

SECTOR-WISE INVESTMENT OF PUBLIC HEALTH INSURANCE COMPANIES: AN ANALYSIS

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ABSTRACT

The health insurance business collects the health insurance premiums and invests it in deferent sectors as per investment pattern of the IRDA Regulation in India. These sectors are Central Government Securities, State Government & Other Approved Securities, Housing & Loans to State Government for Housing and FFE, Infrastructure Investments, Approved Investments and Other Investments. During the investment, the growth of the business and the safety & security of the investment are considered with economic development in India. In this study, the Year Wise Growth Analysis and Compound Annual Growth Rate (CAGR) of sector wise investments are used to find the growths of sector wise investments of National Insurance Co. Ltd. (National), New India Assurance Co. Ltd. (New India), Oriental Insurance Co. Ltd. (Oriental) and United India Insurance Co. Ltd. (United) during the period 2010-2011 to 2016-2017. This paper reveals that National Insurance Company is the leading public health insurance company for sector wise investments in India.

KEYWORDS: CAGR; Year Wise Growth Analysis; Sector Wise Investment; Public Health Insurance.

Introduction

In health insurance business, sector-wise investment is very important part for the existence of health insurance business in India. The proportion of investment in different sectors is regulated by the IRDA Regulations. The health insurance company collects insurance premium invests in the different sectors in India. These investments proportion are controlled and monitored to develop the growth of the health insurance business and sector wise investments are made ensuring the safety & security of the fund with the priority of economic development in India. In this article, the year wise growth analysis and compound annual growth rate (CAGR) of sector wise investments are measured to compare the growth of the different sector wise investments of four public health insurance companies during the period 2010-2011 to 2016-2017.

Past Studies

Mavalankar. D. & Bhat. R. (2000) in their article 'Health Insurance in India Opportunities, Challenges and Concerns' focuses on existing health insurance needs to be developed and social health insurance pattern is to be modified. Ahuja, R. (2004). in the journal, Indian Council for Research on International Economic Relations, cited health insurance for the poor in India, community health insurance, universal health insurance scheme, insurance reforms and health insurance prospects for the poor. Resmi, B. Nair, N. S. Sabu, K. M. & Unnikrishan, B (2007) studied community based cross sectional study in mangalore city, India, 'Awareness of Health Insurance in a South Indian population-A Community Based Study'. Malhotyra, S. Patnaik, I. Roy, S. & Shah, A (2018) in their article, 'Fair Play in Indian Health Insurance' has discussed the fair play in Indian health insurance companies for their public service. Nagaraju, Y. (2014) in journal 'A Study on Performance of Health Insurance Schemes in India' discussed on coverage of health insurance scheme, awareness of the beneficiaries and satisfaction towards scheme, service quality of health care. Swathi, K. & Anuradha, R. (2017) in their article 'Health Insurance in India-An Overview' studied on the concept and benefits of health insurance, overview of

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health insurance in India. Anita, A. (2008) in her journal 'Emerging Health Insurance in India- an Overview' pointed the health insurance scenario in India, health insurance products in India, role of IRDA, different health insurance plans and privatization of health insurance. Bhavesh, D., Ravi, D., Gaurang, A., Kanan, D. & RK, B. (2015) mentioned in journal 'Health Insurance: Effects and awareness', discussed the awareness on health insurance, availability and nature of health insurance coverage, problem faced while getting claims in general public.

Methodology

Nature of Research	<ul style="list-style-type: none"> • Exploratory in nature
Nature of Data	<ul style="list-style-type: none"> • Secondary in nature
Source of Data	<ul style="list-style-type: none"> • Books • Journal Articles • Websites • IRDA Annual Reports
Sector Wise Investment of four public health insurance companies {National Insurance Co. Ltd. (National), New India Assurance Co. Ltd. (New India), Oriental Insurance Co. Ltd. (Oriental) and United India Insurance Co. Ltd. (United)}	<ul style="list-style-type: none"> • Central Government Securities; • State Government & Other Approved Securities; • Housing & Loans to State Government for Housing and FFE; • Infrastructure Investments; • Approved Investments; • Other Investments.
Period of the Study	<ul style="list-style-type: none"> • 2010-2011 to 2016-2017
Objectives	Statistical Tools
To measure year wise growth analysis of sector-wise investment and find the CAGR of sector-wise investment of four public health insurance companies.	<ul style="list-style-type: none"> • Year Wise Growth Analysis • Compound Annual growth Rate (CAGR)

Objectives of the Study

The present study is made on the basis of sector wise investment during period 2010-2011 to 2016-2017:

- To measure year wise growth analysis of sector-wise investment;
- To find the CAGR of sector-wise investment.

