Business Spectrum

The Bi-annual Journal of

Indian Accounting Association
Midnapore Branch, West Bengal

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It gives me great pleasure to issue the December 2013 issue of <u>Business Spectrum,</u> the half-yearly journal of IAA, Midnapore Branch. In this issue five articles have been included. A brief account of the articles is given below:

S.Gurusamy, K.Monessh Kumar and D. Valarmathi in their article entitled, ''Future of CDS (Credit Default Swap) in India—The Game Just Begins'' discuss the most popular and innovative financial derivative known as credit default swap (CDS) which is considered as the engine of financial growth. This is so because through CDS one can have greater access to capital markets, lowered transaction costs and allow risks to be shared more widely. The authors analyze the current regulatory framework governing CDS in India and its adequacy.

They have also tried to identify the future market potential of CDS in India. The authors are of the opinion that although the RBI introduced the CDS in November 2011 to transfer and effectively manage the credit risk of the banks and financial institutions, it has not reached the market participants and most of them do not know how it works, and what benefits arise from CDS – instruments. In this scenario, it is very important to consider the different ways to enhance their level of knowledge and then create awareness and to inform the usefulness of CDS instrument s. Encouraging to the market participants to involve in the CDS transaction helps in the development of the CDS market faster in India.

In the article, "The Apex Bank's Leadership Role to the Cooperative and Commercial Banks in India" ***Dr. Aminul Islam*** has examined critically the role of NABARD in respect of growth and development of cooperative and commercial banks. He has examined the leadership role of NABARD in respect of
(i) providing refinance to lending institutions in rural areas,
(ii) strengthening the institutional credit system,
(iii) playing a direct role in promoting rural development, and
(iv) evaluating , monitoring and inspecting the client banks.
He has also suggested qualitative dimensions of its role in bringing about the desired institutional reforms and structural changes in cooperative banks.

Prof. Anirban Sarkar in his article entitled, "FDI during Pre-Reform and Post-Reform: A Comparative Study" has given a theoretical as well as empirical analysis of FDI in India based on secondary data. According to him in the pre-reform period FDI was mainly in the collaborative form but in the post-reform period FDI was in the form of mergers and acquisitions and green field investment. FDI climate in India has improved a lot in the post-reform period. In the pre-reform period policy towards FDI was not liberalized and rationalized. But the whole of the FDI policy took a different turn during the post-reform period when an open door policy was promoted. As a result flow of FDI has increased tremendously. The pattern of FDI in terms of country-wise and sector-wise has under gone a significant change. The author comes to the conclusion that FDI has a positive impact on the economy.

Anirban Sarkar, Research Scholar, in his article entitled, "Performance Assessment of General Insurance Business in India (2003-2013)'' has estimated the growth rates of different performance parameters indicating financial performance of a business unit in both nominal

terms and real terms. Substantial difference has been identified on the nominal and real growth rates of the performance parameters of the public sector and private sector insurance companies. Estimated growth rates (both nominal and real) are much higher for the private sector than for the public sector.

Divya Vyas and Swati Sharma in their article, "E-Retailing in India: An Overview" have discussed the problems and prospects of e-retailing business in India. They argue that increase in the number of internet users in India, expansion of online banking facilities, increasing use of tablets, smart phones, and laptops, increase in tele -density and internet connectivity have created favourable conditions for online shopping in India. But still some fear and hesitation in the mind of customers stop them to rely more on online shopping. The authors have tried to find out the emergence and growth of e-retailing in India.

Before I finish I must thank the desk editor, the paper writers and the reviewers for their cooperation in bringing out this issue. In spite of our efforts some typological errors may be present for which I beg to be excused.

Jaydeb Sarkhel
Editor

Future of CDS (Credit Default Swaps) in India - The Game Just Begins

Dr. S. Gurusamy[1], K. Moneesh Kumar[2] and D. Valarmathi[3]

Abstract

The financial system of a country must be able to meet the diversified needs of a growing economy; it must actually encourage financial innovations.CDS are one of the innovative financial instruments used for transfer credit risks from banks and financial institutions. A major problem with CDS was the lack of transparency; they were unregulated too, during the times of financial crisis, CDS created confusion and encouraged excessive risk taking. The main reason for the global financial crisis was repackaging mortgage into mortgage backed securities called Collateralised Debt Obligations (CDOs), it should be recognized that innovative financial products hold dangers, if they are improperly used which would result in complexity of instruments and insufficiency of information, inappropriate risk assessment and inadequate regulation. It is therefore important to empirically identify and analyze the regulatory framework and its effectiveness on the CDS market accurately, so that it would be possible to find an appropriate answer to solve the same. It would in fact provide an opportunity for initiating further reforms in the financial sector and the regulatory policy reforms required to be put in place with a view to preventing such future financial calamities in India. For this purpose, two objectives are set for the study. The first objective is to analyse the adequacy of current regulatory framework governing to CDS in India and the second objective is to identify the future market potential of CDS in India.

Key words: CDS, CDOs, Regulatory Framework, Market Potential, Derivatives, Global Financial Crisis, Risk Assessment, Knowledge and Awareness

1. Introduction

The fast changing financial environment through globalization, liberalization and privatization has opened up a new method of financial transaction where risk level is very high. Financial innovations occur because market participants are constantly searching for

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new ways to make greater profits. The process of "financial Innovation" includes change in financial instruments, institutions, practices and markets. The most popular and innovative credit derivative instrument is CDS. CDS is considered as the "engine of financial growth" because through CDS, one can have greater access to capital markets, lowered transaction costs and allow risks to be shared more widely. In fact, CDS makes the financial market highly interconnected; i.e., money moves from where it is less useful to where it is more useful.

1.1. Credit Default Swaps (CDS)

CDS are derivative contracts between two parties in which the protection buyer makes periodic payments to the protection seller. CDS as a contract provides insurance against the credit risk of default by a particular company. The settlement in the event of default involves either physical delivery of bonds or cash payments. CDS is an innovative credit derivative and an efficient instrument that became extremely popular in the last decade which allowed banks and financial institutions to transfer credit risk and enhance capital, which can be used for productive purposes. The lessons of the global financial crisis drove the financial experts to revise the regulatory framework governing derivative instruments especially in CDS.

1.2. CDS Mechanism

The Protection Buyer negotiates a CDS contract with the Protection Seller and pays a premium spread to the Protection Seller until the end of the life of the CDS or until a credit event occurs whichever is earlier. These payments are typically made in arrears every quarter, every half year or every year. The settlement in the event of default involves either physical delivery of bonds or cash payment. The premium spread depends on the risk of the reference entity. If credit event occurs, the protection seller makes a contingent payment to the protection buyers. Since the credit event has occurred the buyer stops making the quarterly payment of the premium to the seller of protection.

Figure 1: Illustration of the working mechanism of CDS
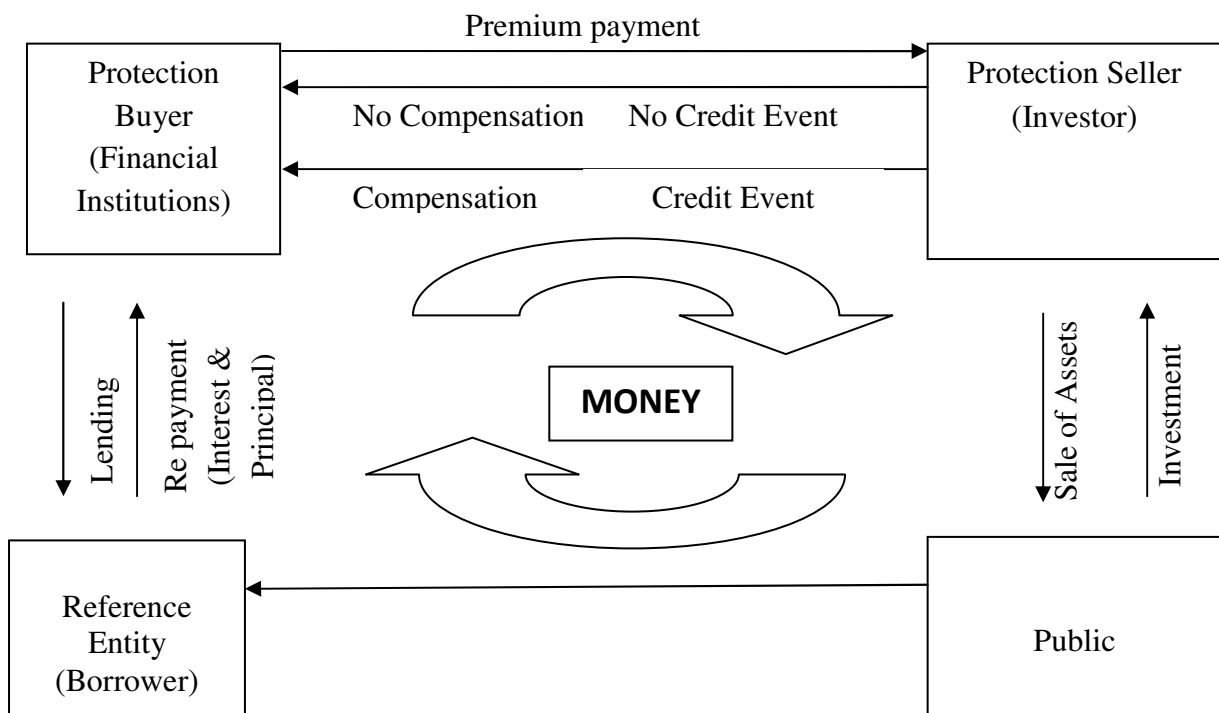
Advantages of using CDS is that it allows parties to efficiently manage their exposure to credit risk. By isolating specific aspects of credit risk, credit derivatives allow the transfer of even illiquid credit exposures.

2. Objectives of the study
The objectives of the present study are as follows:
1. To analyze the adequacy of current regulatory framework governing CDS in India
2. To identify the future market potential of CDS in India

3. Review of Literature
Rene. M. Stuiz (2010) showed that financial derivatives increase economic welfare by facilitating risk sharing among investors by improving price discovery and making the allocation of capital more efficient. He states that global financial crisis was not caused by CDS; they were primarily driven by investors and financial institutions which did not expect the real estate prices to fall dramatically. He concludes that derivatives especially, credit default swaps contributed significantly to social welfare and played a positive role in the economic growth.

Virginie Coudert, Mathieu Gex (2010) examined that all financial derivatives have been designed for hedging risks, but in practice they are widely used for speculation. It is discussed that the regulatory measures are being designed in collaboration with industry in order to ensure better market practices and higher risk management standards.

C. Peter J. Wallison (2009) revealed that there are so many potential culprits in a financial crisis. But almost every media report mentioned that the oddest target is CDS as one of the contributing causes of the financial crisis. He explains many myths about CDS and concludes that failure of CDS is mainly because of misunderstanding of how CDS works.

Anne Tjuquerroy, Mathieu Gex et.al (2009) reported that it is important for regulators to govern the CDS market. Such an initiative contributes to the ultimate objective of financial stability and improves the transparency of the CDS market. The regulators however face major challenges. To overcome the challenges, they encourage market participants to clear CDS via central counter parties. Further, counterparty risk in the CDS market is assessed for greater transparency of transaction. This way one can detect and prevent systemic exposures. Hence, only the standardized contract should be encouraged.

Andre Scheerer (2000) pointed out that the credit derivative activity is subject to supervision by federal banking supervisors. Both dealers and end users in the United States must integrate their internal risk management processes and banks must be aware of regulatory capital implications before entering into credit derivative activities.

Oscar Arce, Javier Gunzalez Pueyo, et.al (2010) examined the recent proposals and deficiencies in the CDS markets. So, it is important that the CDS transaction is subject to appropriate requirements of supervision, capitalization and transparency. The group of G20 agreed and proposed that all standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, cleared through CCP and the contract should be reported to trade repositories. They conclude that the regulatory amendments help to increase the transparency of the transaction, better supervision, more efficient price formation and help reduce counterparty risk.

Kamera Levin (2008) in his study opined that the objective of the new regulatory framework is to improve trading infrastructure, reduce the potential for systemic risk and improve transparency in the market. The CDS is required to trade on an organized exchange through a centralized counterparty. In addition, ISDA (International Standard Derivatives Association) takes an active role in promoting continuing public education with respect to CDS.

4. Data and Methodology

4.1. Data

A well structured questionnaire was used for the study were collected information from the focus group of financial experts in the field of derivative instruments especially on CDS. Questions were asked at a macro level covering the various aspects of current regulatory framework and variables related to future market potential of CDS in India. The response then was circulated among members of the focus group. The members from focus group were drawn from the different financial services sector organisations like commercial banks, insurance companies, investment banks and other service providers in Chennai city. The study was undertaken for a period of one year from June 2012 to May 2013

4.2. Sampling

Convenience sampling technique was used for the study. Of the total questionnaire 672 circulated, 526 were collected complete in all respects. From the collected questionnaires 26 responses which were not fit for the study were excluded and the remaining sample size of the study is 500.
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4.3. Statistical Tools

The standard statistical tools were used to analysis the collected data. The tools such as, Factor Analysis, t-test, ANOVA and Regression Analysis were applied with the help of SPSS, which resulted in varied observations and interpretations regarding on the regulatory framework and future market potential of CDS in India.

4.4. Questionnaire

The primary data were collected through questionnaire survey. For this purpose, the questionnaire was designed to contain three sections. Section I comprises optional type of questions, whereas sections II and III were designed in likert's five-point scale ranging from SA: Strongly Agree, A: Agree, U: Undecided, DA: Disagree, and SD: Strongly Disagree. The second part comprises questions on the current regulatory framework governing CDS in India and the final part encompasses statements related to the future market potential of CDS in India. The questionnaire with covering letter was handed over to respondents with a request to return the questionnaire filled in within 15 days.

5. Regulatory framework governing CDS market in India

The Reserve Bank of India originally proposed the introduction of CDS in the year 2007in the Indian financial market but delayed its plans due to the financial crisis in 2008, RBI finally published the draft report on the introduction of CDS for corporate bonds on its website on August 4, 2010and subsequently its final report on February 23, 2011. Credit derivatives were introduced from November 2011 in India in the name of Plain Vanilla Single Name CDS for corporate bonds.

Credit derivatives are an important focal point for the International Swaps and Derivatives Association (ISDA), which provides standardized documentation for swaps and other derivatives transactions. ISDA's Master Agreements and derivatives documentation have

resulted in the standardization of many derivatives attributes in over-the-counter trading. The present regulatory and reform efforts may not remove the systemic risk from OTC derivatives but rather shift them from banks to Central Counterparties (CCPs) which could make the OTC derivatives market safer, particularly in the transition to a stable clearing infrastructure (Manmohan Singh, 2011)

6. Analysis and Discussion

The primary data analysis is carried out on the basis of responses received from the financial experts on the derivative instruments, CDS.

6.1. Regulatory Framework

For the purpose to analyze the adequacy of current regulatory framework governing CDS in India, the researcher carried out factor analysis and applied parametric t-test. Factor analysis is a branch of multivariate analysis that is concerned with the sharp internal relationship of a set of variables. This is the principal component method applied for data reduction process, through which the numerous variables could be seen as approximately explaining a single factor. The basic utility of a t-test is that it produces a straight forward and easy to interpret results of significance. The parametric t-test is found suitable to ascertain the perception of financial experts towards regulatory framework governing CDS in India.

Table 1: KMO and Bartlett's Test with approximate Chi-Square

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.544
Bartlett's Test of Sphericity	Approx. Chi-Square	4529.200
	Degree of freedom	15
	Significance	.000

Source: Computation by the Authors

It is understood from Table 1 that KMO measure of sampling adequacy is 0.544 and Bartlett's test of Sphericity is 4529.200. These values are statistically significant at 5 percent level. It shows that the sample size is adequate for the data reduction process. The communality shows that 18 variables disclose the variance ranging from 41 percent to 72.2 percent which is above the benchmark of lower limit 40 percent. Therefore, the data reduction is having a significant effect and it can be considered for further analysis. From the total variance analysis, it is found that the eighteen variables which are reduced into four predominant factors with individual variance. The total cumulative value of the variance is 57.428 percent which is statistically significant at 5 percent level

Table 2: Regulatory Framework Governing CDS in India- Factor Analysis

Factor	Variables	Variance
Market Participants	Users not permitted to sell the protection but permitted only to buy CDS	.840
	Market makers permitted to both buy and sell the protection	.644
Product Requirements	The protection buyer and protection seller must be the resident entities	.697
	CDS can be written only on listed corporate bonds as reference obligations in India, even for other than infrastructure companies	.666
	Entities must have strong financial and robust risk management practices to act as market makers	.656

	CDS also permitted on securities with original maturity up to one year like commercial paper, certificate of deposits and non-convertible debentures	.614
	The CDS contract shall be denominated and settled in Indian rupees	.496
	All CDS trades shall have an RBI regulated entity at least on one side of the transaction	.494
Documentation	All CDS trades will be required to be reported to centralized trade reporting platform	.802
	FIMMDA shall devise the master agreement for Indian CDS	.802
	Central Counter Parties (CCP) can aid market liquidity and reduce systemic risk	.783
	Market participants shall use FIMMDA published daily CDS curve to value their CDS positions	.780
	FIMMDA may take an active role in coordinating market initiatives	.678
	FIMMDA may form a determination committee of dealers and investors	.607
	Banks may submit the board approved policy and the date of commencement of CDS trading	.538
Settlement Methodologies	Market makers can opt for any of the settlement methods physical, Cash and auction	.622
	Physical settlement is mandatory for users	.539
	Credit event is defined based on the ISDA Master Agreement	.468

Source: Computation by the Authors

Table: 2 explain as to how the factors have been named?

