CRISIL YOUNG THOUGHT LEADER 2007

A DISSERTATION ON

"IS INDIA READY FOR CREDIT DEFAULT SWAPS?"

By

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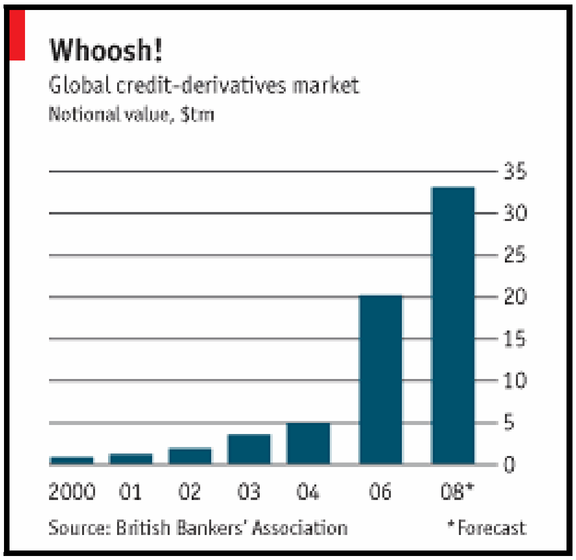
Executive Summary

> **"…..bankers are in the business of managing risk, pure and simple, that is the business of banking."**
>
> **- Walter Wriston,**
> **Former CEO, Citibank**

With India having grown at an average of 8.6% in the past 4 years, there has been an excessive demand for capital from all sorts of businesses to further fuel their growth. Banks seek to address this need for capital and in turn assume risk. But for India to continue to grow at over 9% it's an imperative that we have healthy financial institutions which are able to manage their risks well. Credit derivatives which emerged globally nearly a decade ago and created a rage as effective tools for credit risk management are set to make their debut in India to help banks better manage their credit risks.



This paper seeks to address the immense relevance of credit derivatives, particularly CDS, in the Indian context. The introduction shall provide an overview of the significant features of the recent guidelines on the introduction of CDS. The author is rather optimistic in his view of the future course of development of the Indian credit derivatives market. In keeping with this view, the paper highlights the positive/negative implications of the introduction of CDS and the issues that may emerge as the market gains scale. The paper shall also endeavor to identify issues which demand urgent attention of the regulators to ensure the healthy growth of credit derivatives in India.

Introduction

"ISDA Mid-Year 2007 Market Survey: Credit Derivatives at $45.46 Trillion"

- Notional amount outstanding of credit derivatives grew by 32% in the first 6 months of the year to $45.46 trillion from $34.42 trillion.
- The annual growth rate for credit derivatives is 75% from $26.0 trillion at mid-year 2006.

Source: ISDA

"Credit-default swaps linked to loans will be more actively traded in the U.S. than the loans themselves within a year….."

Source:Citigroup Inc.

"………several Indian names are traded on a regular basis in global credit derivatives markets and two Indian names are a part of a popular traded credit derivative called iTraxx Asia ex-Japan."

Source: www.vinodkothari.com

The above illustrations are reflective of the tremendous popularity that credit derivatives have attained in the globally. They're also indicative of a lackadaisical response on part of the Indian regulators towards the introduction of credit derivatives which has led to the domestic credit derivatives market being exported to offshore subsidiaries of Indian banks.

The RBI recently released the "Draft Guidelines on Credit Default Swaps", as a small first step towards creating an onshore credit derivatives market. The guidelines aim to introduce CDS in a calibrated manner in India and are reflective of a conservative approach adopted by the RBI. The conservatism possibly stems from the inexperience of the Indian markets with such products, but could in-part also be attributed to derivatives being viewed as "financial weapons of mass destruction". The role credit derivatives had to play in the recent Sub-prime crisis does to an extent validate the adopted approach.

The guidelines regulate credit derivative transactions by Indian resident commercial banks & primary dealers. Currently only 'plain vanilla' credit default swaps (CDS) have been permitted. The guidelines limit CDS trades to transactions referenced to single, rated, resident entities only, with both the protection buyers (PB) and protection sellers (PS) being resident. The PB must be in a position to identify a specific credit exposure which it is hedging, and this exposure may have to be referenced in the CDS. The reference obligation and, if different, the deliverable obligation must be rated and denominated in Indian Rupees. Related party transactions have been disallowed and the CDS must be denominated and settled in Indian rupees.

