# Multi Commodity Exchange

### Speedy recovery

MCX delivered healthy volume growth in 4Q (+35.7% YoY) and expanded market share by 240bps to 94% in FY20. After strong 4Q, volume dropped significantly in April-20, due to reduction in exchange timings and a sharp drop in crude prices (Covid-19). Volume recovery was witnessed in May-20, but it's still 35% below the 4Q level. Crude (45.4% of vol. in FY20) is impacted due to the high margin requirement (100%), extreme volatility, and negative settlement price. We don't see crude volume reaching the previous level in FY21E. Tailwinds like launch of Index futures and Institutional participation will aid volume recovery. Revenue est. for FY21/22E is lowered by 10.0/3.8% to factor in Covid-19 impact. We assign 30x to FY22E core PAT and add net cash (ex SGF) to arrive at a TP of Rs 1,330. Maintain ADD.

- MCX revenue was up 17.9/33.0% QoQ/YoY to Rs 1.05bn (vs. exp. of Rs 1.07bn). Traded volume was up 20.5/40.0% QoQ/YoY to Rs 24.17tn. ADTV was up 18.7/35.7% QoQ/YoY to Rs 366.26bn. The surge of ADTV in 4Q was led by volume traction in Bullion (+38.9% QoQ) and Energy (+11.2% QoQ). Bullion/Energy ADTV was up 91.1/54.4% YoY in FY20. Metals ADTV was flat QoQ and down 43.3% YoY due to the physical settlement.
- MCX increased its market share to 95.6% (vs. 94.4% QoQ) despite high competition. <u>It's difficult to shift volume from existing exchange based on</u> <u>pricing. Depth, liquidity and impact cost are the most critical factors.</u>
- EBITDA margin stood at 38.7%, down 525bps QoQ due to high employee and other expenses (+19.8/+90.1% QoQ). Adjusted for one-off (SGF, CSR and Legal expenses) margin stood at 46.3% (in-line with est. of 46.6%). For FY20, EBITDA margin was up 1,008bps to 41.4% driven by non-linearity.
- Net cash (ex SGF) increased to Rs 19.78bn (~30% of Mcap) vs. Rs 13.94bn in FY19 due to higher margin paid by members. Cash generation also improved, FCF/PAT is at 182% in FY20 vs. 136% in FY19.
- Valuation and view. Institutional volume uptick is possible with Deutsche, Orbis and Stock holding signing up as custodians. Index futures launch is expected in the near-term, subject to regulatory approval. Globally Institutions account for ~50% of the total derivatives volume. MCX's focus on improving the physical delivery mechanism and local price discovery for key commodities will create a franchise for long term sustainable growth. We estimate revenue/EBITDA/Core PAT CAGR of 10/18/15% over FY20-22E. The stock trades at P/E of 34.5/26.8 FY21/22E EPS, which leaves limited upside on the table.

#### **Financial Summary**

YE Mar (Rs mn)	4Q FY20	4Q FY19	YoY (%)	3Q FY20	QoQ (%)	FY18	FY19	FY20	FY21E	FY22E
Net Revenues	1,053	791	33.0	893	17.9	2,598	3,000	3,742	3,559	4,556
EBITDA	407	252	61.6	392	3.8	719	940	1,549	1,365	2,150
APAT	655	610	7.5	516	27.1	1,084	1,700	2,325	1,922	2,470
Diluted EPS (Rs)	12.9	12.0	7.5	10.1	27.1	21.3	33.4	45.7	37.8	48.6
P/E (x)						61.1	39.0	28.5	34.5	26.8
EV / EBITDA (x)						78.6	60.9	36.0	40.7	25.7
RoE (%)						7.9	12.9	17.8	14.0	17.6

Source: Company, HSIE Research



### ADD

CMP (as on 1 J	Rs 1,303	
Target Price	Rs 1,330	
NIFTY		9,826
KEY CHANGES	OLD	NEW
Rating	ADD	ADD
Price Target	Rs 1,300	Rs 1,330
EPS %	FY21E	FY22E
	-6.4%	-4.0%