Factor 1 is named as **"Market Participants."** It comprises of two variables that is, the participants in CDS market may be categorised as market-makers who are permitted to both buy and sell protection and users who are not permitted to sell protection but are permitted only to hedge the underlying risk by buying protection.

Factor 2 suitably named as **"Product Requirements"** It consists of six items and the single-name CDS on corporate bonds should satisfy the above requirements variables that issued by RBI.

Factor 3 is called as **"Documentation** "and it is made up of seven variables such as, market organisations like Fixed Income Money Market and Derivative Association (FIMMDA) in association with ISDA may devise a master agreement for Indian CDS. The users and market makers should consult their legal experts about adequate documentation and other legal requirements on issues concerning credit derivative contracts before engaging in any transactions.

Factor 4 is termed as **"Settlement Methodologies"** whether it has three items which market makers can opt for any of the settlement methods physical, cash and auction, Physical settlement is mandatory for users and the credit event is defined based on the ISDA Master Agreement.

From the parametric t-test on regulatory framework on CDS in India, it is found mean values of the 18 variables range from 2.8060 to 4.2560. Similarly, the standard deviation also ranges

from .51605 to 1.26281. This leads to the computation of appropriate standard error and t-statistic to exactly ascertain the perception of respondents towards regulatory framework governing CDS in India. It is found that t-values (30.985, 57.716, 15.008, 16.794, 18.778, 25.246, 28.962, 2.701, 4.427, 21.007, 16.973, 21.847, 18.554, 20.427, 13.884, 16.461 and 25.122) are positive and t-value (-3.716) is negative are statistically significant at 5 percent level. Therefore, it can be concluded that the respondents strongly agree that variables such as centralised trade, following regulation and market maker can opt both buy and sell CDS. Similarly, the respondents moderately agree that the regulatory framework pertaining to CDS in India i.e. committee formation, CDS agreements under prescribed form, restriction on selling the CDS by user and settlement through centre counter parties. Finally, the financial experts disagree with the statement that the CDS contract shall be denominated and settled in Indian rupees

6.2. Future market potential of CDS in India

Derivatives products provide certain important economic benefits such as risk management or redistribution of risk away from risk-averse investors towards those more willing and who are able to bear risk. In India, the OTC derivatives markets will grow fast after the global financial crisis is over. Regarding the introduction of new derivative products for credit risk transfer, the recent announcement by the RBI that it would introduce credit default swaps is a welcome step. The CDS has to be traded through a well-defined platform, centralized counterparty and monitored its post-trade activities facilitates better surveillance of the financial market. Strengthening the position of the Clearing Corporation of India Ltd. (CCIL) as the only centralized counterparty for Indian OTC derivatives market and better supervision of the off-balance sheet business of financial institutions are two important issues concentrated by the RBI. At this juncture, it is very important to identify the future market potential of CDS in India, so that it would be possible to implement CDS in effective manner and for this purpose, the authors employed the statistical tools such as factor analysis and t-test.

Table 3: KMO and Bartlett's Test with approximate Chi-Square

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.777
Bartlett's Test of Sphericity	Approx. Chi-Square	2020.213
	Degree of freedom	55
	Significance	.000

Source: Computation by the Authors

From Table 3, it is found that KMO measure of sampling adequacy is 0.777. Bartlett's test approximate chi-square value is 2020.213 are statistically significant at 5percent level. Hence, factor analysis is considered as an appropriate technique for further analysis of data.

It is evident from the communalities that the values of 11 variables range from 44.7 percent to 69.7 percent, which is the above the bench mark of 40 percent. Therefore, it is concluded that the data reduction process is significant at 5 percent level. From the total variance explained on the future market potential of CDS, the number of factors is that 11 variables are extracted into 3 predominant factors with individual variance. The total cumulative value is 61.117 percent; this is statistically significant at 5 percent level. Therefore, it is concluded that the variables are significant for further analysing the future market potential of CDS in India. The identified factors with the associated variables and factor loadings greater than or equal to 0.5 are given in the Table 4

Table 4: Future market potential of CDS in India- Factor Analysis

Factor	Variables	Variance
Risk and Return	CDS is an effective risk management tool in banks and financial institutions	**.776**
	Research is needed to analyze the contribution of CDS and used as a potential risk management tool	**.759**
	Many investors perceive that CDS is too risky and complex	**.743**
	CDS provide an opportunity for portfolio diversification and increasing its returns of financial institutions	**.712**
Transparent Regulation	Present regulation for CDS in India is satisfactory	**.819**
	Creation of exclusive CDS market is the need of the hour	**.795**
	Electronic reporting enhances liquidity and transparency of CDS transactions	**.729**
Knowledge and Awareness	Removal of current negative images from the minds of investors is required to develop market for CDS faster	**.688**
	Greater investor awareness is essential to develop CDS in India	**.633**
	Training program is necessary to educate about the use of CDS instruments	**.590**
	Lack of awareness about the existence of centralized counterparty for easy liquidity	**.568**

Source: Computation by the Authors

Therefore, the above 11variables are explained in 3 predominant factors. They are as follows:
* **Risk and Return**
The credit risk management is a major area of concern for financial stability. Credit derivatives will help banks in India to transfer credit risk and hence free up capital resources. Derivative instruments are perceived to be risky, thus investors' risk tolerances and their risk-return profiles play an important role in deciding whether or not to use derivatives in their portfolios.

* **Transparent Regulation**
Availability of information and transparency of price determination are important for all asset classes. It becomes even more important in the case of derivative instruments. Without an understanding of markets, derivative investment will be very risky and can become very costly for investors. Investors can make use of derivative instruments effectively, only if they understand the market dynamics and have the necessary technological tools and information available to use them

* **Knowledge and Awareness**
Without proper knowledge about financial markets and the products offered in these markets it is impossible to make a wise investment decision. There could be additional and improved rules and regulations, if investors are not aware of what they trade even the best rules and regulations cannot prevent them from losses and wrong investments. So if increasing awareness and knowledge about the instruments would have much greater scope for success of this innovative financial product in the financial market in future.

From the parametric t-test analysis, it is found that the mean values of the 11 variables range from 3.4660 to 4.3080. Similarly, standard deviation ranges from 0.77401 to 1.12949 with respective changes in standard error. This leads to the computation of t-statistics it is found

that t values (32.644, 28.938, 27.685, 24.648, 34.956, 20.030, 24.096, 21.752, 31.568, 10.031 and 13.898) are positive and statistically significant at 5 percent level. Therefore, it can be concluded that the financial experts strongly agree that the variables pertaining to future market potential of CDS in India such as portfolio diversification, need for research, electronic reporting, awareness and training program and they moderately agree for the following variables: CDS is too risky and complex, negative images of CDS, present regulation and creation of exclusive CDS market.

The analysis of variances is undertaken between dependent variables such as reasons for regulatory framework and future market potential for CDS and independent variables such as organisation profile of the financial experts.

7. Experience in Financial Service sector
In this study, there are four segmentation of experience viz, up to5 years, 6 to 10 year, 11 to 15 years and above 15 years are considered as independent variable and it influence over the factors on CDS are estimated through one way analysis of variance.

Table 5: One way ANOVA between Experience in Financial Service Sector and Dependent Variables

CDS	Source	Sum of Squares	df	Mean Square	F	Sig.
Regulatory Framework	Between Groups	0.890	3	.297	1.792	.148
	Within Groups	82.080	496	.165		
	Total	82.970	499			
Future market potential	Between Groups	12.650	3	4.217	15.403	.000
	Within Groups	135.780	496	.274		
	Total	148.430	499			

Source: Computation by the Authors

From Table 5, it is found that there is difference between groups of respondents belonging to the years of experience in the financial service sector. Future market potential of CDS in India (F=15.403, P=.000) is statistically significant at 5percent level. Their difference in perception is estimated through mean comparison. Additionally, it is observed that the experience in financial service sectors is not having any significant impact on the current regulatory framework governing CDS in India at 5 percent level.

It is concluded that the year of experience in financial services sector determines the different opinion about the future market potential of CDS in India. Experts in the group of above 15 years of experience in the financial service sectors strongly agree with the following variables: electronic reporting, knowledge and awareness, transparent regulation and creation of exclusive CDS market in India. These variables are very important to develop the future market potential of CDS in India. The remaining groups moderately agree the same variables.

8. Experience with Derivative Products
Experience is the accumulation of knowledge or skill that results from direct participation in the activities. So, experience on derivative products helps the respondents to earn profit during currency exchange rate shifts, changes in the global supply and demand for commodities and interest rate fluctuations.

Table 6: One way ANOVA between Experience in Derivative Products and Dependent Variables

CDS	Source	Sum of Squares	df	Mean Square	F	Sig.
Regulatory Framework	Between Groups	13.061	3	4.354	30.888	.000
	Within Groups	69.909	496	.141		
	Total	82.970	499			
Future Market Potential	Between Groups	16.752	3	5.584	21.033	.000
	Within Groups	131.678	496	.265		
	Total	148.430	499			

Source: Computation by the Authors

In Table 6, it is shows that frequency of adoption of techniques for appraisal of regulatory framework (F=30.089, P=.000), and future market potential of CDS in India (F=21.033, P=.000) are significant at 5 percent level.

It is observed that the respondents with experience in derivative products express their opinion towards the regulatory framework governing CDS in India is rated strongly agree by the group of respondents i.e. 11 to 15 years and above 15 years, whereas others moderately agree about the factors such as market participants, product requirements and other documentation. In addition, it is found that all the group of respondents belong to the group derivative product experience. All the group of respondents who strongly agree the there exists a strong future market potential for CDS in India excepting the group i.e. 6 to 10 years of experience respondents in derivative product

9. Knowledge about CDS instruments

Knowledge is a familiarity with some or something, which can include facts, information, description or skills acquired through experience or education, so identifying the knowledge about the CDS instruments from the respondent is very important to develop the CDS market in India.

Table 7: One way ANOVA between Knowledge in CDS and Dependent Variables

CDS	Source	Sum of Squares	df	Mean Square	F	Sig.
Regulatory Framework	Between Groups	5.827	2	2.914	18.771	.000
	Within Groups	77.143	497	.155		
	Total	82.970	499			
Future Market Potential	Between Groups	7.728	2	3.864	13.649	.000
	Within Groups	140.702	497	.283		
	Total	148.430	499			

Source: Computation by the Authors

From Table 7 it is found that regulatory framework (F=18.771, P=.000) and future market potential of CDS in India (F=13.649, P=.000) are statistically significant at 5 percent level. The differences in the knowledge are sharply estimated through group mean comparison. Further, it is found that all the financial experts moderately agree on the adequacy of regulatory framework governing CDS in India. Finally, it is observed that the future market potential of CDS in India such as risk and return, transparent regulation, knowledge and awareness, are strongly agreed to, by the low-knowledge respondents and the remaining moderately agree.

10. Service provided by Organisations

The financial experts working from the different type of financial institutions and they are provided various financial services, this are classified into four groups, commercial banking, insurance, Investment banking and other service providers, are considered as independent variable and it influence over the factors of CDS is identified through one-way analysis of variances.

Table 8: One way ANOVA between Service Provided by the Organisation and Dependent Variables

CDS	Source	Sum of Squares	df	Mean Square	F	Sig.
Regulatory Framework	Between Groups	13.086	3	4.362	30.960	.000
	Within Groups	69.883	496	.141		
	Total	82.970	499			
Future Market Potential	Between Groups	11.083	3	3.694	13.341	.000
	Within Groups	137.347	496	.277		
	Total	148.430	499			

Source: Computation by the Authors

It is revealed in Table 8 that the respondents are differing in their opinion based on the services provided by the respective organizations towards CDS instruments. The regulatory framework (F=30.960, P=.000) and future market potential (F=13.341, P=.000) are significant at 5 percent level. Their difference in perception is estimated through mean comparison. And it is also clear that the respondents in the insurance service institutions strongly agree and all others moderately agree that the regulatory framework framed by RBI about the market participants in CDS, product requirements, documentation and settlement methodologies need further consideration.

Further, it is observed that the future market potential for CDS in India through the respondents opinion from the different services organisations, that respondents from the services belonging to insurance, investment banking, other service organisations strongly agree on the variables i.e. transparent regulation, knowledge and awareness, electronic reporting which enhance the future market potential of CDS in India, while the remaining respondents from commercial banking organisation (M = 3.8726) moderately agree on the different variables that influence the future market potential for CDS in India.

Through applying the regression analysis, the researcher sharply estimates the influence of current regulatory framework governing CDS in India on the future market potential for CDS in India. Therefore the regression analysis is used to sharply estimate their influence.

From model summary, it is found that the R = 0.664, R square = 0.415, and adjusted R square = 0.411.This reveals that independent variables of the current regulatory framework such as market participants of CDS, product requirements, documentation and settlement methodologies create 41 percent influence over the future market potential of CDS in India. The regression fit estimated through the ANOVA is shown in Table 9

Table 9: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	**Regression**	61.638	4	15.410	87.886	.000(a)
	Residual	86.792	495	.175		
	Total	148.430	499			

Source: Computation by the Authors

From Table 9, it is found that F = 87.886, P = .000 is statistically significant at 5 percent level. This shows that the independent variables of regulatory framework contributed significantly in the future market potential of CDS in India. This leads to the sharper estimation of individual influence of the current regulatory framework governing CDS in India.

Table 10: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	**Std. Error**	**Beta**	**B**	**Std. Error**
1	**(Constant)**	1.050	.182		5.774	.000
	CRF Market Part.	-.005	.022	-.009	-.250	.803
	CRF Prod. Requ.	.311	.037	.331	8.327	.000
	CRF Documentation	.351	.042	.321	8.575	.000
	CRF Settle Method	.135	.028	.190	4.872	.000

Source: Computation by the Authors

From table 10, it is found that the Product requirements (t = 8.327, P = 0.000), Documentation (t=8.575, P=0.000) and settlement methodologies (t=4.872, P=0.000) are statistically significant at 5 percent level. While the market participants (t = 0-.250, P = 0.803), it shows that not significant at 5 percent level and the regulation relating to market participants on CDS not influencing the future market potential of CDS in India. The t value of regulation relating to documentation is more than the other variables. Hence, it can be concluded that the regulatory framework relating to documentation of CDS is crucial for shaping the future market potential of CDS in India.

11. Findings

From the factor analysis, it is found that the 18 variables grouped into four different factors related to regulatory framework governing CDS in India and the future potential of CDS in India contains 11 variables that are grouped into three factors. The t-test reveals that the executives strongly agree on the variables such as, centralized trade, strict follow up the regulation and market can opt both buy and sell the CDS, and these are come under the head of regulatory framework governing CDS in India. Likewise, the respondents strongly agree on the variables that appropriate to the future market potential of CDS in India, they are portfolio diversification, research requirements, electronic reporting, awareness and training programs.

From ANOVA, is found that the sample respondents belongs to the group of above 15 years experience in the financial service sectors and derivative products strongly agree on the different variables of future market potential and regulatory framework governing CDS in India. It is also found that except the groups from 6 to 10 years, all other group of

respondents from experience in derivative products strongly agree on the variables of future market potential of CDS in India. Further, it is found that the respondents who have low knowledge convey their opinion about the variables strongly agree it is applicable to the future market potential of CDS in India. It is also found that all the groups that is include high, moderate and low knowledge respondents are moderately agree the variables relating to current regulatory framework governing CDS in India. Finally it is found that except the respondents from commercial banking organization all others are strongly agree the variables pertain to future market potential of CDS in India. In addition it is observed that only the respondents from insurance service sectors are strongly agree and others are moderately agree the variables connecting to regulatory framework governing CDS.

Through the regression analysis it is found that the regulatory framework governing CDS in India influence 41 percent over the future market potential of CDS in India. The regulation regarding market participants on CDS is not significant and finally it can be concluded that the regulation relating to documentation of CDS is very important variable to determining the future market potential of CDS in India.

12. Conclusion

This study is of paramount importance particularly in the wake of global financial crisis 2007-2009, and because of the fact that the CDS can be used as an effective risk management tool to transfer the risks by the banks and financial institutions. But many observers and researchers blame the derivative instruments especially CDS that they are the main root cause of the global financial crisis. In this context, the research on the CDS is very important for further development of the financial market in future. Although, RBI introduced the CDS instruments in November 2011 to transfer and effectively manage the credit risk of the banks and financial institution, it has not reached the market participants, and most of them do not know how it works, and what benefits arise from the CDS instruments. In this scenario, it is very important to consider the different ways to enhance their level of knowledge and then create awareness and to inform the usefulness of the CDS instruments. Encouraging to the market participants to involve in the CDS transaction helps in the development of the CDS market faster in India. The outcome of the study can be used by the regulatory authorities to develop proper legal framework that could effectively regulate CDS products in the Indian financial market. However, the framework of CDS needs to be improved to provide better transparency and information. In India, effective steps must be undertaken by RBI in order to bring transparency in CDS transactions.