Result and Discussion

Making a Growth Analysis of Sector-Wise Investment

In this section, the annual growth of sector-wise investment is analyzed using the following formula:

$$\varnothing \text{ Growth (G)} = (\text{Ending Value} - \text{Beginning Value}) \div \text{Beginning Value} \times 100$$

Here, the annual growth of Central Government Securities, State Government & Other Approved Securities, Housing & Loans to State Government for Housing and FFE, Infrastructure Investments, Approved Investments and Other Investments is analyzed below:

Table 1: Central Government Securities (Rs.in Crore)

Year	National	Growth (%)	New India	Growth (%)	Oriental	Growth (%)	United	Growth (%)
2010-2011	1847.28	-	3322.97	-	2194.86	-	2373.68	-
2011-2012	2305.71	24.82	3782.28	13.82	2428.39	10.64	2837.93	19.56
2012-2013	2782.23	20.67	4861.68	28.54	2740.56	12.86	3441.85	21.29
2013-2014	3602.63	29.49	5436.57	11.82	2714.69	-0.94	3956.35	14.95
2014-2015	3770.28	4.65	5776.33	6.25	2745.21	1.12	4185.91	5.81
2015-2016	3780.25	0.26	7991.39	38.35	2745.66	0.016	4055.77	-3.11
2016-2017	4364.94	15.47	7214.03	-9.73	3037.38	10.62	4775.65	17.75
Total Average	-	15.89	-	14.84	-	5.71	-	12.70

Source: IRDA, Annual Report

Table 2: State Government & Other Approved Securities (Rs. in Crore)

Year	National	Growth (%)	New India	Growth (%)	Oriental	Growth (%)	United	Growth (%)
2010-2011	1181.01	-	1222.61	-	967.78	-	1228.31	-
2011-2012	1299.03	9.99	1466.86	19.98	1145.78	18.39	1303.90	6.15
2012-2013	2342.65	80.34	2108.15	43.72	1378.89	20.35	1574.49	20.75
2013-2014	2690.91	14.87	2177.43	3.29	1425.32	3.37	1754.22	11.42
2014-2015	3224.39	19.83	2371.67	8.92	1732.38	21.54	2148.08	22.45
2015-2016	3185.80	-1.20	3794.89	60.01	1667.50	-3.75	2353.40	9.56
2016-2017	3510.84	10.20	5523.03	45.54	2033.40	21.94	2667.00	13.33
Total Average	-	22.33	-	30.24	-	13.64	-	13.94

Source: IRDA, Annual Report

Table 3: Housing & Loans to State Government for Housing and FFE (Rs.in Crore)

Year	National	Growth (%)	New India	Growth (%)	Oriental	Growth (%)	United	Growth (%)
2010-2011	664.30	-	1028.59	-	463.05	-	1185.09	-
2011-2012	778.05	17.12	1167.46	13.50	625.00	34.97	1339.51	13.03
2012-2013	883.71	13.58	1431.01	22.57	806.42	29.03	1587.73	18.53
2013-2014	997.05	12.83	1890.34	32.10	948.79	17.65	1713.16	7.90
2014-2015	982.92	-1.42	2208.02	16.81	1058.51	11.56	1874.05	9.39
2015-2016	1009.44	2.70	2327.16	5.40	1155.58	9.17	1981.74	5.75
2016-2017	981.83	-2.74	2515.24	8.08	1390.46	20.33	2231.98	12.63
Total Average	-	7.01	-	16.40	-	20.45	-	11.20

Source: IRDA, Annual Report

Table 4: Infrastructure Investments (Rs. in Crore)

