PENSION ANNUITY AND GROUP FUND INVESTMENT NORMS FOR INDIAN LIFE INSURANCE COMPANIES - A COMPLIANCE STUDY

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As the economy and employment level grows, the demand for pensions also rises as they form an important component of the social security net. Majority of the working population in India expects to have better quality of life or at least maintain the current living standards after retirement. The pension business in India is managed by three major players, namely, the Pension Fund Regulatory and Development Authority of India (PFRDA), Insurance Regulatory and Development Authority of India (IRDA) and the Mutual Funds. This paper is confined to the pension and annuity products offered by the life insurance companies in India. Pension plans account for around 30% of insurance industry's total business as they have a special role to play in promoting and protecting the social policy objectives, viz., the provision of retirement income. Of these, 90% of all the pension plans are held by the public insurer, Life Insurance Corporation of India (LICI). With the life insurance companies introducing new pension, annuity and group plans both linked and traditional, the apex body, IRDA has from time to time made suitable amendments in the IRDA Act with respect to investment norms for life insurers. This is done to ensure speedy and orderly growth of the insurance industry, along with providing benefit to the common man, and provide long term funds for accelerating growth of the economy. In the light of the above regulations, this paper investigated whether the Indian life insurance companies have complied with the IRDA regulations relating to investment norms for pension & annuity fund and group excluding pension and annuity fund, besides analysing the investment metrics, namely, total investment, total investment income and Return on Investment (ROI).

Key words: *Pension, Annuity and Group Fund, Investment Norm, Life Insurance Companies, Insurance Regulatory and Development Authority.*

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INTRODUCTION

As the economy and employment level grows, the demand for pensions also rises as they form an important component of the social security net. Majority of the working population in India expects to have better quality of life or at least maintain the current living standards after retirement[1]. The pension business in India is managed by three major players, namely, the PFRDA (Pension Fund Regulatory and Development Authority of India), IRDA (Insurance Regulatory and Development Authority) and the Mutual Funds. The PFRDA was established by Government of India in 2003 for the development and regulation of pension sector in India. Two mutual fund companies, Franklin Templeton and UTI offer mutual fund pension schemes. Life Insurance companies in India, governed by the apex body IRDA, offer pension and annuity plans with or without life cover. Pension plans accounts for around 30% of insurance industry's total business as they have a special role to play in promoting and protecting the social policy objectives, such as the provision of retirement income[2].This paper is confined to the pension and annuity products offered by the life insurance companies in India.

REVIEW OF LITERATURE

The following section presents a few relevant studies in the area of investment and financial performance of life insurance companies. **Travis Pritchett, S(1998)**[3] examined whether is it feasible for a financial planner to use history in determining a range of credible investment return assumptions for life insurance sales illustrations. While mortality, expenses, and lapse rates also affect projections, this study is limited to the influence of investment returns alone. It is concluded that there is no scientific methodology to exactly pinpoint future performance because of unknown future factors; perhaps it is projected rates of return for the long run that should be used as compound rates of return in projections of life insurance cash values. **Renbao Chen and Kie Ann Wong(2004)**[4] have focussed on the solvency of the general (property-liability) and life insurance companies in Asia, using firm data and macro data separately. With the exception of Japan, failures of insurers are non-existent in Singapore, Malaysia and Taiwan. For general insurance companies, firm size and investment performance significantly affect their financial performance. For life and health insurers, firm size and change in asset mix are the two factors consistently affecting their financial health in all the four economies studied. Assets in life insurance companies are invested into the products like bonds, stocks and loans. Any drastic change in the asset mix will change the risk exposure of life insurers and affect their financial stability. **Desmond Li, WP (2006)**[5] described the particular investment and legal constraints on the life insurance investment portfolio in China and investigates the specialist problem. The author suggested the specialists and risk management strategies that can be implemented in China with immediate effect, taking into consideration data deficiency and the difficulty of contract enforcement in China.

