

ICICI Prudential Life Insurance

BSE SENSEX	S&P CNX
33,847	10,147
Bloomberg	IPRU IN
Equity Shares (m)	1,435
M.Cap.(INRb)/(USDb)	464 / 6.3
52-Week Range (INR)	461 / 302
1, 6, 12 Rel. Per (%)	4/-24/-21
12M Avg Val (INR M)	640
Free float (%)	21.3

Financials & Valuations (INR b)

Y/E MARCH	FY18	FY19E	FY20E
Net Premiums	268.1	310.0	366.1
Surplus / Deficit	13.6	12.9	14.1
Sh.holder's PAT	16.2	14.0	16.6
New bus. gr-unwtd (%)	16.2	13.0	18.0
New bus gr- APE (%)	16.0	12.5	16.2
Total prem gr - unwtd (%)	20.3	16.9	18.2
Solvency ratio (%)	252	215	192
NBP margin (%)	16.5	18.0	18.7
RoEV (%)	16.1	16.8	16.0
Total AUMs (INRb)	1395	1604	1825
VNB(INRb)	12.9	15.3	18.4
EV (INRb)	188	219	254
Valuations			
P/EV (x)	2.5	2.1	1.8
P/EPS (x)	28.7	33.2	28.0

CMP: INR323
TP: INR450 (+39%)
Buy

Operationally on track; higher opex remains a drag

- IPRU's PAT fell 29% YoY to INR3b (our estimate: INR3.3b) in 2QFY19. Despite renewal/single premium increasing 18%/50% YoY, gross premium growth was restricted to 16% YoY due to tepid 3% YoY growth in first year premium.
- **NBM improved to 17.5%** in 1HFY19 from 16.5% in FY18, enabling 41.5% VNB growth for the first half of the fiscal. Trend in persistency improved across cohorts, while 13th month persistency held largely stable at 85.2%. This enabled healthy 18% YoY growth in renewal premium in 2QFY19.
- **Commission expenses increased ~9% YoY**, led by sustained growth in the protection business. Opex increased 34% YoY on account of higher advertisement cost and investments made in the protection business. Cost to weighted received premium, thus, increased to 16.1% in 1HFY19 from 13.7% in FY18. The share of agency/direct channel in the distribution mix dropped to 22.1%/11.8% from 27.1%/14.4% in 1HFY18.
- **Total APE declined 5.4% YoY in 1HFY19** (+6% YoY in 2QFY19). Savings APE declined 9% YoY to INR31.1b, while protection APE grew strongly by 77% YoY to INR2.7b. Share of ULIPs in total new business APE stood at 82.2%, while that of the protection business improved further to 7.9% (5.7% for 12MFY18, 8.2% in 1QFY18). IPRU continues witnessing strong growth opportunity in the protection business – we estimate this business to account for ~10% of total premiums by FY20.
- **Valuations and view:** We expect 14.4% CAGR in new business APE over FY18-20. Margins are expected to improve to 18.7% by FY20, led by the rising share of the protection business and better cost efficiencies. We, thus, estimate 20% VNB CAGR over FY18-20, while RoEV is expected to sustain at ~16.5%. We revise our PAT estimates to reflect higher opex, and value IPRU at INR450 per share (2.5x FY20E EV). Maintain **Buy**.

Quarterly performance (INRm)

