

Analysis of Financial Stability of Indian Non Life Insurance Companies

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Abstract

World over after liberalization insurance sector has undergone significant transformation. This is also true with Indian insurance market, where insurance penetration and density is very low compared to other countries. Therefore, many foreign insurance companies were lured to make entry in Indian insurance in order to insulate positive spread from large untapped insurance market, mainly by entering into joint venture with local partners. Thus Indian insurance market after liberalization was assaulted by the pressure of globalization, competition from multinational insurance companies and lavish underwriting chase which are seen as threats as well as opportunities for insurance companies. However, entry of new players has resulted into heavy underwriting losses for Indian public and private insurers. But heavy underwriting losses had reverse impact on their solvency margins. In present paper, the Insurance Solvency International Ltd. (ISI) predictors have been employed in this paper to study the solvency position of Indian non life insurers. Further, study highlights the extent of relationship between various factors and solvency of non life insurers in India by using multiple regression analysis. The result of the study has shown that claim ratio and firm size have greater impact on solvency position of insurance companies.

Keywords: ISI standards, Solvency, Combined ratio, Expense ratio, Claim ratio, Underwriting losses, Operating margin, Investment income

JEL Classification: G20, G22, G32, M40

Introduction

The insurance sector in India is passing through a period of structural changes under the combined impact of financial sector reforms in general and insurance sector in particular. The market for insurance services previously was monopolized while the market place was regulated and insurance companies were expected receive assured spread over their cost of funds and systematic demand for their products. This phase in Indian insurance business was the result of sheltered markets and administered prices for various insurance products. It is said that a resilient and well regulated insurance industry can significantly contribute to economic growth and efficient resource allocation through risk transfer and savings mobilization. In addition, it can enhance wealth management avenues in the country. All these contributions of the sector can only be achieved when the sector is organized and competitive. The competitive insurance markets are in the national interest because they generally offer business houses and individuals' greater choice and better value than alternative approaches (Skipper Jr. & Klein, 2000). In recent times restrictive markets have been made competitive through a combination of liberalization and deregulation. Consequently Indian insurance industry was liberalized in January, 2000, with the passage of the IRDA Act. The liberalization was brought about with the objectives to increase coverage of population, better choice of products with informed decisions, promote competition, encourage the entrance and joint partnership of foreign players with the Indian insurers, so as to boost innovation, advance economy of operations, enhance customer centricity and service excellence, improve the efficiency of the public sector companies and above all to create economic activity for the purpose of benchmark growth rate.

The historical perspective of the general insurance companies reveal that the rapid expansion of insurance companies since nationalization had given rise to a number of problems related to the image, operational efficiency, productivity, and the quality of portfolio of the system as a whole and there have been persistent complaints about deterioration in customer service (Rohit & Manjit, 2009). Close on the heels of the success of the privatization initiatives in the banking sector, insurance sector reforms were initiated following the report of Malhotra Committee (1993). The reforms were aimed at creating more efficient and competitive financial system suitable for the requirement of the economy. The year 1999 saw a revolution in the Indian insurance sector, as major structural changes took place with the ending of the government monopoly and the passage of the Insurance Regulatory and Development Authority (IRDA) Bill, lifting entry restrictions for private players, and allowing foreign players to enter the market with some limits (26 percent) on direct foreign ownership. The insurance industry has been maintaining its constant growth rate of 15% to 16% over the last few years. As a result, the insurance penetration rose to 4.6 % in the year 2009-10 for life segment and remained stagnant at nearly 0.6% in the case of non-life insurance (Insurance Regulatory and Development Authority (IRDA) , 2009-10). One of the reasons for low penetration in general insurance has been lack of concerted efforts to effectively tap the retail segment (Parekh, 2007).

