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RESEARCH ARTICLE

Macro Economy Blooms the Life Insurance Companies in India: An Overview

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Abstract

In India, Insurance has been synonymous with LIC. Life Insurance Corporation (LIC) was created as an entity in 1956 through LIC Act. The presence of new players in the market has no doubt resulted in enhanced product innovation, distribution models, better services and value added benefits. The significant components of expansion in the life sector have been the enormous growth in unit linked insurance plans and allied services. Though LIC of India require time to adopt themselves to the competitive environment and the associated contemporary structural changes, the post-deregulation period has seen greater diversification in the product offerings with added emphasis on marketing and distribution strategies. Now, insurance is driving the infrastructure sector by increasing investments each year. Further, insurance has boosted the employment scenario in India by providing direct as well as indirect employment opportunities[1]. The insurance market depends on a variety of economic and non-economic factors, and the future performance is difficult to predict. It has been observed that there is a significant relationship between the demand for life insurance and various macroeconomic variables. High growth of GDP induces an economic effect through higher per-capita and disposable income and savings, which in turn create a favourable market demand for life insurance. On the other hand, life insurance also gives support to the capital market and savings of Indian life insurance business. Data pertaining to Indian life insurance and macroeconomic variables broadly indicate a close relationship and interdependence between economic variables and life insurance demand.

Keywords: *GDP, GDS, Individual Agents, Inflation, Investment, Macroeconomy, Population, Premium.*

Introduction

The insurance sector is very significant to every developing country. It develops the habit of savings which, in turn, generates long-term investible funds for improving infrastructural facilities. The nature of insurance business ensures constant inflow of funds and challenges such as unprecedented volatility, changing customer profiles and existing regulators. Despite the challenges ahead, opportunities for growth can be anticipated by horizontal global expansion. Even though the participation by foreign joint venture partners through the Bancassurance models in the form of FDI, is limited to 26% of the paid-up capital. So, foreign players have entered the Indian insurance market on easily [2]. Insurance is a capital intensive industry and it generates long-term capital which is required to build infrastructure projects that have a long gestation period. The life insurance business is significantly influenced by the state of the economy of a country and major factors that influence it are the rate of growth of GDP, the levels of domestic savings, household financial savings and disposable income. The size of the life insurance market is also influenced by the rate of growth of population, social security and health care systems, changes in customs, social practices, and risks. It ahs been observed that societies in which the standard of living has been steadily improving experience a higher insurance penetration. Market competition exerts a very positive influence on market expansion, life insurance penetration as well as insurance density. The recent upsurge in the Indian economy and market reforms leading to the competition has created tremendous opportunities for the growth of the life insurance industry [3]. Hence there is a close relationship and interdependence between macroeconomic variables and life insurance. In this article an attempt has been made to focus on some key factors of the growth of the Indian life insurance industry in the context of macroeconomic changes. The study has also been assessed the influence of macroeconomic factors on investments in life insurance sector in the post life insurance reforms period.

Sources of Data

Macroeconomic variables considered are GDP, insurance penetration; insurance density, household financial savings, population, interest rate and inflation are collected from RBI Statistics 2009-2010 and IRDA Annual Reports from 2001 to 2010.

Life Insurance during Reforms Period

With the initiation of economic liberalisation in 1991, coupled with globalization and privatization, the economic and business environment in India have changed significantly. As a result, the entire set-up has taken up a new turn, become competitive and has opened the doors for immense opportunities and intractable problems and challenges. Several issues have been waiting for effective and efficient solutions for maintaining their growth and prosperity. The insurance sector is very significant to every developing economy. It develops the habit of savings which in turn generates long term investible funds for improving infrastructural facilities. The nature of insurance business ensures constant inflow of funds and challenges such as unprecedented volatility, changing customer profiles and existing regulators. Despite the challenges ahead, opportunities for growth can be anticipated by horizontal global expansion. Despite the fact that the nationalization brought with it the public sector bureaucracies, cumbersome and inefficient procedures, these nationalized insurance companies managed to have millions of policyholders who have no other options. Any attempt to even suggest private participation with a view to instill healthy competition and efficient services was only met with stiff resistance and partial success. Although the early 90's brought forth liberalisation on all major economic fronts, the insurance sector was left untouched. The nationalized insurance companies could barely unearth the vast potential of the Indian population since the policies lacked flexibility and the Indian life insurance products are not linked to the contemporary investment avenues.