The table below indicates that Single-name CDS are the fastest growing segment of credit derivatives globally.

Type	2000	2002	2004	2006
Basket products	6.0%	6.0%	4.0%	1.8%
Credit linked notes	10.0%	8.0%	6.0%	3.1%
Credit spread options	5.0%	5.0%	2.0%	1.3%
Equity linked credit products	n/a	n/a	1.0%	0.4%
Full index trades	n/a	n/a	9.0%	30.1%
Single-name credit default swaps	38.0%	45.0%	51.0%	32.9%
Swaptions	n/a	n/a	1.0%	0.8%
Synthetic CDOs – full capital	n/a	n/a	6.0%	3.7%
Synthetic CDOs – partial capital	n/a	n/a	10.0%	12.6%
Tranched index trades	n/a	n/a	2.0%	7.6%
Others	41.0%	36.0%	8.0%	5.7%

Source: BBA

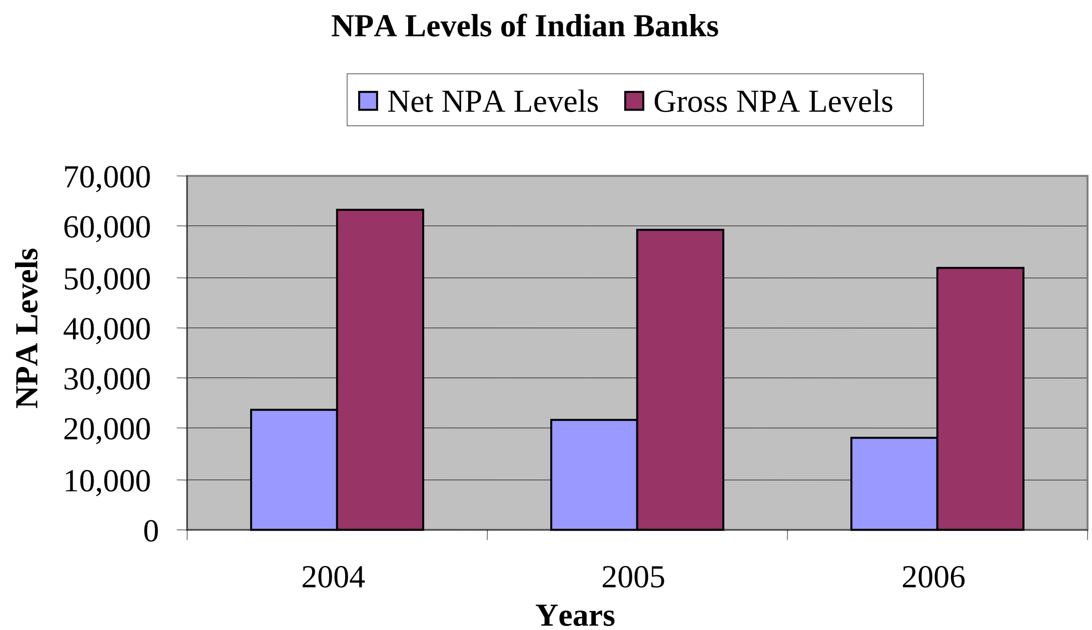
The rather disheartening feature of the guidelines is that banks are allowed to use CDS but only for hedging purposes. Globally, credit derivatives are being used not only for hedging purposes but also for creating exposures to certain assets. This policy measure also deprives the credit derivatives market of the much needed liquidity extended by the presence of speculators/arbitragers. The guidelines stipulate that the CDS contract shall not have a materiality threshold and this shall help further reduce the credit exposure of banks. The guidelines require that the reference obligation be identical with the underlying exposure and this may be rather impossible to achieve practically.

Positive Implications of the Introduction of CDS

- Buoyancy in the Indian economy in the recent past has led to corporates drawing up aggressive expansion plans requiring large amounts of capital for long tenors. Due to a multiplicity of issues, Indian banks/debt-markets have not been able to feed the hunger for capital of these corporates, forcing them to look overseas. Even infrastructure/project-financing in India is plagued by similar issues, as also the lack of project appraisal skills for these highly levered projects. Inability to hedge the credit risk and the illiquidity of assets has prevented banks from financing such projects resulting in loss of potential business. A vibrant/deep/liquid credit derivatives market could allow the banks to retain these assets on their balance sheets even while they are relieved of the credit risk, thus prompting banks to finance such projects.
- The introduction of BASEL-II norms post 2008, which attach a risk weightage commensurate with the credit ratings, is expected to put pressure on banks to allocate capital towards CAR purposes. The availability of CDS would help in the reduction of capital required to be allocated towards Capital Adequacy purposes thereby freeing up capital for other needs. This would be of great interest particularly to PSB's (especially those planning to set up capital intensive insurance ventures), constrained by a compulsory 51% government holding, thereby stunting their ability to raise fresh capital to fuel growth.

