

HCL Technologies

Estimate change

TP change

Rating change


CMP: INR1,100
TP: INR1,310 (+19%)
Buy

Good growth in Services and outlook to aid valuations

Uncertainty continues in P&P commentary

- HCLT delivered a revenue growth of 1.1% QoQ CC in 4QFY22 (inline), with a strong growth in Services (+5% QoQ CC). However, the same was dragged down by its troubled Products and Platforms (P&P, -24% QoQ) vertical due to seasonality. It reported a good new deal TCV of USD2.26b (+6% QoQ).
- EBIT margin at 17.9% (-110bp QoQ) was in line, with a 180bp hit in the P&P business partially offset by an 80bp improvement in Services' margin. The management had initially guided at a FY23 revenue growth of 12-14%. It lowered its margin guidance to 18-20% (as against 19-21% guided in FY22).
- We are encouraged by its strong performance in Services (IT + ER&D) as this is the third straight quarter of strong revenue growth in this segment. With an organic growth of over 5% QoQ in IT Services, we believe HCLT will outgrow its largecap peers in 1QFY23. Within the Services business, IT Services has delivered 5% CQGR in the last three quarters. ER&D has delivered 5.9% CQGR over the same period – one of the best among its peers. We continue to expect Services to gain from the strong momentum in Cloud migration and R&D outsourcing. Strong hiring of ~11.1K (+5% QoQ) indicates better demand visibility.
- While the performance of its P&P vertical in 4QFY22 was on expected lines, the segment remains an area where growth visibility continues to elude HCLT. We continue to see good potential for the business in the long run. But as the company shifts to a subscription-based SaaS model from an on premise one, we see growth challenges persisting in FY23. We now expect this vertical to stagnate for the second successive year.
- On the margin side, we expect HCLT to continue to struggle due to elevated supply-side issues and a higher investment requirement, which will result in its EBIT margin staying at the lower end of its guidance, before recovering in FY24.
- On a combined basis, HCLT should deliver an FY22-24 USD revenue growth of 14.4%. With profitability improving by FY24E, corresponding PAT CAGR will be 11.7%.
- We lower our FY23 and FY24 EPS estimate by ~7% each due to the margin hit and lower growth guidance. We maintain our **Buy** rating with a TP of INR1,310/share (21x FY24E EPS).

Strong performance in Services in 4QFY22

- In CC terms, revenue grew 13.3% YoY, INR EBIT rose 25% YoY, and INR PAT increased by 51% YoY in 4QFY22.
- In USD terms, revenue grew in line at 1.1% QoQ CC (+0.5% QoQ reported).
- USD revenue/INR EBIT/INR PAT grew 12.8%/5.4%/13.7% in FY22.
- The strong growth (+5% QoQ CC) in Services – IT Services (+5.2% QoQ CC) and ER&D (+3.9% QoQ CC) – was ahead of our estimate of 4.4% QoQ.

Bloomberg	HCLT IN
Equity Shares (m)	2,714
M.Cap.(INRb)/(USDb)	2983.9 / 39.2
52-Week Range (INR)	1377 / 891
1, 6, 12 Rel. Per (%)	-7/-4/-7
12M Avg Val (INR M)	5436

Financials & Valuations (INR b)

Y/E Mar	2022	2023E	2024E
Sales	857	990	1,121
EBIT Margin (%)	18.9	18.1	18.8
PAT	135	143	169
EPS (INR)	49.8	52.9	62.3
EPS Gr. (%)	13.8	6.1	17.7
BV/Sh. (INR)	229	236	243

Ratios

RoE (%)	21.9	22.8	26.0
RoCE (%)	19.6	20.4	23.3
Payout (%)	75.0	75.0	75.0

Valuations

P/E (x)	22.1	20.8	17.7
P/BV (x)	4.8	4.7	4.5
EV/EBITDA (x)	14.4	13.2	11.3
Div Yield (%)	3.4	3.6	4.2

Shareholding pattern (%)

As On	Dec-21	Sep-21	Dec-20
Promoter	60.3	60.3	60.3
DII	13.8	12.5	10.3
FII	20.6	22.3	24.9
Others	5.3	4.9	4.5

FII Includes depository receipts

Mukul Garg – Research analyst (Mukul.Garg@MotilalOswal.com)

Raj Prakash Bhanushali – Research analyst (raj.bhanushali@motilaloswal.com)

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.

