Float based valuation of ICICI Lombard

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Agenda

- Insight into General Insurance
- Key drivers
- How to value them?
- Float based valuation

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Non-Life Industry Overview

- Gross Direct Premium Income of the industry is ₹ 1.88 trillion

- There are about 30 General Insurers

  i) Multiline – ICICI Lombard, Bajaj Allianz and others (18 – Private)

  National, United, Oriental & New India (4- PSUs)

  ii) Single Line – StarHealth, Apollo Munich, Max Bupa and others

  Agri. Insurance and ECGC (2 PSUs)

- New India, GIC Re, ICICI Lombard and Bajaj Allianz (thru Bajaj Finserv) are listed.

- These 3 PSUs would get merged

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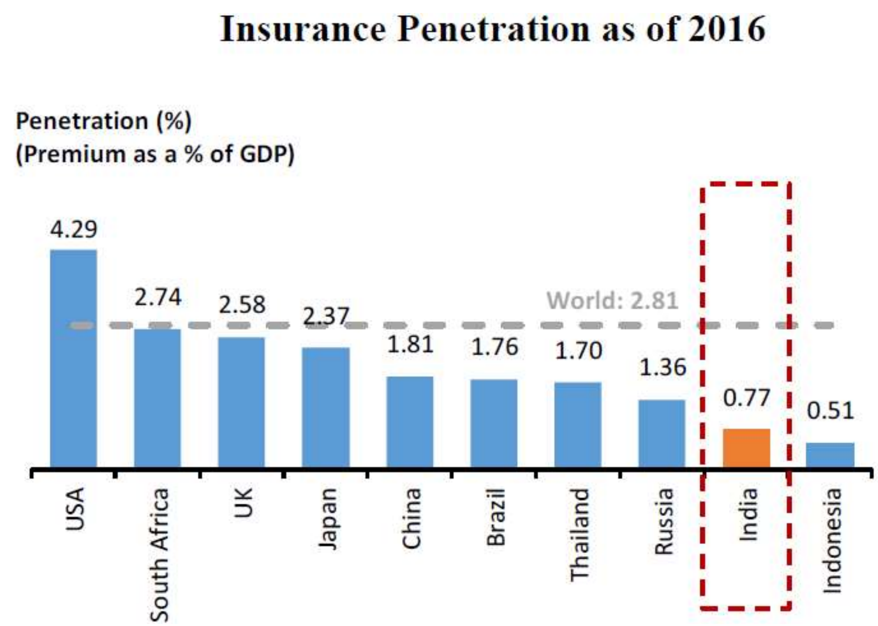
GI Industry in India

<u>Key Drivers:</u>

- Urbanisation
- Growing Economy
- Younger population
- Asset Ownership



GDPI in 2018 is ₹ 1.88 trillion

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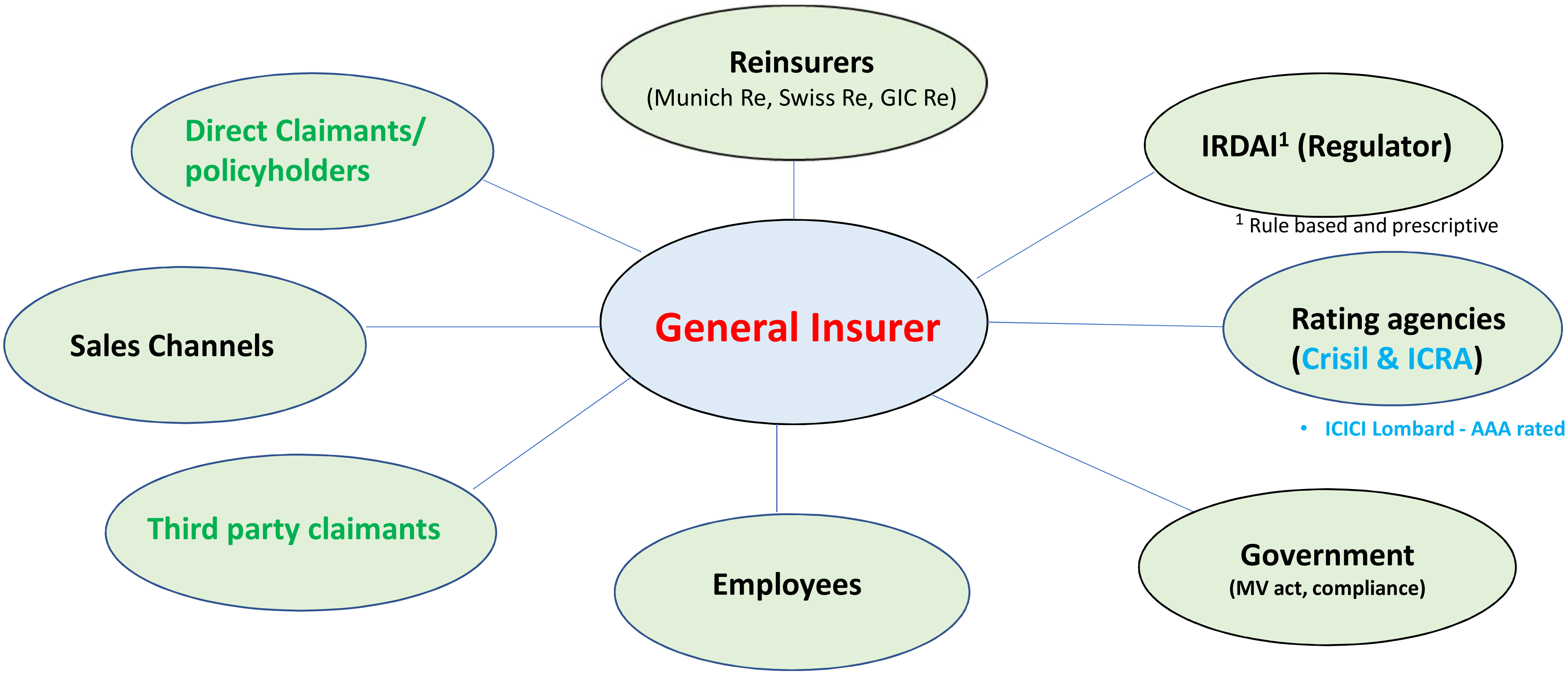
Stakeholders of a General Insurer