Bingzheng Chen[6] have studied the structure and characteristics of the Chinese life insurance industry, with special focus on the impact of recent regulatory changes and the entry of foreign life insurers using efficiency analysis. The study concluded that domestic life insurers generally have better efficiency performance, and foreign joint-venture insurers should focus on scale economy for their future development.

EttiBaranoff, G and Thomas Sager, W (2009)[7]investigated the impact of asset allocation strategies on the investment performance of life insurers in the U.S. Three novel quantitative indices of static/dynamic strategies computed from portfolio allocations reported in the firms' annual statement data are defined to represent important dimensions of the active/passive spectrum of investment strategies. Using cluster analysis, the population of life insurers is partitioned into three groups, characterised by generally having static (passive), dynamic (active) and mixed asset allocation strategies, respectively. The authors concluded that the most active cluster enjoys the greatest relative performance, even controlling for allocations among asset classes.

Shu-Hua Hsiao and Shu-Hui Su (2006)[8] determined the capital investment efficiency based on the Data Envelopment Analysis (DEA) results and Malmquist Productivity Index (MPI). Some hypotheses were created to test if there is a statistically significant difference among the original domestic life insurers, new entrant domestic life insurers and foreign branches of life insurers. Results expressed that there was no significant difference among those three groups for MPI. Nan Shan and Hontai insurance companies were found to have an efficient investment performance for the overall efficiency and scale efficiency. In addition to Nan Shan and Hontai, Cathay, American, and Manulife insurers were efficient for pure technical efficiency.

Robert Hershbarger, A and Ronald Miller, K(1982)[9] evaluated the investment performance of minority controlled life insurance companies in relationship to the performance of other life insurance companies based on comparisons of: 1) net yields on total investments, stocks, bonds, mortgages, and real estate and 2) the investment expense ratio. The study found that the investment performance as measured by average net yields on total investments of the minority controlled life insurance companies considered in this study is significantly below that of the leading and random companies studied.

NEED FOR THE STUDY

The apex body, IRDA had earlier required the life insurance companies to offer pension products with a guaranteed return of 4.5%, also indexed to the Reverse Repo Rate of the RBI. This was not received well among the insurance companies in the context of uncertainty in relation to investment returns. The unique characteristics of pension and annuity products require greater security in the regulatory approach and the emergence of a strong motivation for the introduction of prudential regulation and supervision due to their critical role as an instrument of social policy.The life insurance companies have to invest cautiously for any non-profit deferred pension product and immediate annuity products because the insurer will almost certainly be exposed to significant interest rate risk and reinvestment risk. There is much more uncertainty in setting the assumptions, considering the long term nature of these products[10]. In the light of establishment of Insurance Regulatory and Development Authority of India (IRDA) in 1999 and by the introduction of market related investment options by life insurance companies besides life coverage to attract the policy holders, it is worthwhile to analyse the pension, annuity and group fund investment pattern of life insurance companies in India. Further, *there is dearth of studies which deal with the investment/financial performance and regulatory compliance by insurance companies in India.* Hence, the present study tries to close this gap.

STATEMENT OF THE PROBLEM

Life Insurance companies offering pension products are faced with the interest rate risk and longevity risk. While the insurer confronts lot of uncertainty in offering the product, the policyholder, who wish to opt for this product, may also face uncertainty in terms of how much to invest or how much accumulation is required to get a pension which enables him/her to maintain the minimum standards of life. It is in this context, IRDA has now required the insurance companies to have an assured benefit disclosed at the time of sale and an optional life insurance cover. The Indian life insurance companies have started introducing new linked and traditional, pension, annuity and group plans. In this scenario, the interest of the policyholders is well protected only if the premium collected from them is prudently invested. Also, the financial performance of the life insurers is influenced by the investment income. In this context, the apex body, IRDA, has from time to time made suitable amendments in the IRDA act with respect to investments made by the insurers in 2000, 2001, 2002, 2004 and in 2008. Accordingly, the current regulatory provisions on investments of insurance companies prescribe the manner in which the funds can be invested. Also, the authority monitors the investment portfolio of insurance companies on a quarterly basis to make sure they follow the investment norms. In this context, *this paper investigated the compliance status of pension, annuity and group fund investment norms and investment pattern of the life insurance companies in India.*