Policyholder's account (INRm)	FY18				FY19E				FY18	FY19E	2Q19E	A v/s E
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE				
Net premium income	48,202	65,395	67,951	86,558	54,378	76,012	79,987	99,649	268,107	310,025	77,506	-2%
Growth (%)	37.4%	20.6%	19.3%	15.0%	12.8%	16.2%	17.7%	15.1%	21.0%	15.6%	0	
Commission paid	2,162	3,632	3,773	4,466	2,795	3,951	4,103	4,932	14,033	15,781	3,835	3%
Operating exp	4,120	4,921	5,211	6,048	5,952	6,585	6,803	6,825	20,299	26,165	6,358	4%
Surplus/(Deficit)	3,965	3,554	3,372	2,740	3,009	2,003	2,831	4,916	13,630	12,853	2,633	-24%
Growth (%)	74.7%	12.5%	15.2%	15.0%	-24.1%	-43.6%	-16.1%	79.4%	27.0%	-5.7%	(0)	
Shareholders' Account												
Total income	4,373	4,578	4,904	4,482	3,864	2,910	4,243	5,570	18,362	16,587	3,925	-26%
PBT	4,281	4,491	4,810	3,614	2,840	3,032	3,887	5,446	17,189	15,205	3,580	-15%
Tax	221	279	289	208	24	24	314	855	997	1,216	304	-92%
PAT	4,059	4,212	4,521	3,406	2,816	3,009	3,573	4,591	16,192	13,989	3,275	-8%
Growth (%)	0%	1%	0%	-17%	-31%	-29%	-21%	35%	-3.7%	-13.6%	-0.2	
Key metrics (INRb)												
AUM	1,265.9	1,305.9	1,383.0	1,395.3	1,426.6	1,461.3	1,532.5	1,603.7	1,395.3	1,603.7	1,485.7	
EV	NA	172.1	0.0	187.9	NA	192.5	205.9	219.3	187.8	219.3	73.1	

Source: Company, MOSL

Research Analyst: Nitin Aggarwal (Nitin.Aggarwal@MotilalOswal.com); +91 22 3982 5540 | Parth Gutka (Parth.Gutka@motilaloswal.com); +91 22 3010 2746

Alpesh Mehta (Alpesh.Mehta@MotilalOswal.com); +91 22 3982 5415 | **Yash Agarwal** (Yash.Agarwal@motilaloswal.com); +91 22 3846 6693

Investors are advised to refer through important disclosures made at the last page of the Research Report.
Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Exhibit 1: Quarterly snapshot