The reforms of Indian Insurance Sector brought substantial changes in the level of competition, business environment, managing strategies, service quality and advance

technology front. The wind of liberalization, globalization and privatization has opened new vistas in the insurance industry in the generation of intensely competitive environment. The post-liberalized insurance industry in India has been witnessing a discernible shift from the sellers' to the buyers' market (Rohit & Manjit, 2009). Further, industry will become more professional (Shenhbargraman, 2001) and lowering the entry barriers and growing sophistication of customers will make insurance market oligopolistic. The reformed insurance industry has offered a plethora of new customer friendly products, new delivery channels like bancassurance, corporate agents, brokers and direct selling through the internet, greater use of computerization and information technology. The reforms at this stage need to be reviewed in order to assess their compatibility vis-a-vis the growth and performance of insurance industry in India. The deregulation of General Insurance Industry in India is having far reaching consequences in terms of market size, structure and operational practices. The effects of privatization and deregulation on the firm's performance have received bulk of attention at national and international level and research has revealed that liberalization has positive long-term effect on economic growth and firm's performance (Dollar, 1992; Chennappa, 2006; Sinha, 2006; Oetzel & Banerjee, 2008). However, available literature on insurance sector has neither stated that whether the Indian industry stand in compliance with solvency norms applicable at international levels nor the significant factors have been highlighted which affect financial stability of insurance business and subsequently to solvency position of insurers. The present study therefore attempts to fill this research gap so as to highlight whether Indian insurance industry has been able to satisfy it or not. Further, this study analyses the factors responsible for jeopardizing solvency status of Indian non life insurers.

Objectives of the Study

The study has the following broad objectives;

1. To study the solvency position of Indian non life insurance companies with respect to prescribed solvency norms set by Insurance Solvency International Limited (ISI).
2. To make regression analysis of the factors having impact on the solvency position of Indian non life insurance companies.

Review of Literature

Rao (2007) opined that a land mark year in the history of Indian insurance industry was 1999-2000. The year 2007 is going to another watershed for the industry because de-tariffication from first January 2007 has totally changed the complexion of the non-life insurance industry. Since financial inclusion is being emphasized in various levels, the insurance industry will have to play a vital role by providing health insurance and other insurance products for the poor. (Jain, 2004) revealed that waves of liberalization have done wonders to develop the insurance to the status of a career with a bright future. The average mindset, particularly of younger generation in India is very amenable to these changes in insurance as an avenue where exhilarating opportunities are opened up in changed environment. After ten years in competitive market, the Indian insurance industry has

exhibited a healthy growth trend of new business and market share. The total premium underwritten rose to Rs 35,816 crores, registering a growth of 13.44 per cent in 2009-10. In addition to this, even today “insurance is treated as vital economic activity and there is an excellent scope for its growth in the emerging markets”. The opening up of the insurance sector has raised high hopes both in India and abroad. The recent de-tarrification in the non-life domain has provided a great deal of operational freedom to the players” (Rao, 1998; Roa, 2007a).

Studies have also looked at the insolvency prediction abilities of "Insurance Regulatory Information System (IRIS) ratios IRIS (Brockett et al., 1994), the National Association of Insurance Commissioners (NAIC) ratios (Cummins et al., 1995). Although the issue of insolvency was dealt with rigor in most of the studies, but none of them have attempted to see what actually contributes to difference in financial strength. The factors that are significant for assessing non life insurers' solvency include firm size, investment performance, liquidity, operating margin, combined ratio, claims ratio, underwriting result and premium growth.

The financial health of any organization is influenced by, among other factors, the size or total assets of the firm. As regulators are less likely to liquidate large insurers, it is expected that small insurers are more vulnerable to insolvency (BarNiv & Hershberger, 1990; (Cummins, Harrington, & Klein, 1995). Variables used to measure firm size include total premium, total admitted assets, and capital and surplus. Investment performance discloses the effectiveness and efficiency of investment decisions. As such, investment performance becomes critical to the financial solidity of an insurer. (Kim, Anderson, Amburgey, & Hickman, 1995) find that investment performance is negatively correlated to insolvency rate. There are two key components of an insurer's total operating income: investment income and underwriting income. We have discussed the effect of investment performance. As for underwriting income, combined ratio (Rejda, 2002) is used measure its performance. According to (Browne & Hoyt, 1995) the combined ratio is positively correlated to insolvency rate. Liquidity is the capability of an insurer to pay liabilities, which include operating expenses and payment for losses/benefits under insurance policies, when due. For an insurer, cash flow (mainly premiums and investment income) and liquidation of assets are the two sources of liquidity (Hampton, 1993). (Lee & Urrutia, 1996) found that the current liquidity ratio is a significant indicator of solvency. The stability of the liquidity ratio is a necessary measure of corporate solvency (Dambolena & Khoury, 1980). Intuitively, being profitable means that insurers are earning more revenues than being disbursed as expenses. (Kramer, 1996) found a positive relationship between operating margin and financial solidity, that is, operating margin is negatively correlated to the rate of insolvency. However, given the Indian scenario, the research evidences cover financial performance of insurers and as such it becomes imperative to highlight the solvency and factors affecting solvency of the insurers. The present study is just a step towards the area, which surely highlights the functional areas of insurer's performance and its impact on the solvency of insurance enterprises.