OBJECTIVES OF THE STUDY

The objectives of the study are :

1. To study the IRDA investment norms available for pension, annuity and group fund of life insurance companies.
2. To examine whether Indian life insurance companies have complied with investment norms for pension, annuity and group fund.
3. To analyse the investment metrics, viz., investment, investment income and Return on Investment for pension, annuity and group fund.
4. To examine the company-wise and year-wise differences in the investment pattern of pension, annuity and group fund.

RESEARCH METHODOLOGY

This is an empirical study. The data used in the study are secondary in nature. These data have been obtained from the Annual reports and Public Disclosures of life insurance companies available on the IRDA web site. The pension, annuity and group fund investment pattern is verified for its compliance with the IRDA investment norms. This study has been undertaken in respect of policyholders' investments in different securities in Pension and Annuity fund **(PAF)** and Group excluding pension and annuity fund **(GPAF)** up to the year 2008. From the year 2009 onwards, both PAF and GPAF have been grouped as Pension Annuity and Group fund **(PA&GF)**. The period of study ranges from 2004-05 to 2009-10. For all the six years, this study has selected all the public and private life insurance companies operating in India (Table-1). One way ANOVA is used to find out whether there exists any significant [company-wise and year-wise] difference in the pension, annuity and group fund investment pattern of life insurers. For this purpose, the insurance companies which have not complied with the pension, annuity and group fund investment norms have been omitted. The abbreviations used for name of the companies are given in Appendix.

Table 1 - Sample Size

Year	No. of companies
2004-05	14
2005-06	15
2006-07	16
2007-08	18
2008-09	22
2009-10	23

Source: IRDA Annual Reports 2004-05 to 2009-10

HYPOTHESES

This study tests the following hypotheses:

H_{01}: There is no significant company-wise difference in the various categories of pension, annuity & group fund investments, viz, H_{01a}: Government Securities (GS) and H_{01b}: Investments Subject to Exposure Norms (ISEN).

H_{02}: There is no significant year-wise difference in the various categories of pension, annuity & group fund investments, viz, H_{02a}: Government Securities (GS) and H_{02b}: Investments Subject to Exposure Norms (ISEN).

IRDA PENSION, ANNUITY AND GROUP FUNDS INVESTMENT NORMS FOR INDIAN LIFE INSURANCE COMPANIES

IRDA has amended the investment regulations with special reference to Regulation 3 in 2000, 2001 and 2008 which deals with the investment norms for Life Fund, Pension and Annuity fund, Group excluding pension and annuity fund and Unit linked fund **(Investment - fourth amendment regulations – 2008)**. The changes have been made with respect to the percentage of investments to be made in the funds. Table-2 shows the investment regulations relating to pension, annuity & group fund.

Regulations of investments for Pension, Annuity and Group Business

Pension and general annuity business - Every insurer carrying on the business of life insurance shall invest and at all times keep invested funds belonging to general and annuity business in the following manner:

Table 2 - Investment Norms of Pension, Annuity and Group funds

No.	Type of Investment	Percentage
(i)	**Government securities**	Not less than **20%** of the fund
(ii)	**Government securities or other approved securities**	Not less than **40%** of the fund (incl of (i) above)
(iii)	**Investments subject to exposure and prudential norms** specified in Regulation 5	Not exceeding **60%** of the fund

Note: *Funds pertaining to group insurance business, except One Year Renewable pure Group Term Assurance business (OYRGTA) shall form part of general and group annuity business. OYRGTA funds shall follow the investment pattern of life business.*

RESULTS AND DISCUSSION

The following section presents the results and discussion:

Table 3 shows the pension, annuity and group fund investment pattern of life insurance companies operating in India during the years 2004-05 to 2009-10. There were 1 public life insurance company, LICI, throughout the study period and 13 private life insurance companies for the year 2004-05, 14 companies for 2005-06, 15 insurance companies for 2006-07, 17 companies for the year 2007-08, 21 companies for the year 2008-09 and 22 private life insurance companies for the year 2009-10. Table 4 shows the percentage of compliance level for the same. It is clear from table 3 & 4 that during the years, 2004-05, 2005-06, 2006-07, 2008-09 and 2009-10, all the participating life insurance companies, both public and private, have 100% compliance of the pension, annuity & group fund investment norms. In the year 2007-08 alone, **Future Generali Life Insurance Company** had **0%** compliance level with respect to government securities and **167%** for investment subject to exposure norms. This is because the company had invested **100%** of its funds in investment subject to exposure norms for group funds against the investment norm of **≤60%,** without any investments in the government securities.

Table 5 shows the data of total investments, investment income and the Return on Investments (ROI) of Pension fund for life insurance companies during the period

2005–08. SBI Life insurance company had grouped the investments in pension and annuity fund along with group excluding pension and annuity fund for the year 2008 alone. Aviva, Shriram, IDBI and Future Generali have not participated in pension fund during the years 2005-2008. Besides, **Reliance Life Insurance Company** had invested in pension fund during the years 2005 and 2006 and had not participated in the rest of the years. There has been a steady increase in the investments of all life insurance companies during the study period except for **Birla Sun Life** Insurance Company. The increase in total investments is not accompanied by a corresponding increase in investment income in respect of all the life insurance companies for Pension fund. **ING Vysya** and **Sahara** life insurance companies have **not earned** income on investment in pension fund during the year 2005. Except for **HDFC and ING Vysya Life Insurance Companies**, the rest have an increase in investment income over the years. The highest Return on Investment of **12%** was earned by **ING Vysya LifeInsurance Company** in the year 2006.

Table 6 shows the data of total investments, investment income and the Return on Investments of Group excluding pension and annuity fund for life insurance companies during the period 2005–08. HDFC, ICICI, Birla Sunlife, Reliance, ING Vysya, Shriram and IDBI have not participated in group fund during the years 2005-2008. There has been a steady increase in the investments of all life insurance companies during the study period except for **Max New York** life and **Aviva** life insurance companies.The increase in total investments is not accompanied by a corresponding increase in investment income in respect of all the life insurance companies for group fund. **Sahara** and**BhartiAxa**life insurance companies have **not earned** income on investments in group fund in particular years during the study period. The highest Return on Investment of **8%** was maintained by **LICI** during the years 2005 to 2007. **Max New York Life Insurance Company** also earned 8% Return on Investment during the year 2006.

Table 7 shows the data of total investments, investment income and the Return on Investments (ROI) of Pension and Group fund grouped together for life insurance companies during the years 2009 and 2010. Reliance, Bharti, DLF Pramerica, Religare and India First has not participated in pension and group fund during the years 2009 and 2010. In the year 2009, **ING Vysya Life Insurance Company** has earned a loss and **Star Union Daichi** has not earned any income from investment in pension and group fund investments. The highest Return on Investment of **10%** was earned by **Birla Sun Life** and **ICICI** Life Insurance Companies in the year 2009 and by **HDFC** Life Insurance Company in 2010.

Table 3 - Pension, Annuity and Group fund investment (%) of Indian life insurance companies from 2004-05 to 2009-10