INRM	FY17				FY18				FY19		Change	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	YoY (%)	QoQ (%)
Net premium income	35,088	54,225	56,975	75,264	48,202	65,395	67,951	86,558	54,378	76,012	16	40
Income from investments	53,564	37,094	(6,652)	65,763	35,177	28,130	65,442	(16,134)	23,212	12,278	(56)	(47)
Other income	139	153	153	144	164	170	175	192	197	186	10	(5)
Total income	88,844	91,441	50,474	1,41,171	83,545	93,693	1,33,568	71,369	78,712	88,269	(6)	12
Commission paid	1,257	1,829	1,995	2,508	2,162	3,632	3,773	4,466	2,795	3,951	9	41
Operating expenses	5,520	5,433	5,551	7,068	4,120	4,921	5,211	6,048	5,952	6,585	34	11
Total commission & opex	6,777	7,262	7,546	9,576	6,282	8,553	8,984	10,513	8,747	10,536	23	20
Total expenses	85,628	86,860	46,234	1,37,395	78,192	88,435	1,28,438	66,550	73,943	84,382	(5)	14
Tax	4	356	234	194	262	228	237	475	306	284	25	-7
Surplus/(Deficit)	2,270	3,158	2,926	2,384	3,965	3,554	3,372	2,740	3,009	2,003	(44)	(33)
Shareholders' Account	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	YoY (%)	QoQ (%)
Amt trf from P/H acc	2,497	3,139	3,288	2,391	3,334	2,850	2,742	1,967	2,464	1,479	-48	-40
Inc from Investments	1,961	1,278	1,667	1,753	1,038	1,725	2,160	2,473	1,396	1,426	-17	2
Total	4,459	4,418	4,958	4,424	4,373	4,578	4,904	4,482	3,864	2,910	(36)	(25)
Other expenses	80	96	89	129	91	88	93	115	99	85	-4	-15
Amounts transf to P/H acc	53	(32)	(2)	(1)	2	(2)	-	753	925	(208)	NA	-122
PBT	4,326	4,354	4,871	4,296	4,281	4,491	4,810	3,614	2,840	3,032	(32)	7
Tax	278	166	370	214	221	279	289	208	24	24	-92	1
PAT	4,049	4,188	4,500	4,082	4,059	4,212	4,521	3,406	2,816	3,009	(29)	7
Reported Ratios (%) : (on un-weighted premium)	1QFY17	1HFY17	9MFY17	12MFY17	1QFY18	1HFY18	9MFY18	12MFY18	1QFY19	1HFY19	YoY (bps)	QoQ (bps)
Commission expense	3.5	3.7	3.7	3.6	4.8	5.4	5.6	5.5	5.5	5.6	20	10
Opex ratio	15.5	12.1	11.2	10.5	8.9	8.1	7.9	7.5	10.8	9.5	144	-129
Calculated Ratios (%) : (on WRP basis)	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q		
Commission expense	3.9	3.6	3.7	3.5	5.1	5.9	5.8	5.4	5.5	5.6	-27	10
Opex ratio	16.9	10.7	10.2	9.8	9.7	8.0	8.0	7.4	11.8	9.4	139	-238
Reported APE data :	FY17				FY18				FY19			
Savings APE (%)	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	YoY	QoQ
Total (INRM)	-	-	-	21,670	17,050	18,690	20,050	22,120	13,960	19,840	(bps)	(bps)
ULIP	-	-	-	86.1	85.7	78.3	84.8	79.4	79.8	83.8	554	402
Participating	-	-	-	8.4	8.3	15.8	10.2	9.2	9.7	6.8	-903	-294
Other savings	-	-	-	1.6	1.5	2.0	0.9	1.7	2.3	1.7	-27	-58
Protection	-	-	-	4.0	4.5	3.9	4.0	9.8	8.2	7.7	376	-50
Other ratios (%)	1QFY17	1HFY17	9MFY17	12MFY17	1QFY18	1HFY18	9MFY18	12MFY18	1QFY19	1HFY19	YoY (bps)	QoQ (bps)
Solvency Ratio	320.5	305.9	294.3	280.7	288.6	275.7	251.5	252.0	234.6	234.3	-4140	-30
VNB margins			9.4	10.1	10.7	11.7	13.7	16.5	17.5	17.5	580	0
Persistency ratios (%) : excluding single premium	1QFY17	1HFY17	9MFY17	12MFY17	1QFY18	1HFY18	9MFY18	12MFY18	1QFY19	1HFY19	YoY (%)	QoQ (%)
13th Month	77.3	82.1	83.4	84.7	86.7	87.0	86.7	86.9	86.9	86.3	-70	-60
25th Month	68.9	72.5	72.9	73.0	74.6	74.3	75.8	77.6	79.2	79.4	510	20
37th Month	60.0	62.9	64.3	65.5	68.1	68.2	67.8	67.7	69.3	69.3	110	0
49th Month	56.0	61.1	60.6	58.3	60.1	60.6	61.8	62.3	65.1	65.1	450	0
61st Month	55.5	65.6	65.1	53.8	55.9	55.6	55.0	54.0	54.8	55.7	10	90
Key metrics (INRb)	1QFY17	1HFY17	9MFY17	12MFY17	1QFY18	1HFY18	9MFY18	12MFY18	1QFY19	1HFY19	YoY (%)	QoQ (%)
VNB	-	-	4.2	6.7	1.8	4.2	7.7	12.9	2.4	5.9	41	142
EV	-	-	0.0	161.8	0.0	172.1	0.0	187.9	0.0	192.5	12	NA
AUM	-	-	1,136	1,229	1265.9	1,306	1,383	1,395	1426.6	1461.3	12	2

Source: Company, MOSL

(a) 72% of new business policies issued within two days in 1HFY19

Other highlights for the quarter

- Market share within the total industry stood at 11.4% as of 1HFY19 (v/s 13.7% in 1HFY18). Within the private sector, the market share was 20.2% (v/s 24.6% in 1HFY18).
- Retail renewal premium grew 19% YoY to INR50.3b.

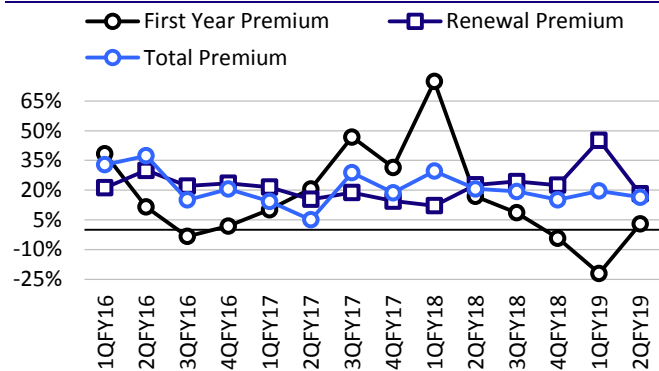
(b) 93% of new business applications initiated via digital platform

