

ICICI Securities Limited
is the author and
distributor of this report

Company update and TP
revision

Insurance

Target price Rs700

Target price revision

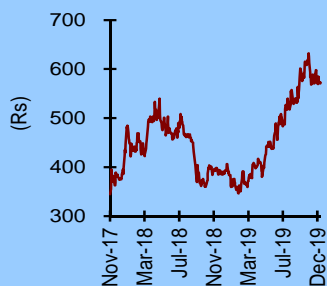
Rs700 from Rs587

Shareholding pattern

	Mar '19	Jun '19	Sep '19
Promoters	76.1	74.5	71.2
Institutional investors	13.9	16.6	20.3
MFs and others	2.6	4.3	3.9
Banks / FIs	0.2	0.5	0.1
Insurance Cos.	0.0	0.0	0.4
FII	11.1	11.8	15.9
Others	10.0	8.9	8.5

Source: CMIE

Price chart



INDIA

HDFC Life Insurance Company

BUY

Maintained

Digital transformation adds to business strength

Rs573

We attended the HDFC Life (HDLI) Tech Day in Mumbai which was held on 11th Dec'19. Management highlighted the digital initiatives undertaken by the company to attain customer-centricity in its business processes. We believe the combination of these digital capabilities and the wide scope of product and distribution (including ecosystems) is unique to HDLI, which can create a sustainable business advantage. The effect can be even more pronounced in an era where the regulator is incrementally open to experiment with new products. **Maintain BUY.**

- ▶ **Digital capability is part of the broader rationale to outsmart disruption, both from product and distribution.** HDLI management commentary over the years has always emphasised the business need for product diversification, which was the key learning from the regulatory headwinds experienced in 2010. The same continues to be the driver for development of digital capabilities, which would insure it from future disruptions. *The mainstay of digital capabilities involves transforming the business model from being product-centric to customer-centric, which has been through five building blocks namely: 1) journey simplification, 2) partner integration, 3) data labs, 4) service simplification, and 5) platform & ecosystem. The company made detailed illustration of all of these processes (details below).*
- ▶ **Digital capability within a wide scope of product and distribution is a unique business driver for HDLI.** While some of the leading private insurance peers will have similar capabilities in line with investment in technology and best practices in digital capabilities, HDLI's ability to execute a well-diversified product portfolio with a diversified distribution ecosystem, including the 270 distribution partners, can differentiate business results for HDLI. We have seen business outperformance over the past two years to that effect. *Apart from business resilience, HDLI's wider scope of product and distribution compared to peers can be used effectively with the digital capabilities to spur sustainable growth, more so under the sandbox era where the regulator has shown open stance to experiment with new products.*
- ▶ **Scope to aim the mutual fund space and hyper personalisation of incentives to sales force can offer strategic growth.** Management reiterated the strategic objective to incrementally target the mutual fund inflows with products that will return mortality charges after a time period. Tax benefits and lower fund management charges can offer better IRRs. Additionally, one of the promising outputs of machine learning has also been hyper personalisation of incentives to sales force through the *learn program*, currently being offered to direct sales personnel. This has helped reduce leakages, reward subtasks based on probability of completion of the task, and the probable timeline

Market Cap	Rs1155bn/US\$16.3bn	Year to Mar	FY18	FY19	FY20E	FY21E
Reuters/Bloomberg	HDFL.BO/HDFCLIFE IN	Weighted APE (Rs mn)	54.0	60.5	76.6	92.3
Shares Outstanding (mn)	2,017.7	Embedded Value (Rs bn)	152	183	219	265
52-week Range (Rs)	615/346	New business value (Rs bn)	13	15	21	29
Free Float (%)	28.8	VNB margin (%)	23.2	24.6	27.8	31.1
FII (%)	15.9	PAT (Rs mn)	11,090	12,768	19,268	23,920
Daily Volume (US\$'000)	47,898	P/EV (x)	7.6	6.3	5.3	4.4
Absolute Return 3m (%)	6.4	EVOP as % of IEV	21.5	20.1	21.0	22.3
Absolute Return 12m (%)	49.5	RoE (%)	25.8	24.6	30.1	29.4
Sensex Return 3m (%)	8.6	RoEV (%)	22.0	20.2	19.7	20.8
Sensex Return 12m (%)	16.3	Dividend per share (Rs)	1.4	1.6	1.8	1.8

