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Research Journal

*Indian Streams
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AN ANALYSIS OF PORTFOLIOS MIX OF ASSETS OF LIC OF INDIA AFTER THE LIBERALISATION OF INDIAN INSURANCE INDUSTRY



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ABSTRACT

Investment management in Life Insurance Company is a key operation. During the selection of investment portfolios, investment managers keep different risk and return levels in their minds. To obtain different investment objectives and to satisfy policyholders' future liability, investment managers, in Life Insurance Company make appropriate strategy to manage its funds in respect of insuring safety, liquidity and profitability. Since nationalisation of Indian life insurance business to liberalisation, the LIC of India was single life insurance company; however, its investment was strictly guided by the Insurance Act, 1938. According to the Insurance Act, 1938 and IRDA regulations 2001, LIC of India constitutes an investment committee every year, which draw up investment policy to ensure adequate consistent return from investment of policyholders and shareholder funds with keeping in view safety, liquidity and protection of such investments.

In this research paper, an attempt has been made to analyse the portfolios mix of assets of the LIC of India after the liberalisation of Indian insurance industry. Time of the study has been taken from 2001 to 2015. To evaluate the data, time series analysis, common-size analysis, percentage and arithmetic average are used. The study reveals that total investment of shareholder has enlarged 4.82 times for the study period. Similarly, total investment of policyholders (Non-Linked Business) has gone up 11.77 times for the study period i.e. from Rs 142493 crore in 2001 to Rs 1677741 crore in 2015. It is observed from analysis of investment pattern of policyholders (Linked Business) that total investment has gone up from Rs 5.65 crore in 2003 to Rs 195759 crore i.e. 34648 times in 2011 and further to Rs

107871 crore i.e. 19092 times in 2015. Total investment of the LIC of India has increased frequently from Rs175491 crore in 2001 to Rs 1946249 crore i.e.11.09 times in 2015. The increment in total investment indicates that the LIC is progressing fast.

KEYWORDS :Portfolio, Non-Linked Business, Linked Business (ULIPs), Govt. & Other Approved Securities, Equity and Infrastructure and Social Sector Investment.

INTRODUCTION

Life Insurance

There are facts of insurance in 16th century in London. A group of marine under writers issued the first modern life insurance policy to Mr. William Gybbons in 1536 for one-year term in amount of £ 400 in London. Unfortunately, Gybbons died within one year and the under writers paid the amount of £ 400 to his family. The first modern life insurance company was the amicable society for a Perpetual Assurance Office, a London based company and William Talbot and Sir Thomas Allen founded this company in 1706. For the first plan of life insurance, it was decided that each member would be paid a fixed annual premium according to per share with the condition that each member age should be 12 to 55 year. This “Amicable Fund” was divided among the widows and orphans of deceased members, in the proportion of the amount of shares paid by policyholders. In the beginning, about 2000 members started this Amicable Society.

Later, Edmund Halley prepared a mortality table in 1693, but in 1750, mathematical and statistical tools were also used for the growth of life insurance. A new company was established by a mathematician and actuary, James Dodson that presented premiums to cover the risks of life insurance for long term when Amicable Life Insurance Society refused Dodson to cover his life insurance owing to his old age. In 1762, his follower, Edward Rowe Mores introduced the Equitable Society for the Assurance of Life and Survivorship. He was the first mutual insurer who innovated new premium schemes for life insurance that varied with the age of the insured person and became very successful and the pivot of modern life insurance upon which all life insurance schemes were completely based.

Mores introduced new reference for the chief official of insurance who he called an actuary. William Morgan was appointed as the first modern actuary in 1775 and he served as actuary until 1830. The society evaluated the first actuarial liabilities in 1776 and allocated the first reversionary bonus (1781) and interim bonus (1809) to its policyholders. Further, to protect the interest of policyholders, the directors of the society tried to ensure that each member of society should be given a fair return on their respective investment.

MODERN INSURANCE IN INDIA

Insurance in its modern form was introduced in India by British insurance company, which established a life insurance company named “The Oriental Life Insurance Company” in 1818 in Calcutta. Finally this company failed in 1834 and was converted into “New Oriental”. In 1823, Bombay Life Insurance Company in Bombay, Madras Equitable Life Insurance Society in Madras in 1829 and Madras Widows in 1834 were introduced accordingly.

Owing to several malpractices and slow progress of Indian insurance industry, Govt. of India decided to nationalize the insurance sector. A Bill was passed on July 1, 1956 and on September 1, 1956 Life Insurance Corporation of India was established. The LIC of India enjoyed the monopoly in life insurance industry over the period 1956 to 1999. On the recommendation of Malhotra committee, a Bill was passed on December 7, 1999 that was called IRDA Act, 1999, an independent regulatory

authority named Insurance Regulatory, and Development Authority (IRDA) was established in April 2000. After passing of IRDA Act 1999, monopoly of the LIC of India was abolished and new competitors entered in Indian life insurance market.

INVESTMENT REGULATIONS

According to regulations, investment of LIC is broadly divided in to three parts namely:

1. 50 percent of the funds should be invested and all times keep invested in Govt. and other approved securities
2. Investment in other approved securities---not exceeding 35 percent
3. Investment in infrastructure and social sector---not less than 15 percent.

REVIEW OF LITERATURE

1. Panda, L. and Mishra B.C. (2012) analysed the investment pattern and different areas for investment in LIC of India. The study also explains the risk awaking ability of LIC from 2009-10 to 2012-13. The research is based on the secondary data. Box-Liung statistics, chi-square method, ratios and percentage method are used for results. The study revealed that the LIC of India invests its fund as a mix of high rate of return and constant rate of return to achieve maximum returns of both. LIC invests its fund in different financial instruments like equity shares, bonds, provident funds, fixed deposits, mutual fund schemes and socio economic activities for risk aversion. LIC invests its funds both in long term and short term financial instruments. A fundamental analysis has been done to see potential, financial status of LIC, economic conditions, inflations and growth of economy. Most of invests of LIC has been done in government and other approved government securities.