2QFY19 Concall highlights

- Focus remains on VNB growth and the same has increased 41.5% in 1HFY19.
- Focus on building participation with lenders as well to reach broader customer base.
- India is an underpenetrated market and the rise in population offers significant growth for saving and protection business. Protection business to grow well ahead of the current rate (~77% protection APE growth over 1HFY19); expects to gain larger market share.
- Retail comprises 96% of total APE as of 2HFY19.
- Non promoter channels contributed 49% of total APE.
- Cost increased on account of investments made in the protection business as the cost is higher in protection business.
- Going forward growth will help to reduce cost-ratios.
- Increase in interest rate led to negative economic variance; excluding the impact of economic variance and dividends paid, EV grew by 8% in 1HFY19.
- Reduction of surplus in non-par and annuity business resulting in a decline in profits. Small drop in new business premium on ULIP segment also adding to the decline in surplus.
- There were positive operating variances in 1HFY19, though economic variances stood negative due to rising interest rates.
- Consistent returns of ~7% on PAR products.
- ULIP is fairly distributed (40% debt). Thus, long-term growth should not be affected on account of volatility in the equity market.
- Breakeven period has been higher for the recent added products (FY10 onwards).
- Profitability growth will remain stagnant for the next three years.
- Not looking to raise capital for the next three years. Solvency ratio remains strong.
- Increase in protection business mix to help expand margins.
- EV and VNB are based on yield curve as on Sep'18. Profitability growth will remain stagnant for the next three years.

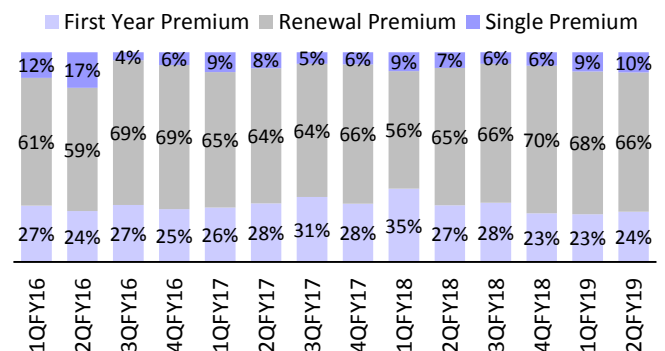
Story in charts

Exhibit 2: Total/renewal premium grew ~16%/18% YoY



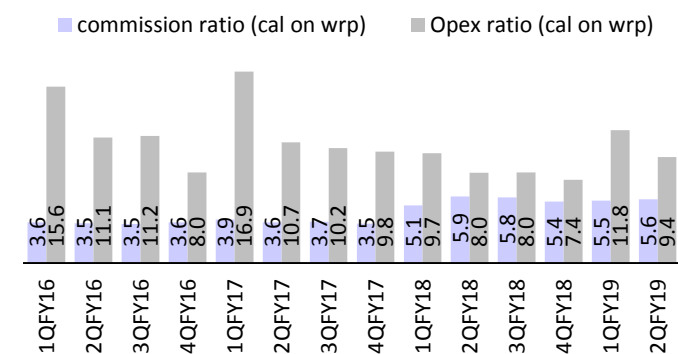
Source: Company, MOSL

Exhibit 3: Share of renewal premium increased to 66%



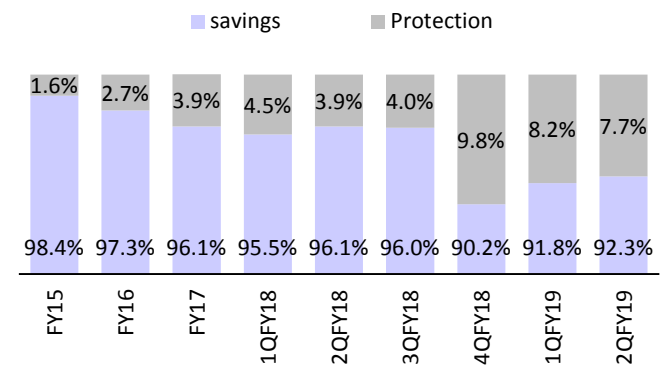
Source: Company, MOSL

Exhibit 4: Total expense ratio stood at 15.0% (v/s 13.9% in 2QFY18)