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The Apex Bank's Leadership Role to the Co- Operative and Commercial Banks in India

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Abstract

The NABARD is an Apex level institution. Setting up of the NABARD was in fact warranted by the embarrassing gaps, which palpably persisted in the rural credit structure, still towards the close of the 1970s- a time when expansion of the commercial banks' branches in the rural areas already made a significant headway. It is now high time to ponder and see how far the NABARD has played its leadership role in growth and development to the Co-operative and Commercial Banks in India and to identify the lines along which it can play its part in effecting the much desired institutional changes of the Co-operative and Commercial Banks. This study will make a revaluation of the catalyst role of the Apex Bank in respect of growth and development to the Co-operative and Commercial Banks and also to suggest the qualitative dimensions of its possible new role in bringing about the desired institutional reforms and structural changes of the Co-operative and Commercial Banks.

Key-words: Apex Bank; Client Banks; Refinance; Non-solvent; Near Non-solvent; "weak" Co-operative Banks; State Action Plans; Kishan Credit Card; Research and Development (R&D) Fund; Monitoring.

1. Introduction

The National Bank for Agricultural and Rural Development (NABARD) came into being in July1982 as an apex level bank. The primary aim of the NABARD was to provide an exclusive attention to the credit needs of the rural sector. The NABARD is performing all the functions performed by the Reserve Bank of India with regard to agricultural credit. Various promotional efforts have been made by the NABARD for development of the Co-operative and Commercial Banks. The National Bank has been providing financial assistance to the Co-operative Banks and the RRBs from its Research and Development (R&D) Fund for establishment of and strengthening their Technical, Monitoring and Evaluation (TME) cells. During the post-NABARD period in India growth rate of the Co-operative and Commercial Banks are impressive as compare to the pre-NABRD period. But various types of pitfalls were found in the working of the NABARD. The solution to the problem of rural credit, of institutional financing that had the type we have experienced in India, but in a wide-ranging set of reforms oriented to structural change of the banking sector, which can truly remove the

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economic, social and political weaknesses of the vast population of the underprivileged peoples. This study will also help for economic development of India.

As an apex body at the National level for rural development, the NABARD was meant to discharge its functions by way of extending refinance assistance as also providing short and medium-term credit to the various District Co-operative Banks (DCBs), the Regional Rural Banks (RRBs), the Commercial Banks (CBs) and the different State Governments for a variety of approved purposes under different schemes of agricultural financing and of rural infrastructure development. In the same way, the NABARD plays a positive leadership role in growth and development of the Co-operative and Commercial Banks in India. The objective of this paper is to make a critical appraisal of the role played by the NABARD in providing leadership to the banks and the Co-operatives in India. The Leadership role of the NABARD comprises four major functions; such as,

a) In providing refinance to lending institutions in the rural areas.
b) In strengthening the institutional credit system.
c) In playing a direct role in the promotion of rural development.
d) In evaluating, monitoring and inspecting the client banks.

The paper attempts to discuss each of them in four separate sections with a concluding remark at the end.

2. NABARD's Operations

2.1. Refinance

The NABARD provides assistance by way of refinance or otherwise, at concessional rates of interests to the client banks viz. the CBs, the State Land Development Banks (SLDBs), the State Co-operative Banks (SCBs) and the RRBs. While refinance for term investment credit is available to all the client banks, short-term credit for production and marketing and medium-term credit for investment and for conversion of short-term loans are confined to the SCBs and the RRBs. The NABARD's refinance functions can conveniently be divided, for the purposes of analysis, into two broad categories–medium-term investment finance and short-term production and marketing finance. Since its inception, the medium-term (investment) credit disbursed through the client banks has recorded a steadily rising trend as shown in Table 1.

Table 1: Long –term and Medium-term Refinance Disbursements in India *(in Rs Crores)*

Year	Co-operatives	RRBs	*CBs*	*Total*
1997-98	809	197	672	1778
1999-00	1102	360	785	2267
2002-03	1332	462	815	2609
2004-05	1731	502	841	2664
2006-07	2800	805	703	4308
2008-09	4512	1203	905	5679.3
2010-11	9121	1820	1205	12148
2012-13	18025	1730	1645	21400

Sources: *Annual Reports of NABARD, 1986-87, 1997-98, 2001-02, 2005-06, 2007-08, 2010-11, 2012-13*

Table 1 reveals the following facts:
- Total disbursement in India had increased steadily from Rs1778.00 crore in 1997-98 to Rs 21400 crore in 2012-13.
- However, the disbursement to the RRBs by the NABARD had increased from Rs 197 crore in 1997-98 to Rs 1730 crore in 2012-13.
- At the same time total disbursement by the NABARD to the CBs had increased from Rs 672 crore 1997-98 to 1645 crore in 2012-13.

The NABARD's refinance for short-term production and marketing is confined to the SCBs and the RRBs for which purpose these banks are sanctioned annual credit limits from out of the General Line of Credit of the RBI. The most important type of refinance is meant for seasonal agricultural operations or what is popularly known as crop loans issued by the Co-operative Credit Societies and the RRBs. Short-term credit refinance had increased steadily over the years. In India it has increased from Rs 703 crore in 1997-98 to Rs 5679.30 crore in 2012-13.

2.2. Institutional Development
Critical Review
The NABARD Act, 1981, requires the NABARD to undertake the responsibility of institutional development. The Act requires that the NABARD`s lever of refinance should be effectively used as an instrument to enforce institutional development. A major reason of formation of the NABARD was that the Agricultural Refinance and Development Corporation (ARDC) was unable to expand its developmental role towards institution building. The NABARD has accepted its responsibility of institution building. Development of the rural credit system cannot be achieved solely through regulation. The NABARD, as an apex body, is well placed to develop a positive climate for institutional development on a collaborative basis with the support of the Government of India, the Reserve Bank and the State Governments.

Different Steps for Developmental Initiatives
The various steps taken by the National Bank can be broadly classified as developmental initiatives and rehabilitation measures.

2.2.1. Developmental Initiatives
The role of the NABARD in creating and strengthening the necessary institutional infrastructure has widened over the years since its formation. Many States had no apex co-operative bank. The development initiatives taken by the NABARD included establishment of the National Agriculture Credit Funds, supervision and inspection of banks, annual discussions with the State Governments, systematisation of the crop loan operations and training of personnel of the co-operative banks.

Current Policy Initiatives by the National Bank:
The NABARD has introduced a number of other action plans for institutional development. The major ones are highlighted in what follows:

2.2.1.1. Development Action Plans (DAPs)
The basic philosophy of the DAPs is to prepare institution-specific action plans, taking into account their strengths and weaknesses, diagnosing the past and looking into the future, anticipating the course of events and preparing the strategies of coping, the implementation of which would improve their viability. In order to assess the viability status of the institutions,

a thorough analysis of the various aspects such as financial, organizational, systems and procedures and human resource development having a bearing on viability of the credit institutions is envisaged. On the basis of such an analysis, the factors that affect the viability of the banks are identified and specific remedial measures are chalked out. A distinctive feature of the preparation of the DAPs is the break even analysis of the credit institutions carried out for projecting the year-wise growth in loans and advances and level of recovery to be achieved, besides other performance obligations which would enable the banks to attain viability within the specific time frame.

2.2.1.2. State Action Plans
As the different tiers of the co-operative institutions have a high degree of inter-dependence and mutual interest, it was considered appropriate for the apex institutions such as the SCBs and the SLDBs to prepare a State Action Plan incorporating therein the action points emanating from the DAPs of the affiliated Co-operative units at the lower tiers.

2.2.1.3. Memorandum of Understanding (MOU)
The performance obligations on the part of the co-operative credit institutions and the State Governments arising out of the DAPs/SAPs of the short-term and long-term credit structures would form the basis of the MOU to be entered into by the apex level Co-operative Banks (SCBs/SLDBs) and the State Governments with the National Bank. In view of the involvement of many agencies and their interdependence, it would be necessary for each agency to fulfil its commitment adhering to the time frame to make the action plans effective .The Memorandum of Understanding seeks to ensure such commitment. Separate MOUs are also required to be entered into between the SCB and each of the affiliated DCCBs as well as between the SLDBs and each of the affiliated PLDBs in the States where federal co-operative credit structure exists.

2.2.2. Rehabilitation Measures
A programme of rehabilitation of the "weak" co-operative banks, as referred to earlier, has been under implementation since early seventies by the RBI and later by the NABARD, but this has not met with significant success. For instance, as at the end of June 30, 1986, 173 DCCBs were under the programme, of which 58 had been under the programme for over 10 years and 43 between 5 and 10 years continuously. Further, several banks apparently revived under the programme, were found to have relapsed, one or two years later, only to go back into rehabilitation. The NABARD itself recognised that the programme had not been successful and as such, developed and launched new programmes, namely the 10-point programme for the LDBs in 1985 and the 12 point programme for the DCCBs in 1987. In course of their visits to the client banks, the Agriculture Credit Review Committee identified the following reasons for the failure of the previous programmes.

> **(a)** While rightly concentrating upon loan recovery, the programmes do not provide for an expansion component and development of new opportunities for lending and other services once recoveries are improved, so that banks can become more viable business units;
> **(b)** Lack of adequate initiative, involvement and effort on the part of the "weak" banks itself in implementing the programmes, in several cases;
> **(c)** Frequent management changes in the "weak" units;
> **(d)** Inadequate direct supervision, monitoring and evaluation of progress by the Apex bank, co-ordinating committees.

2.3. Institutional Strengthening Programme

The Agriculture Credit Review Committee (ACRC) (1989) which had reviewed the rural financial system in the country and evaluated the major problems and issues affecting the agricultural credit system had suggested that the National Bank should formulate a programme to strengthen and revitalise the rural credit institutions, especially the co-operatives. Accordingly, in 1991 the National Bank formulated the Institutional Strengthening Programme covering "non-solvent" and "near non-solvent" banks. The programme was to be completed within a specified time frame of 3 to 5 years with a provison that in case the concerned banks fails to turn the comer within the time frame, the concerned State Governments would make alternative arrangements for credit dispensation in the areas of operation of such banks. The programme was, however, a non-starter since it did not find favour with the State Governments mainly due to their inability to fund their share as envisaged under the programme.

2.4. Strengthening of Rural Financial Institutions
2.4.1. Co-operatives
In order to improve the long-term viability of the co-operative credit institutions, the National Bank has initiated the process for drawing up the DAPs for the district level co-operative credit institutions. Similarly, the State Action Plans (SAPs) incorporating the action points emanating from the DAPs, are also being prepared. These plans are intended to be implemented through the mechanism of the MOU to be entered into by respective State level banks and the State Governments with the National Bank. Separate MOUs are envisaged for the short-term and the long-term co-operative credit structure.

Financial Package for Co-operative Banks
 The DAPs prepared by the co-operative banks has shown that many of the banks would not be in a position to attain sustainable viability because of heavy accumulated losses and other loss assets. The quantum of resources required to cleanse the balance sheets of the co-operative credit institutions, both under short-term and long-term structure, have been tentatively estimated to be of the order of Rs. 2800 crore. While this estimate needs to be reassessed precisely, after a thorough analysis of balance sheets of the co-operative credit institutions as at the end of March 1995, a suitable mechanism for mobilisation of resources required for the purpose from within and outside the systems needs to be evolved urgently. As a sequel to the recommendations of the Parliamentary Committee on Agriculture (1992), the National Bank has established the 'Co-operative Development Fund' during the year 1992-93.

2.4.2. Regional Rural Banks
Organization Development Intervention (ODI) in RRBs
The NABARD commissioned (1997-98) the Organisation Development Intervention (ODI) programmes in the 49 selected RRBs through its staff college and the Bankers Institute of Rural Development (BIRD), Lucknow to ensure implementation of the Development Action Plans. A mid-term review of selected banks covered under the ODI indicated perceptible improvements in all spheres, viz., business levels, productivity, recovery, profit margins, staff motivation/initiative and commitment besides innovations in systems and procedures. The positive changes are the combined result of several initiatives taken by the National Bank in the revamping programmes including those such as the Organization Development Intervention (ODI).

3. Promotion of Rural Development

3.1. Kishan Credit Card Scheme (KCC)

The Hon`ble Union Finance Minister in his Budget speech for the year 1998-99 had announced the introduction of a Kihsan Credit Card Scheme and desired that the banks should issue the Kihsan Credit Cards to the farmers on the basis of their land holdings so that farmers may use them to readily purchase agricultural inputs such as seeds, fertilisers, pesticides etc. and draw cash for their production needs. Against this, the NABARD was supposed to prepare model scheme for uniform adoption by the banks.

3.2. Bankers Institute of Rural Development (BIRD)

The National Bank independently set up the Bankers Institute of Rural Development (BIRD) at the National level and two Regional Training Centres with an attention to the training of a large number of rural bankers in general and the RRB personnel in particular. The exclusive attention for training of the RRB personnel continued till 1992 in the training establishments of the National Bank. At the same time, the National Bank continued its support both academically and financially for training the personnel of the Land Development Banks (LDBs) in their Junior Level Training Centre (JLTCs). Thus, training as a part of the institutional development has been supported in the BIRD, the Regional Training Centres (RTCs), the CAB of the RBI and the JLTCs of the SLDBs with financial back up and other support from the National Bank.

3.3. Agriculture Co-operative Staff Training Institutes (ACSTIs)

The National Bank also encourages the SCBs and the District Central Co-operative Banks (DCCBs) to develop their human resources by extending support for conduct of training programmes in the Agricultural Co-operative Staff Training Institutes (ACSTIs) since 1994. The Bank is also supporting the initiatives for formulating HRD/ manpower plan along with the business development plan as a part of the Development\Planning exercise both for short-term and long-term co-operative credit institutions.

4. MONITORING AND EVALUATION

The purpose of monitoring is to measure and oversee the progress towards predetermined targets and identify reasons for poor performance, while evaluation takes into account all factors affecting the performance in order that the reasons for the degree of achievement can be determined. In fact, monitoring and evaluation by the NABARD together play a vital role in measuring, both the performance of its programmes and effectiveness of its strategies for the development of the credit system.

This paper identifies the pitfalls of the Apex Bank's leadership role and suggests a framework of the probable new areas of its active involvement in bringing about the desired institutional changes and structural reforms of the Co- operative and Commercial Banks. Pitfalls that on notice in this respect are outlined below:

- There is lack of co-ordination amongst its various activities.
- There is neither effective integration of the farm and the non-farm credit planning nor the linkage between short and medium-term refinancing.
- The responsibilities of the Rural Financial Institutions are limited, especially in the areas of formulating investment guidelines and performance monitoring of refinance.
- The Apex Bank's has no power to grant or withdraw licenses. It only makes recommendations to the Reserve Bank for licenses to the banks inspected.

- The Apex Bank's inspection reports typically highlight defects (about which the bank's management is well aware), without providing any analysis of their causes and *recommendations* for their solution.
- There are very limited links between inspection and other functions of the NABARD. Institutional development and inspections do not make any positive contribution to the Institution building process.

5. Recommendations

5.1. Creation of Recovery Climate

Many of the farmers are financially weak. The Governmental agencies are not able to provide adequate marketing facilities or remunerative prices to their product. While the prices of industrial products are fixed by taking into account their cost of production, the prices of agricultural products are fixed arbitrarily or from the consumers' point of view. The main beneficiaries are the middlemen and the industrialists who purchased them and also who supplied the inputs and equipments. It is therefore said that in the absence of remunerative prices for their products, they are neither in a position to repay the principal nor the interest.

5.2. Proper Utilization of Research and Development (R&D) Fund

There is need to use the NABARD's Research and Development (R&D) Fund more imaginatively and aggressively to identify, evaluate, develop and promote new initiatives in rural development.

5.3. Monitoring and Evaluation

Monitoring and Evaluation is one of the clues to the smooth functioning and rapid expansion of the client banks. At any time it is the source for its preparedness to respond swiftly and effectively to the needs of the poor. Intense attention is paid by it to the performance of individual staff members; inefficiencies are nipped in the bud and merit is quickly rewarded. Extensive records are continuously updated. Monitoring and evaluation thus is valued for its present and potential contribution to future management and organizational development beyond the function of keeping an eye on the operations.

5. 4. Co-ordination among Different Banks

There is an urgent need for co-ordination between the different banks and agencies providing credit to agriculturists. This co-ordination should be at three levels; **(i)** the co-ordination between financial institutions themselves; **(ii)** the co-ordination between the financial institutions and the non-institutional sources of agricultural credit; and **(iii)** the co-ordination among the financial institutions, the non-institutional sources and the Governmental departments dealing with the matters relating to the agricultural sector.

A permanent body for the agricultural development and distribution and recovery of agricultural credit should be constituted at the district as well as block level. These bodies should look after the credit-needs of rural households, the functioning of different sources of credit, the preparation of credit plans for the development of block and district, the preparation of plan for agricultural development and the day-to-day functioning of the Co-operative Societies.

5.5. Follow-up Measures

Personal contacts and continuous touch with the borrowers would go a long way in reducing overdue. It is, therefore, necessary to introduce suitable measures in order to ensure continuous touch with the borrowers of the banks until the loan is repaid fully.

In order to make the credit effective, the banks should not only see that it is properly utilized but also "ensure supply of production credit and agricultural requirements like seeds and fertilizers to their borrowers as also assistance by way of technical guidance from the extension staff or the staff in the technical departments in order to enable them to adopt the proposed cropping pattern and to improve their repaying capacity"

6. Conclusion

Form the present study it may be concluded that the NABARD has a dual role to play as an apex level institution and as a refinancing institution. It has inherited its apex role from the Reserve Bank of India. In other words, it is performing all the functions performed by the Reserve Bank of India with regard to Development of Co-operative Banks and Commercial Banks. Various promotional efforts have been made by the NABARD for development of Co-operative Banks and Commercial banks. But various types of pitfalls were found in the contribution of the NABARD and the present paper suggests a framework of the probable new areas of its active involvement in bringing about the desired institutional changes and structural reforms of the Co-operative and Commercial Banks.