2. Bedi, H.S. and Singh, P. (2011) analysed the overall performance of life insurance industry of India before and after new economic reforms era and to assess the current position, competition status and challenges faced by LIC of India. They also attempted to know the change in the effectiveness of the investment strategy of LIC over the period 1980 to 2009. To find out results, secondary data were collected from textbooks, RBI Bulletin and annual reports of LIC. T-test and Anova test were used for analysing the data. The study reveals that there is an immense development in the performance of Indian life insurance industry due to privatisation of insurance market. Further, there is a vast change in the investment pattern of LIC of India. The study also shows increasing trends of investment of LIC in stock market from 60 percent to 93 percent during the study period.

3. Rajandran, R. and Natrajan, B. (2009) compared the overall performance of LIC between pre and post LPG era and also examined the current status, volume of competition and challenges faced by LIC of India. They collected secondary data from textbooks, articles and annual reports of LIC to draw relevant results. Method of Least Square is used as statistical tool for analysing the data. They revealed that the business of LIC in India, outside of India and in total have an increasing trends. The analysed data shows that the LPG is putting a positive impact on the business as well as performance of LIC of India.

4. Meena, K. (2011) evaluated positive and negative impact of FDI in life insurance sector of India as premium income, infrastructure development, employee's facilities and market share. For the study five life insurance players and a public sector company (LIC of India) have been selected for comparison. This study is based on secondary data, collected from published sources during the period 2002-2010. He revealed that private life insurance companies are steadily growing its business in urban, semi-urban and rural areas. FDI in private life insurance companies assists in its infrastructure development, working facilities, technical efficiency and networking of life products launched. The private insurers are capturing market share from LIC of India as such LIC is losing its market share continuously from

2002 to 2010.

OBJECTIVES:

- 1.To evaluate the investment pattern of shareholder and policyholders (Non-Linked and Linked Business) for the period 2001 to 2015.
- 2.To assess the growth rate of portfolios mix of assets of LIC of India for the same period.

RESEARCH METHODOLOGY

This research paper is based upon applied as well as descriptive research. For this study, data are collected from secondary sources. The relevant and proper data are collected from annual reports of the LIC of India for the period 2001 to 2015. As statistical tool, time series analysis, common-size analysis, percentage and arithmetic mean are used.

Data Analysis and Interpretation

Table-4.1
Investment Pattern of Shareholder as at 31 March. (Non-Linked Business) (Rs Crore)

Year	Govt. Securities	Equity	Other Securities	Subsidiaries	Total
2002	95.33	9.67	----	----	105
2003	95.33	9.67	2.53	----	107.53
2004	78.35	24.43	2.53	10.82	116.13
2005	78.35	25.24	2.53	14.52	120.64
2006	65.55	24.51	2.53	73.82	166.40
2007	159.01	27.41	2.53	90.92	279.45
2008	158.91	26.69	2.53	105.07	293.20
2009	190.00	20.93	2.53	106.25	319.50
2010	215.11	24.93	1.87	109.85	353.70
2011	244.77	27.85	1.87	108.08	382.57
2012	187.74	30.83	1.87	109.82	330.26
2013	178.34	36.36	1.87	240.02	456.59
2014	210.21	52.20	1.87	243.8	508.08
2015	209.41	51.12	1.87	243.80	506.20

Sources: (Annual Reports of LIC of India 2001-2015)

Interpretation:

Table 4.1 shows investment pattern of shareholder (Govt. of India) of the LIC of India for the period 2002 to 2015. For the year 2002, total investment of shareholder was Rs 105 crore in which investment in Govt. securities was Rs 95.33 crore i.e. 90.79 percent and in equities was Rs 9.67 crore i.e. 9.21 percent. In the year 2004, total investment of shareholder was Rs 116.13 crore in which investment in Govt. securities was Rs 78.35 crore i.e. 67.47 percent, in equities was Rs 24.43 crore i.e. 21.03 percent, in other securities was Rs 2.53 crore i.e. 2.18 percent and in subsidiaries was Rs 10.82 crore i.e. 9.32 percent. In the year 2010, total investment of shareholder was Rs 353.70 crore in which investment in Govt. securities was Rs 215.11 crore i.e. 60.87 percent, in equities was Rs 24.93 crore i.e. 7.05 percent, in other securities was Rs 1.87 crore i.e. 0.53 percent and in subsidiaries was Rs 109.85

crore i.e. 31.55 percent. Similarly, for the year 2015, total investment of shareholder was Rs 506.20 crore in which investment in Govt. securities was Rs 209.41 crore i.e. 41.37 percent, in equities was Rs 51.12 crore i.e. 10.10 percent, in other securities was Rs 1.87 crore i.e. 0.37 percent and in subsidiaries was 243.80 crore i.e. 48.16 percent.

It is observed from table 4.1 that total investment of the shareholder has amplified from Rs 105 crore in 2002 to 382.57 crore in 2011 and to Rs 506.20 crore i.e. 4.82 times in 2015. Out of total investment, investment in Govt. Securities has declined from 95.33 crore in 2002 to 65.55 crore in 2006 and again went up from 159.01 crore in 2007 to 244.47 crore in 2011 and 209.41 crore in 2015. Investment in equities went up from Rs 9.67 crore in 2002 to 51.12 crore i.e. 5.29 times in 2015. Investment in other securities remained constant Rs 2.53 crore from 2002 to 2009 and Rs 1.87 crore from 2010 to 2015. Investment in subsidiaries has gone up from Rs 10.82 crore in 2002 to Rs 243.80 crore i.e. 22.53 times in 2015.