- P&P declined by 24% QoQ on seasonality, higher than our estimate of 20%. The vertical delivered flat growth in FY22, at the lower end of the management's guidance of 0-1%
- Mode 2 (+7.8% QoQ) drove growth, while Mode 3 (-20.1% QoQ) acted as a drag on its overall performance.
- TCV of new deal wins grew 6% QoQ to USD2.26b in 4QFY22, led by 10 large Service deal wins and a significant amount of small deals.
- The management guided at a 12-14% YoY CC growth in revenue terms and EBIT margin in the 18-20% range in FY23.
- EBIT margin was in line at 17.9%, down 110bp QoQ and 20bp below our estimate. EBIT margin in IT Services/ER&D was up 90bp/50bp QoQ, but the same for the P&P vertical fell 12.9pp QoQ.
- PAT rose 4.4% QoQ to INR35.9b, ahead of our estimate, due to a lower tax rate in 4QFY22.
- Cash conversion stood at an OCF/Ni of 155% and a FCF/Ni of 144%. In FY22, cash conversion stood at an OCF/Ni of 125% and FCF/Ni of 113%.
- Attrition (LTM) in IT Services stood at 21.9%, up 210bp QoQ. Net additions remained elevated ~11.1k in 4QFY22.
- The company declared a dividend of INR18/share.

Key highlights from the management commentary

- P&P registered a massive 24% QoQ decline after a strong 3QFY22. Changes to its subscription model from the current perpetual model can make the P&P revenue more predictable. The company has started to see this shift, though these are still early days. This transformation to SaaS from an on premise model is a multi-year phenomenon.
- New deal TCV grew 6% QoQ to USD2.26b, led by 10 large service deal wins and a significant amount of small deals.
- The **Life Science** vertical is seeing good traction in remote patient monitoring and medical device provisioning. The **Telecom** segment is seeing good demand from 5G and telecom modernization. The **Manufacturing** vertical is seeing good traction in next-gen tech and smart manufacturing. The **Financial Services** segment remains strong for the company.
- Customers are more receptive to pricing conversation, especially in Mode-2.
- The management guided at a margin band of 18-20% for FY23 and said that margin should improve from current levels.

Valuations offer a margin of safety

- Higher exposure to Cloud, which comprises a larger share of non-discretionary spend, offers a better resilience to its portfolio in the current context, with higher demand for Cloud, Network, Security, and Digital workplace services.
- Strong sequential growth within Services, robust headcount addition, healthy deal wins, and a solid pipeline indicates an improved outlook.
- Given its deep capabilities in the IMS space and strategic partnerships, investments in Cloud, and Digital capabilities, we expect HCLT to emerge stronger on the back of an expected increase in enterprise demand for these services. The stock is trading ~18x FY24E EPS, which offers a margin of safety. Our TP is based on 21x FY24E EPS. We maintain our **Buy** rating.