Year	National	Growth (%)	New India	Growth (%)	Oriental	Growth (%)	United	Growth (%)
2010-2011	1679.99	-	1751.62	-	1056.55	-	1569.18	-
2011-2012	2173.94	29.40	1794.62	2.45	1229.75	16.39	2082.92	32.74
2012-2013	2486.97	14.40	2310.56	28.75	1591.16	29.39	2508.39	20.43
2013-2014	2494.55	0.30	2674.84	15.77	1765.49	10.96	3343.25	33.28
2014-2015	2639.23	5.80	3124.06	16.79	1961.16	11.08	3469.64	3.78
2015-2016	2509.02	-4.93	3531.00	13.03	1904.92	-2.87	3550.13	2.32
2017-2016	2155.02	-14.11	3665.78	3.82	1876.15	-1.51	3931.70	10.75
Total Average	-	5.14	-	13.43	-	10.57	-	17.21

Source: IRDA, Annual Report

Table 5: Approved Investments (Rs. in Crore)

Year	National	Growth (%)	New India	Growth (%)	Oriental	Growth (%)	United	Growth (%)
2010-2011	2739.93	-	5898.07	-	3060.97	-	4403.74	-
2011-2012	3512.41	28.19	7263.07	23.14	3373.25	10.20	5065.31	15.02
2012-2013	4436.55	26.31	6837.01	-5.87	3720.05	10.28	5826.48	15.03
2013-2014	5051.34	13.86	8589.47	25.63	4375.36	17.62	6223.33	6.81
2014-2015	5469.01	8.27	9258.26	7.79	4707.86	7.60	6684.22	7.41
2015-2016	5633.40	3.01	8039.27	-13.17	4384.78	-6.86	6877.65	2.89
2016-2017	6974.81	23.81	9240.38	14.94	4721.55	7.68	6631.71	-3.58
Total Average	-	17.24	-	8.74	-	7.75	-	7.26

Source: IRDA, Annual Report

Table 6: Other Investments (Rs. in Crore)

Year	National	Growth (%)	New India	Growth (%)	Oriental	Growth (%)	United	Growth (%)
2010-2011	278.55	-	380.29	-	471.51	-	487.58	-
2011-2012	665.44	138.89	295.00	-28.91	362.70	-23.08	639.78	31.22
2012-2013	174.07	-73.84	334.14	11.71	347.71	-4.13	999.50	56.23
2013-2014	149.60	-14.06	242.55	-37.76	287.58	-17.29	588.81	-41.09
2014-2015	396.53	165.06	274.77	11.73	268.40	-6.67	735.68	24.94
2015-2016	1024.56	158.38	496.34	44.64	355.83	32.57	846.61	15.08
2016-2017	1309.58	27.82	1164.31	57.37	599.74	68.55	1813.94	114.26
Total Average	-	67.04	-	9.79	-	8.32	-	33.43

Source: IRDA, Annual Report

Findings

The average growth of sector wise investment is maximum 15.89% in Central Government Securities of Oriental and 30.24% in State Government & Other Approved Securities of New India, 20.45% in Housing & Loans to State Government for Housing and FFE of Oriental, 17.21% in Infrastructure Investments of United, 17.24% in Approved Investments of National and 67.04% in Other Investments of National during the study period.

Exploring CAGR of Sector-Wise Investment

In this section, the CAGR is studied of Central Government Securities, State Government & Other Approved Securities, Housing & Loans to State Government for Housing and FFE, Infrastructure Investments, Approved Investments and Other Investments applying the following equation:

$CAGR = (Ending\ Value/Beginning\ Value)^{(1/Number\ of\ Years)} - 1$.