Research Methodology

The research design which has been formed for this research article are standards prescribed

by Insurance Solvency International Limited (ISI), used by (Joo, 2005) while evaluating performance of insurance sector in India, which related various key ratios of insurance sector with the standards prescribed by ISI. As per these standards, the ratio of net premium to shareholders funds, when less than 300 percent, the ratio may be termed as ideal one applicable to non life insurers. The change in net premium highlights the fluctuating pattern of business underwritten by the insurers and as per the standard, ideal growth is one which falls in the range of ± 25 percent. The third ratio which highlights the greater thrust on underwriting profitability in terms of investment income should never be less than -25 percent. The negative sign of the ratio indicates that cushion of investment income should not set off underwriting losses by more than 25 percent. The ratio, while highlighting importance of investment income in insurance business, necessitates the importance of underwriting profitability of the concerns. The fourth ratio of the standard, i.e., Technical Reserves/shareholders funds, highlights the importance of technical reserves for the insurers. Since the reserves serve as cushion in the adverse selection of business, the standard highlights the minimal requirement of less than 350 as per International solvency standard. Since capital forms part of shareholders' funds, the ratio highlights more important role of technical reserves in insurance concerns. The fifth ratio of the standard while taking into account technical reserves and shareholders' funds indicates the desirable business volume which should be supported by adequate reserves and capital. The benchmark standard for the ratio states that it should be never less than 150. Lastly, the ratio of pre-tax profits to net premium highlights the importance of operational and non operational profitability of the companies. The standard prescribes that the ratio should be greater than 5 percent to meet ISI standard of solvency. The period of study ranges from 2004-05 to 2008-09 i.e. for 5 years and companies selected for the purpose of study include both public and private sector insurers. The required data was collected from the annual reports of the concerned companies.

Insurance Company's Specific Factors

	Hypothesis	Expected Effect
H1	Firm Size	+
H2	Investment Performance	+
H3	Liquidity Ratio	+
H4	Operating Margin	+
H5	Combined Ratio	-
H6	Claims Ratio	-
H7	Underwriting Profitability	+

Further, in present study above given seven hypotheses will be tested with the help of multiple regression analysis in order to see impact of various factors on the solvency margin of insurance companies. However Available Solvency Margin (ASM) has been used as dependent variable for the 12 non-life insurers in the industry for the period 2004-05 to 2008-09 to prove the hypothesis given above instead of using the IRDA's minimum required

solvency margin. Multiple regression model has been employed to include various independent variables and their impact on solvency margin has been tested by using following equation:

$$\text{Solvency}(Y) = \alpha_0 + \alpha_1(\text{Market Share}) + \alpha_2(\text{Operating Margin}) + \alpha_3(\text{Firms Size}) + \alpha_4(\text{Investment Yield}) + \alpha_5(\text{Liquidity}) + \alpha_6(\text{Combined ratio}) + \alpha_7(\text{Claim Ratio}) + \alpha_8(\text{Underwriting Performance}) + \epsilon$$

Results and Discussion

The “Index of performance” was developed by Insurance Solvency International Limited as a composite measure of overall performance of insurance companies. In this index, six ratios are employed viz net premiums to shareholders funds, change in net premium, underwriting profits to investment income, technical reserves to shareholders funds, technical reserves plus shareholders funds to net premiums and pre-tax profits to net premiums. The analysis in this context is presented separately for public and private insurers as under:-

a) ISI Standard and Public Sector Insurance Companies.