Global Insurance on Indian Market during Crisis Period

The macroeconomic environment in 2007 across the globe was characterized by marginally slower economic growth and rising inflation driven by a steep increase in food and energy prices. Key interest rates diverged, but where generally low. Though strong at the end of 2007, stock markets fell in early 2008. In this backdrop worldwide insurance premium amounted to US Dollar 4061 billion in 2007 as against US Dollar 3723 billion in 2006. Of the total premium, life insurance premium amounted to US Dollar 2393 billion and the remaining US Dollar 1668 billion by general insurance business. At this level, the global total premium increased by 3.3 per cent in real terms in 2007 compared to 5.0 per cent in 2006. The growth in life insurance premium was about 5.4 per cent. While the premium grew by 4.7 per cent in industrialized countries, it grew by 13.1 per cent in emerging market economies. The continued expansion of life insurance business in industrialized countries was through pension and annuities products driven by an aging population and reductions in state social security benefits. In the case of emerging economies, strong economy growth, relatively young population and an expanding middle class contributed to higher insurance sales. In emerging markets, the growth in life insurance was 13.1 per cent during 2007 as against 21.1 per cent in 2006. The profitability of life business continued to improve in many countries as costs were cut, guaranteed interest rates were reduced and profit participations was adjusted to reflect the low interest rate environment [4].

Contribution of Insurance to Employment

Insurance helps create both direct and indirect employment in the economy. Alongside regular jobs in insurance, there is always demand for a range of associated professionals such as brokers, insurance advisors, agents, underwriters, claims managers and actuaries. The increasing insurance business has increased the demand for highly skilled professionals as well as semi-skilled and unskilled people. For example, life insurance provided direct employment to an additional set of 30,912 people besides adding more than 4,07,768 individual agents during the financial year 2009 and 38,480 people besides adding more than 5,03,666 individual agents during the financial year 2011. IRDA has mandated the appointment of actuaries in all insurance companies, ensuring the certification of all products before launch. The insurance regulator has also made it mandatory for appointed actuaries to attend all board meetings to help the insurer ensure solvency at all points in time. To ensure continued growth, the need of the hour is trained manpower with specialized knowledge about insurance. Insurance companies need to invest in the professional training of their employees, especially for subjects such as underwriting, claims and risk management[5].

Table 1: Growing employment in the life insurance industry

Year	Direct employees	Individual agents
2006	1,52,449	14,22,609
2007	1,87,403	19,85,457
2008	2,54,332	24,98,513
2009	2,85,244	29,06,281
2010	3,01,257	29,78,283
2011	3,35,566	26,39,392

Source: Life Insurance Council of India and various annual reports of IRDA.

Growth of the Indian Insurance Industry

The Indian economy has been performing well and the momentum of growth has picked up particularly since liberalisation was initiated in the 1990s. Though the over all growth rate during the last decade has fluctuated, yet it remained well above many emerging economies of the world. With further reforms initiated in the early 1990s, there has been a significant structural change in the macro economy and in the process the service sector has emerged as the leading sector and engine of growth.

Table 2: Global comparison of insurance premiums, penetration and density for life segment

Country	Premiums, US $million	Penetration, % of GDP	Density US $ per capita
India	46,206	6.6	48.1
Malaysia	5,682	2.9	206.9
Thailand	6,212	2.4	91.7
China	1,09,175	2.3	81.1
Sri Lanka	238	0.6	11.8
Philippines	1,563	1.0	17
Indonesia	5,066	0.9	22
Pakistan	543	0.3	3

Source: www.irdaindia.org, world insurance in 2009, Swiss Re, June 2010

From the above table 2, it is showing that among the key Asian markets, India is likely to have the fastest growing life insurance market, with life premium poised to grow at a CAGR of 15% for the next decade, slightly faster than the 14% expected for China. The growing consumer class, rising insurance awareness and greater infrastructure spending have made India and China the two most promising markets in Asia. Europe and the America represent relatively nature insurance markets. Though India's penetration appears higher, it is not excessive given the high level of investments in insurance policies underwritten. Taiwan has the highest insurance penetration in Asia, largely driven by the immense popularity of ULIPs.

Growth of Life Insurance in India

India is one of the developing countries in the world which has achieved a high growth rate in domestic savings, and a higher propensity to save by the household sector has been maintained over the period. Life insurance business of India is gradually increasing its contribution to the GDP. Due to the healthy performance of the Indian economy, the share of life insurance premiums in the Gross Domestic Savings (GDS) of the household sector has increased. The increased contribution of the insurance industry from the household GDS has been ploughed back into the economy, generating higher growth.