Research Analysts:

Ansuman Deb

ansuman.deb@icicisecurities.com

+91 22 6637 7312

Ravin Kurwa

ravin.kurwa@icicisecurities.com

+91 22 2277 7653

Table 1 : Evolution of technology capability and partner ecosystem

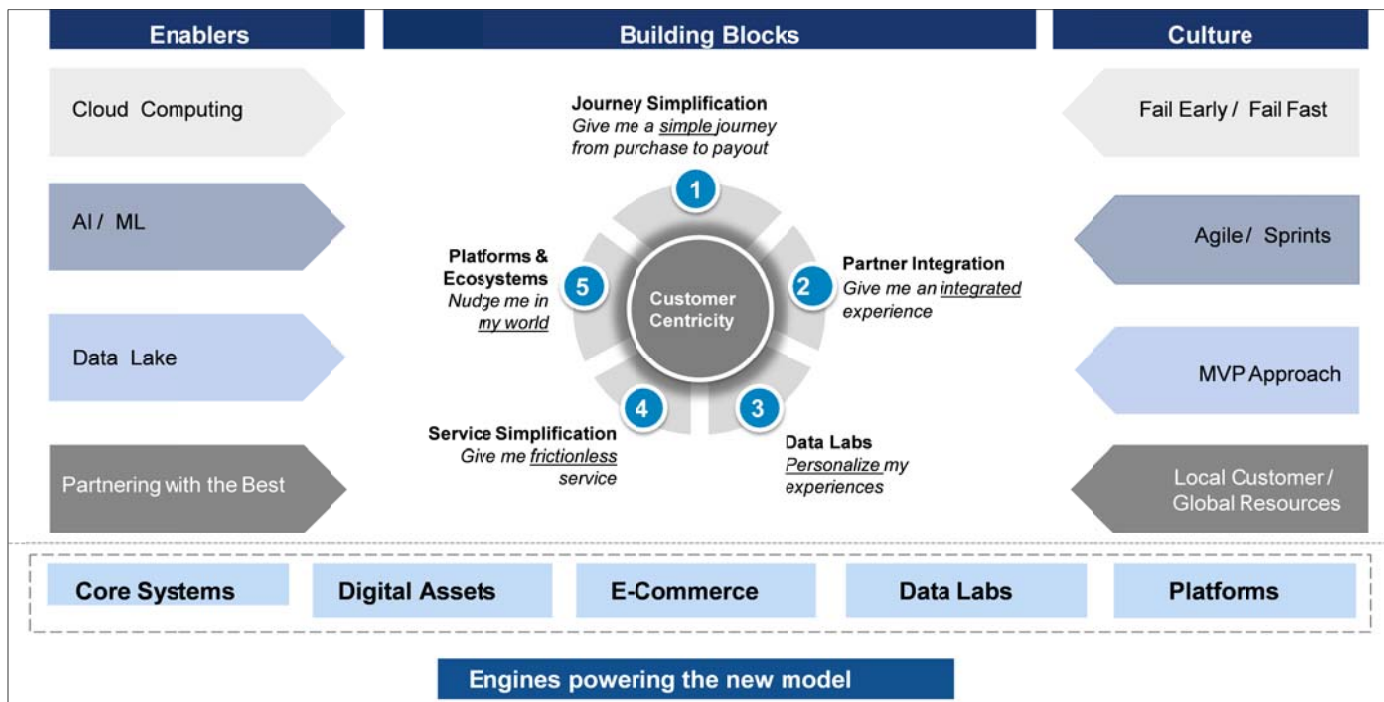
	2013-15	2015-16	2017-19
Technology capability	<ul style="list-style-type: none"> • Infra / server • Customer Relationship Management (CRM) • Point of Sale (PoS) 	<ul style="list-style-type: none"> • Online assets and digital tools • Mobility • Straight Through Processing (STP) • Online Policy Sale (OPS) • Learning Management System 	<ul style="list-style-type: none"> • Data lake • Customer 360 • Campaign manager • Recommendation engine • Nudge repository • Attribution
Partner	<ul style="list-style-type: none"> • Traditional partners • Banca • Feet on street • Agency 	<ul style="list-style-type: none"> • Website • Search engine marketing • Social media marketing • Online web aggregators 	<ul style="list-style-type: none"> • Ecosystem • New age partners

Source: Company data

Tech ability is being used to drive a combination of customer and business goals. The customer goal is to offer a personalised, seamless and simple experience while business goal is to integrate more platforms and partners to widen distribution and products.