The benchmark ISI standard, for these ratios, along with prescribed ratio for public sector insurers for a period of five years from 2004-05 to 2008-09 are presented in table 1. As is evident from the analysis of net premium to shareholders funds ratio, the ratio is within the benchmark ISI standard of less than 300 for all public sector insurers for the period of study and as such they are able to meet this standard during the period of study. The ratio of change in net premium for all public sector insurance companies is within the benchmark of ± 25 for all years of study period. Similarly, all public sector insurers are able to meet the ISI standard of less than 350 over the study period in the respect technical reserves to shareholders funds. However, it surprising to note that benchmark of less than -25 for underwriting profits to investment ratio in case of public sector insurers is more than the set standard for all years of study period and as such public sector insurers were not able to meet ISI standard in this respect.

Further, it is evident from the analysis of technical reserves plus shareholders funds to net premiums that only New India and United insurers are able to meet ISI standard of less than 150 for all years of study period. While Oriental and National insurers have failed to meet the ISI standard for all years of study period in respect of technical reserves plus shareholders funds to net premiums. It is also clear from the analysis of pre-tax profits to net premiums that all public sector companies are able to meet benchmark standard of greater than 5 in this respect except for Oriental during 2008-09 (-2.88) and National for years 2004-05 (4.99) 2005-06 (-2.22) and 2008-09 (-3.90).

b) ISI Standard and private sector Insurance Companies

The analysis of ISI standard benchmark analysis ratio for private sector insurance companies is presented in table 2. The analysis of net premiums to shareholders funds reveals that all private sector insurers and the period of study are able to meet ISI standard of less than 300. The ratio of change in net premium for all private sector insurers presents fluctuating picture as almost in all years of study period, the companies are not able to meet the benchmark standard of ± 25 except for few years when they are able to meet to this standard. Similar picture was witnessed for all companies in the private sector over the period of study in respect of underwriting profits to investment ratio, where companies are far away from set standard of less than -25. However, it is evident from the analysis of technical reserves to shareholders funds that private sector insurers have been able to meet the benchmark standard of less than 350 for all years of the reference period.

The ratio of technical reserves plus shareholders funds to net premium computed in respect of private sector insurers for the study period shows that all private companies are able to meet the ISI standard of less than 150 in this respect except in case of Reliance for 2004-05 (282.14), 2005-06 (366.49), 2006-07 (170.20) and Cholamandalam for 2004-05 (158.67). The last ratio in the category of ISI standard index is pre-tax profits/net premiums. This ratio depicts mixed picture as all companies in private sector have been able to meet the standard of less than 5 for few years of study period and have failed to meet the standard for remaining years. Moreover, the ratio for the HDFC Ergo could not be computed, due to non availability of technical reserves.

The analysis reveals that public sector insurers are generally better placed in terms of the ISI standard, however, what is seemed to be worrisome is that the standard of underwriting profitability to investment income, which has never been met by the public sector insurers. Moreover the absolute value of the standard reflects that underwriting losses damages overall profitability position of the public insurers and the trend seems to be on surge. The analysis of private sector insurers on the other hand reveals heavy fluctuation in net premium and they are not able to meet the benchmark standard. Analysis also reveals that underwriting profitability too has been under strain as such the sector does not meet the prescribed standard by ISI and consequently pre-tax profits/net premium is also affected, which lead to the sectoral inability of meeting the ISI standard.

Regression Analysis of Solvency of Non-Life Insurers

The IRDA has issued a strict guideline towards maintenance of a 'statutory' solvency reserve. Solvency margins for each class or line of business are clearly specified IRDA (Assets, Liabilities, and Solvency Margin of Insurers) Regulations, 2000. These regulatory guidelines are helpful in finding out the 'solvency ratio' [the ratio of the total amount of available solvency margin (ASM) to the total amount of required solvency margin (RSM)] at the firm level. The determination of "Required Solvency Margin" (RSM) differs from life segment to non-life segment of insurance business. Again, depending on the line of business the practice of required solvency margin varies among different non life insurers. In addition to this, required solvency margin of non life insurers is based on either net premiums (RSM-NP) or

on net incurred claims (RSM-IC) and ultimately the required solvency margin shall be the higher of the amounts of RSM-NP and RSMIC. The last and final step towards calculation of the solvency ratio is to estimate the total “available solvency margin” (ASM).