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FDI during Pre-reform and Post-reform Period: A Comparative Study

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Abstract

It is well recognized that the role of Foreign Investment (FI) in India's Industrialization vis-à-vis economic development has a historical inheritance. So far as FDI is concerned, one can easily find a sharp distinction between the nature of FDI during the pre-reform period and post-reform period. In the pre-reform period it was mainly in technical collaboration. Surprisingly, in the post-reform period the flow of FDI in India was in the nature of Merger & Acquisitions and Greenfield Investments (GI). At present about two-fifth of the total flow of FDI in India has been found to be in the form of M&A. Horizontal M&A occupies a dominant place relative to vertical M&A with a strategy of non-price modes of rivalry involving a contrived entry barrier. On the other hand, flow of FDI in the form of GI has still been found to enjoy a dominant position in the total flow of FDI and the liberalization has boosted this process of inflow such that there has been a radical change in its nature, pattern and composition. The paper tries to undertake a comparative study of FDI during the pre-reform and post-reform period. For the purpose of the study, secondary data were collected, of course, keeping in mind the convenience and time limitations. The secondary data were backed up by apt analyses and concluding observations at the end.

Key Words: *Foreign Direct Investment, Greenfield Investment, Industrialisation, Mergers and Acquisitions.*

1. Introduction

It is well recognized that the role of Foreign Investment (FI) in India's Industrialization vis-à-vis economic development has a historical inheritance. So far as its nature is concerned, it is found that the inflow of FI in India has taken the form of Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII). Interestingly, the flow of FII in India has recently occupied a conspicuous place due to free cross-country mobility of capital as an outcome of the widespread deregulation in Trade, Investment and Finance due to globalization. In fact, a majority of this FII has been found to be invested for short term speculative gain. So far as FDI is concerned, one can easily find a sharp distinction between the nature of FDI during the pre-reform period and post-reform period. In the pre-reform period it was mainly in collaborative form which consisted of pure collaboration and technical collaboration such that technical collaboration has been found to be to the order of 60% of all FI. Surprisingly,

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in the post-reform period the flow of FDI in India was in the nature of Merger & Acquisitions (M&A) and Greenfield Investments (GI). Of these two forms, the former that is flow of FDI through M&A by multinational corporations has been of very recent origin and is gradually gaining larger importance since 1995. At present about two-fifth of the total flow of FDI in India has been found to be in the form of M&A such that the horizontal M&A occupies a dominant place relative to vertical M&A with a strategy of non-price modes of rivalry involving a contrived entry barrier. Now, since the M&A result into cross border buying and selling of assets (i.e., transfer of assets), one has to investigate whether M&A has led to a net addition to the industrial capital assets of our country.

On the other hand, flow of FDI in the form of GI has still been found to enjoy a dominant position in the total flow of FDI and the liberalisation has boosted this process of inflow such that, there has been a radical change in its nature, pattern and composition particularly after the liberalisation. The data on the magnitude of FDI clearly reveal so such that there is a tremendous fall in share of FDI in manufacturing sector from (84.9% to 37.18%) which is accompanied by a sharp increase in the flow of FDI in infrastructural sector such as energy and power from (0.1% to 28.91%) and telecommunication services (20.21%) over the period between 1990-1997. Now since we know that the Greenfield Investment actually implies the creation of assets or industrial capital, it is necessary to explore the impact of such investment on the industrial growth vis-à-vis the overall economic development of our economy. The data on FI along with its breakup however do not reveal a uniform trend and pattern of change. It seems that there has been break in trend particularly since inception of the process of globalization. In fact, the non-linear dynamics of the FI in India has been found to be linked with policies which have been pursued by the Government of India from time to time. So far as the evolution of Government policies towards FI is concerned, one can safely distinguish it into four phase's viz.: (a) Phase I (1951 to mid 1960s); (b) Phase II (mid 1960s to 1980); (c) Phase III (1980s); (d) Phase IV (1990s and onwards).

Phase I was characterized by a soft attitude of the Government of India (GOI) towards FI because of the persuasion of the policy of import substitution as well as heavy industrialization. The implicit reason behind this was that at that time India was constrained by capital, technology and infrastructure. As an outcome there was large outflow of resources from India towards the payment of royalty, dividend and fees of technological expertise resulting into severe Balance of Payment (BOP) crisis. So Government was compelled to pursue restrictive attitude towards FI in Phase II particularly to those which were unaccompanied by technology transfer and which demanded more than 40% foreign ownership. Further Indian economy has been found to experience a prolonged industrial stagnation during mid 60s to 1978 which also produced a dampening impact on the inflow of FDI. As a complementary to this, Foreign Exchange Regulation Act (FERA) was also introduced in 1970s. However, as fallout of these Indian industries continued to suffer from technological backwardness. So for bringing about modernization in Indian industries, once again the GOI continued to follow a liberal policy toward FI in the 3rd phase i.e., during 1980s. Finally, with the adoption of the policy of economic reforms since 1991 which entail the objective of Liberalization, Privatization and Globalization (LPG) resulted into a gradual switchover from bureaucratic control over trade, investment and finance to the transcendental marketism. As its fall out, there has been a widespread deregulation in trade, investment and finance. Now if one compares the behaviour of FI then it can easily be found that there is a spurt in the inflow of FI in the 1st phase which has been followed by a modest decline in the 2nd phase and finally by an increasing trend since the 3rd phase.

2. Objectives and Methodology

There is a sharp distinction between the nature of FDI during the pre-reform period and post-reform period. For the purpose of systematic and comparative analysis of FDI, we have divided the discussion into two periods: pre-liberalization period and post-liberalization period. The research study is theoretical as well as empirical in nature. It is based on the secondary data which are mainly available from various reports of government and semi-government organizations in this field. The data collected from such various sources have been analysed by using some conventional statistical tools and concluding observations are made.

3. Trend and Progress of FDI during Pre-Liberalization Period (1948-1990)

Under this period, all dimensions and aspects of FDI are undertaken which covers the time period from independence till liberalization of the Indian economy. Table- 1 summarizes the foreign collaboration approvals during 1948-90. This table presents the average number of collaborations per year, the proportion of foreign collaboration with equity participation and the volume of foreign investment approved. It is discernible from the table that in the first decade after independence from 1948 to 1958, the average number of collaborations approved per year was 50 but due to the announcement of some major policy changes in the second half of 1950's resulted in an increase of almost five folds in the number of collaborations which rose to 297 during 1959-66.

During this period, the foreign exchange was badly needed and on account of this fact almost 36 per cent collaboration approvals were with financial participation. Then came the restrictive phase in which the government adopted strict measures. The FERA was introduced in this phase i.e. from 1967-79. It brought down the average number of approvals to 242. With FERA in use, the proportion of foreign financial collaboration fell substantially from 36 per cent during 1956-66 to 16.11 per cent 1967-79.

Table 1: Foreign Collaboration Approvals (1948-1990)

Period	Average Number of collaborations approved per year	Those with foreign Equity		Average Foreign Investment involved per year (Rs. Million)
		Average Number per year	Proportion in total	
1948-58	50	NA	NA	NA
1959-66	297	108	36.36	NA
1967-79	242	39	16.11	53.62
1980-88	744	170	22.80	930.84
1989-90	635	194	30.55	2224.95

Source: Compiled by the Author from various issues of RBI Bulletins: (July 1978, December 1984, April 1985 and August 1993) – NA stands for 'Not Available'

Table 2: Foreign Collaboration Approvals Involving Foreign Capital Participation and Foreign Investment (1948-1990)

Year	Total Number of Cases Approved	Cases involving Foreign Capital Participation	Foreign Investment involved (Rs. Millions)
1948-55	284	NA	NA
1960	82	NA	NA
1970	183	32	24.52
1980	526	73	89.24
1990	666	194	1,283.2

Source: Compiled by the Author from the Annual Report: 1992, Department of Scientific and Industrial Research, Ministry of Industry, Government of India, Economic Survey of India: 1992-93, GOI and SIA Newsletter: March 1994.

Table: 2 shows statistical data regarding the foreign collaboration approvals from 1948 to 1990. It is discernible from the table that in the period from 1948 to 1955, the total number of approved cases was 284, which decreased to 82 in 1960. The total number of foreign collaboration approvals in the year 1970 was 183 which significantly increased when compared to the figure of 1960. Out of 183 cases, 32 have foreign capital participation with the total foreign investment involved amounted to Rs. 24.52 million. This may have happened due to the restrictive measure adopted by the government and the introduction of FERA in the previous year.

Table 3: Country wise Distribution of FDI (1964-1990)

(in Rs. Crore)

Country	1964		1980		1990	
	FDI	Per cent	FDI	Per cent	FDI	Per cent
U.K	433.0	76.57	503.3	53.93	1321	48.8
U.S.A	82.3	14.53	196.4	21.04	518	19.1
Germany	6.4	1.13	65.0	6.96	167	9.9
Japan	n.a	n.a	4.3	0.46	132	4.9
Sweden	7.8	1.38	20.1	2.15	77	2.8
Switzerland	13.6	2.40	54.7	5.86	86	3.2
Canada	8.7	1.50	34.1	3.65	77	2.8
Netherlands	n.a	n.a	n.a	n.a	36	1.3

Source: Compiled by the Author from the Annual Report: 1992, Department of Scientific and Industrial Research, Ministry of Industry, Government of India, Economic Survey of India: 1992-93, GOI and SIA Newsletter: March 1994.

From the Table 3, it is evident that UK has topped as the main source of FDI inflows in India in pre-liberalization period. In 1964, UK's share was around 76.57 and in 1990 although it has decreased to 48.8 but it was top among other countries. The share of FDI from U.S.A registered an increasing trend from 14.5 per cent in 1964 to 19 per cent in 1990. The amounts of FDI from Germany, Japan, Sweden, Switzerland and Canada also recorded increasing trend in 1990 when compared with the period of 1964 in terms of FDI inflows.

Table 4: Sectoral Distribution of the Stock of FDI in India (1964-1990)

(in Rs. Crore)

Industry	March 1964	March 1974	March 1980	March 1990
A. Plantations	105.6 (18.7)	107.2 (11.7)	38.5 (4.1)	256 (9.5)
B. Mining	4.7 (0.9)	6.4 (0.8)	7.8 (0.8)	8.0 (0.3)
C. Petroleum	143.3 (25.3)	137.9 (14.7)	36.8 (3.9)	3.0 (0.1)
D. Manufacturing	229.3 (40.5)	625.6 (68.4)	811.6 (86.9)	2298 (84.9)
i. Food and Beverages	30.2 (13.2)	52.1 (8.3)	39.1 (4.8)	162 (7.0)
ii. Textile Products	16.6 (7.2)	35.6 (5.7)	32.0 (3.9)	92 (4.0)
iii. Machinery and Machine Tools	15.7 (6.8)	42.1 (6.7)	71.0 (8.8)	354 (15.4)
iv. Transport Equipment	15.0 (6.5)	32.1 (5.1)	51.5 (6.3)	282 (12.3)
v. Metal and Metal Product	33.1 (14.4)	86.7 (13.9)	118.7 (14.7)	141 (6.1)
vi. Electrical Goods	18.2 (7.9)	68.1 (10.9)	97.5 (12.0)	295 (12.8)
vii. Chemical and Allied Products	60.1 (26.2)	203.7 (32.6)	30.8 (37.2)	769 (33.4)
viii. Miscellaneous	40.4 (17.6)	105.0 (16.7)	100.0 (12.3)	203 (8.8)
E. Service	82.3 (14.6)	39.8 (4.4)	38.5 (4.1)	140 (5.2)
Total	565.5 (100.0)	916.9 (100.0)	933.2 (100.0)	2705 (100.0)

Source: Compiled by the Author from various issues of RBI Bulletins.
Note: Figures in parenthesis show percentage from the total.

Table: 4 gives a detailed account as regards the distribution of FDI at the end of financial years 1964, 1974, 1980, and 1990 in some important industries like plantation, mining, petroleum, manufacturing and services. It is evident from the table that the FDI inflow in plantation has decreased from 18.7 per cent in 1964 to 9.5 per cent in 1990. During 1964,

manufacturing got highest share of 40.5 per cent followed by petroleum 25.3 per cent, plantations 18.7 per cent, services 14.8 per cent and mining 0.9 per cent. Mining and petroleum sectors recorded declining trend and their share was almost negligible.

Manufacturing appears the only one sector showing an exponential rise from its share of 40.5 per cent in 1964 to 84.9 per cent in 1990. The share of services sector showed decreasing trend during the period under reference. It share was 14.6 per cent in 1964 which further decreased to a low of 4.1 per cent in 1980. But its share has shown an increasing trend of 5.2 per cent from 4.2 per cent in 1990s and 1980s respectively.

4. Trend and Progress of FDI since Liberalization (after 1991)

Since inception of liberalization in 1990 and 1991, Government has been trying to increase size of FDI for economic development and social development. Time to time when Government realized amendment and changes are required in policies and procedures, changes are done which also affect the quantum of FDI.

Table 5: Foreign Direct Investment (FDI) Approved and Inflows of FDI received during the Year 1991-2007

Year (January to December)	No. of FDI Approvals	Amount of FDI Approved (in Rs. crore)	Amount of FDI Inflows (in Rs. crore)	% age of realization rate-inflow with approval
1991 (Aug-Dec)	203	504.90	353.48	70.01
1992	693	3817.89	691.20	18.10
1993	785	8861.80	1861.96	21.01
1994	1039	8955.22	3112.23	34.75
1995	1350	30882.11	6485.36	21.00
1996	1545	30886.05	8752.19	28.34
1997	1656	50388.86	12989.76	25.78
1998	1184	27589.57	13269.23	48.10
1999	1720	25140.28	10166.71	40.44
2000	1702	17236.97	12353.73	71.67
2001	1976	20939.68	16777.75	80.12
2002	1963	11058.10	18195.56	164.55
2003	1550	5416.59	11617.17	214.47
2004	1436	8741.25	17266.52	197.53
2005	445	7899.53	19299.09	244.31
2006	266	23003.61	50357.21	218.91
2007	257	19911.14	79735.66	
Total	19770	301233.52	283284.73	94.04

Sources: Hand Book of Industrial Policy and Statistics 2007-08 Office of the Economic Adviser, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Government of India, p.106
Note: above given information excludes GDRs/ADRs

5. Route-wise Foreign Direct Investment

FDI is allowed under different schemes and different routes. Policies and procedures have been changed time to time as notified by the Government Foreign Direct Investment in India is allowed through following channels:

> (i) Government Approval Route [Approval by Foreign Investment Promotion Board (FIPB), Secretariat for Industrial Assistance (SIA), Department of Industrial Policy & Promotion (DIPP)]
>
> (ii) RBI's Automatic Route.
>
> (iii) Inflows through Acquisition of Existing Shares.
>
> (iv) Reserve Bank of India's various NRI's Schemes.
>
> (v) Advances.

Data of route wise foreign direct investment (year to year) has been taken. There are two main channels for the entry of FDI into India: the SIA/FIPB Route and the RBI Automatic Approval Route. From the inception of economic reforms in India in 1991 until the year 2000, most of the FDI came through the government route as there was strict monitoring of the approvals, therefore, FDI coming through the SIA/FIPB route was greater than the FDI coming through the RBI route (Table 6).However, there has been a dilution of this trend in the past five years. With the investment boom in India and different states competing for FDI, the government has eased foreign investment regulations leading to a spurt in FDI coming through the RBI route, which is a positive sign.

Table 6: Route-wise FDI Inflows in India (Aug 1991 to March 2009)

Route-wise FDI Inflows (in US $ million)					
Year (Jan-dec)	FIPB & SIA route	RBI's Automatic Route	Inflows through acquisition of existing shares #	RBI's Various NRI schemes*	Total
1991 (Aug-Dec)	78	-	-	66	144
1992	188	19	-	59	264
1993	340	79	-	189	608
1994	511	116	-	365	992
1995	1264	169	-	633	2065
1996	1677	180	88	600	2545
1997	2824	242	266	290	3621
1998	2086	155	1028	91	3359
1999	1474	181	467	83	2205
2000	1474	395	479	81	2428
2001	2142	720	658	51	3571
2002	1450	813	1096	2	3361
2003	934	509	637	-	2079
2004	1055	1179	980	-	3213
2005	1136	1558	1661	-	4355
2006	1534	7121	2465	-	11120
2007	2586	8889	4447	-	15921
2008	3209	23651	6169		33029
2009(Jan-Mar)	1992	3528	635		6155
Total (as on March 31,	27867	48343	21012	2509	99732

2009)	

Note:
1. Inflows through ADRs/GDRs/FCCBs against FDI approvals have not been included
2. # Data prior to 1996 not provided by the RBI.
3. From 2003, RBI's various NRI schemes inflows included under the heading RBI's Automatic Route.

During 1991, as much as 54.1 percent of total FDI was channeled through the SIA/FIPB route in contrast to 45.9 percent through the RBI route. No inflows on account of acquisition of existing shares were recorded for this year. The route-wise FDI inflows fluctuated till 1998. During 1998, the FDI inflows through the SIA/FIPB route accounted for 62.1 percent of the total FDI inflows, while those through the RBI's automatic route touched an all-time low of only 7.3 percent. However, by this year, inflows through acquisition had gained a significant share of 3.06 percent in total FDI inflows. The following period until 2007, for which the latest figures are available, recorded an increase in share of inflows through the RBI's automatic route, a decrease in the shares of inflows through the SIA/FIPB, while the share of inflows through acquisitions remain banded between 20 to 30 percent.