Name of the company	2004-05				2005-06				2006-07				2007-08				2008-09		2009-10	
	PAF		GPAF		PAF		GPAF		PAF		GPAF		PAF		GPAF		GPAF		GPAF	
	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Public																				
LICI	79	21	78	22	80	20	79	21	81	18	76	24	77	23	76	24	58	42	54	46
Private																				
HDF	77	23	NP	NP	80	20	NP	NP	54	46	NP	NP	46	54	NP	NP	46	54	56	44
MAX	92	8	94	6	93	7	76	24	90	10	61	39	84	16	75	25	77	23	75	25
ICI	73	27	NP	NP	75	25	NP	NP	53	47	NP	NP	52	48	NP	NP	59	41	62	38
BSL	100	0	NP	NP	98	2	NP	NP	90	10	NP	NP	43	57	NP	NP	45	55	43	57
TAT	76	24	100	0	75	25	100	0	64	36	88	12	50	50	82	18	54	46	55	45
KML	62	38	100	0	54	46	88	12	52	48	68	32	58	42	77	23	63	37	64	36
SBI	76	24	40	60	43	58	NP	NP	43	57	NP	NP	48	52	NP	NP	42	58	44	56
BAJ	77	23	100	0	100	0	58	42	88	12	91	9	77	23	61	39	50	50	57	43
MET	100	0	100	0	82	18	92	8	81	19	96	4	99	1	100	0	99	1	73	27
RLI	55	45	NP	NP	56	44	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
ING	NP	NP	NP	NP	50	50	NP	NP	45	55	NP	NP	51	49	NP	NP	51	49	48	52
AVI	NP	NP	73	28	NP	NP	67	33	NP	NP	56	44	NP	NP	56	44	NP	NP	81	19
SAH	100	0	100	0	100	0	100	0	82	18	100	0	82	18	100	0	75	25	57	43

SHRI	NE	NE	NE	NE	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	100	0
BHA	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	100	0	60	40	100	0	NP	NP	NP	NP
IDB	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	NP	NP	67	33	74	26
FUT	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	**0**	**100**	68	32	81	19
CAN	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	90	10
STAR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	75	25	48	52
DLF	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	NP	NP
RELIG	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	NP	NP
INDIA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP

Source: Compiled from IRDA Annual reports and Public Disclosures of years 2004-05 to 2009-10 GS–Government Securities ISEN–Investments subject to Exposure norms; NE – Not in existence; NP-Not Participated

Table 4 - Level of compliance (%) of IRDA Pension, Annuity &Group fund investment norms by Indian Life Insurers during 2004-05 to 2009-10

Name of the company	2004-05				2005-06				2006-07				2007-08				2008-09		2009-10	
	PAF		GPAF		PAF		GPAF		PAF		GPAF		PAF		GPAF		GPAF		GPAF	
	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60	GS≥ 40	ISEN ≤60
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Public																				
LICI	198	35	195	37	200	33	198	35	203	30	190	40	193	38	190	40	145	70	135	77
Private																				
HDF	193	38	NP	NP	200	33	NP	NP	135	77	NP	NP	115	90	NP	NP	115	90	140	73
MAX	230	13	235	10	233	12	190	40	225	17	153	65	210	27	188	42	193	38	188	42
ICI	183	45	NP	NP	188	42	NP	NP	133	78	NP	NP	130	80	NP	NP	148	68	155	63
BSL	250	0	NP	NP	245	3	NP	NP	225	17	NP	NP	108	95	NP	NP	113	92	108	95
TAT	190	40	250	0	188	42	250	0	160	60	220	20	125	83	205	30	135	77	138	75
KML	155	63	250	0	135	77	220	20	130	80	170	53	145	70	193	38	158	62	160	60
SBI	190	40	100	100	108	97	NP	NP	108	95	NP	NP	120	87	NP	NP	105	97	110	93
BAJ	193	38	250	0	250	0	145	70	220	20	228	15	193	38	153	65	125	83	143	72
MET	250	0	250	0	205	30	230	13	203	32	240	7	248	2	250	0	248	2	183	45
RLI	138	75	NP	NP	140	73	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
ING	NP	NP	NP	NP	125	83	NP	NP	113	92	NP	NP	128	82	NP	NP	128	82	120	87
AVI	NP	NP	183	47	NP	NP	168	55	NP	NP	140	73	NP	NP	140	73	NP	NP	203	32