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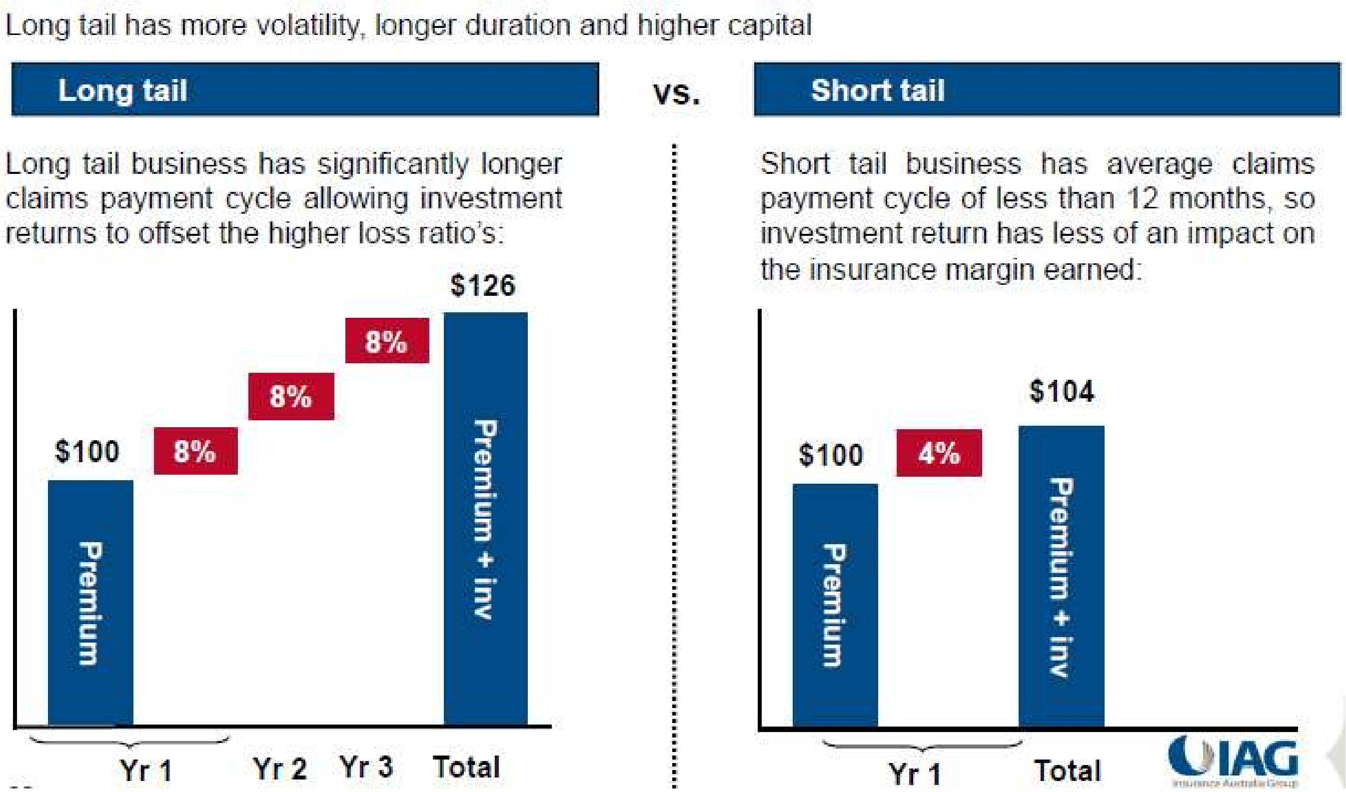
General Insurers: What do they sell?

