An analysis of expenditure pattern of Life insurers in India

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Premium growth rate (in per cent)

	year3	4	5	6	7	8
Mean	217	164	93	106	86	33
No. of insurers above average	4	6	6	4	3	3
No. of insurers below average	9	7	7	9	10	10

- Even though some companies showed fluctuating growth rates in the initial 5-6 years the overall growth rate is decreasing with the age of the companies.
- The average premium growth rate varied from 225% (3rd year of business) to 35%(8th year of business)
- The growth rate is observed to be stabilized as the age of the company increases.

Investment income growth rate (in per cent)

	Year 3	4	5	6	7	8
Mean	395	293	534	91	25	-226
No. of insurer above mean	3	3	3	2	7	2
No. of insurer below mean	10	10	10	11	6	11

- Investment income growth rate showed high fluctuations.
- For many companies the growth rate is maximum in their 5th year of business.
- The growth rate is also dependent on the shareholders' contribution to the policyholders' account.

Management expenses growth rate (in per cent)

	Year 3	4	5	6	7	8
Mean	81	64	63	88	73	38
No. of insurers above mean	5	7	4	4	8	7
No. of insurers below mean	8	6	9	9	5	6

- Even though some companies show fluctuations in the management expense growth rate, on average the growth rate is decreasing with the age of the companies.
- A few companies’ management expense growth rate is associated with rise in premium growth rate.
- The average growth rate varied from around 80% (3^{rd} year of business) to 40%(8^{th} year of business)

Operating expense Growth rate (in per cent)

	Year 3	4	5	6	7	8
Mean	**69**	**57**	**57**	**81**	**81**	**75**
No. of insurer above mean	**5**	**8**	**4**	**4**	**7**	**5**
No of insurer below mean	**8**	**5**	**9**	**9**	**6**	**8**

- The average growth rate varied from 135%(2nd year of business) to 45% (8th year of business).
- Other trends are similar to those of management expense growth rate.

Capital expenses growth rate (in per cent)

	Year 3	4	5	6	7	8
Mean	19	119	-7	347	132	0.3
No. of insurer above mean	3	5	4	4	3	4
No of insurer below mean	10	8	9	9	10	9

- The average growth rate varied widely from 0.36% to around 550%
- The capital expenditure growth rate is maximum during the 3rd and 5th years of business for most of the companies.
- Among all the variables of observations, capital expenses exhibited highest coefficient of variation

Benefits payment growth rate (in per cent)

	Year 2	3	4	5	6	7	8
Mean	620	495	490	365	145	97	30
No of insurer above mean	2	7	4	3	5	5	3
No of insurer below mean	11	6	9	10	8	8	10

- Even though there are fluctuations in the initial years of the business, the growth rate in the benefits paid is stabilized as the age of the companies increases.
- On the whole, the growth rate has been decreasing since the years of inception of the companies.
- The growth rate is maximum in the 4th and 5th years of business where the surrenders would be one of the major contributing factors

Reserves growth rate

	Year2	3	4	5	6	7	8
Mean	**421**	**251**	**246**	**90**	**100**	**75**	**2**
No. of insurer above mean	**7**	**5**	**7**	**5**	**4**	**5**	**2**
No. of insurer below mean	**6**	**8**	**6**	**8**	**9**	**8**	**11**

- The change in reserve growth rate is associated with similar change in the premium growth rate for majority of the companies.

New Business Acquisition Expense per policy

	Year 1	2	3	4	5	6	7
Mean	**13683**	**9164**	**8056**	**6430**	**6021**	**5801**	**5219**
Above mean	**7**	**6**	**7**	**5**	**4**	**3**	**3**
Below mean	**6**	**7**	**6**	**8**	**9**	**10**	**10**

- The NB acquisition expenses per policy are decreasing as the age of the company increases.
- The average Acquisition expense got stabilized around Rs.5000 in the last three years (6,7 & 8) of business considered

New Business Acquisition per premium (in per cent)

	Year 1	2	3	4	5	6	7
Mean	**908**	**176**	**72**	**43**	**38**	**28**	**27**
Above mean	**4**	**4**	**3**	**2**	**5**	**6**	**5**
Below mean	**9**	**9**	**10**	**11**	**8**	**7**	**8**

- As a percentage of premium the NB acquisition expenses continue to decrease as the age of the company increases.
- The average expense is around 30% of the NB premium in the 6^{th} ,7^{th} and 8^{th} years of business.

