



Growth Dynamics of Life Insurance Business in India (2001-02 to 2022-23)

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Abstract

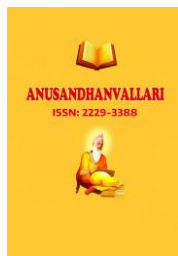
This research paper examines the growth dynamics of India's life insurance business during the post-IRDAI liberalization period (2001-02 to 2022-23), focusing on underlying economic, financial and sector-specific factors. The entire period of study has been divided into two parts: the first span (2001-02 to 2010-11 and the second span (2010-11 to 2022-23), allowing for in-depth analysis of growth trend and trajectory. The various performance metrics pertaining to premium volume, premium density and penetration reveal that there was a discernible slowdown in the second span as compared to the first span. Component-wise and sector-wise analysis shows that both public and private sectors posted significantly higher growth in New Business as well as Renewal Premium during the first span vis-à-vis the second span. Further, the private sector markedly outpaced public sector in business growth. However, the impressive growth witnessed by the private sector was beset with substantially higher degree of instability. The investigation also highlights the role played by economic, financial and sector-specific factors in affecting the course of growth. The paper also suggests policy measures to reduce the 'Life Insurance Protection Gap'.

Keywords: Premium, Density, Penetration, Liberalization, Metrics, CAGR, Ray's Index, Emerging Markets, Catalysts, Inhibitors.

Introduction

Life Insurance is fast becoming an indispensable pillar of the financial ecosystem. A well-developed and efficient life insurance market can have far-reaching benefits, including, inter-alia, provision of economic security to individuals and their families, reduction in the liability of government in providing social welfare services, mobilization of long-term savings for accelerating pace of economic growth, generation of 'Development Finance' for achieving the targets of sustainable development, and fostering stability in the financial system. Outreville (1992) opined that transfer of risk function has become quite important due to increase in risk and uncertainty in most of the societies. Insurance cannot stop unforeseen risk but extends security and protection against the ill-effects of such risks and uncertainties (Oguto, 2004). The theoretical framework developed by Yaari (1965), Hakansson (1969), and Lewis (1989) considers importance of bequeath and risk aversion motives in taking decisions about purchasing life insurance products. Milo and Carmeci (2015) emphasize on the role of developed life insurance sector in supplementing the social welfare endeavours of the governments, while Akino and Apanisele (2014) observe that life insurance helps in promoting financial stability in an economy. Several studies have highlighted that insurance sector plays an instrumental role in accelerating economic growth by mobilizing long term savings and promoting investment. (King and Levine 1993; Outreville 1996; Ward and Zurbrugg 2000; Arena 2008; Mitra and Ghosh 2010; Sawadogo et al. 2018).

In view of the significant quantitative and qualitative underpinnings, the insurance sector has attracted attention of the researchers and policy makers. In India, the policy makers initiated financial and economic reforms during 1990s which played significant role in putting the economy onto the path of sustainable growth (Panagariya, 2004). Wadhwa (2004) classified the post-1990 reforms in two broad segments (1) Macro – Economic Management Reforms (2) Structural and Sector-specific Reforms. One of the milestones in Sector-



specific reforms was the policy framework to transform insurance sector from Government – controlled, monolithic and monopolistic entity to liberalized, competitive and market-oriented regime. The advent of Insurance Regulatory and Development Authority (IRDA) in 1999 and its formal incorporation as a statutory body in 2000, paved way for the transformation and the insurance market was opened up for private players (by forming joint ventures with foreign companies) in August, 2000.

Objectives Of The Study

The broad objective of this study is to examine the growth dynamics of the life insurance business (premium) in India during the liberalized era (2001-02 to 2022-23), following the formation of IRDA and opening up the sector to private player.

The Specific Objectives:

- (1) To assess the magnitude of growth and instability in life insurance business.
- (2) To study the component-wise and sector-wise growth and instability in life insurance business.
- (3) To examine the economic, financial and sector-specific factors driving the growth of life insurance business.