	Products
SHORT TAIL	• **Motor – Own Damage (OD)** • **Health** • **Crop/Weather** • Fire • Marine • Personal Accident • Credit Insurance • Travel Insurance
LONG TAIL	• **Motor – Third Party (TP)** • Liability Insurance

- Motor (TP+OD), Health & Crop = 80% of GDPI for the whole industry
- Motor = 40%, Health = 20%, Crop = 20%

Long Tail vs Short Tail



- Portion of the premium invested is called Float (aka "Other People's Money")
- Insurers get paid to hold float (UW profit>0)

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Some terminologies

- Gross Direct Premium Income (GDPI) – Premium paid by customers
- Net Written Premium (NWP) - GDPI minus reinsurance premium
- Net Earned Premium (NEP) – Portion of policy premium upto 31st March

- Loss Ratio $= \dfrac{\text{Incurred Claims}}{\text{NEP}}$
- Expense Ratio $= \dfrac{\text{Operating Expenses}}{\text{NEP}}$
- Combined ratio (COR) = Loss Ratio + Expense Ratio

- COR < 100% indicates Underwriting profits

Motor Insurance

- Own Damage (OD) – damage or theft to own motor vehicle; optional & profitable
- Third party (TP) – compulsory, and tariff set by regulator, loss making, long tail

Growth opportunities:

- Underpenetrated – 60% of Cars & 25% of 2W are uninsured (vehicles > 3 yrs)
- IRDAI/SC - mandatory to buy TP cover 2W -3 yrs to Cars - 5yrs for new vehicles
- Motor Vehicle bills 2017 – ~~plans to cap TP indemnity to Rs.10 lakh~~ (stuck in RS!!)
- Telematic devices fitted on passenger vehicles.
- Digital India – e-tolls, Parivahan website (DL & RC)
- Compliance & Enforcement: Higher penalties, PublicEye apps & Lower premiums might motivate drivers – leads to lower claims

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Motor (OD)- Industry vs ICICI Lombard

₹ billions	2015	2016	2017	2018	10M2019
ICICI Lombard	21	25	28	31	28
Bajaj Allianz	20	21	21	21	17
HDFC Ergo	6	6	9	14	13

	2015		2016		2017	
%	Loss Ratio	Combined Ratio	Loss Ratio	Combined Ratio	Loss Ratio	Combined Ratio
ICICI Lombard	61.8	84.6	65.6	97.3	64.2	97.2
Bajaj Allianz	56.5	85.2	62.3	92.6	63	93.4
HDFC Ergo	73.4	119.6	71.1	118.6	75.1	104.7

- ICICI Lombard is chasing the topline
- Bajaj Allianz – focussed on UW profits

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Motor (TP)- Industry vs ICICI Lombard

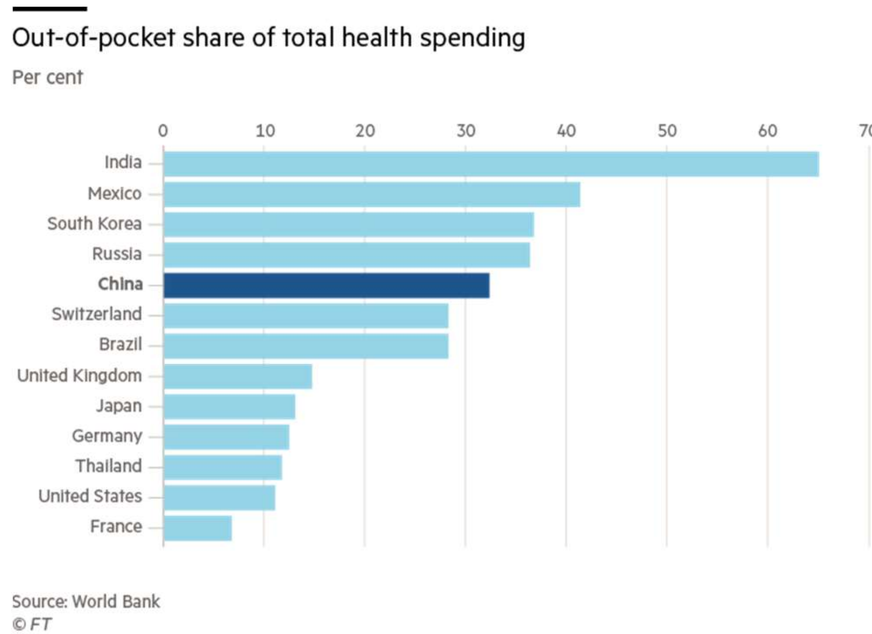
₹ billions	2015	2016	2017	2018	10M2019
ICICI Lombard	12.8	16.3	17.8	21.9	24.2
Bajaj Allianz	9.5	11.5	15.0	20.3	22.1
HDFC Ergo	4.2	5.7	6.6	9.4	11.0

	2015		2016		2017	
%	Loss Ratio	ombined Rati	Loss Ratio	ombined Rati	Loss Ratio	ombined Ratio
ICICI Lombard	105.8	138.8	97.7	131.2	97.4	130.4
Bajaj Allianz	104	127.5	91.3	116	79.1	103.6
HDFC Ergo	117.1	147.4	103.9	131.2	107.7	123.4

- TP is the only tariffed product fixed by IRDAI
- Insurers have to mandatorily sell TP, as per their market share.