"The current shortfall in banking capital is estimated between $6 billion and $8 billion. And the shortfall will grow as banks try to step up their lending to a booming economy."
Source: Businessworld

- RBI statistics suggest that the NPA % in non-priority advances is higher for all bank groups than that for priority sector advances, even while overall NPA levels are declining. In the current booming Indian economy NPA levels cease to be a cause of concern, but in a sluggish economy they may rise and be a cause of grave concern. CDS would provide banks with the ability to churn their portfolios, stem the rise in NPA's and also help free up regulatory capital. They would ensure diversification of risks amongst numerous investors, thereby reducing the impact on a single banking entity, attributing in part to its sustained competitiveness.



Source: IBA

- Earlier securitization was the only option available to banks for managing their credit risks. But now banks averse to securitization due to the costs/legal/tax/regulatory reasons could resort to usage of CDS for credit risk management.
- CDS could also be used by banks to hedge their exposure to select corporate entities. This is a crucial advantage as short-selling of corporate debt is currently impermissible.
- CDS spreads could be used as an indicator to assess the risk profile of debt in a well developed corporate debt-market. Arbitrage opportunities might also exist when the purchase of a risky bond along with the appropriate CDS may provide a better yield than the equivalent risk free instrument.
- With trading/issuance in the Indian debt-market currently limited only to investment grade paper, the introduction of CDS may help in extension of trading/issuance activity to lower rated paper imparting greater vibrancy to the market. But the current lack of interest in reviving the Indian debt-markets may continue to constrain such positive trickle down effects of the use of CDS.

RATINGS ASSIGNED TO CORPORATE DEBT SECURITIES (MATURITY ≥ 1 YEAR)												(Rs. crore)
Year	Investment Grade								Non-Investment Grade		Total	
	Highest Safety (AAA)		High Safety (AA)		Adequate Safety (A)		Moderate Safety (BBB)					
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1	2	3	4	5	6	7	8	9	10	11	12	13
1999-00	77	97723	57	11106	55	7227	17	896	14	723	**220**	**117674**
2000-01	113	97988	99	12880	63	14890	9	1689	11	405	**295**	**127851**
2001-02	106	86987	112	39312	80	13086	26	1525	10	292	**334**	**141200**
2002-03	160	107808	95	19513	64	10652	22	2335	10	1463	**351**	**141770**
2003-04	201	129436	99	24908	69	10200	26	1812	4	645	**399**	**167001**
2004-05	278	159788	110	48602	58	8191	35	4139	9	688	**490**	**221407**
2005-06	261	279968	147	62316	45	28957	21	1200	4	144	**478**	**372585**

Source: Various Credit Rating Agencies

- With the availability of better credit risk management tools, the regulators could consider relaxing the norms requiring provident/pension funds to invest only up-to 10% of the accruals in a year in private corporate bonds and a maximum of 40% of the corpus to be invested in bonds issued by public sector undertakings. This would help improve the returns these funds generate and also add liquidity to the market.

Negative Implications of the Introduction Of CDS

- While CDS may ensure the transfer of credit risk to the counter-party to the transaction – it in no way protects the PB from the risk of default of the PS. Counter-party risk is a cause of great concern particularly in a recessionary environment where the occurrence of a large number of credit-events could threaten the financial viability of the counter-party. This is of even greater relevance in India as initially only the few large banks are expected to emerge as the PS thus leading to concentration of risk.
- The sharing/diversification of risks through the use of CDS may lead to a false perception of the asset quality in the minds of the investors and thus result in inflated asset prices.