#### KEY STOCK DATA

Bloomberg code	MCX IN
No. of Shares (mn)	51
MCap (Rs bn) / (\$ mn)	66/879
6m avg traded value (Rs mn	a) 517
52 Week high / low	Rs 1,443/779

#### **STOCK PERFORMANCE (%)**

	3M	6M	12M
Absolute (%)	1.9	10.6	60.6
Relative (%)	14.9	29.0	76.8

#### **SHAREHOLDING PATTERN (%)**

	Dec-19	Mar-20
Promoters	00.00	00.00
FIs & Local MFs	34.51	38.27
FPIs	33.56	32.57
Public & Others	31.93	29.16
Pledged Shares	0.00	0.00
Source : BSE		

### Amit Chandra

amit.chandra@hdfcsec.com +91-22-6171-7345

Vinesh Vala vinesh.vala@hdfcsec.com +91-22-6171-7332



**HDFC** securities

INSTITUTIONAL RESEARCH

Total revenue stood at Rs 1,053mn, up 17.8/33% QoQ/YoY

Traded volume was up 20.5/10.0% QoQ/YoY to Rs 24.17tn

EBITDA margins at 38.7% (lower than our est 46.6%) contracted 525bps QoQ due to high employee and other expenses +19.8/+90.1% QoQ

Other expenses during the qtr were higher on account one off cost like contribution towards settlement guarantee fund (Rs 35mn) & PM Care fund (Rs 25mn) and additional legal expenses (~Rs 20mn)

APAT stood at Rs 0.66bn up 27.1% QoQ (vs est. of Rs 0.59bn) due to higher other income and lower tax rate. For FY20, APAT was up 36.8% YoY to Rs 2.33bn

ETR during the qtr remained lower on account of utilisation of MAT credit; expect ETR of 15-18% due to unutilised of MAT credit of Rs 220mn

Particulars (Rs mn)	4QFY20	4QFY19	YoY (%)	3QFY20	QoQ (%)
Operating income	1,053	791	33.0	893	17.9
Software service expenses	188	167	12.6	167	12.5
Employee Expenses	213	188	13.3	178	19.8
Computer & Tech exp	49	46	6.1	53	-8.0
Other Operating Expenses	197	140	41.1	104	90.1
EBITDA	407	252	61.6	392	3.8
Depreciation	56	41	35.1	43	29.5
EBIT	351	211	66.8	349	0.7
Interest Cost	2	0	NM	0	NM
Other Income (including ex-ordinary)	297	317	-6.3	235	26.4
РВТ	646	527	22.6	584	10.7
Tax	-9	-80	NM	71	NM
Share of profit from Associates	0	2	-119.0	3	NM
RPAT	655	610	7.5	516	27.1
E/o gains (adj for tax)	0	0	NM	0	NM
АРАТ	655	610	7.5	516	27.1

Source: Company, HSIE Research

#### **Margin Analysis**

Wangin Milary 515					
Particulars (% of Revenue)	4QFY20	4QFY19	YoY (bps)	3QFY20	QoQ (bps)
Software service expenses %	17.8	21.0	-323	18.7	-86
Employee Expenses %	20.2	23.7	-352	19.9	32
Computer & Tech exp %	4.6	5.8	-117	5.9	-130
Other Operating Expenses %	18.7	17.6	108	11.6	710
EBITDA Margin (%)	38.7	31.8	684	43.9	-525
EBIT Margin (%)	33.4	26.6	676	39.1	-573
Tax Rate (%)	-1.4	-15.2	NM	12.1	NM
APAT Margin (%)	62.2	77.0	-1480	57.7	447

Source: Company, HSIE Research

**HDFC** securities

INSTITUTIONAL RESEARCH

#### India's Exchange Traded Commodity Derivatives (ETCD)

The value of India's exchange traded commodity derivatives (ETCD) was up +18.8/35.5% QoQ/YoY to Rs 25.2tn



Bullion remains the growth driver; ~68% of the incremental growth in volume in 4Q is from bullions