SAH	250	0	250	0	250	0	250	0	205	30	250	0	205	30	250	0	188	42	120	87
SHRI	NE	NE	NE	NE	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	250	0
BHA	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	250	0	150	67	250	0	NP	NP	NP	NP
IDB	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	NP	NP	168	55	185	43
FUT	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	**0**	**167**	170	53	203	32
CAN	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	225	17
STAR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	188	42	120	87
DLF	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	NP	NP
RELIG	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP	NP	NP
INDIA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NP	NP

Source: Compiled from IRDA Annual reports and Public Disclosures of years 2004-05 to 2009-10; GS–Government Securities, ISEN–Investments subject to Exposure norms; NE – Not in existence; NP-Not Participated; Note: ≥ 100% for GS & ≤ 100% for ISEN denotes compliance

Table 5 - Total investments, Total investment income and Return on Investment of Pension and Annuity Fund from 2004-05 to 2007-08

SI. No	Name of the company	Total Investments (Rs. million)				Total Investments income (Rs.million)				Return on investments (%)			
		04-05	05-06	06-07	07-08	04-05	05-06	06-07	07-08	04-05	05-06	06-07	07-08
						Public							
1	LICI	305318	361577	417099	493244	23915	27515	29992	33038	8	8	7	7
						Private							
1	HDFC	1519	2676	3868	4919	51	304	175	377	3	11	5	8
2	MNYL	140	159	220	384	4	12	13	19	3	8	6	5
3	ICICI	1669	2446	5397	7501	128	136	298	531	8	6	6	7
4	BSLI	1	2	1	67	0.01	0.04	0.05	6	2	2	5	9
5	TATA	768	966	1308	1673	36	55	76	115	5	6	6	7
6	KOTAK	134	207	252	378	5	15	27	36	4	7	11	9
7	SBI*	897	2778	7625	9297*	53	161	407	951*	6	6	5	10*
8	BAJAJ	38	181	292	430	3	7	18	28	8	4	6	7
9	METLIFE	2	4	4	39	0.01	0.03	0.04	0.08	1	6	8	2
10	RELIENCE	512	896	NP	NP	23	70	NP	NP	5	8	NP	NP
11	ING	517	750	1040	1461	0	93	66	137	0	12	6	9
12	AVIVA	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
13	SAHARA	2	3	5	5	0.001	0.2	0.2	0.3	0	5	3	5
14	SHRIRAM	NE	NP	NP	NP	NE	NP	NP	NP	NP	NP	NP	NP
15	BHARTI	NE	NE	NP	4	NE	NE	NP	0.002	NE	NE	NP	0.05
16	IDBI	NE	NE	NE	NP	NE	NE	NE	NP	NE	NE	NE	NP
17	FUTURE	NE	NE	NE	NP	NE	NE	NE	NP	NE	NE	NE	NP

Source: Compiled from IRDA Annual reports and Public Disclosures of years 2004-05 to 2009-10 **Funds grouped for pension and annuity funds*
NA-Information Not Available; NE -Companies not in existence; NP-Not Participated

Table 6 - Total investments, Total investment income andReturn on Investment of Group excluding Pension and Annuity Fund from 2004-05 to 2007-08

SI. No	Name of the company	Total Investments (Rs. million)				Total Investments income (Rs.million)				Return on investments (%)			
		04-05	05-06	06-07	07-08	04-05	05-06	06-07	07-08	04-05	05-06	06-07	07-08
						Public							
1	LICI	235697	267376	320021	384199	18279	20315	24281	28014	8	8	8	7
						Private							
1	HDFC	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
2	MNYL	73	50	61	323	3	4	4	16	4	8	6	5
3	ICICI	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
4	BSLI	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
5	TATA	147	407	839	1318	6	19	48	89	4	5	6	7
6	KOTAK	21	40	169	260	0.4	1	5	21	2	3	3	8
7	SBI*	NP	NP	NP	grouped	NP	NP	NP	grouped	NP	NP	NP	grouped
8	BAJAJ	13	138	236	315	1	2	14	25	4	1	6	8
9	METLIFE	25	63	124	99	1	2	2	7	5	3	2	7
10	RELIENCE	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
11	ING	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
12	AVIVA	29	23	54	90	0.1	2	3	6	0.4	7	5	7
13	SAHARA	0.3	0.6	8	8	0	0.02	0.02	NA	0	3	0.2	NA
14	SHRIRAM	NE	NP	NP	NP	NE	NP	NP	NP	NP	NP	NP	NP
15	BHARTI	NE	NE	0.2	15	NE	NE	0	0.1	NE	NE	0	03
16	IDBI	NE	NE	NE	NP	NE	NE	NE	NP	NE	NE	NE	NP
17	FUTURE	NE	NE	NE	17	NE	NE	NE	0.2	NE	NE	NE	1