Table 7: Central Government Securities (Rs. in Crore)

Year	National	New India	Oriental	United
2010-2011	1847.28	3322.97	2194.86	2373.68
2011-2012	2305.71	3782.28	2428.39	2837.93
2012-2013	2782.23	4861.68	2740.56	3441.85
2013-2014	3602.63	5436.57	2714.69	3956.35
2014-2015	3770.28	5776.33	2745.21	4185.91
2015-2016	3780.25	7991.39	2745.66	4055.77
2016-2017	4364.94	7214.03	3037.38	4775.65
CAGR (%)	15.41	13.79	5.56	12.36

Source: IRDA, Annual Report

Table 8: State Government & Other Approved Securities (Rs. in Crore)

Year	National	New India	Oriental	United
2010-2011	1181.01	1222.61	967.78	1228.31
2011-2012	1299.03	1466.86	1145.78	1303.9
2012-2013	2342.65	2108.15	1378.89	1574.49
2013-2014	2690.91	2177.43	1425.32	1754.22
2014-2015	3224.39	2371.67	1732.38	2148.08
2015-2016	3185.8	3794.89	1667.5	2353.4
2016-2017	3510.84	5523.03	2033.4	2667
CAGR (%)	19.91	28.57	13.17	13.79

Source: IRDA, Annual Report

Table 9: Housing & Loans to State Government for housing and FFE (Rs. in Crore)

Year	National	New India	Oriental	United
2010-2011	664.3	1028.59	463.05	1185.09
2011-2012	778.05	1167.46	625	1339.51
2012-2013	883.71	1431.01	806.42	1587.73
2013-2014	997.05	1890.34	948.79	1713.16
2014-2015	982.92	2208.02	1058.51	1874.05
2015-2016	1009.44	2327.16	1155.58	1981.74
2016-2017	981.83	2515.24	1390.46	2231.98
CAGR (%)	7.27	6.67	20.11	11.13

Source: IRDA, Annual Report

Table 10: Infrastructure Investments (Rs. in Crore)

Year	National	New India	Oriental	United
2010-2011	1679.99	1751.62	1056.55	1569.18
2011-2012	2173.94	1794.62	1229.75	2082.92
2012-2013	2486.97	2310.56	1591.16	2508.39
2013-2014	2494.55	2674.84	1765.49	3343.25
2014-2015	2639.23	3124.06	1961.16	3469.64
2015-2016	2509.02	3531.00	1904.92	3550.13
2016-2017	2155.02	3665.78	1876.15	3931.7
CAGR (%)	4.24	13.10	10.04	16.54

Source: IRDA, Annual Report

Table 11: Approved Investments (Rs. in Crore)

Year	National	New India	Oriental	United
2010-2011	2739.93	5898.07	3060.97	4403.74
2011-2012	3512.41	7263.07	3373.25	5065.31
2012-2013	4436.55	6837.01	3720.05	5826.48
2013-2014	5051.34	8589.47	4375.36	6223.33
2014-2015	5469.01	9258.26	4707.86	6684.22
2015-2016	5633.4	8039.27	4384.78	6877.65
2016-2017	6974.81	9240.38	4721.55	6631.71
CAGR (%)	16.85	7.77	7.49	7.06

Source: IRDA, Annual Report

Table 12: Other Investments (Rs. in Crore)

Year	National	New India	Oriental	United
2010-2011	278.55	380.29	471.51	487.58
2011-2012	665.44	295.00	362.7	639.78
2012-2013	174.07	334.14	347.71	999.5
2013-2014	149.6	242.55	287.58	588.81
2014-2015	396.53	274.77	268.40	735.68
2015-2016	1024.56	496.34	355.83	846.61
2016-2017	1309.58	1164.31	599.74	1813.94
CAGR (%)	29.43	20.50	4.10	24.48

Source: IRDA, Annual Report

Findings

The CAGR of sector wise investment is 15.41% in Central Government Securities of National, 28.57% in State Government & Other Approved Securities of New India, 20.11% in Housing & Loans to State Government for Housing and FFE of Oriental, 16.54% in Infrastructure Investments of United, 16.85% in Approved Investments of National and 29.43% in Other Investments of National during the study period.

Conclusion

National Insurance Co. Ltd. is investing more in Central Government Securities, Approved Investments and Other Investments for the collection of large health insurance premium to increase the growth of health insurance business. The Oriental Insurance Co. Ltd. is investing more only in Housing & Loans to State Government for Housing and FFE to develop the social sector in India and United India Insurance Co. Ltd. is investing more in Infrastructure Investments to increase the future health insurance business in India during the study period 2010-2011 to 2016-2017.

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