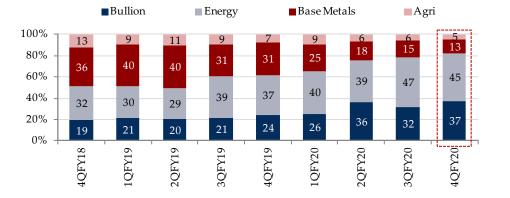
Bullion OI continues to remain strong and now domestic gold refiners will be able to deliver gold through MCX platform

Market share remains at peak levels despite huge pricing

discount from competition

Source: Company, HSIE Research

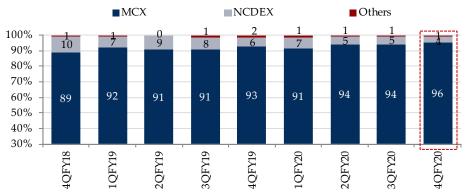
#### **Composition Of India's ETCD**



#### Source: Company, HSIE Research

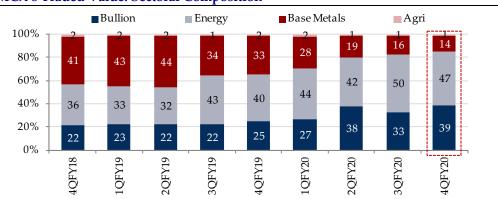
Source: Company, HSIE Research





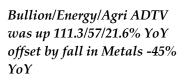
Total no of contracts traded was down 16.9% QoQ while average contract value increased 45.1% QoQ to Rs 0.38mn

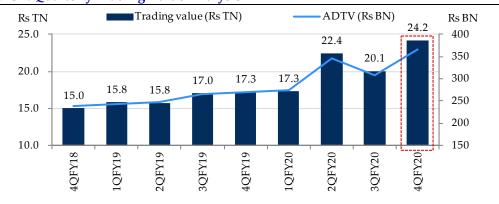
#### MCX's Traded Value: Sectoral Composition



Source: Company, HSIE Research

#### MCX: Quarterly Trading Value Analysis





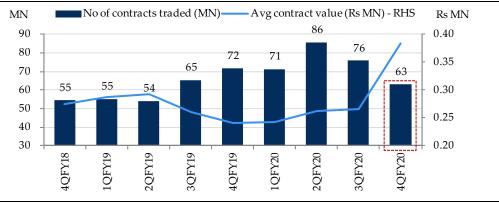
HDFC securities

INSTITUTIONAL RESEARCH

Metals volume will rise gradually when trades get used to the physical delivery mechanism

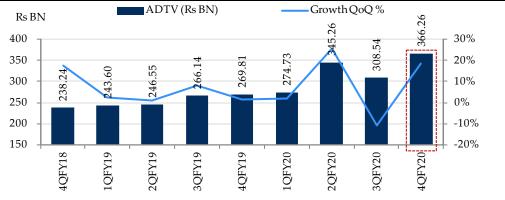
#### Source: Company, HSIE Research

#### MCX: Detailed KPIs Of Contracts Traded



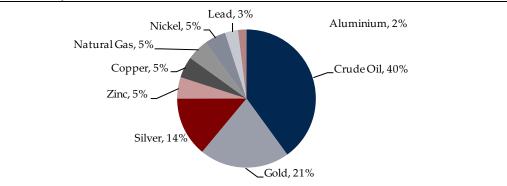
Source: Company, HSIE Research

#### MCX ADTV Trend



Source: Company, HSIE Research

Mix Of Major Traded Commodities On MCX (FY20)



Source: Company, HSIE Research

*Total ADTV was up* 18.7/35.7% QoQ/YoY to Rs 366.26bn.

The surge of ADTV in 4Q was led by volume traction in Bullion (+38.9% QoQ) and Energy (+11.2% QoQ).

Bullion/Energy ADTV was up 91.1/54.4% YoY in FY20. Metals ADTV was flat QoQ and down 43.3% YoY due to the physical settlement of Metal contracts.