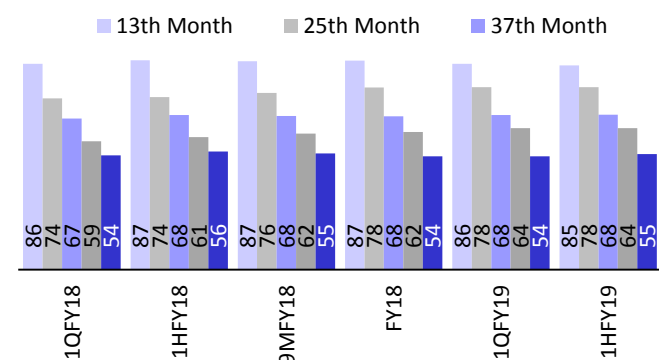
Source: Company, MOSL

Exhibit 5: Share of protection business stood at 7.7%



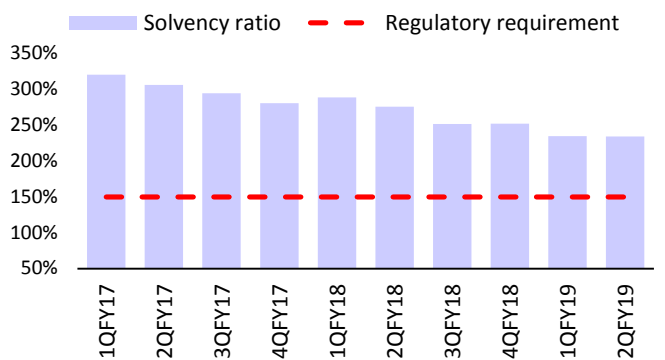
Source: Company, MOSL

Exhibit 6: Persistency ratio has improved across the curve



Source: Company, MOSL

Exhibit 7: Fall in the solvency ratio due to dividend payout and higher strain due to protection business



Source: Company, MOSL

Valuations and view

- We believe the life insurance sector in India is in a sweet spot, where strong structural potential is now overlapping with the rising share of financial savings and higher disposable income. We expect Indian insurers to trade at a premium to global insurers.
- Private sector life insurance companies have a 51% market share in total new business APE, and IPRU is amongst the market leader. Favorable demographics, increasing customer awareness about financial products, strong distribution network and superior brand image should help IPRU sustain WRP CAGR at 14% over FY18-20.
- We expect 14.4% CAGR in new business APE over FY18-20. Margins are expected to improve to 18.7% by FY20, led by the rising share of the protection business and better cost efficiencies. We, thus, estimate 20% VNB CAGR over FY18-20, while RoEV is expected to sustain at ~16.5%. We revise our PAT estimates to reflect higher opex, and value IPRU at INR450 per share (2.5x FY20E EV). Maintain **Buy**.

Financials and valuations: ICICI Prudential Life Insurance Company

Profit and loss account

Technical account (INR m)	FY16	FY17	FY18	FY19E	FY20E
Gross Premiums	191,644	223,540	270,688	312,799	369,846
Reinsurance Ceded	(1,657)	(1,988)	(2,581)	(2,774)	(3,722)
Net Premiums	189,987	221,553	268,107	310,025	366,123
Income from Investments	12,084	149,769	112,615	164,444	186,089
Other Income	209	188	936	1,040	1,155
Total income	202,279	371,927	382,172	475,509	553,368
Commission	6,200	7,589	14,033	15,781	19,821
Operating expenses	18,883	23,572	20,299	26,165	31,030
Total commission and opex	25,083	31,161	34,332	41,946	50,851
Benefits Paid (Net)	124,274	149,979	172,808	235,152	286,915
Chg in reserves	35,155	174,976	154,475	184,625	200,491
Total expenses	184,512	356,115	361,615	461,724	538,257
Provisions for debt, tax, misc.	3,643	4,288	5,727	4,502	5,061
Surplus / deficit before tax	14,124	11,523	14,830	13,785	15,111
Prov for Tax	704	788	1,201	932	1,017
Surplus / Deficit	13,421	10,735	13,630	12,853	14,094
Shareholder's a/c (INR m)	FY16	FY17	FY18	FY19E	FY20E
Transfer from technical a/c	12,076	11,315	10,892	10,892	11,951
Income From Investments	5,996	6,669	7,419	5,640	7,850
Total Income	18,073	18,270	18,362	16,587	19,863
Other expenses	313	409	420	546	737
Contribution to technical a/c	-	18	753	836	929
Total Expenses	356	427	1,173	1,382	1,666
PBT	17,717	17,843	17,189	15,205	18,197
Prov for Tax	1,212	1,028	997	1,216	1,638
PAT	16,505	16,815	16,192	13,989	16,559
Growth	1%	2%	-4%	-14%	18%