Renewal expense per policy

	Year 1	2	3	4	5	6	7
Mean	**2252**	**2947**	**3813**	**3011**	**2947**	**3171**	**3191**
Above mean	**4**	**6**	**4**	**5**	**4**	**5**	**5**
Below mean	**9**	**7**	**9**	**8**	**9**	**8**	**8**

- The average renewal per policy expense is around Rs.3000 for the industry.
- The decreasing trend shows the effect of distribution of overhead expenses over increasing volumes of the business. The increasing volumes of business appears to have outweighed the effect of inflation.

Renewal expense per premium

	Year 1	2	3	4	5	6	7
Mean	**137**	**66**	**65**	**48**	**37**	**33**	**30**
Above mean	**3**	**6**	**3**	**3**	**5**	**6**	**6**
Below mean	**10**	**7**	**10**	**10**	**8**	**7**	**7**

- The renewal expenses per unit renewal premium varied from 137% (2nd year of business) to 30% (8th year of business).
- Barring a few companies the renewal expense is decreasing with the age of the companies.
- *The renewal expense appears to be higher than the NB acquisition expense per premium. This is due to the effect of single premium in the NB premium*

Breakeven point analysis

Premium A/E Ratio

	Y1	Y2	Y3	Y4	Y5
CO1	152%	176%	195%	202%	199%
CO2	8%	23%	37%	125%	287%
CO3	77%	142%	280%	307%	285%
CO4	527%	372%	201%	179%	206%
CO5	133%	168%	176%	224%	
CO6	34%	34%	49%	92%	67%
Ref A/E	100%	100%	100%	100%	100%
CO7	81%	119%	185%	288%	227%
CO8	3%	12%	17%	26%	40%
CO9	156%	79%	67%	66%	77%
CO10	1%	9%	27%	66%	100%
CO11	21%	56%	71%	66%	59%
CO12	40%	237%	227%	162%	
CO13	238%	135%	169%	162%	161%
No of Cos' > 100%	5	7	7	8	7
No of Cos' < 100%	8	6	6	5	4

- Majority of the companies achieved their business expectations as set at R1 stage.
- Either they might be pessimistic in their expectations or aggressive in their marketing.
- Very few companies could not achieve even 60% of their business expectations.

A/E ratio Investment Income

	Y2	Y3	Y4	Y5
CO1	61%	108%	386%	170%
CO2	11%	10%	9%	20%
CO3	179%	96%	135%	494%
CO4	595%	527%	148%	664%
CO5	140%	90%	150%	
CO6	-16%	52%	35%	139%
CO7			1137%	1081%
CO8	6%	10%	9%	27%
CO9	81%	62%	64%	84%
CO10		27%	46%	253%
CO11	71%	79%	109%	120%
CO12	208%	42%	59%	
CO13	5205%	4142%	1137%	2433%
Ref. A/E	100%	100%	100%	100%

- Investment income of many companies is lower than expected at R1 stage.
- Most of the companies which achieved their premium expectations also achieved the investment income expectations.

A/E ratio of Management expense					
	Y1	Y2	Y3	Y4	Y5
CO1	113%	192%	196%	244%	254%
CO2	85%	82%	103%	175%	316%
CO3	56%	148%	215%	239%	235%
CO4	169%	174%	108%	124%	138%
CO5	152%	177%	175%	185%	
CO6	37%	65%	81%	93%	104%
CO7	111%	181%	173%	158%	233%
CO8	74%	88%	65%	85%	108%
CO9	100%	77%	70%	71%	77%
CO10	23%	61%	83%	102%	132%
CO11	18%	28%	42%	44%	51%
CO12	32%	103%	101%	5%	
CO13	88%	84%	117%	147%	148%
Ref A/E	100%	100%	100%	100%	100%

- Many companies exceeded their expected levels of management expenses
- For most of these companies the high level of expenses are associated with higher premium levels than expected.
- However the margins between the expected and the actuals is more pronounced in the expense level than in the premium levels.