Company would focus on Agri and Index future which will further aid its profitability

Company expects Index future approval to come this month and plans to launch it in September-20

MCX market share at 95.6% improved 120bps QoQ

Realisation dipped marginally by 1% QoQ at Rs 20.8/mn

#### **Split of Total ADTV**

ADTV (Rs bn)	4QFY20	4QFY19	YoY %	3QFY20	QoQ %	FY20	FY19	YoY %
Bullion	141.25	66.84	111.3	101.71	38.9	112.57	58.90	91.1
Energy	170.35	108.53	57.0	153.24	11.2	147.22	95.36	54.4
Metals	49.69	90.35	-45.0	50.42	-1.5	60.55	98.27	-38.4
Agri & others	4.98	4.09	21.6	3.17	57.0	3.90	3.94	-1.1
Total	366.26	269.81	35.7	308.54	18.7	324.24	256.48	26.4
0		-						

Source: Company, Industry, HSIE Research

#### **ADTV Composition**

% ADTV Contribution	4QFY20	4QFY19	YoY (bps)	3QFY20	QoQ (bps)	FY20	FY19	YoY (bps)
Bullion	38.6	24.8	1379	33.0	560	34.7	23.0	1175
Energy	46.5	40.2	628	49.7	-316	45.4	37.2	822
Metals	13.6	33.5	-1992	16.3	-278	18.7	38.3	-1964
Agri & others	1.4	1.5	-16	1.0	33	1.2	1.5	-33
Total	100.0	100.0		100.0		100.0	100.0	

Source: Company, Industry, HSIE Research

#### Key KPIs

MCX Key KPIs	40FY20	40FY19	YoY %	30FY20	000%	FY20	FY19	YoY %
Total Turnover (Rs TN)	24.2	17.3	40.0	20.1	20.5	84.0	65.9	27.4
MCX Market share (%)	95.6%	92.9%	270bps	94.4%	120bps	94.0%	91.6%	241bps
ADTV (Rs bn/day)	366.3	270.0	35.7	308.5	18.7	324.2	256.5	26.4
Transaction charges Rs/mn (single side)	20.8	21.6	-3.7	21.0	-1.0	2.1	2.2	-3.0

Source: Company, Industry, HSIE Research

INSTITUTIONAL RESEARCH

Company has taken cost effective measures such as no increment beyond certain level, proposed salary deduction of Sr. Mgmt and reduction of director's fees

We expect volume to decline in FY21E with recovery in FY22E led by bullion and metals

We have cut revenue estimate by 10.0/3.8% for FY21/22E based on volume drop in 1QFY21E.

### Valuations

- We expect MCX to post 17.8% EBITDA CAGR, driven by revenue CAGR of 10.3% and EBITDA margin expansion (47.2% in FY22E vs 41.4% in FY20) for FY20-22E. Considering the asset-light nature of the business, we expect RoE to recover to 17.6% in FY22E vs 17.8% in FY20. MCX currently trades at 34.5x FY21E and 26.8x FY22E EPS (implying PEG 2x).
- The stock has performed well in the last 3M/6M due to leadership position, volume growth till 4Q and strong recovery in May-20. Volume uptick in BSE & NSE is slow and they are unable to compete despite lower pricing. We believe it's difficult to shift liquidity from one exchange to other.
- Positive developments have been (1) Strong recovery in ADTV and (2) Volatility in commodities globally. Regulatory tailwinds include developments like (1) Institutional participation, (2) Launch of Indices, (3) Tie-up with retail bank subsidiaries, and (4) Set up of custodians for settlement. We maintain our ADD rating with a SoTP of Rs 1,330, implying a P/E of 30x FY22 core PAT and adding net cash ex SGF.

#### **MCX SOTP Valuation**

Core PAT FY22E (Rs mn)	1,595
30X Core PAT (Rs mn)	47,855
Add: Net Cash (Rsmn) ex SGF	19,780
Mcap (Rs mn)	67,635
TP (Rs)	1,330
Upside (%)	2%