*Ssource: Compiled from IRDA Annual reports and Public Disclosures of years 2004-05 to 2009-10 *Funds grouped for pension and annuity funds; NE-Companies not in existence; NP-Not Participated*

H_{01}: There is no significant company-wise difference in the various categories of pension, annuity & group fund investments, viz, H_{01a}: Government Securities (GS) and H_{01b}: Investments Subject to Exposure Norms (ISEN).

Table – 8 Analysis of Variance (Company-wise)

Securities	Sum of Squares	df	Mean Square	F	Sig.
Government Securities (GS)					
Between Companies	14267.016	19	750.896	3.878	.000
Within companies	12973.467	67	193.634		
Total	27240.483	86			
Investments Subject To Exposure Norms (ISEN)					
Between Companies	14267.016	19	750.896	3.878	.000
Within companies	12973.467	67	193.634		
Total	27240.483	86			

Note: Results computed using SPSS 17.0

Table 8 gives the Analysis of Variance results for company-wise difference for pension, annuity and group fund. As the p-value (0.000) is less than 0.05 in respect of the various categories of pension, annuity and group fund investments, viz, government securities (GS) and investments subject to exposure norms (ISEN), the Null Hypotheses, $\mathbf{H_{01a}}$ and $\mathbf{H_{01b}}$ are rejected. Hence, there is a significant ***company-wise difference*** in the two categories of pension, annuity and group fund investments, viz, H_{01a}: Government Securities (GS) and H_{01b}: Investments Subject to Exposure Norms (ISEN).

H_{02}: There is no significant year-wise difference in the various categories of pension, annuity & group fund investments, viz, H_{02a}: Government Securities (GS) and H_{02b}: Investments Subject to Exposure Norms (ISEN).

Table 9 - Analysis of Variance (Year-wise)

Securities	Sum of Squares	df	Mean Square	F	Sig.
Government Securities (GS)					
Between Companies	3728.972	5	745.794	2.569	.033
Within companies	23511.510	81	290.266		
Total	27240.483	86			
Investments Subject To Exposure Norms (ISEN)					
Between Companies	3728.972	5	745.794	2.569	.033
Within companies	23511.510	81	290.266		
Total	27240.483	86			

Note: Results computed using SPSS 17.0

Table 9 gives the Analysis of Variance results for year-wise difference for pension, annuity and group fund. As the p-value (0.033) is less than 0.05 in respect of government securities (GS) and investments subject to exposure norms (ISEN), the Null Hypothesis, $\mathbf{H_{02a}}$, and $\mathbf{H_{02b}}$ are rejected. Thus, there is a significant ***year-wise difference*** in the various categories of pension, annuity and group fund investments, viz, H_{02a}: Government Securities (GS) and H_{02b}: Investments Subject to Exposure Norms (ISEN).