For the purpose of in-depth analysis, the time period has been divided into three spans:

- (1) First Span : 2001-02 to 2010-11
- (2) Second Span : 2010-11 to 2022-23
- (3) Third Span : 2001-02 to 2022-23 (i.e. the entire period under study)

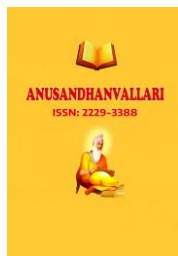
The basic purpose of segregating the study into first and second Span is to understand the trajectory of growth during (a) The decade immediately following the reforms (2001-02 to 2010-11) and (b) after the first decade of reforms.

The Data And Research Methodology

The study is based on secondary data, sourced from authentic and widely recognized sources. To quantify the growth, we have made use of the Annual Growth Rates and Compound Annual Growth Rates.

To measure instability or temporal fluctuations, widely adopted index due to Ray (1983) has been used. The index provides us with an absolute measure of standard deviation of natural log of the ratio of the successive values in a given variable. It may be mentioned that larger the value of index, higher would be the temporal instability.

To examine the impact of macro-environment factors on the growth of life insurance business, we have adopted a descriptive and exploratory approach, leveraging data and basic information from the widely recognized sources (IMF, World Bank, Swiss Re, Sigma, IRDAI etc). It may be mentioned that given the limited observations, application of rigorous technique/s may yield spurious or constrained results.



Growth Dynamics Of Life Insurance Business**Section – 1**

Trajectory and Trend: The growth profile of business premium has been analysed, using annual and compound annual growth rates (CAGRs).

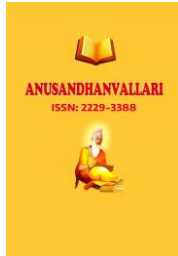
Annual Growth in Real Premium: Table 1 exhibits that real premium (adjusted for inflation) increased at markedly high rate from 2001-02 to 2007-08, ranging between 8.0 percent and 60.0 percent. However, as the Global Financial Crisis (2008) dampened the market sentiment world-wide, the premium witnessed subdued growth (0.2 percent) in 2008-09; the significant drop in nominal premium and high inflation rate contributed to the abysmal performance of real premium. Subsequently, the premium surged by 10.0 percent in 2009-10 and posted 4.0 percent growth in 2010-11. Notably, the Indian life insurance market showed considerable resilience to global financial turmoil vis-à-vis the advanced markets and global markets. (both the said groupings plunged into negative growth terrain in 2008).

The growth remained muted from 2011-12 to 2014-15, primarily due to spill-over effects of the Global Financial Crisis, stringent regulations regarding issuance of new policies and tapering off the initial euphoria of liberalization. Although, promising recovery ranging between 7.0 percent to 8.0 percent was registered from 2015-16 to 2019-20, but it could not regain the robust momentum experienced during 2001-02 to 2007-08. Thereafter in 2020-21, the real premium growth entered in negative domain due to adverse repercussions of COVID-19 pandemic.

TABLE 1: ANNUAL GROWTH IN LIFE INSURANCE REAL PREMIUM BY BROAD MARKET CLASSIFICATION

(In Percent)

Year	Advanced Markets	Emerging Markets	India	World
2001	-2.7	8.0	22.5	-1.8
2002	1.9	12.7	14.1	3.0
2003	-1.7	6.6	8.4	-0.8
2004	1.7	7.4	10.5	2.3
2005	3.4	7.5	8.9	3.9
2006	6.6	21.1	60.1	7.7
2007	4.7	13.1	14.2	5.4
2008	-5.3	14.6	0.2	-3.5
2009	-2.8	4.2	10.1	-2.0
2010	1.8	13.1	4.2	3.2
2011	-2.3	-5.1	-8.5	-2.7
2012	1.8	4.9	-6.9	2.3



2013	-0.2	6.4	0.5	0.7
2014	3.8	6.9	1.0	4.3
2015	2.5	12.0	7.8	4.0
2016	-0.5	16.9	8.0	2.5
2017	-2.7	14.0	8.0	0.5
2018	0.8	-2.0	7.7	0.2
2019	1.3	5.6	7.3	2.2
2020	-5.7	0.3	-1.2	-4.4
2021	5.4	1.5	8.5	4.5
2022	-4.4	1.4	8.2	-3.1

Source: Swiss Re, Sigma: various issues of World Insurance Reports (2001 to 2023)

Notes:

- Growth in Real Premium represents change from previous year.
- The data pertaining to India relates to financial year (e.g. data for 2001 pertains to financial year 2001-02 and so on).