Findings: The study reveals that total investment of shareholder has enlarged 4.82 times and out of total investment, investment in Govt. Securities went up by 2.20 times and in subsidiaries by 22.53 times for the period 2002 to 2015. Thus, LIC invested most of the total investment of shareholder in Govt. Securities and subsidiaries.

Table-4.2

Common-Size Analysis: Shareholder's Investment (Non-Linked Business) (In Percentage)

Year	Govt. Securities	Equity	Other Securities	Subsidiaries	Total
2002	90.79	9.21	-----	-----	100
2003	88.66	8.99	2.35	-----	100
2004	67.47	21.03	2.18	9.32	100
2005	64.95	20.92	2.10	12.03	100
2006	39.39	14.73	1.52	44.36	100
2007	56.90	9.81	0.90	32.39	100
2008	54.20	9.10	0.86	35.84	100
2009	59.42	6.55	0.79	33.24	100
2010	60.87	7.05	0.53	31.55	100
2011	63.98	7.28	0.49	28.25	100
2012	56.89	9.34	0.57	33.20	100
2013	39.06	7.87	0.41	56.66	100
2014	41.37	10.30	0.36	48.00	100
2015	41.37	10.10	0.37	48.16	100

Interpretation:

Table 4.2 reveals common-size analysis of shareholder's investment for the period 2002 to 2015. Trend of investment in Govt. Securities indicates that share of this investment in total investment decreased from 90.79 percent in 2002 to 54.20 percent in 2008 and further to 41.37 percent in 2015. Share of investment in equities went up from 9.21 percent in 2002 to 21.03 percent in 2004 and after this year, its share declined up to 6.55 percent in 2009 and again enlarged to 10.10 percent in 2015. Share of other securities investment decreased from 2.35 percent in 2002 to 0.37 percent in 2015 and share of investment in subsidiaries increased from 9.32 percent in 2004 to 48.16 percent in 2015.

Findings: Common-size analysis of shareholder's investment shows that share of investment in Govt.

Securities in total investment declined from 90.79 percent in 2002 to 41.37 in 2015 and equity's share went up from 9.21 percent in 2002 to 10.10 percent in 2015. Share of subsidiaries investment tremendously increased from 9.32 percent in 2004 to 48.16 percent in 2015 and share of other securities investment continue decreased for the study period. Thus, the LIC has invested the highest share of its investment in Govt. Securities from 2002 to 2012 and after this period, share of investment in subsidiaries was the highest.

Table-4.3**Investment Pattern of Policyholders as at 31 March (Non-Linked Business)****(Rs Crore)**

Year	Govt. Securities & Other Approved Securities	Equity & Preference Shares	Bonds, Debenture, Mutual Fund and other Securities	Investment in Infrastructure & Social Sector	Other than Approved Investment	Provision for Doubtful Investment	Total
2001	103012	14105	24041	1572	20	-257	142493
2002	131553	20052	30286	4492	493	-462	186414
2003	166471	21877	15809	9552	13542	-877	226374
2004	205125	43076	21880	11813	16021	-950	296965
2005	249979	51545	18498	12636	24126	-1098	356685
2006	291939	90112	20384	25847	25646	-1160	452768
2007	326456	91094	26454	31820	36580	-1292	511112
2008	365275	123900	40413	41670	35544	-1405	605397
2009	401823	84329	55911	37256	61382	-1740	638961
2010	466139	180399	101367	55774	31041	-1679	833041
2011	552421	176258	125403	80637	37183	-1735	970167
2012	633762	176678	128179	92800	41112	-2350	1070181
2013	710197	202602	127994	116990	33023	-3031	1187775
2014	846824	255132	123471	135912	31808	-3275	1389872
2015	1033767	331547	120599	164543	30797	-3512	1677741

Sources: (Annual Reports of LIC of India 2001-2015)

Interpretation: Investment pattern of policyholders (Non-Linked Business) has been shown in table 4.3.

For the year 2001, total investment of policyholders was Rs 142493 crore. Out of total investment, investment in Govt. & other approved securities was Rs 103012 crore i.e. 72.29 percent, in equity and preference shares was Rs 14105 crore i.e. 9.90 percent. Investment in bonds, debentures, mutual fund & other securities was Rs 24041 crore i.e. 16.87 percent, in infrastructure & social sector was Rs 1572 crore i.e. 1.11 percent and other than approved investment was Rs 20 crore i.e. 0.01 percent.

In the year 2005, total investment of policyholders was Rs 356685 crore in which investment in Govt. & other approved securities was Rs 249979 crore i.e. 70.08 percent, in equity and preference shares was Rs 51545 crore i.e. 14.45 percent. Investment in bonds, debentures, mutual fund & other securities was Rs 18498 crore i.e. 5.20 percent, in infrastructure & social sector was Rs 12636 crore i.e. 3.54 percent and other than approved investment was Rs 24126 crore i.e. 6.80 percent. For this year provision for doubtful investment was Rs 1098 crore i.e. 0.25 percent.

During the period 2014-15, total investment of policyholders was Rs 1677741 crore in which

investment in Govt. & other approved securities was Rs 1033767 crore i.e. 61.62 percent, in equity and preference shares was Rs 331547 crore i.e. 19.76 percent. Investment in bonds, debentures, mutual fund & other securities was Rs 120599 crore i.e. 7.19 percent, in infrastructure & social sector was Rs 164543 crore i.e. 9.81 percent and other than approved investment was Rs 30797 crore i.e. 1.83 percent. For this period provision for doubtful investment was Rs 3512 crore i.e. 0.21 percent.