6. Sector-wise analysis of FDI inflows
Over the recent past, the sector-wise inflows of FDI have undergone a change. This is clear from the variation in the sector ranks based on their share in total FDI inflows. For comparison, we divide the period from August 1991 to March 2009 into two sub-periods of approximately the same length: the initial period of August 1991 to December 1999 and the second sub-period of 2000 to the latest available.

Table: 7 presents the ranks, names and shares of FDI inflows for the top 20 sectors and miscellaneous industries (therefore 21 industries in total), as reported in SIA publications. The figures are reported for the two cumulative periods and the year 2008 for which the latest information is available. The FDI inflows appear to be concentrated among the 21 industries. During the initial sub period, namely, August 1991 to December 1999, the 21 sectors constituted 69.3 percent of total FDI inflows, whereas during the second sub period, namely, January 2000 to March 2009, these sectors constitute 84.3 percent of the total FDI inflows. The emergence of the service sector is clear from a comparison of the shares over the two sub periods. Other new sector entrants in the list of top five recipient sectors include computer software & hardware, construction activities and housing & real estate.

Table 7: Sector-wise Break-up of FDI Inflows in India (August 1991 to October 2008)

Sector-wise Break-up of FDI Inflows			
Rank	Sector [Shares as % of total investment]		
	Aug 1991 – Dec 1999	Jan 2000 – March 2009	2008
1	Transportation industry (8.9)	Service sector (21.2)	Service sector (24.3)
2	Electrical Equipment (including S/W & Elec) (8.0)	Computer Software & Hardware (9.9)	Telecommunications (8.3)
3	Service sector (7.0)	Telecommunications (7.1)	Housing & Real Estate (including Cineplex, Multiplex, Integrated Townships & Commercial

			Complexes) (8.1)
4	Telecommunications (6.9)	Housing & Real Estate (including Cineplex, Multiplex, Integrated Townships & Commercial Complexes, etc.) (6.1)	Construction Activities (7.4)
5	Chemicals (other than fertilizers) (6.9)	Construction Activities (5.7)	Computer Software & Hardware (5.6)
6	Fuels (Power & Oil Refinery) (6.3)	Automobile industry (3.9)	Metallurgical industries (4.5)
7	Food-Processing industries (4.1)	Power (3.6)	Ports (4.0)
8	Paper and Pulp (including Paper Products) (1.5)	Metallurgical industries (3.0)	Petroleum & Nature Gas (4.0)
9	Miscellaneous Mechanical & Engineering (1.4)	Petroleum & Nature Gas (2.6)	Power (3.9)
10	Textiles (including Dyed, Printed) (1.4)	Chemicals (other than fertilizers) (2.4)	Automobile industry (3.4)
11	Drugs & Pharmaceutical (1.4)	Cement and Gypsum Products (1.9)	Cement and Gypsum Products (2.1)
12	Trading (1.1)	Ports (1.7)	Trading (2.0)
13	Metallurgical industries (1)	Trading (1.7)	Chemicals (other than fertilizers) (1.9)
14	Glass (0.9)	Drugs & Pharmaceuticals (1.7)	Information & Broadcasting (including Print Media) (1.6)
15	Commercial, Office & Household Equipment (0.9)	Electrical Equipment (1.6)	Hotel & tourism (1.6)
16	Industrial Machinery (0.6)	Information & Broadcasting (including Print Media) (1.5)	Fermentation industries (1.1)
17	Rubber Goods (0.5)	Hotel & tourism (1.4)	Consultancy Services (1.1)
18	Hotel & Tourism (0.5)	Consultancy Services (1.4)	Hospital & Diagnostic Centres (1.0)
19	Agricultural Machinery (0.3)	Food-Processing industries (0.9)	Electrical Equipment (0.8)
20	Ceramics (0.2)	Electronics (0.8)	Drugs & Pharmaceuticals (0.8)
21	Miscellaneous industries (9.5)	Miscellaneous industries (5.0)	Miscellaneous industries (4.9)

7. Country-wise analysis of FDI inflows

Among the countries heading the list of FDI inflows into India is Mauritius (Table 8). This could be attributed to the double taxation treaty that India has signed with Mauritius and also to the fact that most US investment into India is being routed through Mauritius. However, Singapore is the second largest investor in India followed by the US and other developed countries like the UK and the Netherlands, which are India's major trading partners. Table 4

shows the share of the top investing countries in India's FDI for the two sub periods mentioned earlier. While the significance of Germany and Japan has declined in terms of their share in FDI inflows into India. Cyprus and the UAE have entered the list of top 10 investing countries during the recent cumulative period.

Table 8: Share of Top Investing Countries in FDI Inflows in India

Rank	Country (share as % of total investment)		
	Shares of Top Investing countries (in US $ million)		
	Aug 1991 – Dec 1999	**Jan 2000 – March 2009**	**2008**
1	Mauritius (21.6)	Mauritius (42.8)	Mauritius (40.9)
2	U.S.A. (14.4)	Singapore (11.3)	Singapore (8.6)
3	Japan (5.1)	U.S.A. (5.4)	U.S.A. (7.2)
4	Germany (4)	U.K. (5.0)	U.K. (5.8)
5	U.K. (3.8)	Cyprus (4.2)	Netherlands (4.0)
6	Netherlands (3.7)	Netherlands (3.1)	Japan (2.9)
7	Korea (South) (3.6)	Germany (2.4)	Cyprus (2.5)
8	Singapore (2.1)	France (1.5)	Germany (2.4)
9	Hong Kong (1.6)	Japan (1.2)	France (1.4)
10	France (1.6)	Russia (1.1)	U.A.E. (1.0)

8. Conclusion

From the above overall discussion, it came to light that FDI climate in India has improved a lot in the post-liberalization period of Indian economy. It was observed that in the pre liberalization era (i.e. 1948-1990), policy towards FDI was not liberalized and rationalized. A number of sectors like civil aviation, defense, retailing, telecommunications etc. were not open to foreign investors. Moreover, the overall policy and attitude towards foreign investors was very restrictive and protective. However, whole of the FDI policy took a different turn when LPG process started in India and hence open door policy was promoted. This has made Indian economy to open all sectors except few ones like atomic energy, lottery business and gambling and betting (FDI policy, 2006).

It can be concluded that since the economic liberalization of the Indian economy, foreign investment particularly FDI has tremendously increased. The pattern of FDI in terms of country-wise and sector-wise has undergone a significant change since economic liberalization in India and has shown an increasing trend which has benefited the whole economy in its growth and development. Thus it can be said that the analysis of the data of FDI inflow and growth of the Indian economy in general shows that FDI has a positive impact on the economy.

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Performance Assessment of General Insurance Business in India (2003-2013)

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Abstract

It has been asserted by many researchers that India has witnessed profound growth in the general insurance sector since opening up of the insurance market in year 2000. However, most of them calculated the growth rates of different financial performance parameters on the basis of yearly nominal values. In this study, the growth rate of different performance parameters indicating financial performance of a business sector has been estimated in both nominal terms and in real terms i.e after considering the time value of money. Substantial difference has been identified on the nominal and real growth rates of the performance parameters of the public sector and the industry as a whole. It has been observed that the estimated growth rate (both nominal & real) of the private sector are much higher than the public sector. Again, in this study, the profitability of both the sectors has been measured with suitable ratio analysis. Both the expense ratios and claim ratios of the private sector are comparatively lower than the public sector. In spite of their unfavourable expense ratios & claim ratios; the public sector maintained comparatively higher return on equity in every year under study due to their higher return from investments.

Key-words: General Insurance, Non-life sector, Gross Direct Premium, Net Premium, Operating Expenses, Profitability, Claim ratio, Expense ratio, Investment Income ratio, Return on Equity.

1. Introduction

The insurance sector in India was opened for the private companies in year 2000. Prior to year 2000, the life insurance and general insurance (non-life) market in India was dominated by Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC) respectively. The GIC carried out its business in India along with its four subsidiaries in all the zones in India, namely: National Insurance Co.Ltd. (Kolkata), United India Insurance Co. Ltd. (Chennai), New India Assurance Co.Ltd. (Mumbai) and Oriental Insurance Co. Ltd. (New Delhi). Following the recommendations of the Malhotra Committee (1994); in 7th December, 1999, the government passed the IRDA Act to abolish its own monopoly from both the life & non-life sector of the insurance business. From August 2000, the private companies' even foreign companies were allowed to enter into the market in collaboration with domestic partners with a maximum 26% stake. In Dec 2000, the four subsidiaries of GIC were restructured as independent companies and at

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the same time GIC was instructed to stop writing direct business and was converted into a national re-insurer.

State of Insurance Business in India: Liberal Period – Year 2000 onwards
Competition was reintroduced with entry of large number of private companies into the field. It has thrown a new challenge before the public sector companies. Many large and well established world class private companies have entered into the general insurance sector in collaboration with suitable domestic partner to grab new opportunities. Such as, IFFCO Tokio, TATA AIG, Bajaj Allianz, ICICI Lombard, Reliance General etc. Now it has become quite tough to work in a competitive environment for the public insurers who were habituated in receiving assistance from the government and did not concentrate to improve their levels of efficiency in the pre- liberal period. The benefits of liberalization can be seen with increase in volumes of premium of both the public and private sector, market penetration and insurance density; innovation in all areas, like underwriting, product pricing, marketing, policyholder servicing etc.

In **Table I**, a comparative statement of growth and market share occupied by public and private sector general insurance companies in terms of New Policies issued (in lakhs) and Gross Direct Premium collected during 2003-04 to 2012-13 has been presented. The gross direct premium collected by the non-life insurers (both public & private) in the year 2012-13 was Rs. 65022.50 crores out of which the public sector and private sector collected Rs. 37071.80 crores and Rs. 27950.70 crores respectively. This represents that the market share occupied by the public sector is 57.01 % as against 42.99 % of the private sector. Amazingly, it is found that though the public companies collectively issued 64.44 % of the total policies in 2012-13, its share in total gross direct premium collected by the industry is 57.01 % whereas market share of the private sector (42.99 %) in terms of gross direct premium collected by the industry is more than the share in number of total policies issued i.e. 35.56 %.Similar trend has been detected from the year 2003-04 to 2012-13. This may be due to the difference in pricing strategies adopted by the public & private insurers in pricing their insurance products they offer.

A strong contention prior to opening up of the insurance sector in year 2000 was whether the acquisition of the market shares by the private companies is at the expense of the public sector enterprises. From Table I we find that the gross direct premium increased in every year under study in both the public and the private sector. Thus increase in gross direct premium denotes that the public sector enterprises have obviously not lost its growth momentum and the market share of the private players has come out of an enlarged market. This enlargement of the market is mostly due to the efforts of the private players themselves.

2.1 Review of Literature
There is sizable literature on general insurance industry in conforming to its long history and economic importance. Some of the relevant existing studies and literature have been discussed below:

Verma (2000), in her thesis, evaluated the performance of the GIC and its subsidiary companies over the years, throwing light on the probable effects of the various insurance sector reforms on the future development of General Insurance in the country. She also studied the origin, aims and functions of the corporation and its product development. The study was based on the published and primary data. The techniques like trend analysis, averages, graphs etc. were used to analyze the quantitative data. The study found that the GIC along with its subsidiaries has emerged not only as a strong insurance institution but also as an influential institutional investor in the financial market of India due to large amount of funds at its disposal. It made investment with the objective of safety and maximization of return. The underwriting results showed losses in about all the years

except 1993-94. Despite the rise in premium income, the profit position had not improved due to rise in expenses, commission and net incurred claims at a higher rate than the growth premium income. The study suggested that GIC should bring reform in pricing the General Insurance contracts and use information technology for better management, customer service, efficiency and competitiveness.

Rudolf (2001), in his paper, examined the key factors and latest trends determining profitability in the major non-life insurance markets. The study focused on the non-life insurance markets of the group of seven countries (G7) mainly for the period 1996 to 2000. To analyze the profitability, investment results and underwriting results were compared between countries and across lines of business and to analyze the drivers of profitability, return on equity was decomposed into its main components namely underwriting results and investment income. The results indicated that only Germany and Japan did not have negative underwriting results and return on equity was high in UK, moderate in Canada and US, and low in France and Germany. The study found that underwriting result and investment yield are negatively correlated. The research suggested that due to uncertain prospects for investment results, the insurers must focus on underwriting results to achieve greater profitability.

Holzheu (2006), in his research paper, measured the underwriting profitability of insurance markets. The study used economic combined ratio as alternative key performance indicator instead of conventionally published combined ratio. It reflects underwriting profitability more accurately. The study focused on the underwriting profitability of six major non-life markets, the US, the UK, Germany, Japan, France and Canada from 1994 to 2004. The results indicated the picture for the business year results for Japan, Canada, France, Germany and the UK were broadly consistent with the US results. The results for the years 1994 to 1997 and 2002 to 2004 were profitable, though often only moderately. The period from 1998 to 2001 exhibited dismal underwriting results. Substantial improvements in underwriting results from 2001 to 2003 restored profitability to the level of the 1994 to 1997 period. The study further pointed out that the ten year average underwriting margins before taxes were positive in all countries implying a positive contribution to profits from the insurance activities. However, the contribution was only about 1-2per cent in the US and Japan, 2-3per cent in France, 5per cent in Canada and the UK, and 6per cent in Germany. The study found that these positive results were necessary but not a sufficient condition for creating shareholder value. Profits must also cover tax and the insurers' capital cost. During the period 1994 to 2004, it was difficult for the industry to earn its underwriting cost of capital.

Rao (2007), in his article, discussed how the industry performed since liberalization, why the mindset of insurance continued to be premium obsessed, as in the past, and why it was very necessary for them to switch their focus to measuring performance on a different basis for their survival in the market place, that is getting hotter and hotter at a competitive level. And why it was even more important to the public sector insurers to get their act together, as not doing so, might hurt them more as continued solvent insurers. The study revealed that non-life insurance industry performed superbly in terms of rising premium volumes, recording its highest growth rate ever of 23 %, with an accretion of Rs.4626 crores FY 2006-07. It was observed that measuring performance only by monthly premium has lowered the morale of staff. Even after the market was liberalized, this situation has not changed much.

Mahmoud (2008), identified the financial performance of insurance companies in Egypt. The data consisted of six insurance companies, three of which were from the public sector, while others represented private sector companies for the period 1992-93 to 2005-06. The author has used 25 ratios to measure the efficiency and financial performance. These ratios were reduced to six factors through factor analysis. The study found that the mean of efficiency of financial performance, ratios of the public and private sectors do not vary significantly for the following ratio returns on

investments, net profit to total assets, net profit to surplus, total liabilities to total assets, and underwriting expenses paid to premiums written. Public sector cases represent 66.7per cent of the low-efficiency clusters of financial performance, while private sector cases comprise 47.6per cent of high-efficiency clusters for financial performance. Thus, there is a relationship between the fuzzy classification of the insurance company's financial performance efficiency and its ownership type.

Oetzel and Ghosh (2008), in his paper, explored the relationships between market liberalization and insurance firms' performance in emerging markets and developing countries. The sample for this study includes a data of 196 insurance companies operating in 16 different countries across Latin America and Asia. The dependent variable used to measure firm level performance was adjusted firm's profits. The variable was measured as profits before taxes divided by total firm assets, because data on firm profitability was easily available. The independent variables are 'type of firm' and 'the degree of market liberalization'. The results of the analysis suggest that the host country liberalization is positively associated with firm profitability for all insurers, foreign and local, operating in a given host country. No significant profitability differences were found between foreign and locally owned firms, although U.S. owned subsidiaries were significantly less profitable than subsidiaries from any other country. Additionally, firms located in Latin America had significantly less profitability than those operating in India.

2.2. Research Gap

It is seen from the review of literature on the measurement of growth of various performance parameters indicating an insurer's financial performance that most of the researchers have simply compared the financial performance of the insurance companies in one particular year with that in some other year. This method of analyzing the performance of the insurers using two years data helps us to arrive at the findings that are heavily dependent on the choice of the base year (the year with which performance is compared) and the current year (in which the performance of the insurer is assessed). If the selection of the base year and the current year is made with due care so as to avoid bias in the final results, the findings may be acceptable, though with some reservations. The performance of the insurers can be properly assessed not by referring to just two years, but by considering all the relevant data for the intervening period and fitting trend lines to this data or by getting the averages of the values of our concern and drawing some inferences from them regarding the insurer's performance. Further, most of the articles were studied in the pre-liberal period, therefore the impact of liberalization on General insurance business were not studied. The articles were not compared on the government and private insurance business players' performances.

3. Objective of the Study

To reduce the abovementioned research gap, specifically, the growth rates of different performance parameters indicating financial performance of both the sectors will be ascertained in nominal and real terms. Further, the profitability of both the sectors and the industry as a whole will be analyzed with suitable ratios. The relationship between the dependent and independent variables affecting profitability will be framed with the help of multiple regression analysis. Largely, the objective of this study is to make a comprehensive analysis of the collective financial performance of the companies operating in the public sector and private sector general insurance (non-life) market in India during 2003-2013.

