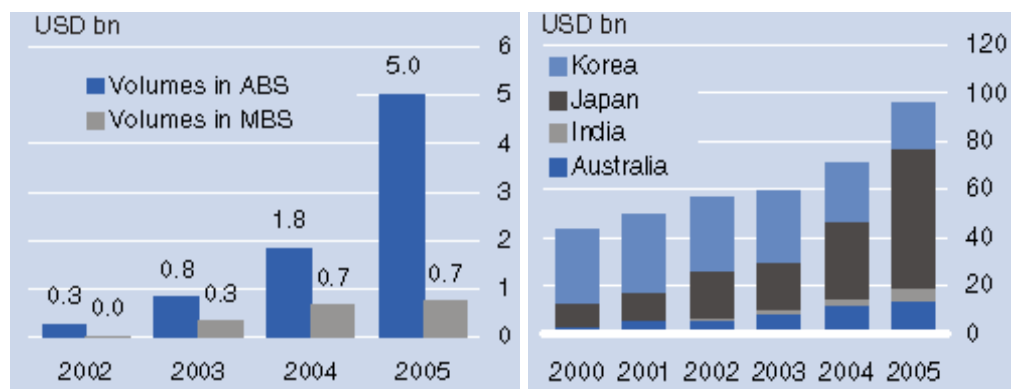


Exhibit 4: Volumes in Securitization and ABS issues in various countries

4. THE ROAD AHEAD

Liquidity in the bond market is a must for the derivative market to take off. Current liberalization measures will also lead to the insurance sector opening up, possibly improving liquidity at the long end of the curve. Due to its long-bond positions, the insurance sector has been historically a seller of credit derivatives. Thus, this measure will lead to more players entering the derivative market apart from the participants mentioned above.

Additionally, easing investment norms and tax incentives for corporates could provide the much-needed depth to the market. Increasing investor awareness through efforts of rating agencies and making the rupee convertible will further lead to the development of the Credit Derivatives market in India.

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