It can be noticed from table 4.3 that total investment of policyholders has increased from Rs 142493 crore in 2001 to Rs 356685 crore i.e. 2.50 times in 2005, to Rs 833041 crore i.e. 5.85 times in 2010 and further to Rs 1677741 crore i.e. 11.77 times in 2015. Out of total investment, investment in Govt. & other approved securities has gone up from Rs 103012 crore in 2001 to Rs 466139 crore i.e. 4.53 times in 2010 and to Rs 1033767 crore i.e. 10.03 times in 2015. Investment in equity and preference shares also enlarged from Rs 14105 crore in 2001 to Rs 180399 crore i.e. 12.79 times in 2010 and further to Rs 331547 crore i.e. 23.51 times in 2015. Similarly, Investment in bonds, debentures, mutual fund & other securities has gone up from Rs 24041 crore in 2001 to Rs 101367 crore i.e. 4.22 times in 2010 and to Rs 120599 crore i.e. 5.02 times in 2015. Investment in infrastructure & social sector has enlarged from Rs 1572 in 2001 to 55774 crore i.e. 35.48 times in 2010 and further to Rs 164543 crore i.e. 104.67 times in 2015. Other than approved investment also increased from Rs 20 crore in 2001 to Rs 31041 crore i.e. 1552 times in 2010 and Rs 30797 crore i.e. 1540 times in 2015. Provision for doubtful investment also went up from Rs 257 crore in 2001 to 3512 crore i.e. 13.67 times in 2015.

Findings: It can be observed from table 4.3 that total investment of policyholders (Non-Linked Business) has gone up 11.77 times for the study period i.e. from Rs 142493 crore in 2001 to Rs 1677741 crore in 2015. Out of total investment, investment in Govt. & other approved securities, in equity and preference share, in bonds, debentures, mutual fund & other securities, in infrastructure & social sector and other than approved investment has increased by 10.03 times, 23.51 times, 5.02 times, 104.67 times and 1540 times respectively for the period 2001 to 2015.

Table-4.4

**Common Size Analysis: Investment Pattern of Policyholders (Non-Linked Business)
(In Percentage)**

Year	Govt. Securities & Other Approved Securities	Equity & Preference Shares	Bonds, Debenture, Mutual Fund and other Securities	Investment in Infrastructure & Social Sector	Other than Approved Investment	Provision for Doubtful Investment	Total
2001	72.29	9.90	16.87	1.11	0.01	-0.18	100
2002	70.57	10.76	16.25	2.41	0.26	-0.25	100
2003	73.54	9.66	6.98	4.23	5.98	-0.39	100
2004	69.72	14.50	7.37	3.98	5.40	-0.32	100
2005	70.08	14.45	5.20	3.54	6.80	-0.30	100
2006	64.48	19.90	4.50	5.71	5.66	-0.25	100
2007	63.87	17.82	5.18	6.23	7.15	-0.25	100
2008	60.34	20.47	6.67	6.88	5.87	-0.23	100
2009	62.88	13.20	8.74	5.85	9.60	-0.27	100
2010	55.96	21.65	12.17	6.70	3.72	-0.20	100
2011	56.94	18.17	12.92	8.32	3.83	-0.18	100
2012	59.22	16.51	11.98	8.67	3.84	-0.22	100
2013	59.79	17.06	10.77	9.85	2.78	-0.25	100
2014	60.93	18.36	8.88	9.78	2.29	-0.24	100
2015	61.62	19.76	7.19	9.81	1.83	-0.21	100

Interpretation:

Table 4.4 reveals common-size analysis of investment of policyholders (Non-Linked Business) for the study period. Trend of investment in Govt. & other approved securities indicates that share of this investment in total policyholders investment decreased from 72.29 percent in 2001 to 55.96 percent in 2010 and further to 61.62 percent in 2015. Share of investment in equity & preference shares went up from 9.90 percent in 2001 to 21.65 percent in 2010 and 19.76 percent in 2015. Share of investment in bonds, debentures, mutual fund & other securities has decreased from 16.87 percent in 2001 to 4.50 in 2006 to 12.17 percent in 2010 and further to 7.19 percent in 2015. Similarly, share of investment in infrastructure & social sector has enlarged from 1.11 percent in 2001 to 6.70 percent in 2010 and to 9.81 percent in 2015. Share of other than approved investment in total investment has increased from 0.01 percent in 2001 to 9.60 percent in 2009 and to 1.83 percent in 2015. Provision for doubtful investment also went up from 0.18 percent in 2001 to 0.30 percent in 2005 and to 0.21 percent in 2015.

Findings: Common-size analysis of policyholders' investment (Non-Linked Business) showing in table 4.4 indicates that the LIC of India has preferred to invest buck of its investment in Govt. & other approved Securities i.e. averagely 64.15 percent for the study period. Share of this investment was the highest in 2001 i.e. 72.29 percent and was the lowest in 2010 i.e. 55.96 percent for the same period. Share of investment in equity & preference shares went up from 9.90 percent in 2001 to 19.76 percent in 2015. Its share in total investment was the highest i.e. 21.65 percent in 2010 and was the lowest i.e. 9.66 percent in 2003. Thus, share of investment in equity & preference shares in total investment was second highest for the period 2001 to 2015. Share of investment in bonds, debentures, mutual fund & other securities declined from 16.87 percent in 2001 to 7.19 percent in 2015 for the same period. Share of this investment sharply decreased up to 4.50 percent in 2006 and after this year, its share went up 12.92 in 2011. Share of infrastructure & social sector investment in total investment continue increased from 1.11 percent in 2001 to 9.81 percent in 2015. Share of other than approved investment also enlarged quickly from 0.01 percent in 2001 to 9.60 percent in 2009 and after 2009, this share reached at only 1.83 percent in 2015.