Health Insurance (HI)

- ₹ 423 billion GWP in FY2018 (+22% w.r.t 2017)
- Market potential ₹ 2,600 bn (1.3 bn x ₹ 2000)
- Medical inflation = 20%
- Rise in life style and chronic diseases like diabetes, cancer and cardiovascular ailments
- Market Share: PSUs = 60%, Private multiline = 20%, SAHI 20%
- Ayushman Bharat Scheme (Sum Insured Rs. 5 lakh), would bring in increased health insurance awareness
- Out of pocket in China was 70% (2000), 30% (2018). The high end HI market is growing by 40%
- Lack of adequate HI, can push people into poverty.



- A surgery costs ₹1.5-3 lakh,
- ICU costs = ₹ 50,000 to ₹ 1 lakh per day.
- A catastrophic illness can set you back by ₹ 15-20 lakh in a month.

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Health Insurance: ICICI Lombard vs Industry

	Year ending March 31,								
	2015			2016			2017		
	GDPI	Pvt. Mkt. Share	Ind. Mkt. Share	GDPI	Pvt. Mkt. Share	Ind. Mkt. Share	GDPI	Pvt. Mkt. Share	Ind. Mkt. Share
	₹bn	%	%	₹bn	%	%	₹bn	%	%
ICICI Lombard[(1)]	16.4	18	7.3	17.6	15.9	6.4	21.5	15.4	6.3
Bajaj Allianz	8	8.8	3.5	9.4	8.5	3.4	12.4	8.9	3.6
HDFC Ergo	9.4	10.4	4.2	10.9	9.9	4	12.4	8.9	3.6
IFFCO Tokio	3.9	4.3	1.7	4.8	4.4	1.8	5.7	4.1	1.7
Tata AIG	3.8	4.2	1.7	4	3.6	1.5	4.5	3.2	1.3
Star Health	14.7	16.2	6.5	20.1	18.1	7.3	29.6	21.3	8.6
Apollo Munich	7.9	8.7	3.5	10.2	9.2	3.7	13	9.4	3.8
Max Bupa	3.7	4.1	1.7	4.8	4.3	1.7	5.9	4.3	1.7
Religare	2.8	3	1.2	5	4.6	1.8	7.3	5.2	2.1
Private (Multi-Product and Standalone Health) Insurers	**90.8**	**-**	**40.3**	**110.6**	**-**	**40.3**	**139.2**	**-**	**40.5**
Public (Multi-Product and	**134.2**	**-**	**59.7**	**164.1**	**-**	**59.7**	**204.6**	**-**	**59.5**

Loss and Combined Ratios

	Year ending March 31,					
	2015		2016		2017	
	Loss %	COR %	Loss %	COR %	Loss %	COR %
ICICI Lombard	87.4	103.1	82.1	91.4	90.2	99.1
Bajaj Allianz	73.6	105.6	74.9	108.0	78.5	112.3
HDFC Ergo	56.5	86.7	51.0	82.0	47.6	59.2
IFFCO Tokio	92.3	120.9	104.3	133.8	104.4	135.4
Tata AIG	69.9	114.3	65.6	111.8	57.2	89.0
Star Health	64.0	108.3	53.8	87.2	60.5	92.5
Apollo Munich	63.0	107.2	64.6	103.5	55.0	96.6
Max Bupa	57.8	130.4	59.5	118.4	52.0	107.9
Religare	61.1	138.4	57.2	121.9	50.5	103.2
Private (Multi-Product and Standalone Health) Insurers[(1)]	**70.7**	**111.2**	**66.6**	**103.0**	**65.8**	**99.0**
Public (Multi-Product and Specialised) Insurers[(2)]	**110.7**	**-**	**83.7**	**-**	**84.1**	**-**
Non-Life Insurance Sector[(1)(2)]	**101.7**	**-**	**80.9**	**-**	**81.3**	**-**

Source: CRISIL Research

- Star Health leads amongst SAHI & multiline insurers – GDPI (2018) – ₹ 41 bn
- HDFC Ergo has a very low COR = 59%, its very profitable,
- ICICI Lombard is focussing on retail & Group Health mainly SMEs, where it can price profitably.
- PSUs insurers are very active in Corporate – Group Health. ILGIC has temporarily withdrawn.

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Crop Insurance

- Farmers face yield risk (insurance) and price risk (MSP).
- Two main crop insurance schemes – yield based & weather-index based
- Mandatory add-on cover to farmer loans for Rabi and Kharif seasons

PMFBY – yield based crop insurance

- Average yield per acre < yield guarantee, an indemnity is paid.
- (Actuarial rate – farmers rate) = Central+ State Govt subsidy.
- delay in CCE and its associated high costs, delayed/non-payment of claims and lack of transparency.