Transforming the business model from being product-centric to customer-centric has been through five building blocks, namely: 1) journey simplification, 2) partner integration, 3) data labs, 4) service simplification, and 5) platform and ecosystem.

Chart 1: Five building blocks for digital transformation aided by enablers and culture



Source: Company data

Journey simplification

Customer's on-boarding process forms a key element of success, which must also be followed by ease of transaction and enable a simple and frictionless experience.

Table 2 : Key highlights

Parameter	Benefits
State of art technology has led to continuous reduction in TAT	Overall reduction in policy issuances TAT from 10 days to 2 days to <4 hours
Customer journey fulfilled digitally, strongly supported by mobility apps leading to higher customer engagement	99% customer journey fulfilled digitally
Use of mark-tech across online platforms (website, app) driving 75% growth in direct traffic, 83% increase in app downloads, 84% increase in leads	89% - Online business CAGR (FY17-FY19) #ranked no. 1 – spontaneous amongst internet users
Cloud-first and micro services based architecture redefining customer experiences with improved agility and scale	30% Infrastructure on cloud

Source: Company data

HDLI has developed the 'Insta suite' of mobile applications to ensure ease of transactions, which facilitate frontline sales team to onboard customers

The journey simplification of customer has happened along with 46% reduction in cost/lead along with 84% increase in lead generation rate over the last over the last 5-6 years.

- **InstaMix:** Used to create combo solutions covering multiple products to enable easy and insightful presentations for prospective customers.
- **InstaGo:** Geo-tagging enables front line sales to track visits to their partners and customers.
- **Mobile Sales Diary:** Sales enablement solution that helps the field sales force through the core sales processes of illustration creation, quote generation, form filling, document upload and premium collection.
- **InstaVerify:** Tool for pre-conversion verification used at the point of sale; this has reduced the dependence on call centers for call-based verification. More than 3 million customers has been verified since launch.
- **InstaHuddle:** Enables sales team managers to connect with their teams to provide insights on key business topics and enhance their learning and knowledge.
- **instA:** Virtual assistant that leverages AI, ML and NLP technologies to answer product and process related questions of sales and operations teams, enables to serve customers in an efficient manner. It currently handles over 13 lakh queries per month across about 960 query types, with an accuracy of around 99%.

In addition to above, HDLI is also present on third-party platforms, including online web aggregators. Company offers bespoke as well as plug and play technology integration solutions based on the digital maturity of the partner which is workable with: (a) partners who have their own end-to-end platform and where journey happens on partner's platform, and (b) redirection mode where the journey is shared between partner and the company's platform.

Partner integration

HDLI currently has over 270 distribution partners, of which more than 40 belong to the new-age ecosystem partners. To manage this distributor base, highly efficient platforms powered by advanced analytics, automation and artificial intelligence are needed. These platforms, which can be integrated with partners' applications through open APIs, enable a balance between costs, revenue, risk, and business quality.

HDLI is able to select customers within a partner platform for a particular product. As such, risk mitigation is happening through customer selection. The initial selection is based on minimum value proposition through a sample, also governed by reinsurance opportunity. For prebundled partners like Airtel, the risk is mitigated largely through law of large numbers apart from smaller value assured.

Key examples of partner integration include:

- **HDFC Bank:** Approximately 82% cases are issued via 'straight through processing'. System integration has helped customers fill an application form within 10 minutes.
- **Simplified journeys on Paytm and Airtel:** HDLI has successfully partnered with Paytm offering instant pre-approved insurance with a 3-click journey, and has insured 1.1 million lives since launch of the partnership in May 2019. With Airtel, HDLI has bundled a life insurance cover of Rs400,000 with a prepaid recharge of Rs249 and are on-boarding around 30,000 customers per day, with a Certificate of Insurance (COI) issuance TAT of less than a second.
- **Credit Protect partners:** HDLI's *LifeNext* platform, designed specifically for partners who offer consumer loans, provides instant services across the value chain including, partner hierarchy mapping, payment modules, Insurance Certificate issuance, lead transfers and end-to-end workflows.
- **Instalnsure:** HDLI offers pre-approved sum assured insurance solutions for pre-defined customer segments through *Instalnsure*. Using underwriting algorithms and deep integration with partner systems, these offers need minimal underwriting and documents.
- **Sales Enablers:** HDLI has a suite of tech offerings, which enable frictionless customer journeys such as *Hello Selfie*, *Credit Mart* and other widgets. Personalisation through recommendation and nudge engines enables cross-sell to existing customers as well.