Source: HSIE Research

#### **ADTV And Realisation Assumptions**

Rs bn	FY17	FY18	FY19	FY20	FY21E	FY22E
Futures ADTV	225.73	211.1	256.48	324.24	300.77	384.85
ҮоҮ %	2.9%	-6.5%	21.5%	26.4%	-7.2%	28.0%
Options ADTV		0.41	7.04	11.26	14.75	26.51
YoY %			1634.6%	59.9%	31.0%	79.7%
Total ADTV	225.73	211.5	263.52	335.5	315.52	411.36
YoY %	2.9%	-6.3%	24.6%	27.3%	-6.0%	30.4%
Realization Of Futures (Rs/mn)	20.30	22.40	21.70	21.00	20.80	20.80
ҮоҮ %	6.5%	10.4%	-3.2%	-3.1%	-1.2%	0.0%
Realization Of Options (Rs/mn)		0	0	0	0	4.20
YoY %			NM	NM	NM	NM
Blended Realization (Rs/mn)	20.3	22.4	21.1	20.3	19.8	19.7
ҮоҮ %	12.0%	10.1%	-5.6%	-3.8%	-2.5%	-0.5%

Source: Company, HSIE Research

#### **Change in Estimates**

		FY21E			FY22E	
(Rs mn)	Earlier	New	% Change	Earlier	New	% Change
Revenue	3,954	3,559	-10.0	4,735	4,556	-3.8
EBITDA	1,780	1,365	-23.3	2,407	2,150	-10.7
EBITDA Margin (%)	45.0	38.4	(667)bps	50.8	47.2	(365)bps
APAT	2,054	1,922	-6.4	2,573	2,470	-4.0

Source: HSIE Research

#### Peer Set Comparison

-	M-Cap	D .: CMP		CMP (P)		P/E	(x)		Di	ividend	Yield (%	<b>b</b> )		RoE	(%)	
Company	(Rs bn)	Rating	(Rs)	TP (Rs)	FY19	FY20	FY21E	FY22E	FY19	FY20	FY21E	FY22E	FY19	FY20	FY21E	FY22E
MCX	66	ADD	1,303	1,330	39.0	28.5	34.5	26.8	1.5	2.3	2.0	2.6	12.9	17.8	14.0	17.6
BSE	17	ADD	386	480	9.6	14.2	12.3	9.9	9.1	4.4	7.0	8.7	7.1	5.8	6.7	8.2
CDSL	26	BUY	251	325	23.1	20.9	21.7	18.6	1.6	1.8	1.7	2.0	17.0	17.3	15.3	16.2

Source: HSIE Research

## Financials

#### **Consolidated Income Statement**

YE March (Rs mn)	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
Net Revenues (Rs mn)	2,349	2,594	2,598	3,000	3,742	3,559	4,556
Growth (%)	5.6	10.4	0.2	15.5	24.7	-4.9	28.0
Software support charges	374	471	494	614	689	642	758
Employee Expenses	419	644	682	725	773	785	842
Tech & SG&A Expenses	371	201	229	205	206	216	227
Other Operating Expenses	433	483	474	517	524	551	578
EBITDA	753	796	719	940	1,549	1,365	2,150
EBITDA Margin (%)	32	30.7	27.7	31.3	41.4	38.4	47.2
EBITDA Growth (%)	-14.1	5.7	-9.7	30.7	64.8	-11.8	57.5
Depreciation	246	186	167	154	182	193	204
EBIT	507	610	552	785	1,367	1,172	1,945
Other Income (Including EO Items)	1,169	1,169	920	748	1,289	1,174	1,069
Interest	3	2	0	0	3	3	3
PBT	1,673	1,777	1,472	1,533	2,654	2,343	3,012
Tax (Incl Deferred)	469	512	388	75	329	422	542
Minority Interest & Associate profit	0	0	0	4.3	0.4	0.4	0.4
RPAT	1,203	1,265	1,084	1,462	2,325	1,922	2,470
EO (Loss) / Profit (Net Of Tax)	-56	0	0	-238	0	0	0
APAT	1,260	1,265	1,084	1,700	2,325	1,922	2,470
APAT Growth (%)	0.7	0.5	-14.4	56.9	36.8	-17.4	28.6
Core PAT (ex other income)	365	434	406	747	1,198	961	1,595
Core PAT Growth (%)		19.1	-6.4	83.7	60.4	-19.8	66.0
Adjusted EPS (Rs)	24.8	24.9	21.3	33.4	45.7	37.8	48.6
EPS Growth (%)	0.7	0.5	-14.4	56.9	36.8	-17.4	28.6