Table 4.5**Maturity-Wise Classification of Investment of Policyholders (Non-Linked Business) (Rs Crore)**

Year	Long Term Investment	Short Term Investment	Total Investment
2001	142333	160	142493
2002	181567	4847	186414
2003	220610	5764	226374
2004	291199	5766	296965
2005	350480	5205	356685
2006	448416	4372	452768
2007	506721	4391	511112
2008	598089	7308	605397
2009	632727	6234	638961
2010	823320	9721	833041
2011	948531	21636	970167
2012	1044070	26111	1070181
2013	1149373	38402	1187775
2014	1364672	25200	1389872
2015	1645788	31953	1677741

Sources: (Annual Reports of the LIC of India 2001-2015)

Interpretation:

Table 4.5 reveals long-term and short-term investment of Policyholders (Non-Linked Business) for the period 2001 to 2015. For the year 2001, total investment was Rs 142493 crore in which long-term investment was Rs 142333 crore i.e. 99.89 percent and short-term investment was Rs 160 crore only i.e. 0.11 percent. In the year 2010, total investment was Rs 833041 crore in which long-term investment was Rs 823320 crore i.e. 98.83 percent and short-term investment was Rs 9721 crore i.e. 1.17 percent. In the year 2015, policyholders' investment was Rs 1677741 crore in which long-term investment was Rs 1645788 crore i.e. 98.10 percent and short-term investment was Rs 31953 crore i.e. 1.90 percent. Thus, long-term investment of policyholders has enlarged from Rs 142333 crore in 2001 to Rs 1645788 crore in 2015 i.e. 11.56 times and short-term investment has gone up from Rs 160 crore in 2001 to Rs 31953 crore in 2015 i.e. 200 times.

Findings: The analysis of data of long-term and short-term Investment of Policyholders (Non-Linked Business) reveals that the Corporation has invested most of total investment in long-term securities i.e. above 98 percent and below 2 percent in short-term securities. Thus, the LIC of India prefers to invest its funds mostly in long-term securities.

Table-4.6
Common-Size Analysis of Maturity-Wise Classification of Investment of Policyholders
(Non-Linked Business)

Year	Long Term Investment	Short Term Investment	Total Investment
2001	99.89	0.11	100
2002	97.40	2.60	100
2003	97.45	2.55	100
2004	98.06	1.94	100
2005	98.54	1.46	100
2006	99.03	0.97	100
2007	99.14	0.84	100
2008	98.79	1.21	100
2009	99.02	0.98	100
2010	98.83	1.17	100
2011	97.77	2.23	100
2012	97.56	2.44	100
2013	96.77	3.23	100
2014	98.19	1.81	100
2015	98.10	1.90	100

Interpretation:

Table 4.6 indicates common-size analysis of long-term and short-term Investment of Policyholders (Non-Linked Business) for the study period. It is cleared from data that the LIC of India has invested above 98 percent in long-term securities and below 2 percent in short-term securities of the total investment of policyholders for the same period.

Findings: The analysis of data of long-term and short-term Investment of Policyholders (Non-Linked Business) reveals that the Corporation has invested most of total investment in long-term securities i.e. above 98 percent and below 2 percent in short-term securities. Thus, the LIC of India prefers to invest its

funds mostly in long-term securities.

Table-4.7
Investment Pattern of Policyholders as at 31 March **Linked Business** **(Rs Crore)**

Year	Govt. Securities & Other Approved Securities	Equity & Preference Shares	Bonds, Debenture, Mutual Fund, Infrastructure and other	Other than Approved Investment	Total
2003	5.65	-----	-----	-----	5.65
2004	112	98	-----	-----	210
2005	1302	1051	86	-----	2439
2006	4177	7370	601	-----	12148
2007	11227	17436	3865	1910	34438
2008	25917	40019	5994	5198	77128
2009	36259	43168	11586	9423	100436
2010	35836	110540	24547	12001	182924
2011	32079	108227	39012	16441	195759
2012	22785	76408	43596	12977	155766
2013	22893	61895	39896	6728	131412
2014	26079	56036	33793	2269	118177
2015	27766	49057	28740	2308	107871

Sources : (Annual Reports of the LIC of India 2001-2015)

Interpretation:

Table 4.7 reveals the investment pattern of policyholders Unit Linked Policies (Linked Business) for the period 2003 to 2015. For the year 2003, total investment of policyholders (linked Business) was Rs 5.65 crore. The corporation invested all this investment in Govt. & other approved securities for this year. In the year 2007, total investment of policyholders was Rs 34438 crore in which investment in Govt. & other approved securities was Rs 11227 crore i.e. 32.60 percent, in equity and preference shares was Rs 17436 crore i.e. 51.89 percent. Investment in bonds, debentures, mutual fund, infrastructure & other securities was Rs 3865 crore i.e. 11.22 percent, and other than approved investment was Rs 1910 crore i.e. 5.55 percent. During the period 2010-11, total investment of policyholders (Linked Business) was Rs 195759 crore in which investment in Govt. & other approved securities was Rs 32079 crore i.e. 16.39 percent, in equity and preference shares was Rs 108227 crore i.e. 55.28 percent. Investment in bonds, debentures, mutual fund, infrastructure & other securities was Rs 39012 crore i.e. 19.93 percent, and other than approved investment was Rs 16441 crore i.e. 8.40 percent. For the year 2015, total investment of policyholders (Linked Business) was Rs 107871 crore in which investment in Govt. & other approved securities was Rs 27766 crore i.e. 25.74 percent, in equity and preference shares was Rs 49057 crore i.e. 45.48 percent. Investment in bonds, debentures, mutual fund, infrastructure & other securities was Rs 28740 crore i.e. 26.64 percent, and other than approved investment was Rs 2308 crore i.e. 2.14 percent.