NB strain A/E					
Number	Y1	Y2	Y3	Y4	Y5
CO1	227%	118%	94%	118%	118%
CO2		247%	51%	38%	-417%
CO3	29%	53%	28%	39%	55%
CO4	46%	73%	56%	47%	35%
CO5	173%	25%	-53%	55%	-22%
CO6	171%	230%	212%	91%	129%
CO7	218%	139%	4%	-66%	-446%
CO8	-3641%	-1386%	-473%	-320%	-284%
CO9	68%	114%	115%	132%	18%
CO10	7716%	1019%	2501%	-890%	-603%
CO11	1037%	58%	192%	-359%	162%
CO12	3716%	-148%	-246%	80%	
CO13	28%	103%	65%	27%	-761%
Ref. A/E	100%	100%	100%	100%	100%

2010

- A/E of NB strain per unit premium is below 100% for most of the companies.
- However, there are very wide fluctuations in the ratio for some companies.
- The low A/E indicates that the business growth may not have substantial impact on the deferment of the breakeven of the companies.

A/E of E/P ratio					
	Y1	Y2	Y3	Y4	Y5
CO1	74%	107%	105%	150%	183%
CO2	1518%	474%	328%	138%	109%
CO3	87%	128%	98%	104%	125%
CO4	30%	50%	61%	94%	102%
CO5	45%	97%	152%	160%	204%
CO6	109%	211%	197%	127%	215%
CO7	145%	180%	112%	63%	71%
CO8	8950%	2927%	1362%	1157%	851%
CO9	66%	125%	151%	172%	151%
CO10	3458%	898%	409%	216%	186%
CO11	104%	67%	96%	137%	167%
CO12	64%	25%	37%	3%	
CO13	35%	66%	78%	115%	125%

The operating expense per unit premium exceeded the expected level at R1 for most of the companies.

The companies for which this A/E is less than 100% showed considerable progress in achieving surplus.

Net worth position

First yr	2nd yr	3	4	5	6	7	8
89	78.4	54.8	43.8	35	35	39	44
	91	88	70	62	74	82	109
		78	59	41	27	39	34
			93	91	91	96	87
				102	110	114	120
					72	41	27
						85	52

Factor analysis

- High increase in reserve requirement 9
- Operating expenses high 9
- High increase in benefits paid 4
- Premium growth rate is high 3
- Cumulative deficit is high 5
- Investment income not high 1

Regression analysis

RAS = a + b1 (exp) + b2 (II) +b3 (BP)

+b4 (Change in Res)

a= 3.851 b1 = -1.155 b2 = 0.851

(4.7) (2.8)

b3 = -0.42 b4 = - 0.17

(3.2) (1.4)

R bar sq=0.96 DW = 2.168

conclusions

- Most companies could not achieve the break-even due to higher expense levels per unit premium than expected in R1
- A few companies contained their expense levels which led to surplus as envisaged at R1 level
- There is no substantial empirical evidence that NB strain could have deferred the break-even point
- There would have also been a possibility that the companies would have projected low volumes of business to demonstrate higher capital adequacy at R1 stage.
- The per policy expense levels are far higher than that assumed in the valuation which would be a cause of regulatory concern
- The reserves showed no obvious relationship with changing management expenses. The change in reserves appears to have more correlation with the premium growth rate than the expense growth rate.
- The A/E of E/P ratio indicates the role of expense levels in the break-even achievement

Issues in expenditure management

- Productivity—staff and each process
- Economies of scale
- Organizational structure
- ERM
- Need for a close look at capital expenditure

Agenda for future

- Expenditure classification
- MIS on expenditure and net worth development
- Consideration of $ budgeting / zero based budgeting
- Active treasury management
- Enough focus on claim management
- Consolidation of activities

Thank You