Table 3: Share of life insurance premiums in GDS (household sector) (in %)

Year	Life insurance premiums in GDS (household sector) (in %)
2005	11.0
2006	12.3
2007	15.9
2008	17.9
2009	17.6

Source: IRDA, National Income Statistics, July 2010, CMIE

Table 3 exhibits that the continuous gradual increases of 11 per cent to 17.9 per cent on share of life insurance premiums in GDS on household sector from the year 2005 to 2008 and there is a marginal decrease of 0.3 per cent.

Determinants of Life Insurance Demand

Life Insurance as a financial intermediary contributes significantly to promoting the capital market. The major macroeconomic factors are the income level (per capita and disposable income), inflation and price level, price of insurance, comparative return on investment of life insurance and demographic factors as determinants of life insurance growth are the fundamental macroeconomic factors and form the linkages between the economy and the life insurance market. Life insurance is an important intermediary in the financial market, and also plays a very vibrant role in the economy by mobilizing savings and supplying long term capital for economic growth and as an asset allocator. The pattern of asset allocation of any life insurance company among the financial instruments provides a significant insight into its support to various segments of the market. Further, in a competitive insurance market, competition among the insurers increases productive efficiency, provides investors with diversified portfolio choice, enhances liquidity and induces better monitoring and corporate governance. A strong life insurance industry promotes a developed contractual savings sector which contributes to a more resilient economy, one that would be less vulnerable to interest rate and demand shocks, while creating a more stable business environment, including macroeconomic stability.

The result will be a lower country risk premium, hence equilibrium interest rates which increase investment and ultimately accelerate growth [6].

Insurance as a Macroeconomic Issue

Insurers can promote efficiency in the financial system as follows:

Mobilization of Scattered Resources

The money collected from the scattered and distinct policyholders by way of premium is pooled and invested in projects which would otherwise have not been possible. This reduces the transaction cost of financing and eases the pressure on the financial intermediaries.

Creation of Liquidity

Instead of policyholders directly landing their money to entrepreneurs and projects, the money is lent on their behalf by the insurance company. This creates liquidity in the system and in case the adverse event occurs, money is immediately paid to the insured without time lags.

Economies of Scale

The bulk funds invested in large and infrastructure projects promote economies of scale, promoter economic development and growth and other technological innovation [7].

Measuring Impact of Macroeconomy on Development

There are several yardsticks to measure the role and relationship of life insurance and macro economy in the context of market development.

- Growth in GDP and its impact on insurance penetration and insurance density
- Increase in household financial savings and its impact on life insurance
- Inflation, interest rate and life insurance growth
- Investment of LIC of India and life insurance premium
- Population growth and life insurance growth

Insurance and GDP

In general higher level of GDP causes higher life insurance penetration; yet, at the country level the penetration level may be lower than the level of GDP whereas low GDP countries have achieved better penetration. India with reasonably higher level of GDP had low level of penetration 4.6 per cent as against world penetration of 6.55 per cent. The level of penetration in USA may be lower than the world average due to the fact that here other segments like pension and mutual funds are highly developed and a large amount of savings are directed there, resulting in lower penetration of life insurance. Life insurance penetration is calculated as life insurance premium as a percentage of GDP of a country. Level of GDP has significant influence on the level of life insurance premium. Density is the other important indicator of life insurance and macroeconomic relationship. Since density is measured as the premium per capita; higher premium and lower population generates higher density level. This can be noted with respect to low population high premium countries which have achieved better density.

Density in highly populated countries like India and China was quite low with US$47.7 and US$62.7 respectively in 2010. It is therefore evident that industrially developed and nature economies have achieved better penetration and density indicating that macro economy and life insurance market is very closely related. So, the relationship between the insurance density and GDP is direct. Insurance density varies directly with GDP. It is calculated as life insurance premium as a percentage of population. GDP is expected to have a positive relationship with life insurance penetration. To test the relationship between insurance penetration and insurance density with GDP, Pearson correlation analysis was made.

Table 4: GDP with insurance penetration and insurance density

Year	GDP (at market prices – Rs. in crores)	Insurance Penetration (%)	Insurance Density (USD)
2001-02	2278952	2.15	9.1
2002-03	2454561	2.59	11.7
2003-04	2754620	2.26	12.9
2004-05	3239224	2.53	15.7
2005-06	3706473	2.53	18.3
2006-07	4283979	4.10	33.2
2007-08	4947857	4.00	40.4
2008-09	5574448	4.00	41.8
2009-10	6231172	4.60	47.7

Source: RBI Statistics 2009-10 & IRDA Annual Report 2009-10

The correlation value of Insurance Penetration and GDP is 0.93 and Insurance density with GDP is 0.98. The above correlation values are indicated a strong positive correlation of life insurance penetration and density with the GDP.