It is observed from analysis of investment pattern of policyholders (Linked Business) that total investment has gone up from Rs 5.65 crore in 2003 to Rs 34438 crore i.e. 6095 times in 2007, to Rs 195759 crore i.e. 34648 times in 2011 and further to Rs 107871 crore i.e. 19092 times in 2015.

Investment in Govt. & other approved securities has enlarged from Rs 5.65 crore in 2003 to Rs 36259 crore i.e. 6418 times in 2009 and to Rs 27766 crore i. e. 4914 times in 2015. In the same way, investment in equity and preference shares also increased from Rs 98 crore in 2004 to Rs 110540 crore i.e. 1128 times in 2010 and to Rs 49057 crore i.e. 501 times in 2015. Investment in bonds, debentures, mutual fund, infrastructure & other securities has gone up from Rs 86 crore in 2005 to Rs 43596 i.e. 507 times in 2012 and further to Rs 28740 crore i.e. 334 times in 2015. Other than approved investment has amplified from Rs 1910 crore in 2007 to Rs 16441 crore i.e. 8.61 times and Rs 2308 crore in i.e. 1.21 times in 2015.

Findings: It can be noticed from data of table 4.7 that total investment of policyholders (Linked Business) increased rapidly from 2003 to 2011 i.e. from Rs 5.65 crore to 195759 crore and after 2011, total investment declined up to Rs 107871 crore in 2015. Portfolio mix of assets of this Investment reveals that investment in Govt. & other approved securities went up speedily from 2003 to 2009 i.e. from Rs 5.65 crore to 36259 crore and after 2009, it started to decline and reached up to Rs 27766 crore in 2015. Equally, investment in equity and preference shares increased very fast from 2004 to 2010 i.e. from Rs 98 crore to Rs 110540 crore and after 2010, this investment decreased up to Rs 49057 crore in 2015. Investment in bonds, debentures, mutual fund, infrastructure & other securities also increased from 2005 to 2012 i.e. from Rs 86 crore to 43596 crore and then decreased up to Rs 28740 crore in 2015. Similarly, other than approved investment improved from 2007 to 2011 i.e. from Rs 1910 crore to Rs 16441 crore and after 2011, this investment decreased quickly and reached at Rs 2308 crore in 2015.

Table-4.8
Common-Size Analysis of Investment Pattern of Policyholders **Linked Business**
(In Percentage)

Year	Govt. Securities & Other Approved Securities	Equity & Preference Shares	Bonds, Debenture, Mutual Fund, Infrastructure and other	Other than Approved Investment	Total
2003	100	---	-----	-----	100
2004	53.33	46.67	-----	-----	100
2005	53.38	43.09	3.53	-----	100
2006	34.38	60.67	4.95	-----	100
2007	32.60	50.63	11.22	5.55	100
2008	33.60	51.89	7.77	6.74	100
2009	36.10	42.98	11.54	9.38	100
2010	19.59	60.43	13.42	6.56	100
2011	16.39	55.28	19.93	8.40	100
2012	14.63	49.05	27.99	8.33	100
2013	17.42	47.10	30.36	5.12	100
2014	22.07	47.42	28.59	1.92	100
2015	25.74	45.48	26.64	2.14	100

Interpretation:

Table 4.8 shows common-size analysis of investment pattern of policyholders (Linked Business) for the period 2003 to 2015. In the year 2003, the Corporation invested hundred percent of Linked Business investment in Govt. & other approved securities. However, share of this investment in total

policyholders' investment decreased from 53.33 percent in 2004 to 14.63 percent in 2012 and further to 25.74 percent in 2015. Share of investment in equity & preference shares increased from 46.67 percent in 2004 to 60.67 percent in 2006 and after 2006, its share declined up to 42.98 in 2009 and then enlarged up to 60.43 percent in 2010. However, after 2010 Share of same investment regularly decreased and reached at the level of 45.48 percent in 2015. Share of bonds, debentures, mutual fund & other securities investment has increased from 3.53 percent in 2005 to 13.42 in 2010, to 30.36 percent in 2013 and further to 26.64 percent in 2015. Share of other than approved investment in total investment has increased from 5.55 percent in 2007 to 8.33 percent in 2012 and after 2012, its share decreased up to 2.14 percent in 2015.

Findings: Common-size analysis of policyholders' investment (Linked Business) showing in table 4.8 indicates that the LIC of India invested the highest share this investment in Govt. & other approved Securities for the period 2003 to 2005 and after 2005, the corporation invested the highest share of total investment in equity & preference shares i.e. averagely 51.09 percent for the period 2006 to 2015. Thus, LIC of India has preferred to invest the highest share of Unit Linked Insurance Policies investment in equities to earn maximum return. For the study period, share of investment in Govt. & other approved Securities decreased from 100 percent in 2003 to 25.74 percent in 2015. Share of investment in bonds, debentures, mutual fund & other securities went up continuously from 3.53 percent in 2005 to 26.64 percent in 2015. Share of other than approved investment enlarged in the starting years i.e. 5.55 percent in 2007 to 8.33 percent in 2012 and then decreased up to 2.14 percent in 2015.