Compound Annual Growth Rates (CAGRs) of various Metrics pertaining to Life Insurance Premium Volume, Density and Penetration

Life Insurance Premium Volume:

Based on three different data sets, the CAGRs of following Metrics have been computed.

Metric 1: Nominal Premium in Rupees

Metric 2: Nominal Premium in US Dollars (USD)

Metric 3: Premium in Real (Constant) USD

The results presented in Table 2 make it amply clear that all the aforementioned Metrics exhibited robust growth during the first span, registering CAGRs of 24.26 percent, 25.26 percent and 22.01 percent respectively. However, a pronounced slowdown was witnessed in the second span, with CAGRs moderating to 9.40 percent, 4.94 percent and 2.89 percent respectively.

Life Insurance Density:

Life Insurance Density refers to per-capita premium (ratio of total premium volume to total population).

The following two metrics are considered for the analysis:

Metric 4: Life Insurance Density in Nominal USD.

Metric 5: Life Insurance Density in Real (Constant) USD

The results indicate that during the first span, both the Metrics – Metric 4 and 5 witnessed impressive growth, clocking CAGRs of 23.9 percent and 20.8 percent respectively. However, growth slowed down drastically to 3.4 percent and 1.4 percent respectively, during the second span, marking a stark contrast to the earlier performance.

The trajectory of nominal density (based on Swiss Re annual data) also indicates the discernible shift in the performance of the sector, as density increased more than six times during the first span, while there was only 1.26 fold rise during the second span.

Metric 6: Life Insurance Penetration: Penetration signifies deepening of life insurance sector in an economy or in other words, it refers to the size of life insurance sector (premium volume) vis-à-vis the size of the economy (GDP). In technical jargon, penetration is the ratio of total premium volume to Gross Domestic Product.

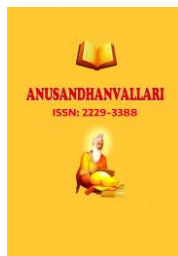
The life insurance penetration exhibited a notable contrast in growth trends with a robust CAGR of 9.63 percent in the first span, followed by degrowth (negative growth) to the tune of 1.49 percent in the second span.

The time – profile of penetration (based on Swiss Re annual data) supports the analysis based on Compound Annual Growth Rates; as the penetration witnessed significant surge (more than double) from 2.15 percent in 2001-02 to 4.4 percent in 2010-11, but exhibited notable decline subsequently and as of 2022-23, it stood at 3.0 percent. The upsurge in the first span was promising given that global penetration declined to 4.0 percent from 4.7 percent during the period.

TABLE 2: GROWTH (CAGR) IN SELECTED PERFORMANCE METRICS OF INDIA'S LIFE INSURANCE BUSINESS DURING DIFFERENT TIME SPANS

(CAGR in Percent)

Metrics	2001-02 to 2010-11			2010-11 to 2022-23			2001-02 to 2022-23		
	CAGR	p value	Significance	CAGR	p value	Significance	CAGR	p value	Significance
(1) Nominal premium in Rs	24.26	0.0000	***	9.40	0.0000	***	13.00	0.0000	***
(2) Nominal Premium in USD	25.16	0.0000	***	4.94	0.0001	***	0.9.69	0.0000	***
(3) Premium in constant USD	22.01	0.0000	***	2.89	0.0056	***	07.44	0.0000	***
(4) Nominal Density in	23.91	0.0000	***	3.41	0.0043	***	08.35	0.0000	***



USD									
(5) Density in constant USD	20.82	0.0000	***	1.38	0.1575	NS	06.12	0.0000	***
(6) Life Insurance Penetration	09.63	0.0000	***	-1.49	0.1530	NS	0.29	0.6967	NS

***Significant at 0.1 percent level; **Significant at 1.0 percent level; *Significant at 5.0 percent level; NS: Non-significant

Notes:

1. Author's calculations
2. Computations pertaining to Nominal Life Insurance Premium (in Rs.) are based on data sourced from various Annual Reports of IRDA/IRDAI (2001-02 to 2022-23) All other computations are based on data sourced from various Swiss Re, Sigma Reports (2001 to 2023).
3. Nominal USD data converted to constant USD data by the author.