Table 3: Instalnsure – degrees of partner integration

	Infinity	Nebula	Andromeda
Tech integration timeline	2-3 weeks	6-7 weeks	8-9 weeks
Data sharing model	Full data sharing in encrypted format	Partial data sharing with encryption	Real-time data sharing
Tech development partner end	No requirement	2 APIs required	3 APIs required

Source: Company data

Data Labs

HDLI harnesses customer data by enhancing computing power and analytics abilities. HDLI is working on three broad areas.

One of the promising outputs of 'machine learning' has also been hyper personalisation of incentives to sales force through the *learn program*, currently being offered to direct sales. This has helped reduce leakages, reward subtasks based on probability of completion of the task, and the probable timeline.

Risk+ model has helped convert additional premiums at lower risk and avoid potential payouts of about Rs2.1bn through effective screening of high risk cases over a period of two years.

- **Cloud Storage / Computing:** This helps in reducing in opex, increase scalability, eliminate version upgrade hassles and enable customisation as per changing business needs. Company currently has 25 cloud native products with 30% of the traditional infrastructure running on cloud platform.
- **Big Data:** Using big data and analytical models across several business area helps in accurately predicting customer behaviour and providing customised experience.
- **Artificial Intelligence (AI):** AI facilitates businesses to identify, assess and underwrite emerging risks and identify new revenue sources. The current AI capabilities have helped in areas of risk mitigation at payouts, sentiment analysis at service touch points and hyper personalisation of sales incentives.

The focus is on five core AI technologies: text, vision, speech, ML and cognitive bots.

- **Text AI:** HDLI's Twitter bot *Neo* and Email bot *SPOK* handles common queries and queue management. The *Sentilyzer* tool, with an accuracy of 95%, understands customer sentiments from email / text messages.
- **Vision AI:** *AgeTymer* tool provides an emotional trigger at quote stage, while *FaceSense* solution, which has an accuracy of 92%, is used for customer verification at the stage of Payouts. Yet another solution, *Bodmeter*, helps in determining customer BMI from a selfie.
- **Speech AI:** HDLI has created an industry-first voice bot *sVar*, which has helped improve the efficiency of the revival process. Voice authentication solution *TrueCue* has an accuracy of more than 98%.
- **Machine Learning (ML):** ML models and algorithms are used across functions including new business, on-boarding & customer retention and employee management. *Propensity models* have helped increase appointment rates with customers by ~42%. Within the on-boarding process, *Risk+ model* has helped convert additional premiums at lower risk and avoid potential payouts of about Rs2.1bn through effective screening of high risk cases over a period of two years.
- **Cognitive bots:** Bots are used for automating manual processes across different functions to improve operational excellence. The company has 150 bots across 26 functions.

Service simplification

- **Instant experience:** HDLI has created a suite of mobile applications for customers that enables easy policy servicing. *InstaServ*, used by branch operations team for customer transactions at branches helps faster and accurate resolution of customer queries; *Insta Receipt* enables instant issuance of renewal premium payment receipts; *Insta Revival* enables the processing of lapsed cases to make them 'in-force' thereby improving persistency.

Service simplification, either instant or 24x7, is being managed by personalised customer experiences or Robotic process automation.