RWBCIS – weather index based (very low sales)

- Weather index (rainfall, temp, others) which is high correlated to crop yields
- Payout is automatically triggered when the index reaches pre-determined levels.
- + Timely payouts, low-admin costs and no field level damage assessment
- - Basis risk – payout when there is no damage to crops, no payout when there is damage to crops

Crop Insurance – Industry vs ILGIC

	Year ending March 31,					
	2016			2017		
	GDPI	Pvt. Mkt. Share	Ind. Mkt. Share	GDPI	Pvt. Mkt. Share	Ind. Mkt. Share
	₹bn	%	%	₹bn	%	%
ICICI Lombard	5.9	29.9	10.7	21.5	22.2	10.4
Bajaj Allianz	3.7	18.5	6.6	14.5	15	7.0
HDFC Ergo	1.1	5.4	1.9	20.2	20.9	9.8
IFFCO Tokio	0.9	4.6	1.6	12.6	13	6.1
Tata AIG	0.7	3.3	1.2	4.5	4.6	2.2
Private (Multi-Product and Standalone Health) Insurers	**19.8**	-	**35.7**	**98.6**	-	**47.9**
AIC	**35.1**	-	**63.2**	**70.6**	-	**34.3**
Public (Multi-Product and Specialised) Insurers	**0.6**	-	**1**	**36.8**	-	**17.9**
Non-Life Insurance Sector	**55.5**	-	-	**206.1**	-	-

Source: CRISIL Research

	Year ending March 31,			
	2016		2017	
	Loss	COR	Loss	COR
	%	%	%	%
ICICI Lombard	140	120.2	84.2	72.1
Bajaj Allianz	143.3	60.5	114.1	77.5
HDFC Ergo	144.5	56.6	98.2	129.4
IFFCO Tokio	163	n.m.	60.9	60.8
Private (Multi-Product and Standalone Health) Insurers[(1)]	**147.2**	**96.5**	**85.4**	**82.6**

Source: CRISIL Research

- Bajaj Allianz – UW is good.

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Premiums (GDPI, NWP, NEP & UPR)

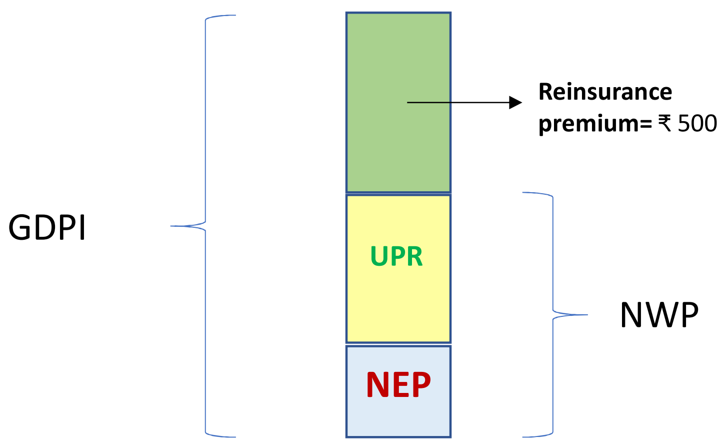
Example

1 yr Personal Accident(PA) policy, with a cover of Rs. 1 crore. (FY = Jan 2018 to Dec 2018)

Premium paid by policyholder = ₹ 1,000 = Gross Direct Premium Income (GDPI)

Risk Coverage from 1st Oct 2018 to 31st Sept 2019

Reinsured on a 50% quota share basis



Net Written Premium (NWP) = GDPI – Reinsurance premium

NWP = ₹ 1,000 - ₹ 500 = ₹ 500

Net Earned Premium (NEP) includes only portion of the premium till 31st Dec 2018; remaining portion of the premium is held in UPR

NEP = (1/4) x NWP = ₹ 125

UPR = NWP – NEP = ₹ 375

UPR is Unearned Premium Reserve (liability) – part of float

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Outstanding claims Reserve

- Actuary decides how much of the premium needs to be set aside as reserves – Outstanding claims reserves (float)
- If the actuary underestimates, the insurer will have to strengthen or increase the reserve – not a good sign
- A key risk for investors in the property and casualty business is errors in loss reserves.
- Float = UPR + Outstanding Claims Reserve
- "…'National Insurance's actuary understated claims by 4000 crore'"- The Indian Express

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Conservative reserving

Incurred Losses and Allocated Expenses (Ultimates movement)