4. Hypothesis of the Study

To study the above objectives the following hypothesis are formulated:

1. The growth rates of different financial performance parameters of the private sector are higher than the public sector.

2. The profitability of the private sector is higher than the public sector.

5. Research Methodology

Keeping in view the objective of this study the methodology/techniques which will be used for collection and analysis of data in this study are as follows:

5.1. Collection of data

The data used in this study has been collected from secondary sources i.e. the published annual report of the insurers belonging to the public & private sector of the general insurance industry in India and from the publications including annual report of the Insurance Regulatory & Development Authority (IRDA) of India during 2003-04 to 2012-2013. To assess the effect of market liberalization on trend growth rates of different performance parameters and the profitability of both the sectors of the general insurance industry; the insurers operating in Indian market have been grouped in to two major sectors: 'public' and 'private'. Comparison among the financial-performance indicators of public sector, private sector and the industry as a whole has been made in a collective fashion.

5.2. Analysis of data

As the main objective of our study is to asses the financial performance of both the sectors of general insurance industry during 2003-2013 that belongs to the liberal period and to identify the factors responsible for the satisfactory or non satisfactory performance; one of our analytical methods will be to fit trend lines to the data in the performance variables and to infer about the trend growth rates of these variables. There are a large number of trend equations that may be fitted to the data to estimate the growth rates of different performance indicators. We have fitted two trend equations, namely exponential ($\log y_t = a + bt$) and log quadratic ($\log y_t = a + bt + ct^2$). The estimated value of trend parameter 'b' gives the growth rates as logarithms are considered at natural base. In case of semi-log linear equation growth rate is constant, but in case of log-quadratic trend equation, the estimated value of 'b' indicates average growth rates and estimated value of 'c' indicates acceleration or deceleration in growth rate. To make a choice between exponential and log- quadratic forms of trend equation, first, point-to-point growth rates $[(y_t - y_{t-1}) / y_{t-1}]$ have been estimated from the original series. Secondly, these point-to-point growth rates have been smoothed by moving average method of appropriate period (say three-period, five-period). On these smoothed series of point-to-point growth rates, finally, the linear trend equation has been fitted. If the trend parameter is statistically significant, log-quadratic trend is chosen for the estimation of the whole period's growth rate; otherwise, exponential equation is selected. In trend fitting we have also checked auto correlation problem, which are likely to occur in time series analysis, using DW statistic. When there is no autocorrelation problem ($DW > d_u$) or the auto-correlation test is inconclusive ($d_l < DW < d_u$), then estimated b is accepted. But in other cases we have effected necessary correlation in the model of trend fitting by considering auto-regressive scheme of either first order or second order.

Besides, for analyzing data the technique of ratio analysis, simple mathematical tools like percentages, averages etc. and statistical techniques like correlation analysis, multivariate regression analysis has been used. The 't' test & 'F' test has been applied at appropriate places. The IBM SPSS (Version 19) statistical software has been used for the purpose of data analysis.

6. Analysis of Financial Performance of General Insurance Business

The observations on the findings of the study are as follows:

6.1. Growth Analysis

In **Table II,** the estimated growth rate of number of new policies issued (in lakhs) by both the sectors and the industry as a whole have been presented. It has been observed that the growth rate in no. of new policies issued is much higher in the private sector than the public sector. Amazingly, the industry growth rate in terms of new policies issued is much closer to the public sector. This indicates the dominance of the public insurers over the private insurers in issuance of total new policies during 2003-2013. It can be seen that in every years under study, the total number of new policies issued (in lakhs) by the public sector are substantially greater than that of the private sector. Therefore, though the estimated growth rate of new policies issued by the private sector is much higher than that of the public sector; it has shown little dominance over the industry growth rate because of comparatively less number of total new policies issued by them.

In **Table III, IV & V**, an attempt has been made to estimate the nominal and real growth rate of different performance parameters indicating financial performance of all the general insurance companies belonging to the public sector, private sector and the industry as a whole.

The growth rate of direct premium collection, net premium retention and net premium earnings of the private sector both on nominal and real term is excessively higher than the growth rate of the public sector and as well as the general insurance industry as whole. A huge fluctuation in nominal and real growth rate of the abovementioned three parameters has been identified in the public sector. The estimated nominal and real growth rates of net premium earnings of the public sector is 11.80 % and 3.60 % respectively as against 64.0 % and 61.80 % of the private sector and 11.10 % & 8.40 % of the industry. This signifies that the private sector is emerging as serious competitor not only in quality of product and services but also in relative market size. They are steadily building their customer base by grabbing the enlarged, unattended and untapped potential insurance market in India and overtime, they are expected to acquire even a larger share of the market.

Private sector enterprises are generally run by experienced Indian managers and strongly supported foreign enterprise. It has been estimated that the growth rate in expense of management in case of private sector is much higher than public sector and overall industry rate. This denotes that the private enterprises are expending more to retain their efficient managers and to obtain the highest calibre staffs from the public sector.

The growth rate (both in nominal and real term) of total operating expenses is relatively higher in the private sector than that of the public sector. This implies that private sector enterprises have resorted to aggressive growth strategies by building a large agency force and distribution network that leads to huge amount of expenditure in commission expenses and managerial expenditure.

The annual growth rate (in nominal terms) of 'income from interest, dividend & rent' in the public sector is higher than the growth rate of 'profit or loss on sale of investments'. But an opposite picture is observed in the private sector where the growth rate (both in nominal and real terms) in 'profit or loss on sale of investments' is relatively higher than 'income from interest, dividend & rent'. But the magnitude of both the parameters is substantially high in the private sector. However, statistically insignificant growth rate of these two parameters is observed in the public sector when they are transformed in real magnitude. The comparatively high growth rates in income from investments focuses on the efficiency of the fund managers of the private enterprises in disseminating their investments in profitable arena.

The annual growth rate (both in nominal and real terms) of total expenditure is higher than total income in both the sectors. It is mentionable that the difference of growth rates in between total income and total expenditure is highest in the private sector than the public sector and the industry as a whole.

6.2. Component wise Income & Expenditure Analysis

In **Table VI**, various component of income and expenditure of both the sectors of general insurance industry have been presented year wise as a percent of total income and total expenditure.

It has been ascertained that net premium contributes the major part of total income of the companies belonging to both the sector. However, the contribution of net premium to total income is higher in the private sector in every year under study. On the contrary, the percentage of income from interest, dividend & rent on investments and profit or loss arising on sale of investments is relatively higher in the public sector. The proportion of profit or loss on sale of investments to total income is far below than the industry average in every years commencing from 2003-2013. However, other income forms an insignificant part of total income in both the sectors.

From an in-depth study of component wise total expenditure reveals that the net incurred claims to total expenditure of both the public and private sector during the years under study is very close to the industry average. The mean of net incurred claims to total expenditure during the study period is 69.91 % for the public sector and 67.97 % for the private sector. On the contrary, the mean of net premium to total income of the private sector (89.10 %) is much higher than that of the public sector (73.13 %) indicating the efficiency of the private sector enterprises in underwriting risks and management of insurance claims. The percentage of net commission to total expenditure in the public sector is much higher than the industry average in every years under study whereas a negative value of net commission expenses in private sector reveals a comprehensive, aggressive and efficient reinsurance programme adopted by them.

The larger share of expenses of management in total expenditure of the private sector in relation to public affirms the high estimated annual growth rate of this parameter (both in nominal and real terms) as depicted in Table IV. The relative expenditure on account of expenses of management of the private sector is too higher than the industry average of 26.88 %. Similar to other income, other expenses forms an insignificant part of total expenditure in both sectors of general insurance industry.

6.3. Ratio Analysis

In **Table VII**, a comparative statement of different financial ratios of both the sectors and the general insurance industry has been presented.

6.3.1. Expense ratio (ER)

Expenses of a general insurance company largely comprises of commission expense and expenses of management. Commission expense is derived after considering commission payable and receivable on reinsurance business accepted or ceded respectively. Expenses of Management are generally operating expenses which include employees' remuneration and benefits, office and administrative expenses, etc. Expense ratio is calculated as a percentage of net premium which reflects the percentage of revenue which is being utilized on account of commission and management expenses. This ratio is a pointer of the cost effectiveness and productivity. A higher ratio reflects financial instability of the business as a decrease in revenue may result in losses, whereas lower ratio is an indicator of better operational performance. It becomes important to examine, how far the two sector general insurance industry have been in a position to reduce their operating cost during the study period.

The study shows that the expense ratio of the public sector decreased from 38.45 % in 2003-04 to 30.82 % in 2012-13. This implies a reduction of excessive and unwanted administrative expenses by the public companies and also a reduction in expenses on account of commission by shifting their focus from mere selling of insurance products to risk underwriting.

6.3.2. Claims Ratio (CR)

Claim ratio is expressed as a percentage of total net incurred claims to net premium underwritten. A lower claim ratio signifies the efficiency of the risk underwriting team and also a better claims management mechanism.

It is evident from every year under study that the CR of the private sector was far less than the CR of the public sector. This signifies that a comparatively better claims management mechanism is prevailing in the private sector and obviously better views adopted in underwriting of risk.

6.3.3. Combined Ratio

This ratio reflects the combined effect of net commission expenses, expenses of management and claim incurred. It is the most acceptable measure of underwriting profitability. Financial analysts rely on it for comparing the profitability of insurance business of different companies and for comparing different lines of business.

As the expense ratio and claims ratio of the private sector is lower than the public sector therefore the combined ratio of the private sector appears to be lower than the public sector and industry average. The combined ratio of the public sector ranges from 110.88 % in 2011-12 to 129.94 % in 2005-06 whereas in the private sector it ranges from 78.48 % in 2004-05 to 109.76 % in 2010-11.

6.3.4. Underwriting Results Ratio (URR)

Underwriting results indicate the performance of an insurance company from core insurance business. To ascertain the underwriting performance, first net underwritten premium is adjusted with the increase/decrease in unexpired risk reserve to arrive at net premium (earned). Thereafter, underwriting profit/loss of a general insurer is ascertained after deducting the commission expenses, claims incurred and management expenses from net premium (earned). The underwriting results ratio is calculated by dividing underwriting results by net underwritten premium.

It can be seen that in every years under study both the sectors of the general insurance industry resulted in losses from the core insurance business *i.e* underwriting of risk. It is only in year 2004-05 where the private sector collectively able to record profit from underwriting activities. However, during the period under study, the ratio is much more adverse in the public sector that indicates the comparative inefficiency of the public insurers in risk management and claims settlement.

6.3.5. Investment Income Ratio (IRR)

Income from investments creates a significant impact on profitability of an insurance company. Insurers collect huge amount of money as premium and invest it efficiently to maximize its return. The investment income ratio is determined by investment income to net written premium. This ratio indicates the effectiveness and efficiency of investment decisions.

The IRR of the public companies remain higher in every years commencing from 2003-04 to 2012-13. This signifies that the comparative return on investment in relation to net premium collection is higher in public sector than private. It also indicates to the huge amount of return on investments which is evolving out from a substantially large volume of investment portfolio maintained by the public companies over years.

6.3.6. Total Expense to Total Income Ratio

This ratio indicates the efficiency of an enterprise in reduction of expenditure in relation to income. A high ratio indicates an adverse position while a low ratio points to less outflow of fund in relation to inflow.

It is seen that in year 2003-04, the difference in 'total expense to total income' ratio between the public and the private sector was highest while it was lowest in 2008-09. The private sector

registered the highest 'total expense to total income' ratio in year 2010-11 (97.28 %) as against 92.69 % of the public sector. This implies that to generate an income level of Rs. 100/- ; the public and private sector expended Rs. 92.69/- and Rs. 97.28/- respectively.

6.3.7. Operating Ratio

The operating ratio has been calculated by dividing the profit before tax to net premium underwritten. The operation of an insurer encompasses both the underwriting and investing activities. The fund of an insurer comprises of net premium collected from underwriting activities & income generated from investments. This fund is disseminated to meet operating expenses including claims and a major part is invested in various areas of investment. The net result is reflected on profit before tax. This ratio is an acceptable measure of profitability of the insurance business. In every year under study, the operating ratio was higher in the public sector, indicating a better operational performance. On the contrary, the private sector constantly suffered from operating losses from 2008-09 to 2011-12. The public sector registered the maximum operating ratio in the year 2006-07 (24.74 %) where it was in year 2004-05 where the operating ratio of the private sector was the highest (10.11 %).

6.3.8. Net Earning Ratio

The Net Earning Ratio has been calculated by dividing net profit after tax to net premium underwritten. This ratio is also an acceptable measure of profitability of the insurance business. This ratio discloses the net result of the underwriting and investment activities.

As the provision for taxation is adjusted with operating profit before tax to arrive at net profit after tax; therefore the net earning ratio of both the sectors in every year under study is less than operating ratio. The average of the net earning ratios during the period under study was 9.52 % and 1.18 % in case of public sector and private sector respectively.

6.3.9. Net Retention Ratio

Net retention ratio signifies an insurer's ability to bear risk. It is expressed as a percentage of business retained (net of reinsurance ceded) in relation to gross direct premium. As per the latest IRDA guidelines issued in April 2007every insurer has to compulsorily cede a minimum of 15% (earlier it was 20%) of their business to the national reinsurer, GIC. In general, the companies having a stronger capital base and huge amount of reserve & surpluses are able to retain more of their portfolios, whereas the companies, with relatively lower capitalization (and hence lower capacity to retain risks) have resorted to higher utilization of reinsurance.

The retention ratio of the public sector was higher than the private sector in every year under study. This implies better capability of the public insurer to bear risk. In 2011-12, both the sectors registered the highest retention ratio (85.98 % for public sector and 74.89 % for private sector). The maximum difference in retention ratios of both the sectors was in 2003-04.

6.3.10. Return on Equity (ROE)

Return on Equity is the most popular measure of profitability of a business concern irrespective of its nature of business. It measures the return available for accruing to owners' capital. It is calculated by dividing net profit after tax to Net Worth.

The average ROE of the public and private sector during 2003-2013 were 11.51 % and 1.63 % respectively that indicates to a considerable return in the public sector. In year 2006-07, public companies collectively registered the maximum ROE of 23.75 % whereas the private enterprises recorded in 2004-05 an ROE of 10.09 % which is maximum during 2003-2013. The difference in ROEs of both the sector was maximum in 2007-08 followed by 2006-07. The ROE of the industry was highest in 2006-07 (21.41 %) and lowest in 2010-11 (-4.43 %).

7. Regression Analysis

In **Table VIII & IX**, an attempt has been made to examine the combined impact of some selected factors on the profitability of the public and private sectors of general insurance industry respectively. In **Table X,** the impact of those factors on the profitability of the general insurance industry has been shown. Accordingly, multiple correlation and multiple regression techniques have been applied to study the joint influence of the selected ratios, namely Claim Ratio (CR), Expense Ratio (ER) & Investment Income Ratio (IR) on Return on Equity (ROE) and the regression coefficients have been tested with 't' test. For this purpose, CR, ER & IR have been considered as the independent variables and ROE has been used as the dependent variable. The regression model used in this analysis is $ROE = a + b_1 CR + b_2 ER + b_3 IR$ where a, b_1, b_2, b_3 are the parameters of the ROE line. The results provide the following regression equations:

$$ROE = 118.780 - 1.460\ CR - 0.660\ ER + 1.035\ IR \quad ….. \text{(Public Sector)}$$

$$ROE = 46.020 - 0.616\ CR - 0.312\ ER + 0.348\ IR \quad ….. \text{(Private Sector)}$$

$$ROE = 114.459 - 1.593\ CR - 0.171\ ER + 0.861\ IR \quad ….. \text{(Industry)}$$

It is observed that when CR is increased by one unit; the ROE decreased by 1.460 units and 0.616 unit for the public sector and private sector respectively. Both the regression coefficients are statistically significant. However, the decrease in units of ROE is not statistically significant when the ER is increased by one unit. This indicates the variability in expense ratios of both the sectors since the strategies adopted by the insurers' in incurring expenditure and management of claims differ from one another. Again, an increase in IR by one unit favourably enhances the ROE of the public sector by 1.035 units which is statistically significant whereas the regression coefficient of IR (0.348) in private sector is insignificant. The ROE of the industry is increased by 0.861 unit when IR of the industry is increased by one unit. The multiple correlation coefficient between the dependent variable ROE and the independent variable CR, ER & IR is 0.974, 0.932 & 0.883 for the general insurance industry, public sector and the private sector respectively. It indicates that the profitability was highly influenced by CR, ER & IR in the public sector than the private. Again, from the value of R^2 it is also evident that 87 % of the variation in ROE was accounted by the joint variation in CR, ER & IR of the public sector whereas in the private sector it is only 78 %.

8. Summary of Findings & Conclusion

It has been established from this study that the estimated growth rate (both nominal & real) of different performance parameters of the private sector are much higher than the public sector. However, the growth rates of the public insurers are much closer to the industry rates which are also much lesser than the private sector. This indicates the dominance of the public insurers over the performance indicators of that of the private insurers in absolute value. It can be seen that in every years during 2003-2013, the total of the gross direct premium collected by the four public insurers are substantially greater than that of the private sector. Therefore, though the estimated growth rate of gross direct premium of the private sector is much higher than that of the public sector; it has shown little dominance over the industry growth rate because the absolute value of gross direct premium contributed by the public insurers to the industry continued to be the largest during the period under study. Again, the percentage of net premium on total income of the private sector is substantially higher than the public sector. However, there is little difference between the averages of 'net incurred claims to total expenditure' in both the sectors. Again, both the expense ratios and claim ratios of the private sector are comparatively lower than the public sector. This favourable situation is largely due to the low risk retention ratios maintained by the private sector over the years where the policies with high risk rating are ceased with reinsurers. On the contrary, in spite of

their unfavourable expense ratios & claim ratios; the public sector maintained comparatively higher return on equity in every year under study due to their higher return from investments.