Table 4: Insta experience benefits

App	Benefits
InstaServ	Reduced TAT to 6secs earlier 20min
InstaReceipt	Provides receipts in 30 seconds
InstaRevival	96% revival is now OTC

Source: Company data, I-Sec research

- **24x7 experience:** To provide 24x7 service experiences, HDLI has deployed customer service bots – *chat bot Elle*, *Twitter bot Neo*, *email bot SPOK*, and *WhatsApp bot Etty* – across all digital touch points, including their portal and social media avenues.
- **Process automation:** HDLI has deployed over 150 cognitive bots – 41% of them automating complex business processes. These bots impact 26 different functions, and have completed over 138 million transactions in FY19 to bring in greater scale, efficiency, and 24X7 service delivery, resulting in significant improvement in TAT as well as elimination of non-value added activities.
- **Frictionless experience:** *Life Easy*, an analytics-driven investigation process has enabled HDLI to settle 92% of claims (non-investigated cases) within a day of intimation; *Customer 360*, a real-time customer interaction aggregator to understand customer needs holistically and offer better service; *Life Certificate*, a tool enables senior citizens to provide their survival status remotely through a video, thereby resulting in faster processing of annuity payouts; *Quick Register*, a tool that allows 3-click auto debit registration supported by multiple banks and card networks.

Table 5: Key highlights of Friction-less experience

App	Benefits
Life Easy	<ul style="list-style-type: none"> • 3-click claim intimation process. • Analytical driven investigations • Mobility enabled intimation • 100% payout in Day 1 of intimation through <i>LifeEasy</i>
Customer 360	<ul style="list-style-type: none"> • Brings all customer data in centralised location in real time • Anticipate customer needs • Platform can be extended to multiple service touchpoints
Life Certificate	<ul style="list-style-type: none"> • Video life certification • Industry first solution for annuity customers using AI • Customer time required reduced to 120 secs • 100% automated journey
Quick register	<ul style="list-style-type: none"> • 3 click auto debit • Register Auto pay in 2 mins • Paperless with zero mandate rejection • Multiple options to register.

Source: Company data

Platform and ecosystems

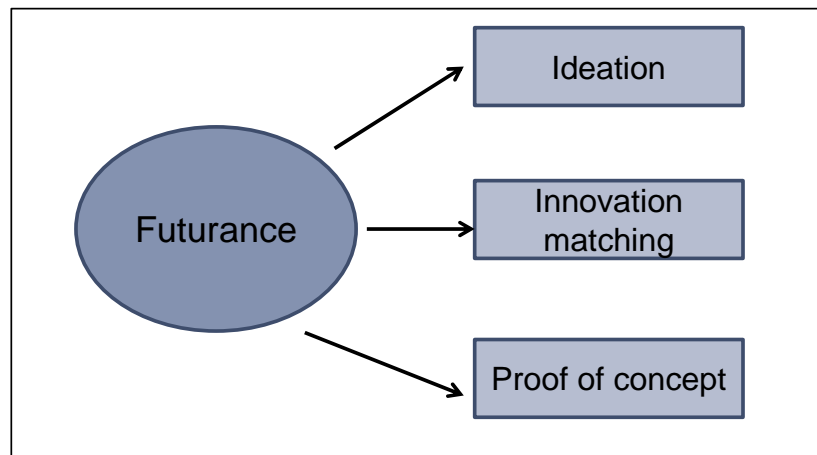
HDLI has tied up with several non-traditional ecosystem partners like Airtel, Paytm and Uber, among others, to tap business opportunity with partners. Ecosystems and platforms are critical in achieving this opportunity.

Platforms and ecosystems like *Life99* can be leveraged to nudge customers by enabling better assessment of their status in terms of three requirements: health, retirement, and life insurance. Further, it can be developed to nudge customers to know their retirement readiness and seek assistance for retirement needs.

LIFE99 is the only platform that integrates details of PF, NPS, gratuity, superannuation, insurance and annuities. More than 35 corporate partners and 10,000 users have registered on the platform within six months of launch.

Futurance: HDLI has also partnered with IvyCamp this year to launch 'Futurance', a program that helps to identify and work with start-ups possessing cutting edge technologies relevant to business. This will further open up new opportunities and form an additional element in their platform and ecosystem strategy

Chart 2: Futurance – platform for structural association with startups



Source: Company data

Table 6: Valuation

	New
Embedded Value (Rs bn)	265
Value of New Business (Rs bn)	29
New Business Multiple	40
Total appraisal value	1,411
Number of shares, mn	2,017
Valuation per share	700
Price / Embedded value	5.3

Source: Company data, I-Sec research

Summary financials

Table 7: Technical A/C

(Rs mn, year ending March)