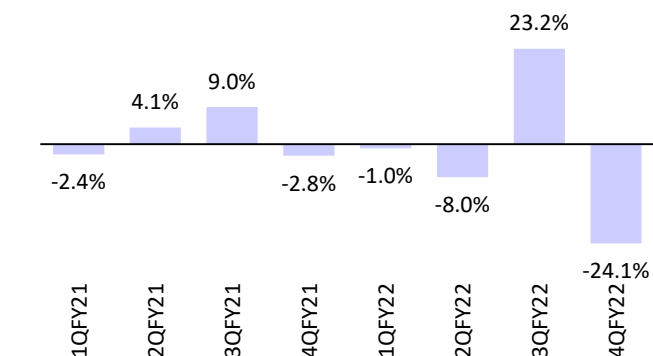
Quarterly performance

Y/E March	FY21				FY22				FY21	FY22	FY22E	Var. (%/bp)
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			4QE	
Revenue (USD m)	2,356	2,507	2,617	2,696	2,720	2,791	2,978	2,993	10,175	11,481	3,007	-0.5
QoQ (%)	-7.4	6.4	4.4	3.0	0.9	2.6	6.7	0.5	2.4	12.8	1.0	-46bp
Revenue (INR b)	178	186	193	196	201	207	223	226	754	857	226	-0.1
YoY (%)	8.6	6.1	6.4	5.7	12.5	11.1	15.7	15.0	6.7	13.6	15.1	-8bp
GPM (%)	39.9	41.2	42.0	36.5	39.2	38.2	38.2	36.8	39.9	38.1	37.0	-28bp
SGA (%)	12.4	12.7	12.0	12.6	12.8	13.0	12.4	12.7	12.4	12.7	12.8	-9bp
EBITDA	46	50	54	44	49	50	54	52	193	202	51	1.8
EBITDA margin (%)	25.6	26.6	28.2	22.2	24.5	24.0	24.1	23.1	25.6	23.6	22.6	43bp
EBIT	37	40	44	33	39	39	43	41	153	162	41	-0.4
EBIT margin (%)	20.5	21.6	22.9	16.6	19.6	19.0	19.1	18.0	20.4	18.9	18.1	-6bp
Other income	2	1	1	2	2	2	2	3	7	8	2	11.4
ETR (%)	24.0	24.1	24.1	30.2	21.7	20.5	22.2	16.7	25.4	20.3	22.5	-578bp
Adjusted PAT	29	31	34	24	32	33	34	36	119	135	33	8.0
QoQ (%)	-7.3	7.5	9.2	-30.5	34.7	1.5	5.5	4.4			-3.3	773bp
YoY (%)	31.7	18.5	13.0	-24.3	10.0	3.9	0.3	50.6	7.4	13.7	39.5	1111bp
EPS	10.8	11.6	12.6	8.8	11.8	12.0	12.7	13.3	43.8	49.8	12.3	8.1

Key performance indicators

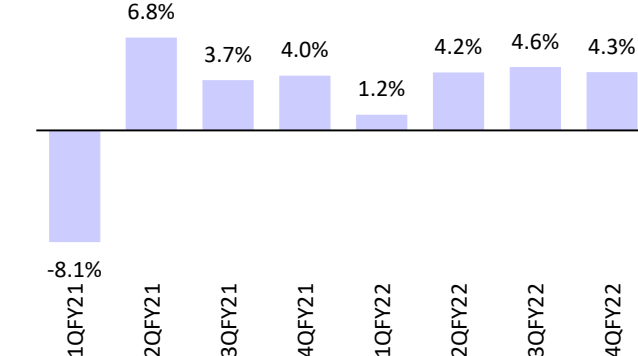
Y/E March	FY21				FY22				FY21	FY22
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		
Revenue (QoQ CC %)	-7.2	4.5	3.5	2.5	0.7	3.5	7.6	1.1	1.1	12.7
Costs (as a percentage of										
COGS	60.1	58.8	58.0	63.5	60.8	61.8	62.4	63.2	60.1	61.9
SGA	12.4	12.7	12.0	12.6	12.8	13.0	12.4	12.7	12.4	12.7
Margins										
Gross margin	39.9	41.2	42.0	36.5	39.2	38.2	37.6	36.8	39.9	38.1
EBIT margin	20.5	21.6	22.9	16.6	19.6	19.0	19.0	18.0	20.4	18.9
Net margin	16.4	16.9	17.8	12.2	16.0	15.8	15.4	15.9	15.8	15.8
Operating metrics										
Headcount (k)	150	153	160	169	176	188	198	209	169	209
Attrition (%)	14.6	12.2	10.2	9.9	11.8	15.7	19.8	21.9	9.9	21.9
Fixed price	66.7	67.4	68.4	67.7	66.5	64.6	65.5	63.6	67.6	65.1
Key verticals (YoY CC %)										
BFSI	0.0	-2.5	-0.5	3.6	8.8	6.3	13.5	13.5	4.2	9.6
Manufacturing	-15.5	-11.5	-13.1	-12.8	5.3	11.9	12.2	12.2	-11.9	10.8
Key geographies (YoY CC %)										
North America	1.2	-1.3	2.2	2.9	13.5	10.7	15.0	15.0	-0.5	13.0
Europe	-0.3	-2.6	-1.0	-0.3	5.1	9.0	12.0	12.0	1.5	10.1