Source: Company, HSIE Research

#### **Consolidated Balance Sheet**

YE March (Rs mn)	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
SOURCES OF FUNDS							
Share Capital - Equity	510	510	510	510	510	510	510
Reserves	12,424	13,114	13,295	11,999	13,084	13,350	13,713
Total Shareholders' Funds	12,934	13,624	13,805	12,509	13,594	13,860	14,223
Settlement guarantee fund	1,882	1,705	1,806	3,298	4,098	4,180	4,263
Total Debt	0	0	0	0	0	0	0
Net Deferred Taxes (Net)	0	76	172	14	18	18	18
Long Term Provisions & Others	216	345	238	401	528	528	528
TOTAL SOURCES OF FUNDS	15,033	15,750	16,021	16,221	18,237	18,585	19,032
APPLICATION OF FUNDS							
Net Block	1,370	1,518	1,562	1,580	1,583	1,639	1,708
CWIP	31	4	55	190	237	237	237
Investments	0	0	0	123	123	123	123
LT Loans & Advances	242	277	339	614	708	672	706
Total Non-current Assets	1,643	1,799	1,957	2,506	2,651	2,671	2,774
Debtors	42	28	63	60	65	68	75
Other Current Assets	672	878	862	945	753	731	874
Cash & Equivalents	16,262	15,990	16,782	17,243	23,878	23,641	24,586
Total Current Assets	16,976	16,896	17,706	18,248	24,695	24,441	25,534
Trading margin from members	2,597	2,149	2,789	3,518	7,599	7,168	7,713
Other Current Liabilities & Provns	990	796	853	1,016	1,510	1,359	1,563
Total Current Liabilities	3,586	2,945	3,642	4,533	9,109	8,527	9,276
Net Current Assets	13,389	13,951	14,064	13,715	15,586	15,914	16,258
TOTAL APPLICATION OF FUNDS	15,033	15,750	16,021	16,221	18,237	18,585	19,032

INSTITUTIONAL RESEARCH

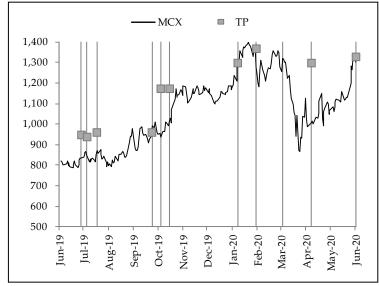
#### **Consolidated Cash Flow**

YE March (Rs mn)	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
Reported PBT	1,673	1,777	1,472	1,533	2,654	2,343	3,012
Non-operating & EO items	(1,101)	(1,081)	(910)	(954)	(1,224)	(1,174)	(1,069)
Interest expenses	3	2	0	0	2	3	3
Depreciation	246	186	167	155	181	193	204
Working Capital Change	513	(696)	561	2,153	3,402	(528)	567
Tax Paid	(558)	(509)	(296)	(295)	(523)	(422)	(542)
OPERATING CASH FLOW ( a )	775	(321)	993	2,591	4,492	415	2,174
Capex	(202)	(269)	(266)	(271)	(255)	(249)	(273)
Free cash flow (FCF)	573	(590)	727	2,320	4,237	166	1,901
Investments	0	0	0	0	0	0	0
Non-operating Income	363	462	525	445	407	1,174	1,069
INVESTING CASH FLOW ( b )	160	193	259	174	152	925	796
Debt Issuance/(Repaid)	0	0	0	0	0	0	0
Interest Expenses	(0)	0	(0)	(0)	0	(3)	(3)
FCFE	573	(590)	727	2,320	4,237	163	1,898
Share Capital Issuance	0	0	0	0	0	0	0
Dividend	(614)	(399)	(921)	(1,045)	(1,230)	(1,574)	(2,023)
FINANCING CASH FLOW ( c )	(614)	(399)	(921)	(1,045)	(1,230)	(1,576)	(2,026)
NET CASH FLOW (a+b+c)	321	(527)	332	1,719	3,415	(237)	944
EO Items, Others	(150)	255	460	(1,258)	3,221	0	0
Closing Cash & Equivalents	16,262	15,990	16,782	17,243	23,878	23,641	24,586