	FY17	FY18	FY19	FY20E	FY21E
Gross Premiums	194,455	235,644	291,860	365,932	457,520
Reinsurance Ceded	(1,706)	(1,934)	(2,620)	(3,100)	(3,540)
Net Premiums	192,749	233,710	289,240	362,832	453,980
Income from Investments	111,406	85,946	90,275	120,574	147,396
Other Income	1,389	2,685	4,840	4,320	4,767
Total income	305,544	322,341	384,355	487,726	606,143
Commission	7,920	10,748	11,177	14,928	18,672
Operating expenses	23,853	31,593	38,136	45,851	56,170
Total commission and opex	31,773	42,341	49,313	60,778	74,842
Benefits Paid incl. bonus	100,004	131,114	139,889	175,635	208,732
Chg. in reserves	160,548	133,223	175,075	224,136	289,069
Total expenses	292,324	306,678	364,276	460,550	572,643
Prov. for doubtful debts	350	(9)	905	700	725
Profit before tax	12,870	15,672	19,174	26,476	32,775
Tax (incl. Service Tax & GST)	3,394	4,725	5,666	8,025	9,013
Surplus / Deficit	9,476	10,947	13,508	18,451	23,763

Source: Company data, I-Sec research

Table 8: Shareholders' A/C

(Rs mn, year ending March)

	FY17	FY18	FY19	FY20E	FY21E
Transfer from P/H A/C	7,863	10,022	12,069	17,489	21,092
Income From Investments	2,269	2,803	4,084	5,122	6,582
Total Income	10,132	12,955	16,364	22,821	27,885
Other expenses	680	125	278	306	336
Contribution to technical a/c	354	1,566	3,090	2,757	3,043
Total Expenses	991	1,687	3,465	3,160	3,477
PBT	9,141	11,267	12,899	19,661	24,408
Prov for Tax	220	177	131	393	488
PAT	8,921	11,090	12,768	19,268	23,920
Transfer from P/H A/C	7,863	10,022	12,069	17,489	21,092

Source: Company data, I-Sec research

Table 9: Balance sheet

(Rs mn, year ending March)

	FY17	FY18	FY19	FY20E	FY21E
Share Capital	19,985	20,126	20,178	20,178	20,178
Reserves And Surplus	18,278	27,064	36,278	51,296	70,966
Shareholders' Fund	38,263	47,492	56,426	71,434	91,094
Policy Liabilities	323,827	423,193	536,619	743,116	965,959
Prov. for Linked Liab.	508,065	545,982	605,213	662,263	728,489
Funds For Future App.	8,668	35,464	39,592	43,236	47,883
Current liabilities & prov.	37,753	46,464	51,188	61,426	73,711
Total	951,061	1,104,815	1,300,158	1,594,475	1,921,136
Shareholders' inv	32,314	40,703	50,360	86,221	89,304
Policyholders' inv	346,915	453,471	571,245	757,399	1,000,519
Assets to cover linked liab.	538,005	571,854	633,774	697,119	766,830
Loans	479	187	796	955	1,146
Fixed Assets	3,535	3,414	3,339	4,007	4,808
Current assets	29,677	11,085	40,645	48,774	58,529
Total	951,061	1,104,815	1,300,158	1,594,475	1,921,136

Source: Company data, I-Sec research

Table 10: Premium details*(Rs mn, year ending March)*

	FY17	FY18	FY19	FY20E	FY21E
New business premium	86,210	113,496	149,715	202,115	262,749
Total weighted APE	41,534	53,996	60,494	76,606	92,267
Renewal premium	108,245	122,148	142,146	163,818	194,771
Total premium	194,455	235,644	291,860	365,932	457,520
NBP growth (%)	32.9	31.7	31.9	35.0	30.0
APE growth (%)	14.9	30.0	12.0	26.6	20.4
Renewal premium growth (%)	10.2	12.8	16.4	15.2	18.9
Total premium growth (%)	19.2	21.2	23.9	25.4	25.0
Premium split					
Weighted APE	41,534	53,996	60,494	76,606	92,267
Participating	12,461	13,385	8,681	11,116	14,451
Non-participating	8,911	12,239	23,315	30,817	39,119
ULIP	20,162	28,373	28,498	34,673	38,696
NBP	86,210	113,496	149,715	202,115	262,749
Participating	12,470	13,385	8,683	11,116	14,451
Non-participating	43,095	61,174	104,121	143,501	191,807
ULIP	30,645	38,937	36,910	47,497	56,491
Renewal Premium	108,245	122,148	142,146	163,818	194,771
Participating	37,830	45,313	49,646	57,336	74,013
Non-participating	10,179	13,094	16,193	19,658	23,373
ULIP	60,236	63,742	76,306	86,823	97,386
NBP	86,210	113,496	149,714	202,115	262,749
Individual	42,011	59,435	76,449	105,100	131,374
Group	44,199	54,060	73,265	97,015	131,374