Table 4.9
Total Investment of the LIC of India as at 31 March (Rs Crore)

Year	Govt. Securities & Other Approved Securities	Equity & Preference Shares	Bonds, Debenture, Mutual Fund and other Securities	Investment in Infrastructure & Social Sector	Other than Approved Investment	Provision for Doubtful Investment	Total
2001	103012	14105	24041	1572	20	-257	142493
2002	131553	20052	30286	4492	493	-462	186414
2003	166471	21877	15809	9552	13542	-877	226374
2004	205125	43076	21880	11813	16021	-950	296965
2005	249979	51545	18498	12636	24126	-1098	356685
2006	291939	90112	20384	25847	25646	-1160	452768
2007	326456	91094	26454	31820	36580	-1292	511112
2008	365275	123900	40413	41670	35544	-1405	605397
2009	401823	84329	55911	37256	61382	-1740	638961
2010	466139	180399	101367	55774	31041	-1679	833041
2011	552421	176258	125403	80637	37183	-1735	970167
2012	633762	176678	128179	92800	41112	-2350	1070181
2013	710197	202602	127994	116990	33023	-3031	1187775
2014	846824	255132	123471	135912	31808	-3275	1389872
2015	1033767	331547	120599	164543	30797	-3512	1677741

Sources: (Annual Reports of LIC of India 2001-2015)

Interpretation: Investment pattern of policyholders (Non-Linked Business) has been shown in table 4.3.

For the year 2001, total investment of policyholders was Rs 142493 crore. Out of total

investment, investment in Govt. & other approved securities was Rs 103012 crore i.e. 72.29 percent, in equity and preference shares was Rs 14105 crore i.e. 9.90 percent. Investment in bonds, debentures, mutual fund & other securities was Rs 24041 crore i.e. 16.87 percent, in infrastructure & social sector was Rs 1572 crore i.e. 1.11 percent and other than approved investment was Rs 20 crore i.e. 0.01 percent.

In the year 2005, total investment of policyholders was Rs 356685 crore in which investment in Govt. & other approved securities was Rs 249979 crore i.e. 70.08 percent, in equity and preference shares was Rs 51545 crore i.e. 14.45 percent. Investment in bonds, debentures, mutual fund & other securities was Rs 18498 crore i.e. 5.20 percent, in infrastructure & social sector was Rs 12636 crore i.e. 3.54 percent and other than approved investment was Rs 24126 crore i.e. 6.80 percent. For this year provision for doubtful investment was Rs 1098 crore i.e. 0.25 percent.

During the period 2014-15, total investment of policyholders was Rs 1677741 crore in which investment in Govt. & other approved securities was Rs 1033767 crore i.e. 61.62 percent, in equity and preference shares was Rs 331547 crore i.e. 19.76 percent. Investment in bonds, debentures, mutual fund & other securities was Rs 120599 crore i.e. 7.19 percent, in infrastructure & social sector was Rs 164543 crore i.e. 9.81 percent and other than approved investment was Rs 30797 crore i.e. 1.83 percent. For this period provision for doubtful investment was Rs 3512 crore i.e. 0.21 percent.

It can be noticed from table 4.3 that total investment of policyholders has increased from Rs 142493 crore in 2001 to Rs 356685 crore i.e. 2.50 times in 2005, to Rs 833041 crore i.e. 5.85 times in 2010 and further to Rs 1677741 crore i.e. 11.77 times in 2015. Out of total investment, investment in Govt. & other approved securities has gone up from Rs 103012 crore in 2001 to Rs 466139 crore i.e. 4.53 times in 2010 and to Rs 1033767 crore i.e. 10.03 times in 2015. Investment in equity and preference shares also enlarged from Rs 14105 crore in 2001 to Rs 180399 crore i.e. 12.79 times in 2010 and further to Rs 331547 crore i.e. 23.51 times in 2015. Similarly, Investment in bonds, debentures, mutual fund & other securities has gone up from Rs 24041 crore in 2001 to Rs 101367 crore i.e. 4.22 times in 2010 and to Rs 120599 crore i.e. 5.02 times in 2015. Investment in infrastructure & social sector has enlarged from Rs 1572 in 2001 to 55774 crore i.e. 35.48 times in 2010 and further to Rs 164543 crore i.e. 104.67 times in 2015. Other than approved investment also increased from Rs 20 crore in 2001 to Rs 31041 crore i.e. 1552 times in 2010 and Rs 30797 crore i.e. 1540 times in 2015. Provision for doubtful investment also went up from Rs 257 crore in 2001 to 3512 crore i.e. 13.67 times in 2015.

Findings: It can be observed from table 4.3 that total investment of policyholders (Non-Linked Business) has gone up 11.77 times for the study period i.e. from Rs 142493 crore in 2001 to Rs 1677741 crore in 2015. Out of total investment, investment in Govt. & other approved securities, in equity and preference share, in bonds, debentures, mutual fund & other securities, in infrastructure & social sector and other than approved investment has increased by 10.03 times, 23.51 times, 5.02 times, 104.67 times and 1540 times respectively for the period 2001 to 2015.