The analysis signifies that the premium volume as percentage of GDP showed rising trend in the first span but thereafter witnessed declining trend. It is pertinent to mention here that over the entire period under study, the nominal life insurance premium (in Rs.) posted highest growth (13.0 percent) among all the Metrics, while penetration witnessed lowest and subdued growth. Further, the CAGRs of all the Metrics (except penetration) were found to be significant at 0.1 percent level; the CAGR of penetration was non – significant.

Section – 2

Component – wise and Sector – wise Growth in Business

The following conclusions emerge from the close examination of the results (Table 3)

- Both the New Business and Renewal Business registered a higher CAGR in the first period compared to the second period.
- Sector – wise, both public and private sectors posted stronger growth in the first span vis-à-vis the second span.
- The private sector outpaced the public sector in both New Business and Renewal Business growth during the entire study period as well as the first and second span. However, private sector's growth far exceeded the public sector during the first span (more than three times in New Business and approximately nine times in Renewal Business).

TABLE 3: COMPONENT-WISE AND SECTOR - WISE LIFE INSURANCE PREMIUM GROWTH (CAGR) DURING DIFFERENT TIME SPANS

(CAGR in Percent)

Component / Sector		2001-02 to 2010-11			2010-11 to 2022-23			2001-02 to 2022-23		
		CAGR	p value	Significance	CAGR	p value	Significance	CAGR	p value	Significance
New Business Premium	Public Sector (LIC)	22.43	0.0000	***	10.02	0.0000	***	12.86	0.0000	***
	Private Sector	72.45	0.0000	***	13.69	0.0000	***	22.95	0.0000	***
	Total New Business premium	28.72	0.0000	***	11.18	0.0000	***	14.37	0.0000	***
Renewal Premium	Public Sector (LIC)	16.67	0.0000	***	06.25	0.0000	***	09.50	0.0000	***
	Private Sector	147.82	0.0001	***	12.12	0.0000	***	39.10	0.0000	***
	Total Renewal Premium	21.68	0.0000	***	08.14	0.0000	***	12.17	0.0000	***
Total Premium (A+B)	Public Sector (LIC)	18.63	0.0000	***	07.83	0.0000	***	10.76	0.0000	***
	Private Sector	87.05	0.0000	***	12.76	0.0000	***	27.65	0.0000	***
	Industry Total	24.26	0.0000	***	09.40	0.0000	***	13.00	0.0000	***

***Significant at 0.1 percent level

Source: Author's calculations: based on data sourced from various Annual Reports published by IRDA/IRDAI (2001-02 to 2022-23)

Section – 3

Instability in Business Growth:

Table 4 presents a detailed perspective on the growth and instability profile of life insurance business. The key findings from the Component – wise and sector – wise analysis are summarized below:

- Higher growth in New Business Premium was accompanied by a higher degree of instability.
- The private sector posted significantly higher growth in total premium with markedly higher degree of temporal fluctuations as compared to the public sector.
- In both, New Business and Renewal Business, the private sector experienced higher growth, albeit with greater magnitude of temporal instability.
- With double digit growth in total premium and its components, coupled with low instability, the public sector satisfied the ‘Growth with Stability’ benchmark, indicating sound performance.

TABLE 4: COMPONENT - WISE AND SECTOR - WISE GROWTH AND INSTABILITY IN PREMIUM DURING THE STUDY PERIOD (2001-02 TO 2022-23)

Premium Component / Sector		CAGR (in percent)	Ray's Index of Instability
New Business Premium	Public Sector (LIC)	12.86	0.1941
	Private Sector	22.95	0.3703
	Total New Business premium	14.37	0.1834
Renewal Premium	Public Sector (LIC)	09.50	0.0650
	Private Sector	39.10	0.8230
	Total Renewal Premium	12.17	0.0724
Total Premium (A+B)	Public Sector (LIC)	10.76	0.0759
	Private Sector	27.65	0.3906
	Industry Total	13.00	0.0903

Notes:

1. Author's calculations: based on data sourced from various Annual Reports of IRDAI/ IRDAI (2001-02 to 2022-23).
2. All values of CAGR are significant at 0.1 level of significance.