Exhibit 1: QoQ growth in the P&P segment



Source: MOSL, Company

Exhibit 2: QoQ growth in the Services vertical



Source: MOSL, Company



Key highlights from the management commentary

Demand and industry outlook

- HCLT reported a revenue growth of 1.1% QoQ CC in 4QFY22, led by a growth in IT Services/ER&D at +5.2%/3.9% QoQ CC. P&P was a drag on revenue, down 24% QoQ CC, on account of seasonality in the license sale business.
- P&P registered a massive 24% QoQ decline after a strong 3QFY22. Changes to its subscription model from the current perpetual model can make the P&P revenue more predictable. The company has started to see this shift, though these are still early days. This transformation to SaaS from an on premise model is a multi-year phenomenon.
- New generation services like ER&D, Cloud, and data modernization drove growth. The management is seeing traction in the Cloud, with the migration of existing workloads, data modernization, and innovations once the data are in the Cloud.
- New deal TCV grew 6% QoQ to USD2.26b, led by 10 large service deal wins and a significant amount of small deals.
- On ER&D, there is strong demand from 5G, Telecom modernization, and Industry 4.0.
- The **Life Science** vertical is seeing good traction in remote patient monitoring and medical device provisioning. The **Telecom** segment is seeing good demand from 5G and telecom modernization. The **Manufacturing** vertical is seeing good traction in next-gen tech and smart manufacturing. The **Financial Services** segment remains strong for the company.
- The management is more optimistic about demand from 3QFY22 and the pipeline is second highest in its history.

Margin performance

- Margin in 4QFY22 fell 110bp QoQ to 17.9%, aided by an 85bp improvement in the Services margin. However, the same was offset by P&P, which dragged margin down by 178bp.
- Customers are more receptive to pricing conversation, especially in Mode-2.
- The management guided at a margin band of 18-20% for FY23 and said that margin should improve from current levels.

Other highlights

- HCLT shifted its accounting methodology from US-GAAP to IFRS, which will result in a 4% divergence in cash tax and P&L ETR.
- OCF/PAT and FCF/PAT for 4QFY22 stood at 155% and 144%, respectively.

Exhibit 3: Broad-based growth within geographies, Americas flat

Geographies	Contribution to revenue (%)	CC QoQ growth (%)	CC YoY growth (%)
Americas	62.8	0.2	13.0
Europe	28.3	2.3	13.6
RoW	8.9	3.5	15.0

Source: Company, MOFSL

Exhibit 4: Telecom led the growth in 4QFY22

Verticals	Contribution to revenue (%)	CC QoQ growth (%)	CC YoY growth (%)
Financial Services	20.9	0.4	10.2
Manufacturing	18.0	4.3	16.6
Technology	17.5	-3.8	14.3
Life Sciences and Healthcare	14.9	4.1	18.5
Telecom MP&E	8.6	6.8	20.2
Retail and CPG	9.4	-5.6	6.0
Public Services	10.7	3.2	7.8

Source: Company, MOFSL

Exhibit 5: P&P sees a massive dip in 4QFY22

Segments	Contribution to revenue (%)	CC QoQ growth (%)	CC YoY growth (%)
IT and Business Services	73.4	5.2	16.2
Engineering and R&D Services	16.4	3.9	23.7
Products and Platforms	10.2	-24.0	-13.9

Source: Company, MOFSL

Valuations offer a margin of safety

- Higher exposure to Cloud, which comprises a larger share of non-discretionary spend, offers a better resilience to its portfolio in the current context, with higher demand for Cloud, Network, Security, and Digital workplace services.
- Strong sequential growth within Services, robust headcount addition, healthy deal wins, and a solid pipeline indicates an improved outlook.
- Given its deep capabilities in the IMS space and strategic partnerships, investments in Cloud, and Digital capabilities, we expect HCLT to emerge stronger on the back of an expected increase in enterprise demand for these services. The stock is trading ~18x FY24E EPS, which offers a margin of safety. Our TP is based on 21x FY24E EPS. We maintain our **Buy** rating.