#### **Key Ratios**

	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
PROFITABILITY (%)							
GPM	84.1	81.9	81.0	79.6	81.6	81.9	83.4
EBITDA Margin	32.0	30.7	27.7	31.3	41.4	38.4	47.2
APAT Margin	53.6	48.8	41.7	56.7	62.1	54.0	54.2
RoE	9.8	9.5	7.9	12.9	17.8	14.0	17.6
RoIC (or Core RoCE)	24.7	17.9	15.2	17.7	25.0	20.7	25.9
RoCE	8.4	8.2	6.8	10.5	13.5	10.4	13.1
EFFICIENCY							
Tax Rate (%)	28.1	28.8	26.4	4.9	12.4	18.0	18.0
Fixed Asset Turnover (x)	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Debtors (days)	7	4	9	7	6	7	6
Other Current Assets (days)	104	124	121	115	73	75	70
Other Current Liab & Provns (days)	307	252	260	277	388	352	365
Cash Conversion Cycle (days)	-196	-124	-130	-155	-309	-270	-289
Debt/EBITDA (x)	-15	-12	-14	-10	-7	-8	-5
Net D/E (x)	-1	-1	-1	-1	-1	-1	-1
Interest Coverage (x)	557	NM	NM	NM	NM	NM	NM
PER SHARE DATA (Rs)							
EPS	24.8	24.9	21.3	33.4	45.7	37.8	48.6
CEPS	29.6	28.5	24.6	36.5	49.3	41.6	52.6
Dividend	6.5	15.0	17.0	20.0	30.0	26.5	34.0
Book Value	254.4	267.9	271.5	246.0	267.3	272.6	279.7
VALUATION							
P/E (x)	52.6	52.4	61.1	39.0	28.5	34.5	26.8
P/BV (x)	5.1	4.9	4.8	5.3	4.9	4.8	4.7
EV/EBITDA (x)	73.2	71.3	78.6	60.9	36.0	40.7	25.7
OCF/EV (%)	1.4	(0.6)	1.8	4.5	8.1	0.7	3.9
FCF/EV (%)	1.0	(1.0)	1.3	4.1	7.6	0.3	3.4
FCFE/Mkt Cap (%)	0.1	(0.0)	0.2	0.4	0.7	0.2	0.4
Dividend Yield (%)	0.5	1.2	1.3	1.5	2.3	2.0	2.6

#### **RECOMMENDATION HISTORY**



Date	СМР	Reco	Target
28-Jun-19	833	BUY	950
5-Jul-19	848	BUY	940
18-Jul-19	854	BUY	962
22-Sep-19	925	BUY	962
4-Oct-19	957	BUY	1,175
16-Oct-19	1,016	BUY	1,175
7-Jan-20	1,208	BUY	1,300
31-Jan-20	1,276	BUY	1,370
2-Mar-20	1,278	ADD	1,450
6-Apr-20	987	ADD	1,300
2-Jun-20	1,303	ADD	1,330

From 2<sup>nd</sup> March 2020, we have moved to new rating system

#### **Rating Criteria**

BUY: >+15% return potential ADD: +5% to +15% return potential REDUCE: -10% to +5% return potential SELL: > 10% Downside return potential

#### Disclosure:

We, **Amit Chandra**, **MBA & Vinesh Vala**, **MBA**, 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. HSL has no material adverse disciplinary history as on the date of publication of this report. 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.

Research Analyst or his/her relative or HDFC Securities Ltd. **does not have** any financial interest in the subject company. Also Research Analyst or his relative or HDFC Securities Ltd. or its Associate may have beneficial ownership of 1% or more in the subject company at the end of the month immediately preceding the date of publication of the Research Report. Further Research Analyst or his relative or HDFC Securities Ltd. or its associate **does not have** any material conflict of interest.

#### Any holding in stock –No

HDFC Securities Limited (HSL) is a SEBI Registered Research Analyst having registration no. INH000002475.