Source: Company data, I-Sec research

Table 11: Total premium channel mix

(%)	FY15	FY16	FY17	FY18	FY19
Individual agents	10.0	7.6	7.6	7.0	7.2
Corporate agents-Banks plus others	45.3	40.3	32.4	40.2	40.4
Direct business	41.8	49.8	57.3	50.1	49.5
Others	2.9	2.4	2.8	2.7	2.9

Source: Company data, I-Sec research

Table 12: Key ratios*(Year ending March)*

	FY17	FY18	FY19	FY20E	FY21E
Operating ratios (%)					
Investment yield (%)	13.7	8.9	8.1	9.0	9.1
Commissions/GWP	4.1	4.6	3.8	4.1	4.1
Operating expenses/GWP	12.3	13.4	13.1	12.5	12.3
Total expense/GWP	16.3	18.0	16.9	16.6	16.4
Benefits Paid/Total Liability	11.4	13.3	11.7	12.1	12.0
Solvency margin (%)	191.6	192.0	188.0		
Total AUMs (Rs bn)	917	1,066	1,256	1,541	1,857
- Equity (%)	41%	39%	38%	40%	42%
Profitability ratios (%)					
VNB margin (%)	22.0	23.2	24.6	27.8	31.1
RoE (%)	25.5	25.8	24.6	30.1	29.4
Core EVOP(unwind +VNB)	18.2	18.6	18.6	20.2	21.6
EVOP as % of IEV	21.9	21.5	20.1	21.0	22.3
RoEV (%)	22.0	22.0	20.2	19.7	20.8
Valuation ratios					
Dividend per share (Rs)	1.1	1.4	1.6	1.8	1.8
Dividend payout ratio (%)	24.9	24.7	25.8	18.3	14.8
EPS (Rs)	4.4	5.5	6.3	9.6	11.9
Value of New Business (Rs bn)	9.2	12.8	15.4	21.3	28.7
Embedded Value (Rs bn)	125	152	183	219	265
VIF (Rs bn)	83	104	124	145	171
ANW (Rs bn)	41	49	59	74	93
VIF as % of EV	66.8	68.1	67.9	66.3	64.7
EV per share (Rs)	61.8	75.4	90.7	108.6	131.2
P/EV (x)	9.2	7.6	6.3	5.3	4.4
P/EPS (x)	129.1	103.9	90.2	59.8	48.2

Source: Company data, I-Sec research

Table 13: Persistency ratios

(%)	FY15	FY16	FY17	FY18	FY19
13th Month	73.3	78.9	80.9	87.1	87.2
25th Month	64.0	67.5	73.3	77.4	80.5
37th Month	65.1	60.1	63.9	70.9	72.0
49th Month	64.2	63.4	58.3	62.2	67.7
61st Month	39.8	50.0	56.8	51.0	52.3

Source: Company data, I-Sec research

This report may be distributed in Singapore by ICICI Securities, Inc. (Singapore branch). Any recipients of this report in Singapore should contact ICICI Securities, Inc. (Singapore branch) in respect of any matters arising from, or in connection with, this report. The contact details of ICICI Securities, Inc. (Singapore branch) are as follows: Address: 10 Collyer Quay, #40-92, Ocean Financial Tower, Singapore - 049315, Tel: +65 6232 2451 and email: navneet_babbar@icicisecuritiesinc.com, Rishi_agrawal@icicisecuritiesinc.com.

"In case of eligible investors based in Japan, charges for brokerage services on execution of transactions do not in substance constitute charge for research reports and no charges are levied for providing research reports to such investors."