The calculation of both ASM and RSM also depends on the IRDA (Actuarial Report and Abstract) Regulations, 2000 and it requires specific information relating to the insurance business. These specific business information are neither available from Annual Report, nor does IRDA make public its Actuarial Report and Abstract. However, in present study ASM has been calculated with the help of financial information available. In this context, an analysis of solvency ratio has been attempt by using regression analysis by taking the solvency ratio as dependent variable and various factors as identified in various research studies as independent variables. The independent variables and their description used for multiple regression analysis in presented here under:

Independent Variables	Description
Firm Size	Total Assets to earned Premiums
Investment Performance	Investment Income to Earned Premiums
Liquidity Ratio	Liquid Assets to Current Liabilities
Operating Margin	Total Income to Total Outgo
Combined Ratio	Sum of Loss Ratio and Expense Ratio (Financial Basis)
Claims Ratio	Net Claims Incurred to Premiums Earned
Underwriting Profitability	Profits from Operations, Excluding investment and Other Income

Based on the results depicted in table 3 above it is inferred that against expectation, the non-life insurers’ solvency is affected by the Firm size. Several factors may be responsible but the most obvious one seems to be the nature of business done by the non-life insurers. The policyholders’ liabilities are borne by the insurer for a year and hence the fund created will be for a particular financial year. Unlike life insurers, the non-life insurers have no net accretion to the total investible funds each year. A typical non-life insurance policy (say health, motor vehicle, etc.) expires exactly after a year from the date of purchase/commencement.

One of the predictors claims ratio suggest that it has the expected sign and strongly suggests that higher claim ratio has been contributing negatively to overall insurer solvency status. Size of firms, which is again significant, is also going to contribute to higher income and hence contribute towards solvency. But, the two predictors operating margin and underwriting result proxies by the combined ratio were significant but yielded unexpected relationship with solvency. These results may be due to the fact that most of the firms are still trying to establish themselves in the industry and initially spending more compared to total assets, income and underwriting profits.

Table 3. Results of Multiple Regression Analysis for Solvency Margin of Non Life Insurance Industry

Model	Un-standardized Coefficients	Std Error	t	P>t
	Beta			
Y-Intercept	3.6321	0.6918	5.25025	<0.0001
Market Share	0.02643	0.02045	1.29249	0.20201
Operating Margin	-0.0377	0.01288	-2.92582	0.00512
Firm Size	0.00711*	0.00115	6.18232	<0.0001
Investment Income	-0.01189	0.01641	-0.72417	0.47227
Liquidity	0.00547	0.00519	1.05453	0.29661
Combined ratio	0.00563	0.00241	2.3403	0.02322
Claims Ratio	-0.06466*	0.01461	-4.42486	<0.0001
Underwriting Performance	7.84811E-8	4.21582E-6	0.01862	0.98522
R Square		0.61658		
Adjusted R Square		0.55643		
Observations 60				

* at 1 percent level of significance

Conclusion

The analysis of solvency margins highlights the upper hand of public insurers over the private insurers as ISI standard, the status if monitored closely reflects that the reserves built in pre-liberalization era has helped the sector to reflect comparatively good financial strength. However, since the study is not aimed at comparative analysis of the two sectors, the analysis reveals that IRDA in general and individual companies in particular need to redesign their underwriting policy, which should be aimed at competitive and profitable business. The practice of subsidizing of investment income to meet underwriting losses, which is in practice in full force should be redesigned to exclude investment side from corporate functioning. The benchmark be made, reflecting only operational performance, which in the long run should aim at profitable underwriting of the insurance companies. The use of financial ratios and multiple regression to see the impact of increasing financial performance on insurers' solvency does not support the fact that there is negative impact on the non-life segments of the insurance industry. Based on their financial performances, it seems each player in the market is contended or they are together improving their ratios and hence there is no significant shift observed to strengthen the hypothesis. However, as ratios are important for future sustainability, firm size was observed most significant variable, having impact on solvency margin. Indian insurance industry is growing and the first job assigned to IRDA is to regulate and protect policyholder's interest and then help the development and growth of