Table 4.10**Common-size Analysis of Total Investment of the LIC of India as at 31 March (In Percentage)**

Year	Loans	Securities	Other Investment	Total
2001	18.34	80.07	1.59	100
2002	15.78	82.23	1.99	100
2003	14.27	84.14	1.59	100
2004	13.26	85.60	1.14	100
2005	13.14	86.13	0.73	100
2006	11.00	88.36	0.64	100
2007	10.76	88.69	0.55	100
2008	10.08	89.37	0.55	100
2009	10.15	89.28	0.57	100
2010	7.77	91.81	0.42	100
2011	7.00	91.00	2.00	100
2012	7.00	89.00	4.00	100
2013	6.30	88.05	5.65	100
2014	5.96	89.15	4.89	100
2015	5.00	92.00	3.00	100

Interpretation:

Table 4.10 exposes common-size analysis of total investment of the LIC of India. Trend of the data discloses that share of loans in total investment was 18.34 percent in 2001, 7.77 percent in 2010 and 5 percent in 2015. Thus, share of loans has decreased for the study period. Share of investment in securities in total investment was 80.07 percent in 2001, 86.13 percent in 2005, 91.81 percent in 2010 and 92 percent in 2015. Share of this investment has increased. Share of other investment in total investment was 1.59 percent in 2001, 0.42 percent in 2009, 5.65 percent in 2013 and 3 percent in 2015. Findings: Common-size analysis of total investment of the LIC shows that share of loans in total investment has decreased from 18.34 percent in 2001 to 5 percent in 2015. Share of investment in securities in total investment has gone up from 80.07 percent in 2001 to 92 percent in 2015. Share of other investment has declined from 1.59 percent in 2001 to 0.42 percent in 2009. However, after 2009, its share in total investment has increased up to 3 percent in 2015. Therefore, the present study exposes that the LIC of India has invested most of its investment in securities i.e. averagely 87.66 percent of the total investment for the study period.

Table 4.11**Total Investment of the LIC of India as at 31 March in India and Outside of India (Rs Crore)**

Year	Investment in India	Outside of India	Total
2001	175015	476	175491
2002	221117	580	221697
2003	264366	678	265044
2004	342220	909	343129
2005	412857	944	413801
2006	523066	952	524017
2007	612213	1054	613267
2008	755815	1076	756891
2009	814383	1101	815484
2010	1094718	1123	1095841
2011	1265120	1419	1266539
2012	1347561	1971	1349532
2013	1484048	2409	1486457
2014	1681778	2913	1684691
2015	1943207	3042	1946249

Sources: (Annual Reports of the LIC of India 2001-2015)

Interpretation:

Table 4.11 discloses investment in India and outside of India of the Corporation for the period 2001 to 2015. For the year 2001, total investment of the Corporation was Rs 175491 crore in which investment in India was Rs 175015 crore i.e. 99.73 percent and outside of India was Rs 476 crore i.e. 0.27 percent. In 2010, total investment was Rs 1095841 crore in which investment in India was Rs 1094718 crore i.e. 99.90 percent and outside of India was Rs 1123 crore i.e. 0.10 percent. For the year 2015, total investment of the Corporation was Rs 1946249 crore in which investment in India was Rs 1943207 crore i.e. 99.84 percent and outside of India was Rs 3042 crore i.e. 0.16 percent.

Findings: It can be noticed from table 4.11 that LIC of India has invested averagely 99.81 percent of the total investment in India and averagely 0.19 percent in outside of India for the study period. Thus, the Corporation prefers to invest most of the total investment in India.

CONCLUSION:

The present study evaluates the portfolios mix of assets of the LIC of India after the liberalisation of Indian insurance industry i.e. from 2001 to 2015. The study reveals that total investment of shareholder has enlarged 4.82 times for the study period. Common-size analysis of shareholder's investment shows that share of investment in Govt. Securities in total investment declined from 90.79 percent in 2002 to 41.37 in 2015 and equity share went up from 9.21 percent in 2002 to 10.10 percent in 2015. Share of subsidiaries investment tremendously increased from 9.32 percent in 2004 to 48.16 percent in 2015 and share of other securities investment continue decreasing for the study period. Thus, the LIC has invested the highest share of shareholder's investment in Govt. Securities from 2002 to 2012 and after this period, share of investment in subsidiaries was the highest.

Similarly, total investment of policyholders (Non-Linked Business) has gone up 11.77 times for the study period i.e. from Rs 142493 crore in 2001 to Rs 1677741 crore in 2015. Common-size analysis of policyholders' investment (Non-Linked Business) indicates that the LIC of India has preferred to invest bulk of this investment in Govt. & other approved Securities i.e. averagely 64.15 percent for the study period. The analysis of data of long-term and short-term Investment of Policyholders (Non-Linked Business) reveals that the Corporation has invested most of total investment in long-term securities i.e. above 98 percent and below 2 percent in short-term securities. Thus, the LIC of India prefers to invest its funds mostly in long-term securities.

It is observed from analysis of investment pattern of policyholders (Linked Business) that total investment has gone up from Rs 5.65 crore in 2003 to Rs 195759 crore i.e. 34648 times in 2011 and further to Rs 107871 crore i.e. 19092 times in 2015. Common-size analysis of policyholders' investment (Linked Business) indicates that the LIC of India invested the highest share this investment in Govt. & other approved Securities for the period 2003 to 2005 and after 2005, the corporation invested the highest share of total investment in equity & preference shares i.e. averagely 51.09 percent for the period 2006 to 2015. Thus, LIC of India has preferred to invest the highest share of Unit Linked Insurance Policies investment in equities to earn maximum return.

Total investment of the LIC of India has increased sharply from Rs 175491 crore in 2001 to Rs 1946249 crore i.e. 11.09 times in 2015. Out of total investment, loans improved from Rs 32185 crore in 2001 to 106107 crore i.e. 3.30 times in 2015. Similarly, investment in securities has gone up from Rs 140520 crore in 2001 to Rs 1776939 crore i.e. 12.65 times in 2015. Other investment also increased

from Rs 2786 crore in 2001 to Rs 63203 crore i.e.22.69 times in 2015. Therefore, the present study shows that the LIC of India has invested most of its investment in securities i.e. averagely 87.66 percent of the total investment for the study period.

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