All figures are in ₹ Billion

As at March 31, 2018	Prior*	AY 09	AY 10	AY 11	AY 12	AY 13	AY 14	AY 15	AY 16	AY 17	AY 18
End of First Year	25.23	12.85	15.13	20.66	22.53	27.97	35.96	34.16	39.13	49.49	52.41
One year later	26.15	13.24	15.23	20.44	21.97	27.02	34.63	33.95	38.58	49.20	
Two years later	26.62	13.03	15.39	20.41	21.74	26.52	34.37	33.53	38.07		
Three years later	26.84	13.21	15.52	20.36	21.85	26.40	34.29	32.91			
Four years later	27.28	13.35	15.55	20.47	21.83	26.46	33.85				
Five years later	27.84	13.39	15.66	20.48	21.81	26.21					
Six years later	27.92	13.46	15.91	20.53	21.83						
Seven years later	28.42	13.53	15.96	20.67							
Eight years later	28.58	13.50	16.02								
Nine years later	28.74	13.62									
Ten years later	28.76										
Deficiency/ (Redundancy) (%)	14.0%	6.0%	5.9%	0.1%	-3.1%	-6.3%	-5.9%	-3.7%	-2.7%	-0.6%	

AY - Accidental Year

- AY11 to AY 18, you can see the ICICI Lombard is releasing reserves, which is a good sign.
- Competant actuary with integrity very important.

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Key Ratios

Reformulated P&L (2017-18)	
	₹ billion
Net Written Premium	78
Net Earned Premium (NEP)	69
Net Incurred Claims Expense	53
Commission Expense	-3
Operating Expense related to Insurance	21
Premium deficiency	0
Underwriting Profit	-2
UW Profit %	-3%
Investment Income from Tech. Reserves	12
Insurance Profit (Operating Profit)	9
Investment Income from SH Assets	4
Other Income	0
Provisions & Expenses	1
PBT	12
Provision for Tax	3
PAT	9
Loss ratio	77%
Expense ratio	23%
Combined ratio	100%
ROE	19%

- Loss ratio = $\frac{\text{Claims}}{\text{NEP}}$
- Expense ratio = $\frac{\text{(Commission + EoM)}}{\text{NWP*}}$
- Combined ratio(COR) = Loss ratio + Expense ratio
- COR < 100% indicates insurer is making UW profit & Cost of float is negative
- ILGIC Expense ratio = 23% is the lowest in the industry
- Geico and Direct Line have expense ratios of 18% and 15% respectively

* **Overseas NEP is used, in India Deferred Acquisition cost not allowed**

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ICICI Lombard – Performance Summary

₹ billions	2018	2017	2016	2015	2014	CAGR growth
GDPI	124	107	81	67	69	13%
UW profit	-2.3	-3.4	-4.9	-2.2	-2.5	
Investment income	15.6	13.3	11.8	9.6	8.1	14%
Operating profit	12.0	9.1	7.1	6.9	5.2	18%
PAT	**8.6**	**7.0**	**5.1**	**5.4**	**5.1**	11%
Loss ratio	23%	23%	25%	23%	22%	
Expense ratio	77%	80%	81%	81%	83%	
Combined ratio	**100%**	**104%**	**107%**	**104%**	**105%**	
Return on Equity	19.0%	18.8%	16.0%	19.0%	21.5%	

- Investment profit mitigates UW losses
- Combined ratio < 100% indicates profitable UW

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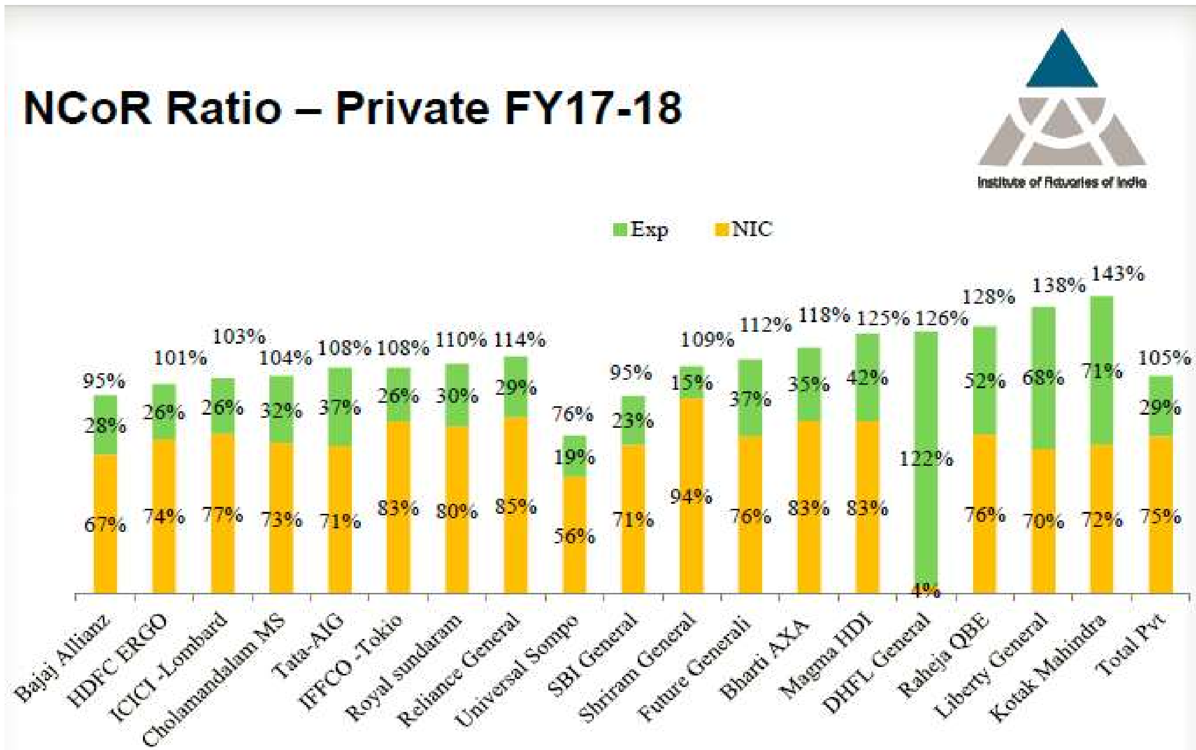
How is the industry performing?