- The inevitable but highly undesirable outcome of credit derivatives is the reduced emphasis on credit monitoring due to the sharing of credit risks.
- With the comfort of credit risk protection at hand banks may also succumb to the tendency of lending to riskier projects.
- Had the introduction of CDS not been restricted to usage for hedging purposes, they could have throw up opportunities for regulatory arbitrage. In cases where regulations disallow banks from taking positions in certain corporate assets, banks may build an exposure through such derivatives. Thus though not a drawback in the current context, regulatory arbitrage extended by CDS may become a cause of concern as and when RBI decides to extend the usage to trading purposes.
- A prime reason for the moribund state of Indian debt-markets is the requirement to mark-to-market the bond portfolio, whereas for loans such a requirement does not exist, thereby resulting in banks preferring to extend loans. By the very same logic the a negative implication of the proposed guidelines which require that the CDS portfolio be marked-to-market, is that it may serve as a disincentive for banks keen on window dressing their balance sheets. This mindset of the Indian banking system may come to haunt the credit derivatives market just as it has haunted the corporate debt-market.
- In keeping with the conservative approach adopted by the RBI, the choice of binary settlement should have been avoided. Market inexperience which has been cited as a reason for the calibrated introduction of CDS shall also play spoil sport in determining accurately the fixed recovery to be agreed upon incase of binary settlement and thus provide an inadequate hedge.
- In India Certificate-of-Deposits (CD) & Commercial-Paper (CP) with a maximum maturity of one year are very popular means of raising short term finances, especially in the face of immense interest rate volatility. RBI guidelines which have limited the minimum maturity of CDS to 1 year would prevent banks from hedging their credit exposure towards such forms of corporate debt. Absence of this restriction would have also aided the growth of lower rated CP/CD issuance which would add greater depth at the shorter end of the yield-curve.

Issues Demanding Urgent Attention

- Revival of the listless corporate debt-markets in India is of prime importance. A vibrant credit derivatives market cannot exist in the absence of a healthy corporate bond yield-curve. A thriving corporate debt-market will provide the PS with an opportunity to further hedge the credit protection extended by them and in turn shall provide tremendous impetus to the credit derivatives market. It is imperative that prompt action is taken on the recommendations of the R.H.Patil committee report to improve participation in the debt-markets as illiquidity could result in inefficient pricing as a consequence of lackadaisical trading activity.
- Rating agencies have in the past faced flak for failing to provide any advance warning of impending crisis' like the East-Asian crisis, Enron/WorldCom fiascos, Sub-prime crisis, etc. Mindful of the imperative role that credit rating agencies have to play in the development of credit derivatives market, it's essential that such agencies develop robust risk assessment protocols/rating migration mechanisms. Cost efficacy of the intensive rating process for complex structures also needs to be ensured by the agencies.
- As already mentioned loans are far more popular in India currently, rather than bonds, both with corporate borrowers and banks. With the proportion of lending to borrowers with no/ low ratings set to increase, it's a need of the hour for the RBI to clarify whether loans qualify for the rupee denominated CDS. Failure of loans to qualify for the same would greatly cripple the ability of banks to transfer a substantial amount of credit risk that exists on their balance sheets due to the massive loan portfolios.