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TABLE I
Comparative statement of growth and market share occupied by public and private sector general insurance companies in terms of New Policies issued (in lakhs) and Gross Direct Premium collected during 2003-04 to 2012-13

YEAR	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	MEAN
P U B L I C S E C T O R											
NO. OF COMPANIES OPERATIVE	4	4	4	4	4	4	4	4	4	4	
NEW POLICIES ISSUED (IN LAKHS)	384.27	446.34	421.93	339.27	385.47	451.37	434.04	505.76	528.14	689.68	458.63
INCREASE/ (DECREASE) IN %		16.15	-5.47	-19.59	13.62	17.1	-3.84	16.52	4.43	30.59	7.72
MARKET SHARE (%) IN TERMS OF NEW POLICIES ISSUED	92.09	89.66	82.5	72.78	67.33	67.31	64.31	63.74	61.59	64.44	72.58
GROSS DIRECT PREMIUM (RS. IN CRORES)	14284.65	14948.82	15976.44	17283.45	17813.71	19107.31	21838.85	26417.21	32263.46	37071.8	21700.57
INCREASE (RS. IN CRORES)		664.17	1027.62	1307.01	530.26	1293.6	2731.54	4578.36	5846.25	4808.34	2278.72
GROWTH (%)		4.65	6.87	8.18	3.07	7.26	14.3	20.96	22.13	14.9	10.23
MARKET SHARE (%) IN TERMS OF GROSS DIRECT PREMIUM	86.35	81	74.87	66.65	61.84	60.8	60.98	60.26	59.11	57.01	66.89
P R I V A T E S E C T O R											
NO. OF COMPANIES OPERATIVE	8	8	8	8	8	10	12	13	15	17	
NEW POLICIES ISSUED (IN LAKHS)	32.99	51.45	89.48	126.92	187.03	219.23	240.84	287.652	329.3	380.56	194.55
INCREASE/ (DECREASE) IN %		55.96	73.92	41.84	47.36	17.21	9.86	19.44	14.48	15.57	32.85
MARKET SHARE (%) IN TERMS OF NEW POLICIES ISSUED	7.91	10.34	17.5	27.22	32.67	32.69	35.69	36.26	38.41	35.56	27.43
GROSS DIRECT PREMIUM (RS. IN CRORES)	2257.83	3507.62	5362.66	8646.57	10991.89	12321.09	13977	17424.63	22315.03	27950.7	12475.5
INCREASE (RS. IN CRORES)		1249.79	1855.04	3283.91	2345.32	1329.2	1655.91	3447.63	4890.4	5635.67	2854.76
GROWTH (%)		55.35	52.89	61.24	27.12	12.09	13.44	24.67	28.07	25.26	33.35
MARKET SHARE (%) IN TERMS OF GROSS DIRECT PREMIUM	13.65	19	25.13	33.35	38.16	39.2	39.02	39.74	40.89	42.99	33.11
I N D U S T R Y T O T A L											
NO. OF COMPANIES OPERATIVE	12	12	12	12	12	14	16	17			
NEW POLICIES ISSUED (IN LAKHS)	417.26	497.79	511.41	466.19	572.5	670.6	674.88	793.412	857.44	1070.24	653.17
INCREASE/ (DECREASE) IN %		19.3	2.74	-8.84	22.8	17.14	0.64	17.56	8.07	24.82	11.58
NEW POLICIES ISSUED- MARKET TOTAL (%)	100	100	100	100	100	100	100	100	100	100	100
GROSS DIRECT PREMIUM	16542.48	18456.44	21339.1	25930.02	28805.6	31428.4	35815.85	43841.84	54578.49	65022.5	34176.07

(RS. IN CRORES)											
INCREASE (RS. IN CRORES)		1913.96	2882.66	4590.92	2875.58	2622.8	4387.45	8025.99	10736.65	10444.01	5386.67
GROWTH (%)		11.57	15.62	21.51	11.09	9.11	13.96	22.41	24.49	19.14	16.54
GROSS DIRECT PREMIUM-MARKET TOTAL (%)	100	100	100	100	100	100	100	100	100	100	100

Source: Compiled from the published annual reports of IRDA from 2003- to 2013.

TABLE II

Comparative statement showing estimated growth rate of Number of New Policies Issued (in lakhs) by all companies operating in the general insurance sector in India during the period from 2003-2013

SL.	SECTOR	Adj R^2 (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)
1	PUBLIC	0.526** (0.13684)	1.177	5.0** (0.015)	-	-
2	PRIVATE	0.991* (0.07983)	1.354	57.4* (0.039)	-	2.8* (0.003)
3	INDUSTRY	0.924* (0.08250)	1.675	9.5* (0.009)	-	-

Asterisk (*) mark/figures in superscript position denotes level of significance. Significance up to 1% level is denoted by *, above 1% up to 5% is denoted by **. Figures within parentheses are standard errors. All the values of DW statistic indicate the absence of autocorrelation problem in the disturbance term.

TABLE III

Comparative statement showing estimated Nominal & Real growth rates of different parameters indicating collective financial performance of All Public companies during the period from 2003-2013

SL.	PARAMETER	NOMINAL GROWTH RATE					REAL GROWTH RATE				
		Adj R^2 (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)	Adj R^2 (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)
1	GROSS DIRECT PREMIUM	0.920^* (0.09264)	0.449	10.5^* (0.010)	-	-	0.557^* (0.05714)	0.750	2.2^* (0.006)	-	-
2	NET PREMIUM	0.953^* (0.08418)	0.485	12.5^* (0.009)	-	-	0.875^* (0.04874)	1.132	4.3^* (0.005)	-	-
3	NET PREMIUM EARNED	0.947^* (0.08414)	0.420	11.8^* (0.009)	-	-	0.842^* (0.04612)	0.754	3.6^* (0.005)	-	-
4	NET INCURRED CLAIMS	0.969^* (0.06706)	1.119	12.4^* (0.007)	-	-	0.868^* (0.04908)	1.579	4.2^* (0.005)	-	-
5	NET COMMISSION	0.971^* (0.09967)	1.543	35.8^* (0.066)	-	1.1^{**} (0.004)	0.908^* (0.10818)	1.496	29.0^* (0.053)	-	1.7^* (0.005)
6	EXPENSES OF MANAGEMENT	0.812^* (0.12895)	0.840	9.0^* (0.014)	-	-	$0.211^{18.1}$ (0.08101)	1.724	$-6.8^{13.2}$ (0.040)	0.7^{***} (0.004)	-
7	TOTAL OPERATING EXPENSES	0.904^* (0.10253)	0.871	10.4^* (0.011)	-	-	0.410^{**} (0.07332)	1.442	2.2^{**} (0.008)	-	-
8	INCOME FROM INTEREST, DIVIDEND & RENT	0.903^* (0.07868)	0.757	8.0^* (0.009)	-	-	$-0.068^{52.3}$ (0.05419)	1.458	$-3.1^{27.7}$ (0.027)	$0.3^{30.4}$ (0.002)	-
9	PROFIT OR LOSS ON SALE OF INVESTMENTS	0.342^{**} (0.28191)	1.961	7.4^{**} (0.031)	-	-	$0.005^{40.8}$ (0.28124)	1.810	$18.0^{23.3}$ (0.138)	-	$1.7^{20.4}$ (0.012)
10	TOTAL INCOME FROM INVESTMENTS	0.776^* (0.12320)	1.967	7.7^* (0.014)	-	-	$-0.056^{50.2}$ (0.13068)	1.878	$6.8^{32.6}$ (0.064)	-	1.7^{28} (0.006)
11	TOTAL INCOME	0.961^* (0.06908)	0.624	11.3^* (0.008)	-	-	0.797^* (0.04606)	1.250	3.1^* (0.005)	-	-
12	TOTAL EXPENDITURE	0.958^* (0.07491)	0.962	11.9^* (0.008)	-	-	0.816^* (0.05164)	1.862	3.6^* (0.006)	-	-

Asterisk (*) mark/figures in superscript position denotes level of significance. Significance up to 1% level is denoted by *, above 1% up to 5% is denoted by **, above 5% up to 10% is denoted by ***. Figures within parentheses are standard errors. All the values of DW statistic indicate the absence of autocorrelation problem in the disturbance term.

TABLE IV
Comparative statement showing estimated Nominal & Real growth rates of different parameters indicating collective financial performance of All Private companies during the period from 2003-2013

SL.	PARAMETER	NOMINAL GROWTH RATE					REAL GROWTH RATE				
		Adj R² (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)	Adj R² (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)
1	GROSS DIRECT PREMIUM	0.981* (0.11108)	0.951	46.8* (0.055)	-	1.9* (0.005)	0.959* (0.11765)	0.925	44.6* (0.058)	-	2.4* (0.005)
2	NET PREMIUM	0.981* (0.09248)	1.079	57.3* (0.045)	-	2.3* (0.004)	0.982* (0.10059)	1.095	55.1* (0.049)	-	2.9* (0.004)
3	NET PREMIUM EARNED	0.995* (0.07279)	1.247	64.0* (0.036)	-	2.7* (0.003)	0.990* (0.08035)	1.246	61.8* (0.039)	-	3.3* (0.003)
4	NET INCURRED CLAIMS	0.998* (0.05235)	1.923	66.6* (0.026)	-	2.7* (0.002)	0.995* (0.06151)	1.98	64.4* (0.030)	-	3.2* (0.003)
5	NET COMMISSION	0.845** (0.4863)	1.648	40.56** (0.046)	-	1.4** (0.005)	0.803** (0.5436)	1.713	36.4** (0.053)	-	1.9** (0.007)
6	EXPENSES OF MANAGEMENT	0.987* (0.09243)	1.454	51.2* (0.045)	-	2.3* (0.004)	0.972* (0.09885)	1.429	49.0* (0.049)	-	2.8* (0.004)
7	TOTAL OPERATING EXPENSES	0.992* (0.09233)	1.495	66.2* (0.045)	-	3.1* (0.004)	0.984* (0.09893)	1.510	64.0* (0.049)	-	3.6* (0.004)
8	INCOME FROM INTEREST, DIVIDEND & RENT	0.989* (0.11913)	1.362	47.7* (0.059)	-	1.0*** (0.005)	0.981* (0.12210)	1.364	45.5* (0.060)	-	1.5** (0.005)
9	PROFIT OR LOSS ON SALE OF INVESTMENTS	0.716* (0.37029)	1.539	63.6* (0.182)	-	4.2** (0.016)	0.573** (0.36361)	1.544	61.4** (0.179)	-	4.8** (0.016)
10	TOTAL INCOME FROM INVESTMENTS	0.982* (0.13861)	1.373	47.0* (0.068)	-	1.2*** (0.006)	0.970* (0.13873)	1.388	44.8* (0.068)	-	1.7** (0.006)

SL.	PARAMETER	Adj R² (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)	Adj R² (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)
11	TOTAL INCOME	0.993* (0.08535)	1.138	56.3* (0.042)	-	2.2* (0.004)	0.985* (0.09315)	1.152	54.1* (0.046)	-	2.8* (0.004)
12	TOTAL EXPENDITURE	0.997* (0.06429)	1.716	65.8* (0.032)	-	2.8* (0.003)	0.993* (0.07272)	1.795	63.6* (0.036)	-	3.3* (0.003)

Asterisk (*) mark/figures in superscript position denotes level of significance. Significance up to 1% level is denoted by *, above 1% up to 5% is denoted by **, above 5% up to 10% is denoted by ***. Figures within parentheses are standard errors. All the values of DW statistic indicate the absence of autocorrelation problem in the disturbance term.

TABLE V
Comparative statement showing estimated Nominal & Real growth rates of different parameters indicating collective financial performance of All companies operating in the general insurance sector in India during the period from 2003-2013

SL.	PARAMETER	NOMINAL GROWTH RATE					REAL GROWTH RATE				
		Adj R² (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)	Adj R² (S.E)	DW	Growth Rate in % (S.E)	Acceleration in % (S.E)	Deceleration in % (S.E)
1	GROSS DIRECT PREMIUM	0.992* (0.04029)	1.198	10.1* (0.020)	0.4** (0.002)	-	0.949* (0.04622)	1.207	6.6* (0.005)	-	-
2	NET PREMIUM	0.998* (0.02490)	1.858	12.1* (0.012)	0.5* (0.001)	-	0.984* (0.03385)	1.918	8.9* (0.004)	-	-
3	NET PREMIUM EARNED	0.999* (0.01762)	1.789	11.1* (0.009)	0.5* (0.001)	-	0.989* (0.02627)	1.952	8.4* (0.003)	-	-
4	NET INCURRED CLAIMS	0.994* (0.04176)	1.381	13.8* (0.021)	0.3[12.5] (0.002)	-	0.970* (0.04841)	1.465	9.1* (0.005)	-	-
5	NET COMMISSION	0.888* (0.32648)	1.971	30.6* (0.036)	-	-	0.782* (0.35244)	1.891	22.4* (0.039)	-	-
6	EXPENSES OF MANAGEMENT	0.981* (0.05657)	1.508	13.5* (0.006)	-	-	0.942* (0.03972)	1.424	5.3* (0.004)	-	-
7	TOTAL OPERATING EXPENSES	0.984* (0.05683)	1.501	14.9* (0.006)	-	-	0.939* (0.05110)	1.913	6.7* (0.006)	-	-
8	INCOME FROM INTEREST, DIVIDEND & RENT	0.946* (0.08969)	0.762	12.5* (0.010)	-	-	0.815* (0.05993)	1.184	4.2* (0.007)	-	-

9	PROFIT OR LOSS ON SALE OF INVESTMENTS	0.402^{**} (0.26679)	1.982	7.8^{**} (0.029)	-	-	$0.099^{28.8}$ (0.25610)	1.697	$20.6^{14.5}$ (0.126)	-	$1.9^{12.9}$ (0.011)
10	TOTAL INCOME FROM INVESTMENTS	0.911^{*} (0.09991)	1.941	10.6^{*} (0.011)	-	-	0.243^{***} (0.10899)	1.697	2.4^{**} (0.012)	-	-
11	TOTAL INCOME	0.996^{*} (0.02908)	1.533	11.7^{*} (0.014)	0.4^{**} (0.001)	-	0.972^{*} (0.03793)	1.442	7.4^{*} (0.004)	-	-
12	TOTAL EXPENDITURE	0.993^{*} (0.04265)	1.546	12.9^{*} (0.021)	$0.3^{11.3}$ (0.002)	-	0.966^{*} (0.04720)	1.478	8.4^{*} (0.005)	-	-

Asterisk (*) mark/figures in superscript position denotes level of significance. Significance up to 1% level is denoted by *, above 1% up to 5% is denoted by **, above 5% up to 10% is denoted by ***. Figures within parentheses are standard errors. All the values of DW statistic indicate the absence of autocorrelation problem in the disturbance term.

Table VI

Comparative statement showing various components of Income & Expenditure as a percent of Total Income and Total Expenditure of Public and Private sector general insurance companies during 2003-2013

Year	Percentage of various components comprising Total Income											
	Net Premium			Interest, Dividend & Rent			P/L on Sale of Investments			Other Income		
	Public	Private	Industry	Public	Private	Industry	Public	Private	Industry	Public	Private	Industry
2003-04	72.88	87.19	74.02	16.46	8.70	15.84	10.48	3.92	9.96	0.18	0.19	0.18
2004-05	71.79	90.52	73.90	16.47	7.30	15.44	11.49	2.07	10.43	0.25	0.11	0.23
2005-06	67.44	90.95	71.01	14.37	6.38	13.16	17.83	2.24	15.46	0.36	0.43	0.37
2006-07	69.11	91.80	73.94	14.98	6.72	13.22	15.73	1.44	12.69	0.18	0.04	0.15
2007-08	68.81	90.33	74.89	14.64	7.50	12.62	16.27	1.86	12.20	0.28	0.31	0.29
2008-09	76.45	88.40	80.23	14.78	8.97	12.94	8.29	2.37	6.42	0.48	0.26	0.41
2009-10	73.84	87.46	78.15	12.92	8.92	11.65	12.93	2.81	9.73	0.31	0.81	0.47
2010-11	73.95	88.52	78.62	12.07	9.29	11.17	13.92	1.51	9.94	0.06	0.68	0.27
2011-12	78.87	88.72	82.31	12.46	9.84	11.55	8.36	0.63	5.67	0.31	0.81	0.47
2012-13	78.19	87.15	81.55	12.87	11.91	12.51	8.66	0.64	5.66	0.28	0.30	0.28
Mean	73.13	89.10	76.86	14.20	8.55	13.01	12.40	1.95	9.82	0.27	0.39	0.31

Year	Percentage of various components comprising Total Expenditure											
	Net Incurred Claims			Net Commission			Expenses of Management			Other Expenses		
	Public	Private	Industry	Public	Private	Industry	Public	Private	Industry	Public	Private	Industry
2003-04	67.22	63.80	67.00	2.63	-24.83	0.85	29.71	59.61	31.65	0.44	1.42	0.50
2004-05	68.10	64.98	67.80	3.86	-14.93	2.07	27.32	49.63	29.44	0.72	0.32	0.69
2005-06	68.60	66.20	68.29	4.44	-12.11	2.26	26.07	45.35	28.61	0.89	0.56	0.84
2006-07	70.42	66.00	69.53	4.49	-10.99	1.36	24.10	44.84	28.29	0.99	0.15	0.82
2007-08	71.88	65.47	70.10	5.52	-3.85	2.92	21.66	38.26	26.27	0.94	0.12	0.71
2008-09	70.69	67.28	69.60	6.11	-1.00	3.85	22.53	33.47	26.02	0.67	0.25	0.53
2009-10	69.16	69.89	69.40	5.85	0.09	3.98	24.32	29.94	26.15	0.67	0.08	0.48
2010-11	70.09	71.63	70.60	5.23	-0.13	3.45	23.92	28.37	25.39	0.78	0.13	0.56
2011-12	71.26	72.62	71.75	6.21	0.50	4.16	21.02	26.23	22.89	1.51	0.65	1.20
2012-13	71.65	71.85	71.72	5.28	0.34	3.47	22.27	27.22	24.09	0.80	0.59	0.72
Mean	69.91	67.97	69.58	4.96	-6.69	2.84	24.29	38.29	26.88	0.84	0.43	0.71

Source: Compiled from IRDA publications and annual reports of general insurance companies operating in India.