SECTION – 4

Key Catalysts and Inhibitors:

Sections 1 and 2 starkly highlight that life insurance business experienced robust growth in the first span, while there was significant slowdown in the second span. This section explores the key drivers behind impressive growth in the first span and examines the factors contributing to the slow down in the second span. While multifarious macro factors (economic, financial, demographic, social, religious, institutional etc) influence the

growth of life insurance business by impacting the demand for and supply of insurance products, the present study focuses on economic, financial and sector -specific factors. Several studies have underscored the crucial impact of economic and financial factors on the growth of life insurance business (Beck and Webb, 2003; Sen 2008; Mitra and Ghosh 2010; Mapharing et al. 2015; Zerriaa and Noubbigh 2016; Segodi and Sibindi 2022).

Catalysts Of Robust Growth (2001-02 To 2010-11)

A. Positive Economic Developments:

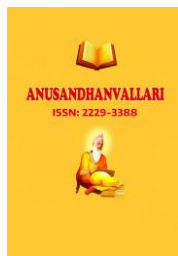
- **Strong Growth in GDP:** The real growth in GDP ranged between 7.0 to 9.5 percent during 2003-04 to 2010-11 (except 2008-09). The robust growth in GDP was strongly supported by the impressive growth in services sector, which consistently surpassed the overall economic growth. The 'Financial, Insurance, Real Estate and Business Sector' witnessed impressive growth, ranging between 8.7 percent and 13.7 percent during the period 2003-04 to 2007-08 (IRDA Annual Reports). The rapid economic growth during the decade boosted disposable income, which in turn enhanced the purchasing power for the insurance products.
- **Steady Increase in Gross Domestic Savings Rate (GDSR):** Gross Domestic Savings as percentage of GDP increased steadily from 24.0 percent in 2001-02 to 34.3 percent in 2010-11, clocking 3.73 percent CAGR during the decade.
- **Moderate Inflation Rate:** The inflation rate remained in moderate range between 3 to 6 percent during pre – Global Financial Crisis (2008), which positively affected the real income of the people and expected real returns from the insurance products.

(B) Favourable Financial Scenario:

- **Consistent Improvement in Financial Development Index:** The Financial Development Index was constructed by IMF research team (originally prepared as IMF discussion note and later appeared as IMF Working Paper, authored by Svirydzenka, 2016) to assess the financial development across financial institutions and markets and focusing on overall depth, access and efficiency. The Financial Development Index of India improved consistently from 0.42 in 2001 to 0.51 in 2009, which boosted the confidence of domestic buyers and sellers of insurance products.
- **Unprecedented Buoyancy in the Capital Markets:** The primary and secondary markets also exhibited exceptional performance during the decade. The BSE Sensex increased by about 470 percent; the broad-based rally thrived on the strong macro fundamentals and encouraging corporate results.

(C) Sector – Specific Encouraging Environment:

- **Reforms in Domestic Domain:** The Insurance industry's landscape transformed after the landmark reform in 2000, allowing private players to enter the industry (by forming joint ventures with foreign insurers). The consequent competitive regime prompted both public and private insurers to introduce innovative, affordable and need-specific insurance products like ULIPs, Single Premium Insurance, Group Insurance, Micro Insurance, Structured Retirement Plans and Annuities. The Insurance Regulatory Authority also stepped in from time to time to streamline the market for healthy and conducive environment. In short, the sector thrived on the competitive environment, regulatory support, awareness campaigns, innovations and efficient delivery systems.
- **Supportive Global Synergy:** The upbeat vibes from global insurance markets also boosted the market sentiment in India. The real premium growth remained robust in emerging markets (Table 1). The momentum of growth in emerging markets was so strong that even global financial turmoil (2008) had modest and limited



adverse impact on the emerging markets. Among these markets, strong growth was witnessed in India, Brazil, China, Indonesia, Hungary, the Czech Republic and Malaysia.