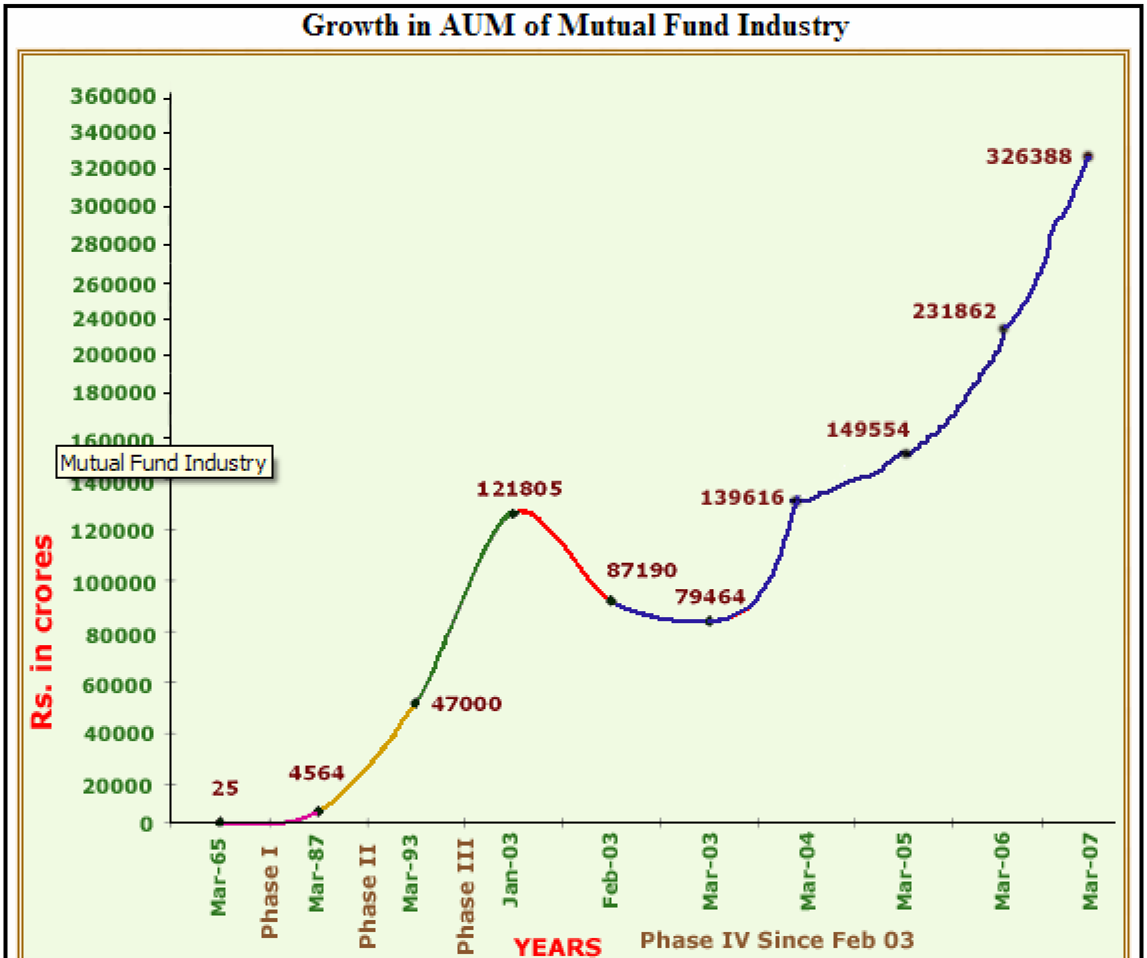
Indian banks hold 17.9 trillion rupees in all loans.

Outstanding Indian corporate debt is estimated at 535 billion rupees.

Source: CMIE & NSE

- Even while India has robust trade settlement & clearing mechanisms, if the growth in the CDS market globally is to be replicated in India as well, there should be greater thrust on the development of efficient and time/cost-effective clearing and settling mechanisms for the trades. In the aftermath of a credit-event the existing system may crumble under the tremendous load of physical/cash settlement of actively traded names.

- There is also a need for aiding the consolidation of the Indian banking industry. This would help in the emergence of a few large banks whose balance sheets would allow them to serve as counter-party to larger/riskier assets.
- It's crucial that Mutual funds, Insurance companies and Pension funds be granted permission by SEBI/IRDA/PFRDA to participate in these markets. Mutual/Insurance/ Pension funds have witnessed an exponential rise in AUM in the recent past and are thus capable of bringing immense liquidity and depth to the market. Insurance/ Pension funds are particularly focused on the longer end of the curve and hold long bond positions as a result of which they are adept at being PS. Such investors will greatly address the lack of a sell side.



Source:AMFI

- The guidelines require the PS/PB to be resident entities. But allowing offshore PS may also in some small measure help deal with the tremendous forex inflows that India is currently faced with. The inflows (as a result of credit-events) from these offshore PS could have significantly positive implications in a scenario where the macroeconomic environment triggers a downturn and a flight of capital from the country. By virtue of prior experience they would be better adept at assessing the risk and pricing it efficiently. But allowing offshore PS could negatively impact the development of the domestic market and thus the pros and cons need to be carefully weighed against each other.

Conclusion

The proposed introduction of CDS is part of the larger objective of developing the domestic corporate debt-market. Such a market will help the transfer of risk from risk-averse players to those who are best able to manage and carry an appetite for the risk. We must be prepared to accept that the market for this product will develop slowly in India. The foreign banks, new private sector banks and a few primary dealers are likely to be the players initially followed by the entry of progressive public sector banks.

Whilst there is sufficient vibrancy/depth in the buy side in the Indian context, the regulators need to primarily focus on aiding the development of a vibrant sell side. They also need to ensure that all enabling/supporting bodies like credit rating agencies, clearing & trade settlement organizations, etc are well equipped to cater to the needs of this new market. As the market develops the regulators also need to progressively lower the restrictions currently applicable so that the market can charter its growth trajectory independently. The regulators should aim at providing sufficient headroom for innovation in financial products/services while at the same time ensuring that this innovation does not expose the economy to undue risk.

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