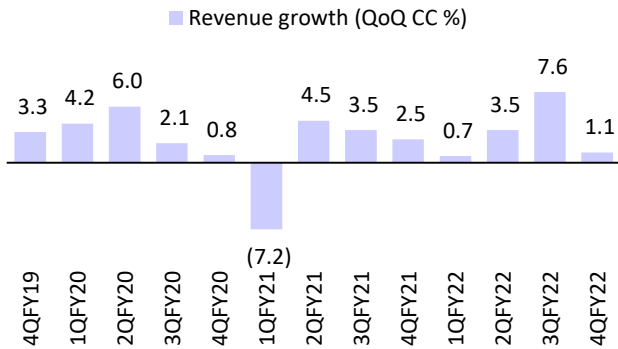
Exhibit 6: Revisions to our estimates

	Revised			Earlier			Change		
	FY22	FY23E	FY24E	FY22	FY23E	FY24E	FY22	FY23E	FY24E
USD:INR	74.6	76.0	76.0	74.5	75.0	75.0	0.1%	1.3%	1.3%
Revenue (USD m)	11,481	13,024	14,756	11,495	13,360	15,169	-0.1%	-2.5%	-2.7%
Growth (%)	12.8	13.4	13.3	13.0	16.2	13.5	-10bp	-280bp	-20bp
EBIT margin (%)	18.9	18.1	18.8	18.9	19.0	19.7	0bp	-90bp	-90bp
PAT (INR b)	135	143	169	133	154	181	2.0%	-6.9%	-6.9%
EPS	49.8	52.9	62.3	48.8	56.7	66.7	2.0%	-6.8%	-6.7%

Source: MOFSL

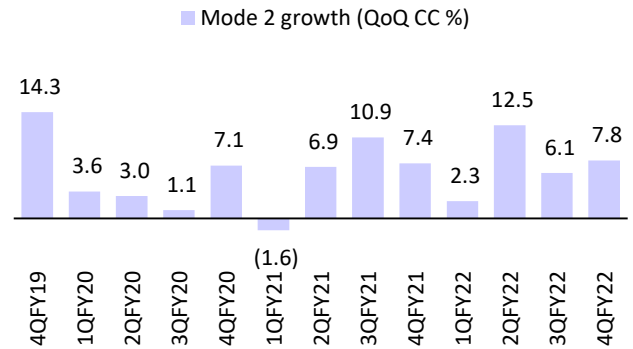
Story in charts

Exhibit 7: HCLT reports low QoQ growth on a high base



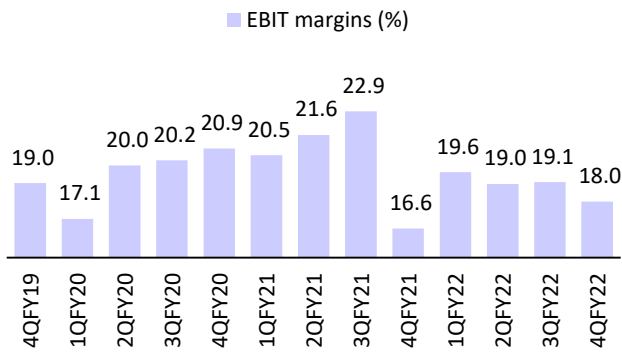
Source: Company, MOFSL

Exhibit 8: Mode-2 business grew 7.8% in 4QFY22



Source: Company, MOFSL

Exhibit 9: Margin dipped 110bp QoQ in 4QFY22



Source: Company, MOFSL

Exhibit 10: Gross margin fell 160bp QoQ

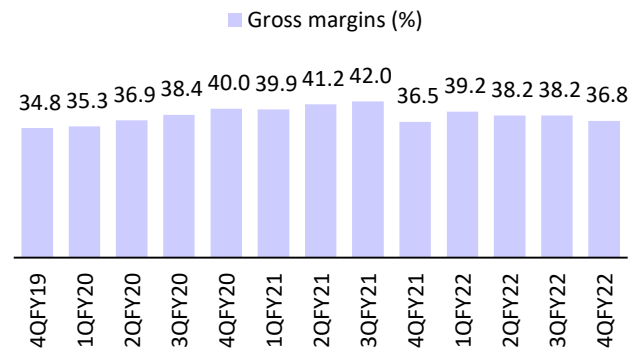
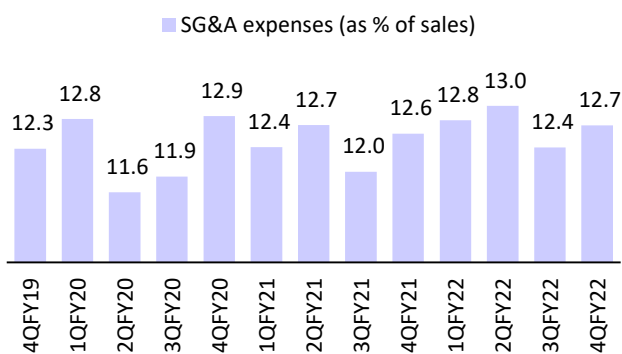
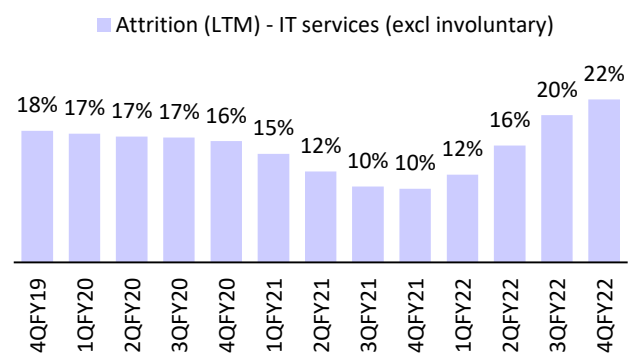