- Bajaj Allianz (BAGIC) is consistently producing UW profits or COR <100% for past few years.

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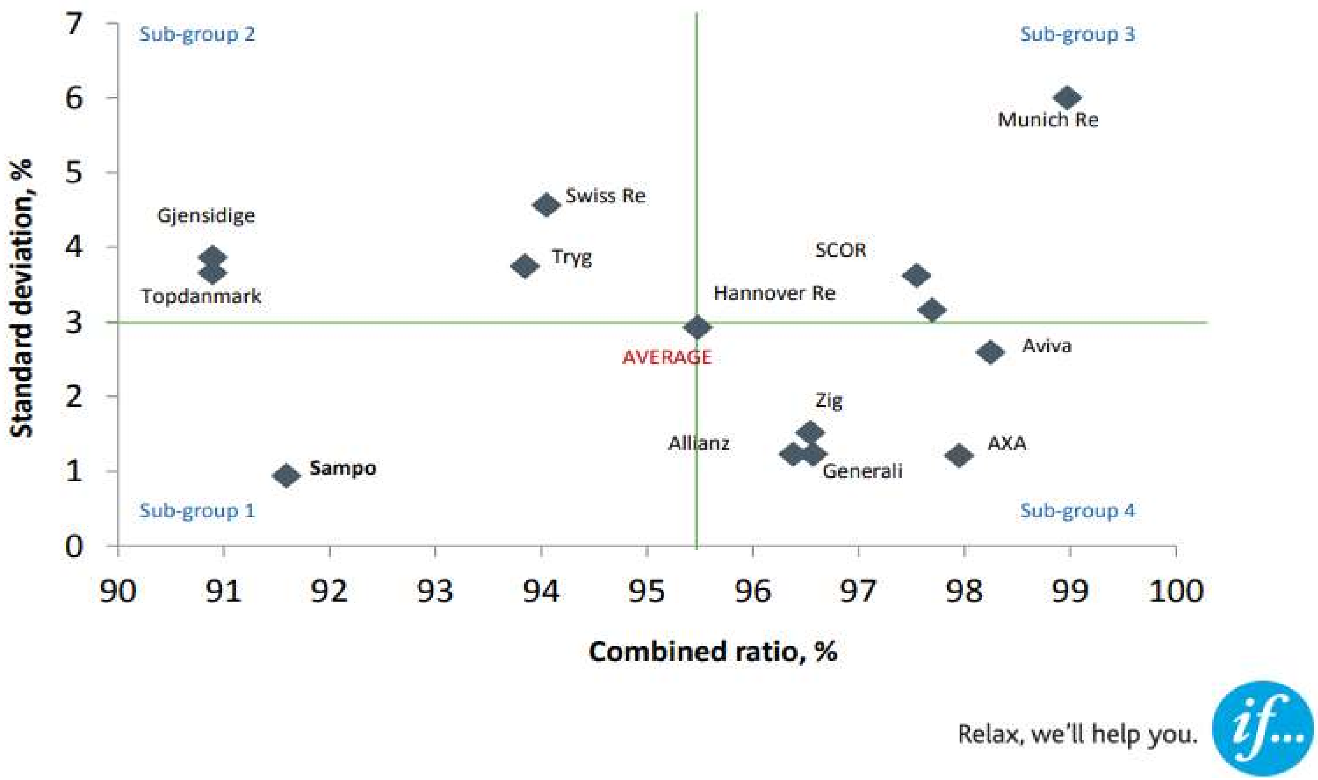
Combined Ratio in a mature market (EU)



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ILGIC Investment -1

- Value-investing principles – liquidity and total return approach.
- Long term without regard to strategies such as timing, momentum, rotation or indexing (as per DRHP)
- Investment Assets = PH Assets (float**) + SH Investment Assets ;
- Asset allocation: Debt (90% to 75%) & Equity (10% to 25%)
- As per IRDAI, equity should be limited to 15%
- Australia insurer are not restricted, as long as they maintain solvency capital.