Premium (INR m) & growth (%)	FY16	FY17	FY18	FY19E	FY20E
New business prem - unwtd	67,658	77,604	90,210	101,937	120,286
New business prem - wrp	51,085	64,862	75,227	84,658	98,377
Renewal premium	123,986	144,907	177,465	210,862	249,560
Total premium - unwtd	191,644	222,511	267,674	312,799	369,846
New bus. growth - unwtd	26.9%	14.7%	16.2%	13.0%	18.0%
New business growth - wrp	9.9%	27.0%	16.0%	12.5%	16.2%
Renewal premium growth	24.3%	16.9%	22.5%	18.8%	18.4%
Total prem growth - unwtd	25.2%	16.1%	20.3%	16.9%	18.2%
Premium mix (%)	FY16	FY17	FY18	FY19E	FY20E
New business - unwtd					
- Individual mix	79.2%	89.9%	93.1%	93.0%	94.0%
- Group mix	20.8%	11.4%	9.8%	7.0%	6.0%
New business mix - APE					
- Participating	13.6%	9.5%	10.6%	10.9%	11.6%
- Non-participating	3.0%	4.8%	5.0%	8.5%	10.8%
- ULIPs	83.4%	85.7%	84.4%	80.6%	77.6%
Total premium mix - unwtd					
- Participating	11.4%	11.7%	12.0%	11.8%	13.0%
- Non-participating	13.6%	13.6%	12.8%	17.7%	20.0%
- ULIPs	75.1%	74.8%	75.2%	70.5%	67.0%
Individual prem sourcing mix (%)	FY16	FY17	FY18	FY19E	FY20E
Individual agents	24.7%	23.5%	25.6%	26.6%	27.6%
Corporate agents-Banks	57.2%	57.1%	52.6%	51.6%	51.4%
Direct business	11.2%	12.8%	16.0%	16.6%	16.4%
Others	6.9%	6.6%	5.8%	5.2%	4.6%