Exhibit 11: SG&A expenses inch higher in 4QFY22



Source: Company, MOFSL

Exhibit 12: Attrition rises to ~22% in 4QFY22



Source: Company, MOFSL

Operating metrics

Exhibit 13: Operating metrics

	4QFY20	1QFY21	2QFY21	3QFY21	4QFY21	1QFY22	2QFY22	3QFY22	4QFY22
Service-wise (%)									
IT and Business Services	70.6	70.2	70.8	70.4	71.9	71.6	72.6	70.6	73.4
Engineering and R&D Services	16.3	16.0	15.7	15.5	14.8	15.3	15.7	15.9	16.4
Products and Platform	13.1	13.8	13.5	14.1	13.3	13.1	11.7	13.5	10.2
Vertical-wise (%)									
BFSI	21.1	22.4	22.1	21.4	21.6	22.1	21.3	21.1	20.9
Manufacturing	20.7	18.1	17.7	18.1	17.7	17.2	17.9	17.5	18.0
Technology and Services	16.2	17.2	17.3	17.8	17.2	17.3	17.2	18.4	17.5
Retail and CPG	10.2	10.0	10.4	10.5	10.1	10.0	9.8	10.1	9.4
Telecom MP&E	8.3	7.6	7.7	8.3	8.1	7.9	7.9	8.1	8.6
Life Sciences	12.5	13.7	14.1	13.6	14.1	14.7	15.3	14.4	14.9
Public Services	11.1	11.0	10.7	10.4	11.2	10.8	10.6	10.4	10.7
Geography-wise (%)									
US	63.4	63.7	63.1	62.5	62.0	63.1	62.8	63.1	62.8
Europe	28.7	28.3	28.4	29.5	29.1	27.9	28.3	28.3	28.3
RoW	7.9	8.0	8.5	8.0	8.9	9.0	8.9	8.7	8.9
Client-wise (%)									
Top five clients	15.1	13.9	13.7	13.5	13.2	13.0	12.7	12.2	11.6
Top 10 clients	22.0	20.9	20.9	21.0	20.9	20.8	20.7	20.3	19.8
Top 20 clients	32.1	30.8	30.6	30.9	30.8	30.4	29.9	29.4	29.1

Source: Company, MOFSL:

Financials and valuations

Income Statement							(INR b)	
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Sales	467	506	604	707	754	857	990	1,121
Change (%)	14.2	8.2	19.5	17.0	6.7	13.6	15.6	13.3
Cost of Goods Sold	309	332	393	453	467	546	644	724
Gross Profit	158	173	212	254	287	311	346	397
Selling and Admin Exp.	55	59	72	87	93	109	126	140
EBITDA	103	114	140	167	193	202	221	257
As a percentage of Net Sales	22.1	22.6	23.1	23.6	25.6	23.6	22.3	22.9
Depreciation	8	15	21	28	40	40	42	46
EBIT	95	100	118	139	153	162	179	211
As a percentage of Net Sales	20.3	19.8	19.6	19.6	20.4	18.9	18.1	18.8
Other Income	9	11	8	2	7	8	10	11
PBT	104	111	126	140	160	170	189	222
Tax	23	23	25	29	41	34	45	53
Rate (%)	21.7	20.9	19.6	20.9	25.4	20.3	24.0	24.0
PAT	82	88	101	111	119	136	144	169
Net Income	85	88	101	111	119	135	143	169
Change (%)	13.5	3.8	15.3	9.3	7.4	13.7	6.0	17.7