*New I-Sec investment ratings (all ratings based on absolute return; All ratings and target price refers to 12-month performance horizon, unless mentioned otherwise)
BUY: >15% return; ADD: 5% to 15% return; HOLD: Negative 5% to Positive 5% return; REDUCE: Negative 5% to Negative 15% return; SELL: < negative 15% return*

ANALYST CERTIFICATION

I/We, *Ansuman Deb, MBA, BE; Ravin Kurwa, CA* authors and the names subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report. Analysts are not registered as research analysts by FINRA and are not associated persons of the ICICI Securities Inc. It is also confirmed that above mentioned Analysts of this report have not received any compensation from the companies mentioned in the report in the preceding twelve months and do not serve as an officer, director or employee of the companies mentioned in the report.

Terms & conditions and other disclosures:

ICICI Securities Limited (ICICI Securities) is a full-service, integrated investment banking and is, inter alia, engaged in the business of stock brokering and distribution of financial products. ICICI Securities Limited is a SEBI registered Research Analyst with SEBI Registration Number – INH000000990. ICICI Securities Limited SEBI Registration is INZ000183631 for stock broker. ICICI Securities is a subsidiary of ICICI Bank which is India's largest private sector bank and has its various subsidiaries engaged in businesses of housing finance, asset management, life insurance, general insurance, venture capital fund management, etc. ("associates"), the details in respect of which are available on www.icicibank.com.

ICICI Securities is one of the leading merchant bankers/ underwriters of securities and participate in virtually all securities trading markets in India. We and our associates might have investment banking and other business relationship with a significant percentage of companies covered by our Investment Research Department. ICICI Securities generally prohibits its analysts, persons reporting to analysts and their relatives from maintaining a financial interest in the securities or derivatives of any companies that the analysts cover.

Recommendation in reports based on technical and derivative analysis centre on studying charts of a stock's price movement, outstanding positions, trading volume etc as opposed to focusing on a company's fundamentals and, as such, may not match with the recommendation in fundamental reports. Investors may visit icidirect.com to view the Fundamental and Technical Research Reports.

Our proprietary trading and investment businesses may make investment decisions that are inconsistent with the recommendations expressed herein.

ICICI Securities Limited has two independent equity research groups: Institutional Research and Retail Research. This report has been prepared by the Institutional Research. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating, target price of the Retail Research.

The information and opinions in this report have been prepared by ICICI Securities and are subject to change without any notice. 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 of ICICI Securities. While we would endeavour to update the information herein on a reasonable basis, ICICI Securities is under no obligation to update or keep the information current. Also, there may be regulatory, compliance or other reasons that may prevent ICICI Securities from doing so. Non-rated securities indicate that rating on a particular security has been suspended temporarily and such suspension is in compliance with applicable regulations and/or ICICI Securities policies, in circumstances where ICICI Securities might be acting in an advisory capacity to this company, or in certain other circumstances.

This report is based on information obtained from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall 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. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. ICICI Securities will not treat recipients as customers by virtue of their receiving this report. 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. The recipient should independently evaluate the investment risks. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. ICICI Securities accepts no liabilities whatsoever for any loss or damage of any kind arising out of the use of this report. Past performance is not necessarily a guide to future performance. Investors are advised to see Risk Disclosure Document to understand the risks associated before investing in the securities markets. Actual results may differ materially from those set forth in projections. Forward-looking statements are not predictions and may be subject to change without notice.

ICICI Securities or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months.

ICICI Securities or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction.

ICICI Securities or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the companies mentioned in the report in the past twelve months.

ICICI Securities encourages independence in research report preparation and strives to minimize conflict in preparation of research report. ICICI Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither ICICI Securities nor Research Analysts and their relatives have any material conflict of interest at the time of publication of this report.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

ICICI Securities or its subsidiaries collectively or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report.

Since associates of ICICI Securities are engaged in various financial service businesses, they might have financial interests or beneficial ownership in various companies including the subject company/companies mentioned in this report.

ICICI Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.

Neither the Research Analysts nor ICICI Securities have been engaged in market making activity for the companies mentioned in the report.

We submit that no material disciplinary action has been taken on ICICI Securities by any Regulatory Authority impacting Equity Research Analysis activities.

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 ICICI Securities and affiliates 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.

This report has not been prepared by ICICI Securities, Inc. However, ICICI Securities, Inc. has reviewed the report and, in so far as it includes current or historical information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.