Interdependance of Gdp, Household Savings and Life Insurance Funds

High GDS have been strongly supported by savings in the household sector. Overall growth in GDP and household savings has significantly influenced the growth of Indian life insurance business. A new dimension of the relationship between macroeconomic variables and insurance industry has been opened up by financial liberalization and reforms in the Indian insurance sector. Reforms and liberalization are expected to exert a significant impact on income, savings and insurance purchase; financial reforms are expected to improve allocation of savings. India is one of the few countries in the world which has maintained higher growth rate in domestic savings in spite of economic deregulation and increased consumerism due to higher prosperity to save by the household sector. GDS in India steadily increased from 306588 crores of rupees in 2001-02 to 1283456 crores of rupees in 2009-10. Steady growth in economy, expansion of service sector and increase in GDS all contributed significantly to the expansion of the insurance market in India. Pearson correlation matrix analysis is made to examine the relationship between gross domestic savings and total life insurance premium in India.

Table 5:Gross domestic savings and total life insurance premium (Rs. in Crores)

Year	Gross domestic savings	Premium
2001 -02	306588	50094.45
2002-03	396014	55747.55
2003-04	540637	66287.92
2004-05	723050	82854.79
2005-06	856314	105875.76
2006-07	1049873	156075.76
2007-08	1312251	201351.41
2008-09	1236356	221785.48
2009-10	1283456	265450.37

Source: RBI Statistics 2009-10 & IRDA Annual Report 2009-10

It is found that there exists a strong correlation between Gross Domestic Savings and Total Life Insurance Premium with a correlation coefficient of 0.946. Therefore reforms and liberalization have exerted significant impact on income, savings and insurance purchase.

Inflation, Business Cycles and Insurance

An inflation and business recession directly reduces the real purchasing power and network of the people respectively. Insurance can provide cover to these, yet the negative side is the adverse impact on the financial performance of companies. In general, the year of low inflation witnessed higher growth in life insurance but for some exceptions. Rate of interest and life insurance growth is said to be negatively correlated to life insurance selling, since higher interest rates in other alternative savings and instruments may discourage purchasing life insurance and lower interest rates in other alternative savings may encourage purchasing life insurance. Inflation is expected to have a negative correlation with life insurance demand since it exerts damping effect, because high inflation pushes up the cost of living thus making insurance purchase less attractive. Data in the following table shows inflation, interest rates and total life insurance premium underwritten from the year 2001-02 to 2009-10. To assess the relationship of inflation and interest rate with total life insurance premium, Pearson Correlation Matrix Analysis was made.

Table 6: Inflation, interest rates and total life insurance premium

Year	Inflation (in %)	Interest Rate (in %)	Premium (Rs. in Crores)
2001 -02	4.3	6	50094.45
2002-03	4.1	5.75	55747.55
2003-04	3.8	4.5	66287.92
2004-05	3.9	5.25	82854.79
2005-06	5.2	5.5	105875.76
2006-07	7.3	6	156075.76
2007-08	8.1	6	201351.41
2008-09	9.8	4.25	221785.48
2009-10	12.7	3.75	265450.37

Source: RBI Statistics 2009-10 & IRDA Annual Report 2009-10

The analysis indicated a strong correlation between inflation and life insurance premium underwritten with a correlation coefficient of 0.97 whereas interest rate has a negative correlation with life insurance premium as expected with a correlation co-efficient of -0.507. It can inferred from this analysis that when inflation rises, it reflects in increase in life insurance premium amount for new business as the premium charged should be adjusted under inflationary conditions. Hence the new life insurance premiums have increased and it is reflected in a strong positive correlation between inflation and life insurance premium. A fall in interest rates would lead to an increase in life insurance premium because people will invest huge amount and will take more number of policies from LIC of India and other private life insurance companies when compared to other financial savings. Since people will invest and save their money in policies for yielding additional returns with life risk cover [8].

Investment Made by LIC and Life Insruance Premium

Investment is putting money into something with the expectation of gain, that upon thorough analysis, has a high degree of security for the principal amount, as well as security of return, within an expected period of time. Investment is related to savings or deferring consumption .Investment means the amount deposited or invested into various sources like gold, household equipments, land and building and so on in order to yield return from that invested amount. The following table portrays LIC of India have invested their amount in public sector, private sector, public & private (joint) sector and co-operative societies from the period of 1999 to 2011. To find out the performance of an investment made by LIC with trend percentage and also assess the relationship of investment with total life insurance premium, Pearson Correlation Matrix Analysis was made.