Table 10a depicts the most profitable investment pattern of pension fund earning the highest Return on Investment for life insurance companies during the years 2004-05 to 2007-08. 3 companies have made the most profitable investment pattern in the years 2004-05 and 2007-08. **ICICI Life Insurance Company** has invested the highest of **92%** in Government Securities in 2004-05 and **Birla Sun Life Insurance Company** has invested the least of **43%** in Government Securities in 2007-08. **Table 10b** shows the most profitable investment pattern earning the highest Return on Investment of group fund for life insurance companies during the years 2004-05 to 2007-08. 2 companies have made the most profitable investment pattern in the years 2005-06 and 2007-08. All the companies have made the highest Return on Investment of **8%** during the years 2004-05 to 2007-08. All the companies have invested more than 60% in government securities during the study period. **Table 10c** depicts the most profitable investment pattern earning the highest Return on Investment of pension, annuity and group fund for life insurance companies during the years 2008-09 and 2009-10. All the companies have made the highest Return on Investment of **10%** during the years 2008-

09 and 2009-10. All the companies have invested around 50% in government securities during the study period.

Table 10a Profitable investment pattern of Pension fund

Name of the company	Year	PAF (%)		ROI (%)
		G.S.	ISEN	
LIC	2004-05	79	21	8
ICICI		92	8	8
BAJAJ		77	23	8
ING	2005-06	50	50	12
KML	2006-07	52	48	11
BSLI	2007-08	43	57	9
KML		58	42	9
ING		51	49	9

Table 10b Profitable investment pattern of Group excluding Pension and Annuity fund

Name of the company	Year	PAF (%)		ROI (%)
		G.S.	ISEN	
LIC	2004-05	78	22	8
	2005-06	79	21	8
MNYL		76	24	8
LIC	2006-07	76	24	8
KML	2007-08	77	23	8
BAJAJ		61	39	8

Table 10c Profitable investment pattern of Pension, Annuity and Group fund

Name of the company	Year	PAF (%)		ROI (%)
		G.S.	ISEN	
ICICI	2008-09	59	41	10
BSLI		45	55	10
HDFC	2009-10	56	44	10

Source: Compiled from IRDA Annual reports and Public Disclosures of years 2004-05 to 2009-10

FINDINGS

1. During the study period, all the participating life insurance companies, both public and private, have 100% compliance of the pension, annuity & group fund investment norms except Future Generali Life Insurance Company.

2. In 2007-08 alone, Future Generali Life Insurance Company has not complied with the IRDA norms for government securities and investment subject to exposure norms.

3. Reliance Life Insurance Company had invested in pension fund during 2004-05 and 2005-06 and had not participated in the rest of the years.

4. ING Vysya, Sahara, BhartiAxa and Star Union Daichi life insurance companies have not earned income on investment in pension, annuity and group fund in some of the years during the study period.

5. In 2008-09, ING Vysya Life Insurance Company has earned a loss from investment in pension, annuity and group fund investments.

6. There is a significant company-wise difference in the various categories of pension, annuity and group fund investments, viz, Government Securities (GS) and Investments Subject to Exposure Norms (ISEN).

7. There is a significant year-wise difference in the various categories of pension, annuity and group fund investments, viz, Government Securities (GS) and Investments Subject to Exposure Norms (ISEN).

8. ING Vysya Life Insurance Company earned the highest Return on Investment of 12% in pension and annuity fund in 2005-06.

9. The highest Return on Investment of 8% was earned by 6 companies during 2004-05 to 2007-08.

CONCLUSION

With the private sector, both organised and unorganised, contributing a larger share to the country's employment, the need for pension, annuity and group products targeting the various sections of the society has increased dramatically. Policyholders are looking forward for a positive return, absolute maturity and a guaranteed rate of annuity of their investments for a future period. This can be achieved only if the life insurance companies are financially healthy in the long run. The financial solidity of a life insurer largely depends on their investment performance because investment income forms a large proportion of the total income. Investment income of life insurance companies is influenced by the pattern in which the investments are made and on the performance of different funds viz., Life Fund, Pension and Annuity Fund, Group excluding Pension and Annuity Fund and Unit Linked Fund. To ensure a speedy and orderly growth of the insurance industry as a whole and to safeguard the interests of policyholders, it is imperative for the insurance companies to comply with investment regulations laid down by IRDA in order to improve their efficiency of investments performance than ever before.

END NOTES

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