Financials and valuations: ICICI Prudential Life Insurance Company

Balance sheet

Balance sheet (INR m)	FY16	FY17	FY18	FY19E	FY20E
Sources of Fund					
Share Capital	14,323	14,354	14,355	14,355	14,355
Reserves And Surplus	36,401	46,976	51,382	59,324	68,974
Shareholders' Fund	53,233	64,060	68,818	76,976	86,955
Policy Liabilities	202,548	251,695	309,934	370,433	473,038
Prov. for Linked Liab.	719,903	839,365	923,124	1,117,943	1,218,557
Funds For Future App.	6,619	6,042	8,780	10,096	11,609
Current liabilities & prov.	22,013	28,365	34,479	41,363	49,623
Total	1,047,650	1,247,408	1,418,187	1,638,791	1,862,826
Application of Funds					
Shareholders' inv	62,124	66,349	77,466	83,663	90,775
Policyholders' inv	215,156	270,674	332,889	402,105	515,937
Assets to cover linked liab.	752,958	878,783	975,020	1,117,943	1,218,557
Loans	443	806	1,451	1,712	1,934
Fixed Assets	2,196	2,138	4,221	4,727	5,389
Current assets	14,773	28,657	27,142	28,642	30,234
Total	1,047,650	1,247,408	1,418,187	1,638,791	1,862,826
Operating ratios (%)	FY16	FY17	FY18	FY19E	FY20E
Investment yield (%)	1.2%	13.0%	8.6%	10.8%	10.7%
Commissions / GWP	3.2%	3.4%	5.2%	5.0%	5.4%
- first year premiums	7.6%	7.3%	13.9%	14.0%	15.7%
- renewal premiums	1.9%	2.0%	1.9%	1.9%	1.8%
- single premiums	0.3%	0.6%	1.9%	1.2%	1.1%
Operating expenses / GWP	9.9%	10.5%	7.5%	8.4%	8.4%
Total expense ratio	13.1%	13.9%	12.7%	13.4%	13.7%
Claims / NWP	65.4%	67.7%	64.5%	75.8%	78.4%
Solvency margin	320%	289%	252%	215%	192%
Persistency ratios (%)	FY16	FY17	FY18	FY19E	FY20E
13th Month	82.4%	85.7%	87.8%	88.2%	88.3%
25th Month	71.2%	73.9%	78.8%	80.5%	80.8%
37th Month	61.6%	66.8%	68.9%	71.8%	72.8%
49th Month	62.2%	59.3%	63.6%	65.1%	67.1%
61st Month	46.0%	56.2%	54.8%	58.2%	59.4%
Profitability ratios (%)	FY16	FY17	FY18	FY19E	FY20E
New business margin (%)	8.0%	10.1%	16.5%	18.0%	18.7%
RoE (%)	31.2%	28.7%	24.4%	19.2%	20.2%
RoIC (%)	34.3%	34.8%	33.4%	28.8%	34.1%
EVOP as % of IEV	15.3%	16.4%	22.8%	19.5%	18.8%
RoEV (%)	0.8%	16.0%	16.1%	16.8%	16.0%
Valuation ratios	FY16	FY17	FY18	FY19E	FY20E
Total AUMs, Rs bn	1,039	1,229	1,395	1,604	1,825
- of which equity AUMs (%)	46%	47%	48%	48%	49%
Dividend (%)	84%	74%	66%	35%	40%
Dividend payout ratio (%)	88%	40%	74%	43%	42%
EPS, Rs	11.5	11.7	11.3	9.7	11.5
VNB (INRb)	4.1	6.6	12.9	15.3	18.4
EV (INRb)	139.3	161.7	187.8	219.3	254.4
EV/Per share	97.1	112.7	130.8	152.8	177.2
VIF as % of EV	60%	58%	63%	64%	65%
P/VIF	5.5	4.9	3.9	3.3	2.8
P/AUM (%)	45%	38%	33%	29%	25%
P/EV (x)	3.3	2.9	2.5	2.1	1.8
P/EPS (x)	28.1	27.6	28.7	33.2	28.0

NOTES

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

*In case the recommendation given by the Research Analyst becomes inconsistent with the investment rating legend, the Research Analyst shall within 28 days of the inconsistency, take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Securities Ltd. (MOSL)* is a SEBI Registered Research Analyst having registration no. INH000000412. MOSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOSL is a subsidiary company of Motilal Oswal Financial Service Ltd. (MOFSL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOSL is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India (MCX) & National Commodity & Derivatives Exchange Ltd. (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) & National Securities Depository Limited (NSDL) and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products. Details of associate entities of Motilal Oswal Securities Limited are available on the website at <http://online.reports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report

MOSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Securities Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Securities Limited (MOSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts"), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Specific Disclosures

- 1 MOSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOSL has not engaged in market making activity for the subject company

The associates of MOSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company
- received compensation/other benefits from the subject company in the past 12 months
- other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.

The associates of MOSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alterations to this statement as may be required from time to time without any prior approval. MOSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022-3980 4263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 3080 1000. Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-38281085.

Registration details: MOSL: SEBI Registration: INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL: IN-DP-16-2015; NSDL: IN-DP-NSDL-152-2000; Research Analyst: INH000000412. AMFI: ARN 17397. Investment Adviser: INA000007100. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670) offers PMS and Mutual Funds products. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) offers wealth management solutions. *Motilal Oswal Securities Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance and IPO products. *Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. offers Real Estate products. * Motilal Oswal Private Equity Investment Advisors Pvt. Ltd. offers Private Equity products.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench. The existing registration no(s) of MOSL would be used until receipt of new MOFSL registration numbers.