Slow Down In Life Insurance Business (2010-11 To 2022-23):

THE KEY INHIBITORS

(A) Economic Headwinds

- **Slow Pace Of GDP Growth:** The immediate impact of Global Financial Crisis on India's banking sector was quite mild due to its limited exposure to the global financial system, but the spill-over effects of the crisis adversely affected the real economy (GDP etc.) through trade, investment and financial channels (Dimple and Gulati, 2012). The slump in demand for exports, shortage of funds to meet development activities, higher cost of external borrowings and higher inflation rate dampened the domestic consumption and investment, which in turn led to downslide in growth rate (ibid). Though GDP growth stabilized around 7.0 percent from 2014-15 upto 2018-19 but could not regain the momentum witnessed in the pre-crisis period. The economy again experienced setback due to the outbreak of COVID pandemic; pushing the GDP growth down to negative terrain in 2020-21.
- **Decline in Gross Domestic Savings Rate (GDSR):** The GDSR exhibited steady decline from 34.3 percent in 2010-11 to 29.0 percent in 2022-23, with CAGR dropping from 3.73 percent in the first span to 1.7 percent in the second span.
- **Stagnant Rate of Monetary Sector Credit to Private Sector:** The Monetary sector credit to private sector as percentage of GDP increased from 28.6 percent to 50.6 percent during first span and thereafter hovered around 50.0 percent in the second span. It signifies credit flow from the banks and other financial institutions to private businesses and individuals witnessed robust expansion during the first span but remained dormant in the second span.

(B) **Lackluster Performance of Financial Parameters:** The two important metrics of financial performance, Financial Development Index and Financial Market Index exhibited lackluster performance during the period. The Financial Development Index increased steadily from 0.42 percent in 2001 to 0.51 percent in 2009 but thereafter for a decade (upto 2019) remained lower than the level attained in 2009. The Financial Market Index also exhibited almost similar trajectory.

(C) **Sector – Specific Determinants: Domestic and Global:** The initial euphoria after opening up of life insurance market to private players eventually tapered off. The ULIPs which gained popularity due to their flexibility and high returns, lost momentum from 2008 onwards due to the global financial crisis and rigorous regulatory guidelines. The Life Insurance Corporation of India posted significant fall in New Business Premium during 2014-15 due to the stringent regulations regarding issuance of new policies (IRDA Annual Report 2014-15). The global life insurance environment also faced setback from snowball effects of financial crisis and challenges posed by COVID-19 pandemic. The global density witnessed increase from 235 USD in 2001 to 364 USD in 2010 but moved in a narrow range of 346 USD to 382 USD during the second span, reflecting subdued performance. The global life insurance penetration also exhibited poor performance during the second span; the metric gradually declined from 4.0 percent in 2010 to 2.8 percent in 2022(based on Swiss Re Data). The weakness in global markets was primarily due to the poor performance of advanced life insurance markets; the lackluster performance of economic and financial parameters in advanced markets severely impacted the growth of ULIPs and single premium policies (Swiss Re, Sigma and IRDAI Reports).

Conclusion And Policy Implications:

The life insurance sector witnessed a significant slowdown in business growth during the second span (2010-11 to 2022-23), following robust growth in the first span (2001-02 to 2010-11). The tapering off of the initial euphoria created by liberalization, coupled with economic, financial and the sector-specific (domestic and global) headwinds impacted the growth momentum during the second span. Policy makers and regulators should take a deep dive into exploring policy levers to minimize the adverse effects of growth inhibitors and devise a comprehensive policy framework for the sustainable growth of the sector.

Given the huge 'Protection Gap', low insurance penetration, low density, a vast middle class, growing ageing population and under-tapped/untapped rural and semi-urban markets, there is considerable potential for expansion of the sector. Recent initiatives by the Union Government such as exempting GST on individual life insurance policies and raising FDI cap to 100 percent from 74 percent, are welcome policy steps towards increasing insurance penetration; while GST exemption can make the life insurance more affordable, raising the FDI cap can attract much needed capital and increase market competitiveness. Further, a significant 'Trust Gap' does exist in the life insurance sector, largely due to mis-selling. To bridge this, a strong regulatory framework and its strict enforcement are urgently needed to win back customer trust.

This study also reveals that while the private sector exhibited significantly higher growth in premium as compared to the public sector (LIC), it was accompanied by considerable instability or temporal fluctuations. In contrast, public sector demonstrated reasonably good growth with stability, aligning with widely recognized criterion of 'Growth with Stability' for evaluating an entity's business performance. Notably, the public sector has also played a crucial role in stabilizing India's capital market (particularly stock market) from time to time. Therefore, this paper advocates strengthening the public sector, alongside policy measures to promote healthy and fair competition, as weakening of public sector can trigger wider economic and financial repercussions.

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