*Float= UPR + Outstanding Claims Reserve

ILGIC Investment - 2

- Net Inv. Asset (NIA) = ₹ 466 per share ; Book Value = ₹ 120
- Inv. Leverage = NIA/ BV = 3.88

	FY2018	FY2017	FY2016	FY2015
Realised return(annualised)	9.70%	10%	10.30%	10.40%
Total portfolio return*	?	13%	8.80%	18%
Total listed equity return*	?	32.30%	4.60%	65.90%
* including unrealised gains				

- Assuming UW breakeven = 0, 10% return on NIA = ₹ 46.6
- Comprehensive ROE = 46.6 / 120 = 34%

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Cashflow statement

- ‘Cash before cover’
- Claim payments are done after premium have been paid
- This diminishes the importance of cashflow statement for P&C companies
- ‘Cashflow from Investing’ – Investments are also part of operations

Valuation

CMP (8th Feb) = ₹ 885
EPS = 26 (9MFY19)
Book Value = ₹ 120 (FY2019E),
Net Investments Assets (NIA) = ₹ 390 per share (PH + SH investment assets – debt)

1) Price Earnings Ratio: PE = 34

- PE ratio is seldom considered, because does not capture the economic reality, especially unrealised returns on investment assets.

2) P/B = 7.4 (high!!)

3) CMP < NIA, which is 885 >> 390

Let's check out how float based valuation works.

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Identifying Float on Balance Sheet

Balance Sheet

At March 31, 2018

Registration No. 115 dated August 3, 2001 (₹ in 000's)

Particulars	Schedule	At March 31, 2018	At March 31, 2017
Sources of funds			
Share capital	5	4,539,483	4,511,507
Reserves and Surplus	6	40,872,146	32,741,436
Share application money-pending allotment		-	12,755
Fair value change account			
Shareholders funds		1,857,474	1,745,345
Policyholders funds		5,481,242	5,027,093
Borrowings	7	4,850,000	4,850,000
Total		**57,600,345**	**48,888,136**
Application of funds			
Investments-Shareholders	8	47,283,646	39,826,416
Investments-Policyholders	8A	134,643,034	109,678,099
Loans	9	-	-
Fixed assets	10	4,059,857	3,826,654
Deferred tax asset (Refer note 5.2.15)		2,114,128	872,289
Current assets			
Cash and bank balances	11	5,918,164	1,940,353
Advances and other assets	12	103,477,760	77,364,944
Sub-Total (A)		**109,395,924**	**79,305,297**
Current liabilities	13	195,112,294	149,135,765
Provisions	14	44,783,950	35,484,854
Sub-Total (B)		**239,896,244**	**184,620,619**
Net current assets (C) = (A-B)		**(130,500,320)**	**(105,315,322)**
Miscellaneous expenditure (to the extent not written off or adjusted)	15	-	-
Debit balance in profit and loss account		-	-
Total		**57,600,345**	**48,888,136**
Significant accounting policies and notes to the financial statements	16		

Float

- Float = UPR + Net Outstanding Claims Reserve
- Insurer gets paid to hold the float, in form of UW profits
- Cost of Carry of Float = $-\dfrac{\text{UW Profits}}{\text{Average Float}}$

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Float based valuation

“We have $7 billion of float presently.... And if I were offered $7 billion for that float and did not have to pay tax on the gain, but would thereafter have to stay out of the insurance business forever - a perpetual non-compete in any kind of insurance - would I accept that? The answer is no. That's not because I'd rather have $7 billion of float than have $7 billion of free money. It's because I expect the $7 billion to grow.” – Warren Buffet – BH Letter 1991

- 1$ of float is more expensive than 1$ of equity,

  -provided cost of float < 10 yr T-bonds & Premiums are growing

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How to project float?

- “If you could see our float for the next 20 years and you could make an estimate as to the amount and the cost of it, and you took the difference between its cost and the returns available on governments, you could discount it back to a net present value.” –

  Warren Buffet 1992   Annual SH meet

Case study: Fairfax purchase of 9% in mid 2015-16

- Price = ₹ 385 @ 5.7x BV ; BV = ₹ 67.5, Float = ₹ 243 per share
  @ 1.6x Float

"That's the good news! The bad news is that the 9% cost us $234 million or five times book value. While many of you may think I am losing it, we think, over time, ICICI Lombard will be worth every dollar we have invested in it – and more! It is an outstanding company." – Fairfax report 2015

- Projecting float over 10 years and capitalising it,
- Intrinsic Value = float(capitalised) + BV = ₹ 834 (H1 2015-16)

- IV (today) = ₹ 1,381 (compared to CMP = ₹ 940)

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Criticism about DCF

Discounted cash flow to us is sort of like the Hubble telescope – you turn it a fraction of an inch and you're in a different galaxy. There are just so many variables in this kind of an analysis – that's not for us.

Curtis Jensen

References:

- ICICI Lombard DHRP, Annual Report and transcripts
- IRDAI website and journals
- Jana Vembunarayan: Markel Corporation & Berkshire Hathway
- John Huber: Markel Corporation
- General Insurance Council

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