the industry. Till 1999, most of the reserves of the public insurers were in the form of Central Govt. and State Govt. bonds and securities. Most of their assets were secured and guaranteed by the Govt. After liberalization also more than 50 percent of such investments in securities and bonds were with the Govt. If short run solvency is heavily dependent on the size of the insurers and the growing loss ratio, it is time for the insurers to re-think and devise the underwriting policy to embrace the risks associated and price the products accordingly with stressing profitable pricing. Any relaxation on this ground might prove to be costly and in the future sustainability may get affected to a great extent. The significance of these variables may help the regulator to decide whether or not to give insurers enough freedom to invest in the stock markets and other investment channels with attractive rates of return.

From the statistical analysis of the 12 non life insurance companies it can be concluded that they have performed successfully in the grabbing the market in deregulated environment. The required solvency norms have been adhered to, however, growing underwriting losses and unsound product pricing may not be a sustainable strategy in a long run to acquire market share. The higher claims ratio, which is seen to have negative impact on the solvency, could threaten the solvent state of the insurers. Need of the hour therefore is to have proper product pricing and sound risk management practices, reregulation of prices and sound reinsurance policy. The onus is therefore on the Regulator IRDA to interfere well in time to hold back the companies from wastage of public resources.

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Table 1. Analysis of ISI Standard Benchmark of Public Sector Insurers

Companies	Years	Net Premiums/Shareholders Funds	Change in Net Premium	Underwriting Profits /Investment Income	Technical Reserves/Shareholders Funds	Technical Reserves + Shareholders Funds/Net Premium	Pre-tax Profits / Net Premium
ISI Standard		< 300	± 25	> -25	< 350	> 150	> 5
New India	2004-05	90.24*	7.16*	-118.90**	96.52*	217.78*	20.48*
	2005-06	90.32*	11.49*	-148.67**	95.84*	216.83*	19.70*
	2006-07	75.33*	4.43*	-75.57**	96.68*	261.08*	35.59*
	2007-08	69.00*	6.09*	-85.19**	97.13*	285.69*	31.62*
	2008-09	71.69*	9.10*	-192.97**	97.27*	275.17*	5.66*
Oriental	2004-05	156.35*	9.10*	-236.54**	92.95*	123.41**	21.27*
	2005-06	151.96*	12.73*	-225.71**	93.92*	127.62**	13.37*
	2006-07	132.83*	7.61*	-160.18**	95.06*	146.86**	23.40*
	2007-08	141.94*	6.89*	-198.94**	95.06*	137.42**	15.38*
	2008-09	155.39*	6.63*	-392.85**	94.93*	125.45**	-2.88**
National	2004-05	232.86*	12.90*	-352.92**	91.78*	82.36**	4.99**
	2005-06	241.71*	-5.27*	-484.48**	90.99*	79.02**	-2.22**
	2006-07	193.07*	3.15*	-272.58**	93.02*	99.98**	16.47*
	2007-08	193.66*	9.07*	-339.37**	93.58*	99.96**	5.70*
	2008-09	242.81*	13.38*	-475.77**	92.91*	79.45**	-3.90**
United	2004-05	107.05*	0.99*	-246.00**	95.07*	182.23*	14.65*
	2005-06	94.42*	2.45*	-212.61**	95.76*	207.33*	20.34*
	2006-07	87.51*	6.62*	-170.78**	96.31*	224.32*	21.93*
	2007-08	84.69*	13.86*	-154.85**	96.87*	232.46*	24.36*
	2008-09	89.77*	18.39*	-134.98**	97.19*	219.66*	15.72*

Source: Compiled and computed from the annual reports various public sector insurance companies from 2004-05 to 2008-09.