Table VII

Statement showing different ratios indicating collective financial performance of general insurance companies operating in the Public and Private sector during 2003-2013

Year	Expense Ratio			Claims Ratio			Combined Ratio			Underwriting results Ratio			Investment Income Ratio		
	Public	Private	Industry	Public	Private	Industry	Public	Private	Industry	Public	Private	Industry	Public	Private	Industry
2003-04	38.45	27.78	37.45	79.91	50.97	77.2	118.36	78.75	114.65	-21.48	-5.98	-20.03	36.97	14.48	34.86
2004-05	37.37	27.32	35.98	81.63	51.16	77.42	118.99	78.48	113.40	-23.20	0.14	-19.98	38.95	10.35	35.00
2005-06	40.00	27.35	37.54	89.94	54.47	83.03	129.94	81.82	120.57	-32.65	-1.75	-26.63	47.74	9.48	40.29
2006-07	32.87	27.46	31.44	80.97	53.56	73.73	113.84	81.02	105.17	-18.83	-2.28	-14.46	44.44	8.88	35.04
2007-08	33.07	31.18	32.42	87.47	59.32	77.88	120.54	90.49	110.31	-23.81	-8.37	-18.55	44.92	10.37	33.15
2008-09	34.76	34.39	34.63	85.78	71.25	80.71	120.54	105.64	115.34	-26.59	-12.89	-21.81	30.18	12.82	24.13
2009-10	36.01	31.57	34.44	82.54	73.47	79.33	118.55	105.04	113.76	-25.04	-13.67	-21.01	35.00	13.42	27.36
2010-11	36.53	31.03	34.54	87.85	78.73	84.55	124.38	109.76	119.10	-33.84	-18.97	-28.46	35.14	12.20	26.85

2011-12	30.66	28.10	29.70	80.22	76.37	78.77	110.88	104.47	108.47	-21.01	-17.94	-19.86	26.40	11.81	20.92
2012-13	30.82	26.79	29.21	80.16	69.87	76.04	110.98	96.67	105.26	-16.45	-8.84	-13.40	27.53	14.40	22.28
Mean	35.05	29.30	33.74	83.65	63.92	78.87	118.70	93.21	112.60	-24.29	-9.06	-20.42	36.73	11.82	29.99

Year	Total Expense to Total Income Ratio			Operating Ratio			Net Earning Ratio			Retention Ratio			Return on Equity		
	Public	**Private**	**Industry**	**Public**	**Private**	**Industry**	**Public**	**Private**	**Industry**	**Public**	**Private**	**Industry**	**Public**	**Private**	**Industry**
2003-04	86.64	69.65	85.29	15.19	8.03	14.52	13.15	6.29	12.51	72.30	47.21	68.88	17.04	5.99	15.68
2004-05	86.05	71.27	84.38	15.55	10.11	14.80	10.54	6.84	10.03	74.37	50.80	69.89	13.05	10.09	12.69
2005-06	88.41	74.83	86.35	13.47	7.77	12.36	11.23	5.43	10.10	73.56	53.00	68.39	13.30	9.22	12.71
2006-07	79.46	74.49	78.41	24.74	6.77	19.99	22.34	4.88	17.72	75.31	54.05	68.22	23.75	9.47	21.41
2007-08	83.73	81.85	83.20	20.16	2.18	14.03	15.91	0.62	10.70	77.81	65.13	72.97	15.98	1.21	12.87
2008-09	92.75	93.62	93.03	3.64	-0.58	2.17	3.13	-1.19	1.63	83.21	69.08	77.67	3.48	-1.96	2.04
2009-10	88.13	91.94	89.34	8.49	-0.27	5.38	7.13	-0.89	4.29	83.03	71.16	78.40	8.57	-1.36	5.58
2010-11	92.69	97.28	94.16	-0.11	-6.81	-2.53	-0.72	-6.79	-2.92	84.45	72.44	79.68	-1.08	-10.75	-4.43
2011-12	88.78	93.30	90.36	4.77	-6.22	0.64	4.13	-6.70	0.06	85.98	74.89	81.44	6.96	-11.12	0.09
2012-13	87.47	84.75	86.46	10.50	4.78	8.21	8.32	3.26	6.30	84.34	74.57	80.14	14.01	5.52	10.63
Mean	87.41	83.30	87.10	11.64	2.58	8.96	9.52	1.18	7.04	79.44	63.23	74.57	11.51	1.63	8.93

Source: Compiled from IRDA publications and annual reports of various companies operating in general insurance sector.

Table VIII
Multiple Correlations and Multiple Regression Analysis of Public Sector General Insurance companies during 2003-2013

Details	a/b	Std. Error	t value	Significance	
Constant (a)	118.780	25.235	4.707	0.003	R=0.932
Claim Ratio (CR)	-1.460	0.334	-4.369	0.005	R^2=0.870
Expense Ratio (ER)	-0.660	0.403	-1.639	0.152	Adj. R^2=0.804
Investment Income Ratio (IR)	1.035	0.179	5.786	0.001	Std. Error of R=3.17851

Table IX
Multiple Correlations and Multiple Regression Analysis of Private Sector General Insurance companies during 2003-2013

Details	a/b	Std. Error	t value	Significance	
Constant (a)	46.020	18.500	2.488	0.047	R=0.883
Claim Ratio (CR)	-0.616	0.173	-3.562	0.012	R^2=0.780
Expense Ratio (ER)	-0.312	0.687	-0.453	0.666	Adj. R^2=0.670
Investment Income Ratio (IR)	0.348	0.845	0.412	0.695	Std. Error of R=4.54482

Table X
Multiple Correlations and Multiple Regression Analysis of General Insurance Sector during 2003-2013

Details	a/b	Std. Error	t value	Significance	
Constant (a)	114.459	18.824	6.081	0.001	R=0.974
Claim Ratio (CR)	-1.593	0.296	-5.387	0.002	R^2=0.950
Expense Ratio (ER)	-0.171	0.427	-0.400	0.703	Adj. R^2=0.924
Investment Income Ratio (IR)	0.861	0.173	4.986	0.002	Std. Error of R=2.17535

E Retailing in India: An Overview
Professor Divya Vyas[1] Dr. Swati Sharma[2]

Abstract
Increase in internet users in India, online banking facilities, demographics and psychographics of Indian consumer accelerate growth of e retailing, Era of tablets, smart-phones, laptops and accessibility and increase in terms of tele-density and internet connectivity bring ease and access of online shopping options in India. Changing socio economic profile of consumers, increased work duration and accessibility of internet all the time with lucrative discounts, wide varieties, differential product mix, innovation and touch and feel factors created by these all online sellers, online shopping is emerged and growing in India but still some fear and hesitation in mind of customers which stop them to relay on shopping just a click away. Attempt has been made by authors to find out emergence and growth of e-retailing in India.

Key-words: Retailing, Organized Retailing, E-Retailing, Shop 24x7, Smart Store, Multi-format Strategy.

1. Emergence of E Retailing in India

Organized Retailing is emerging and growing field, marketers finding new ways to cater need of customers and introducing distribution channel as per their needs, E-Retailing is an extensive arm of marketer to provide convenience to customers as well solving problem of infrastructure and inventory in their distribution channels. Time, lifestyle changes, technology, online payment options like visa card, master card, credit card etc. are factors which influence online buying option. India has an internet user base of about 137 million as of June 2012 (Hindustan Times, 31 December 2012). The Telecom Regulatory Authority of India (TRAI) pegged the number of Internet subscribers in India at 164.81 million as of March 31, 2013, with seven out of eight accessing the Internet from their mobile phones. (The Hindu, 24th August 2013)

ICRIER (Indian Council for Research and International Economic Relations) estimates retail accounts for over 10 per cent of India's GDP. Fuelled by increasing customer base, rising disposable income, changing lifestyles and growing absorptive power of the domestic market, organized retail sector is likely to grow at a much faster pace of 45-50 per cent per annum.

Increasing tele-density, smart-phones, and internet connectivity is providing convenience for online shopping and E-Retail is also growing.

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As per IMAP retail industry report 2010 Online retail formats provided some respite for retailers as global online retail sales grew by 14.5 percent in 2009 to reach $348.6 billion USD (Data Monitor, July 2010). The online retail market consists of the total revenues generated through the sale of retail goods via online channels, valued at retail selling price. Electronics was the largest segment in global online retail sales, contributing around 22.6 percent. While the online retail sales sector continues to grow, its magnitude remains small with 2.5 percent of total global retail sales. On an average basis, globally, online sales account for 6.6 percent of total sales for the top 100 retailers in 2009.

According to Forrester Research, September 2010 between 2005 and 2009, the global Internet population increased from 1 billion to more than 1.6 billion and by 2014 it is projected to grow by another 42 percent, reaching a level of 2.3 billion.

Along with the smart-store concept, on the retail format front, most retailers have started adopting multi-format strategies, i.e., along with traditional retail stores, establishing online stores, catalogs, mobile stores and convenience stores to gain a competitive edge and expand their customer base (IMAP-2010).

According to IBEF report, against the backdrop of an accelerating modern retail revolution, India offers to be an attractive destination for global corporations and leading retailers seeking emerging markets overseas. India presents a significant market, with its young population just beginning to embrace significant lifestyle changes. Against the backdrop of an ageing world, India possesses the advantage of having a largely young population. 35 per cent of India's population is under 14 years of age and more than 60 per cent of the population is estimated to constitute the working age group (15-60) till 2050. Two-thirds of Indian population is under 35, with the median age of 23 years, as opposed to the world median age of 33. India is home to 20 per cent of the global population under 25 years of age. This trend is projected to continue for the next decade, with the share set to reach its maximum in 2010. The large proportion of the

Working - age population translates to a lucrative consumer base vis-à-vis other economies of the world, placing India on the radar as one of the most promising retail destinations of the world. The 'Click-to-buy' phenomenon is fast catching up in India, with increase in number of broadband and dial-up internet connections, limited personal time for shopping, increased use of plastic money and large base of young population that spends a considerable time online. The stated factors are facilitating rapid growth of online shopping with the industry players scaling up to meet the consumer requirements. Most retailers are developing and maintaining their own online sale portals for easy consumer access, facilitating online purchase of merchandise. Tata Indicom's i-choose.in and G&B's godrej lifespace.com are good examples of this trend. Players like Rediff.com, eBay.in, Indiatimes.com were some of the early entrants in the Indian online retail space, clocking impressive revenues through online transactions. Some of the more recent

Players to enter this niche market include Pantaloons Retail India Ltd., through its Futurebazaar.com venture. Many smaller retail portals are also thriving on the internet, meeting the niche Indian consumer requirements such as ethnic apparel, handicrafts and Jewelry. Demand for these portals, which has been primarily driven by the non-resident Indians, is gaining popularity on the Indian soil as well, with the young urban Indian consumer's increasing exposure to the virtual world of internet. With value-added services like cash-on-delivery to facilitate online transactions by consumers without credit/debit card, unique bidding schemes etc, e-commerce is fast gaining acceptance in India.

Mohanty & Panda (2008) opines about retailing as a sector of India occupies important place in the socio-economic growth strategy of the country. India is witnessing retailing boom being propelled by increasing urbanization, rising purchasing power parity (PPP) of ever growing India's middle class, changing demographic profiles heavily tilted young population, technological revolution, intense globalization drive etc.

The IAMAI report (2011) also highlights that other areas like digital downloads and e-tailing are showing promise and growing rapidly. These sectors are predicted to grow by 62% and touch INR 1100 crores and INR 2700 crores respectively by December 2011

2. Factors Influencing Customer's Purchase Intention in E-Retailing

Identification of factors influencing customers' purchase intention in e-retailing is of utmost importance. The retailers are to realize how customers start thinking about purchase and what factors they consider before actually buying any product or service. According to IMRB International (Indian Market Research Bureau) report top six reasons given by shoppers in buying through Internet are, rank-wise, as follows:

1) Saves time and efforts ranked firs
2) Convenience of shopping at home ranked
3) Wide variety / range of products are available
4) Good discounts / lower prices fourth**,**
5) Get detailed information of the product
6) You can compare various models / brands

3. Concerns in Online Buying

At the time of buying online the customers are concerned about certain aspects of the transactions or settings. These concerns can be summed up as follows:

1) Not sure of product quality
2) Cannot bargain / negotiate
3) Not sure of security of transactions / Credit Card misuse
4) Need to touch and feel the product
5) Significant discounts are not there
6) Have to wait for delivery

Why will the consumers prefer one Web-based retailer over a competing retailer? Answers to this question depend upon the type of products sought (Tractinsky and Lowengart 2003). Thus, consumers weigh various store attributes differently when shopping for low- or high-risk products (Jarvenpaa et al. 2000; Lowengart and Tractinsky 2001). Consumers also weigh design attributes of Web-stores differently, depending on the type of product or service offered by those sites Zhang et al. (2001).

Personal innovativeness was measured using four items aimed at measuring a person's tendency to experiment with new technologies. These items have been widely used and have been validated through several studies (Agarwal, 2000; Agarwal and Prasad, 1998). These measures have focused on dimensions such as experimentation, willingness to try new technologies, and early mover tendencies.

Computer self-efficacy was measured using five items targeted to measure a person's belief that they are able to use a computer to achieve their goals. These measures have been widely

used in Information Systems research and have been shown to accurately represent a person's underlying belief about their ability to perform tasks with a computer (Martocchio and Webster, 1992; Webster and Martocchio, 1992; Webster and Martocchio, 1995). These measures deal with dimensions such as proficiency, confidence, and use of computer skills. Perceived internet risk was measured using six items validated by McKnight, Choudhury, and Kacmar (2002). These items have shown to accurately predict an individual's perceptions of risk, hesitation, and lack of safety when dealing in an online environment.

4. Growth Drivers in E-Retailing
The following growth drivers can be identified in e-retailing:

• *Increase in the number of buyers and sellers:* Over the years there has been a sharp increase in the number of buyers and sellers in this segment. In addition to online buyers, many offline stores have begun to sell their products in the online marketplace.
• *Change in the customer's attitude:* There has been a significant change in the attitude of an average Internet user. He is ready to experiment to suit his convenience. Truly, an average user is buying a variety of products online.
• *Shop 24x7:* People nowadays find it easier shopping online, as the products get home-delivered coupled with the facility to shop 24x7. Convenience appears to be big attractions as most online shoppers find the crowded high streets too stressful. Thus, an online buyer saves time, effort and money when buying online as compared to buying from physical stores.
• *Better Bargains:* e-Tailing eliminates the need to maintain expensive and fancy showrooms. Instead, what attracts customer attention to online stores is the 'great deals' 'best prices' and 'better bargains'. For an industry player, online retailers can manage to offer attractive offers as they operate out of websites and thus save on inventory handling and maintenance costs.

Mohanty & Panda (2008) opines about retailing as a sector of India occupies important place in the socio-economic growth strategy of the country. India is witnessing retailing boom being propelled by increasing urbanization, rising purchasing power parity (PPP) of ever growing India's middle class, changing demographic profiles heavily tilted towards young population, technological revolution, intense globalization drive etc.

Sahu (2010) describes that a rise in consumer confidence, improvement in profitability and aggressive expansion plans signal better tidings for listed players in the organized retail space. Moreover, analysts believe listed retailers could attract foreign investments by spinning off their subsidiaries into separate companies which can provide a great opportunity for the improvement of this sector.

Gellner (2007) explains in this context that in most retail meetings and/or publications, hardly ever is there any talk on problems that modern retail formats are encountering doing business in India. There is a significant profitability challenge, to deliver the brand promise in terms of quality and geographic spread in line with the growth in consumer demand

Nagesh (2007) describes that Indian retailing will see a sea of change in the next five years, driving consumption boom never seen in the history of any country. From a drought situation we will see flood of modern retail, So Indian retail will be on a steady ground of sustained growth year after year

5. Conclusion

Online retailing is emerging and growing in India, not only in urban but also in rural area. It is increasing with increase in internet connectivity and India is in fourth position in terms of internet users. Consequently, India is witnessing giant leap towards online shopping and change in customer attitude towards online shopping as a result of perceived convenience and 24x7 availability in this system. Ease in payment option is another factor responsible good growth in this sector.

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