Balance Sheet							(INR b)	
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Reserves	335	368	422	517	615	620	638	658
Net Worth	335	368	422	517	615	620	638	658
Loans	5	4	40	51	39	39	39	39
Other liabilities	13	13	15	55	55	43	69	76
Capital Employed	353	385	477	623	709	703	746	773
Gross Block	225	274	335	511	546	560	600	645
Less: Depreciation	64	78	100	128	168	208	250	296
Net Block	161	196	235	383	378	352	350	349
Other assets	39	40	57	65	69	57	84	91
Investments	114	83	55	105	140	85	85	85
Curr. Assets	151	165	243	279	291	397	418	448
Debtors	108	123	146	178	175	207	240	269
Cash and Bank Balance	13	17	59	38	65	105	112	103
Other Current Assets	30	25	37	64	50	85	66	75
Current Liab. and Prov.	111	99	111	209	168	188	190	199
Net Current Assets	40	66	131	70	123	209	228	249
Application of Funds	353	385	477	623	709	703	746	774

Financials and valuations

Ratios

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Diluted (INR)								
EPS	28.9	31.3	36.8	40.7	43.8	49.8	52.9	62.3
Cash EPS	32.9	36.4	44.6	51.2	58.5	64.6	68.2	79.2
Book Value	118.6	131.4	153.5	190.4	226.7	228.6	235.5	243.2
DPS	12.0	6.0	4.0	8.0	26.0	37.4	39.7	46.7
Payout (%)	41.6	23.1	50.4	19.6	59.4	75.0	75.0	75.0
Valuation (x)								
P/E	38.1	35.2	29.9	27.0	25.1	22.1	20.8	17.7
Cash P/E	33.4	30.2	24.7	21.5	18.8	17.0	16.1	13.9
EV/EBITDA	30.0	26.8	21.5	18.0	15.3	14.4	13.2	11.3
EV/Sales	6.6	6.1	5.0	4.2	3.9	3.4	2.9	2.6
Price/Book Value	9.3	8.4	7.2	5.8	4.9	4.8	4.7	4.5
Dividend Yield (%)	1.1	0.5	0.4	0.7	2.4	3.4	3.6	4.2
Profitability Ratios (%)								
RoE	26.5	25.0	25.6	23.6	21.0	21.9	22.8	26.0
RoCE	23.6	22.2	22.8	21.3	18.7	19.6	20.4	23.3
Turnover Ratios								
Debtors (Days)	84	88	88	92	85	88	88	88
Asset Turnover (x)	2.9	2.6	2.6	1.8	2.0	2.4	2.8	3.2

Cash Flow Statement

(INR b)

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
CF from Operations	90	102	123	149	166	174	185	215
Chg. in Working Capital	5	-35	-34	-16	30	-5	-13	-31
Net Operating CF	95	68	88	134	196	169	172	184
Net Purchase of FA	-62	-49	-61	-18	-18	-16	-40	-45
Net Purchase of Invest.	-2	30	29	-105	-40	30	0	0
Net Cash from Inv.	-64	-19	-32	-124	-57	15	-39	-44
Issue of shares/other adj.	0	0	0	0	0	0	0	0
Proceeds from LTB/STB	9	-1	35	-15	-79	-31	0	0
Dividend Payments	-34	-20	-51	-16	-33	-114	-126	-148
Net CF from Finan.	-25	-21	-16	-32	-112	-145	-126	-148
Free Cash Flow	33	18	28	115	179	153	132	139
Net Cash Flow	6	27	41	-22	27	39	7	-9
Forex difference	0	-27	5	0	1	1	0	0
Opening Cash Balance	7	13	13	60	38	66	106	113
Closing Cash Balance	13	13	60	38	66	106	113	104

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 is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days 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 Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, 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. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - 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 Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOFSL 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 MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report

MOFSL 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 MOFSL 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 Financial Services 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 MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL 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 MOFSL & 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 Financial Services Limited (MOFSL) 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 MOFSL 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 MOFSL, 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., MOFSL 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 MOFSL, 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 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, 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 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL 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 MOFSL 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 MOFSL 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 MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL 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 MOFSL 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 MOFSL. 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. MOFSL 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 alternations to this statement as may be required from time to time without any prior approval. MOFSL, 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 MOFSL. 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 MOFSL 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, not 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 MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL 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 71934200/ 022-71934263; Website www.motilaloswal.com CIN no.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.: 022-71881085.

* 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.