* Meets ISI standard

** Does not meet ISI standard

Table 2. Analysis of ISI Standard Benchmark of Private Sector Insurers

Companies	years	Net Premiums/Shareholders Funds	Change in Net Premium	Underwriting Profits /Investment	Technical Reserves/S	Reserves + Shareholders Funds/Net	Pre-tax Profits / Net
ISI Standard		< 300	± 25	> -25	< 350	> 150	> 5
ROYAL SUNDARAM	2004-05	155.09*	28.99**	-154.17**	-	64.48**	2.65**
	2005-06	212.06*	47.25**	-154.30**	-	47.16**	3.42**
	2006-07	234.19*	12.36*	-56.32**	1.71*	43.43**	8.15*
	2007-08	251.66*	33.65**	-328.74**	4.04*	41.34**	1.07**
	2008-09	268.40*	34.15**	-345.26**	5.75*	39.40**	1.63**
BAJAJ ALLIANZ	2004-05	268.34*	67.34**	361.42*	38.51*	51.62**	16.06*
	2005-06	261.61*	45.78**	206.94*	58.79*	60.70**	11.71*
	2006-07	207.86*	20.01*	69.25*	72.70*	83.08**	13.96*
	2007-08	245.18*	68.80**	-67.56**	80.91*	73.79**	11.86*
	2008-09	281.24*	33.62**	-171.25**	83.61*	65.28**	7.92*
TATA AIG	2004-05	207.82*	37.71**	22.94*	-	48.12**	9.39*
	2005-06	172.70*	29.64**	-4.44*	-	57.90**	7.98*
	2006-07	156.54*	13.33*	-42.11**	7.71*	68.81**	8.66*
	2007-08	174.57*	18.92*	-128.10**	13.45*	64.99**	5.93*
	2008-09	173.19*	29.44**	-251.70**	11.56*	64.41**	1.62**
RELIANCE	2004-05	44.77*	79.33**	-54.89**	26.30*	282.14*	11.64*
	2005-06	36.35*	-10.36*	58.18*	33.24*	366.49*	37.94*
	2006-07	94.16*	339.79**	-204.34**	60.27*	170.20*	0.92**
	2007-08	158.16*	293.04**	-752.05**	82.35*	115.29**	-16.96**
	2008-09	174.25*	44.67**	-402.73**	85.81*	106.64**	-3.61**
IFFCO TOKIO	2004-05	187.33*	76.06**	49.14*	20.20*	64.17**	10.07*
	2005-06	170.88*	103.74**	-78.51**	21.40*	71.04**	5.04*
	2006-07	184.54*	14.49*	-63.61**	25.86*	68.20**	7.75*
	2007-08	210.48*	16.81*	-282.84**	27.61*	60.63**	1.85**
	2008-09	182.02*	30.21**	-499.44**	46.02*	80.23**	0.83**
ICICI LOMBARD	2004-05	128.66*	147.18**	9.78*	11.79*	86.89**	16.79*
	2005-06	196.79*	128.70**	-92.59**	34.30*	68.25**	7.43*
	2006-07	134.56*	45.35**	-96.38**	57.65*	117.16**	7.51*
	2007-08	145.65*	46.93**	-97.38**	64.93*	113.23**	8.31*
	2008-09	123.15*	25.94**	-235.63**	74.85*	141.98**	0.01**
CHOLAMAN DALAM	2004-05	63.02*	85.12**	-221.90**	-	158.67*	-3.73**
	2005-06	69.42*	10.15*	-263.74**	-	144.05**	-2.54**
	2006-07	89.66*	29.15**	-29.14**	-	111.53**	10.84*
	2007-08	170.49*	95.52**	-202.23**	2.75*	60.27**	4.24**

	2008-09	251.94*	54.85**	-258.18**	7.19*	42.55**	3.08**
HDFC CHUBB	2004-05	112.28*	51.40**	-290.81**	-	89.06**	-5.95**
	2005-06	115.17*	7.01*	-111.99**	-	86.83**	3.34**
	2006-07	112.31*	-2.35*	-124.98**	-	89.04**	1.78**
	2007-08	100.03*	6.96*	-540.05**	-	99.97**	-11.18**
	2008-09	89.74*	19.61*	-550.10**	-	111.44**	-14.05**

Source: Compiled and computed from the annual reports various private sector insurance companies from 2004-05 to 2008-09.

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