Table 7: Investments by life insurance corporation of India

Year	Sector-wise investment made (Rs. in Crores)				Total
	Public	Private	Joint	Co-operative	(Rs. in Crores)
1999	96410.5	15048.4	549.3	2094.5	**114102.7**
2000	117059	19268.4	575.5	2129.3	**139032.2**
2001	141256.2	22779.5	799.7	2168.4	**167003.8**
2002	180574.1	23707.8	792.8	2128.6	**207203.3**
2003	219596.7	29406.8	684.5	2082.3	**251770.3**
2004	271778.5	51923.6	959.6	2079.5	**326741.2**
2005	322021.8	68484.5	1270.2	1408.2	**393184.7**
2006	378807.2	105148.1	1915.5	1356.5	**487227.3**
2007	433810.3	84294	75.2	3555.1	**521734.6**
2008	503388.4	128467.8	73.7	3817.6	**635747.5**
2009	572050.3	187140.8	71.7	3628.9	**762891.7**
2010	678374.5	236134.7	70.9	3336.5	**917916.6**
2011	775992.5	265798.3	82.1	3666.6	**1045539.5**

Source: Reserve Bank of India. (ON224)

From the above table, it is inferred that there was a total investment by LIC of India had increased from 917916.6 crores to 1045539.5 crores (13.90 per cent) as compared to the previous year. Moreover on the year after 2000, LIC of India had invested more amount of money in to private sector for earning additional huge yield/benefit. But, in the global economic crisis period and after, suddenly investment in Joint Sector had continuously decreased from 75.2 crores to 70.9 crores on 2010 and in the year 2011, there was 15.80 per cent increase as previous year.

Table 8: Investments and total life insurance premium of life insurance corporation of India

Year	Total investment (Rs. in Crores)	Premium (Rs. in Crores)
2001 -02	207203.3	50094.45
2002-03	251770.3	55747.55
2003-04	326741.2	66287.92
2004-05	393184.7	82854.79
2005-06	487227.3	105875.76
2006-07	521734.6	156075.76
2007-08	635747.5	201351.41
2008-09	762891.7	221785.48
2009-10	917916.6	265450.37

It is found that there exists a strong correlation between Investment made by LIC of India and Total Life Insurance Premium with a correlation coefficient of 0.981. Therefore reforms and liberalization have exerted significant impact on investment and premium collection.

Population Changes and Insurance

Population changes materially affect the insurance industry because of the economic consequences of changing rates of birth, death, marriage and family formation. The shifting age distribution affects the kinds and amount of insurance the people will buy. Population growth is expected to have a positive relationship with life insurance growth and it can be tested by pearson correlation analysis.

Table 9:Population growth and insurance premium in India

Year	Population (in crores)	Premium (Rs. in Crores)
2001 -02	104.00	50094.45
2002-03	105.60	55747.55
2003-04	107.20	66287.92
2004-05	108.90	82854.79
2005-06	110.60	105875.76
2006-07	112.20	156075.76
2007-08	115.40	201351.41
2008-09	117.00	221785.48
2009-10	119.00	265450.37

Source: RBI Statistics 2009-10 & IRDA Annual Report 2009-10

The results of pearson correlation showed a very strong correlation (0.984) between population and total life insurance premium. Therefore the above correlation can be confirmed and believed that greater the population growth greater is the potential for life insurance.

Fiscal Policy

Fiscal policy affects in insurance sector in the following of government spending, taxation, direct controls on the business systems and moral suasion [9-12].

Conclusion

Insurance play a very significant role in socio-economic development of a nation in the form of programmes aiming at poverty alleviation, infrastructural development, health care and protection and employment generation. Insurance helps the society by creating both direct and indirect employment opportunities for the economic development of the nation. Life insurance business is extensively inclined the state of economy of a country and the major impacting factors are rate of growth of GDP, domestic savings, household financial savings, disposable income, population, investment and fiscal policy. The size and success of life insurance market is also influenced by the growth of population, social security system, health care system, changes in customs and social practices, changes in attitude and risks. It has been observed that in India while the economy in general have registered significant growth, life insurance is not left for behind with a strong positive correlation between GDP and life insurance penetration and between GDP and life insurance density. Even though GDP has grown with a decreasing rate in the aftermath of global recession, life insurance penetration and density are showing their best figures. People who already have life cover would perceive that their insurance cover is in sufficient in the light of inflation; they have to go additional life insurance cover. India is the second most density populated in the world and this is the potential for life insurance.

Therefore, LIC has not only played an unparalleled role by spreading the message of life insurance throughout the country, but also a significant role in the economic development of the nation.

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