#### Disclaimer:

This report has been prepared by HDFC Securities Ltd and is solely for information of the recipient only. The report must not be used as a singular basis of any investment decision. The views herein are of a general nature and do not consider the risk appetite or the particular circumstances of an individual investor; readers are requested to take professional advice before investing. Nothing in this document should be construed as investment advice. Each recipient of this document should make such investigations as they deem necessary to arrive at an independent evaluation of an investment in securities of the companies referred to in this document (including merits and risks) and should consult their own advisors to determine merits and risks of such investment. The information and opinions contained herein have been compiled or arrived at, based upon information obtained in good faith from 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. Descriptions of any company or companies or their securities mentioned herein are not intended to be complete. HSL is not obliged to update this report for such changes. HSL has the right to make changes and modifications at any time.

This report is not directed to, or intended for display, downloading, printing, reproducing or for distribution to or use by, any person or entity who is a citizen or resident or located in any locality, state, country or other jurisdiction where such distribution, publication, reproduction, availability or use would be contrary to law or regulation or what would subject HSL or its affiliates to any registration or licensing requirement within such jurisdiction.

If this report is inadvertently sent or has reached any person in such country, especially, United States of America, the same should be ignored and brought to the attention of the sender. This document may not be reproduced, distributed or published in whole or in part, directly or indirectly, for any purposes or in any manner.

Foreign currencies denominated securities, wherever mentioned, are subject to exchange rate fluctuations, which could have an adverse effect on their value or price, or the income derived from them. In addition, investors in securities such as ADRs, the values of which are influenced by foreign currencies effectively assume currency risk. It should not be considered to be taken as an offer to sell or a solicitation to buy any security.

This document is not, and should not, be construed as an offer or solicitation of an offer, to buy or sell any securities or other financial instruments. This report should not be construed as an invitation or solicitation to do business with HSL. HSL may from time to time solicit from, or perform broking, or other services for, any company mentioned in this mail and/or its attachments.

HSL and its affiliated company(ies), their directors and employees may; (a) from time to time, have a long or short position in, and buy or sell the securities of the company(ies) mentioned herein or (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.

HSL, its directors, analysts or employees do not take any responsibility, financial or otherwise, of the losses or the damages sustained due to the investments made or any action taken on basis of this report, including but not restricted to, fluctuation in the prices of shares and bonds, changes in the currency rates, diminution in the NAVs, reduction in the dividend or income, etc.

HSL and other group companies, its directors, associates, employees may have various positions in any of the stocks, securities and financial instruments dealt in the report, or may make sell or purchase or other deals in these securities from time to time or may deal in other securities of the companies / organizations described in this report.

HSL 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.

HSL 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 in the normal course of business.

HSL 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 HSL nor Research Analysts 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. HSL may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.

Research entity has not been engaged in market making activity for the subject company. Research analyst has not served as an officer, director or employee of the subject company. We have not received any compensation/benefits from the subject company or third party in connection with the Research Report.

HDFC securities Limited, I Think Techno Campus, Building - B, "Alpha", Office Floor 8, Near Kanjurmarg Station, Opp. Crompton Greaves, Kanjurmarg (East), Mumbai 400 042 Phone: (022) 3075 3400 Fax: (022) 2496 5066 Compliance Officer: Binkle R. Oza Email: complianceofficer@hdfcsec.com Phone: (022) 3045 3600

HDFC Securities Limited, SEBI Reg. No.: NSE, BSE, MSEI, MCX: INZ000186937; AMFI Reg. No. ARN: 13549; PFRDA Reg. No. POP: 11092018; IRDA Corporate Agent License No.: CA0062; SEBI Research Analyst Reg. No.: INH000002475; SEBI Investment Adviser Reg. No.: INA000011538; CIN - U67120MH2000PLC152193

#### HDFC securities Institutional Equities

Unit No. 1602, 16th Floor, Tower A, Peninsula Business Park, Senapati Bapat Marg, Lower Parel, Mumbai - 400 013 Board: +91-22-6171-7330 www.hdfcsec.com