

Cooling Products

Summer-19 to end with a bang!

Growth for cooling products was muted in FY19 owing to erratic summer which impacted offtake. Weak volume growth, commodity headwinds and stiff competitive intensity led to margin pressure across the board. We continue to believe these headwinds will reverse in FY20. We expect 15-20% volume growth coupled with margin expansion for cooling appliances in FY20. Here's why:

- Summer 2019 to end on a hotter note:** On a pan-India basis, summer 2019 (upto 31-May) was slightly cooler vs. 2017/2018 (-0.23/-0.08°C YoY). This was led by a delay in onset of summer in North. Rest of India witnessed a hotter season (unlike 2018). Mercury levels are now rising in North driven by a heat wave which is expected to sustain over the next few days in June. This will result in a hotter summer in 2019 vs. 2018 and 2017.
- South grew in high double digits:** As per our channel checks, RAC grew >20% led by a hotter summer (+1.38°C vs. 2018). LG, Voltas and Blue Star continued to gain market share. Channel financing is driving higher penetration. RAC growth has outperformed other appliances. Air cooler grew in mid-teens with organized players gaining share.
- West and East grew in low double digits:** Summer in west was slightly cooler (-0.41°C vs. 2018) primarily led by delay in onset of summer. RAC and air cooler offtake was healthy in Apr and early May. East witnessed a warmer season (+0.38°C vs. 2018) resulting in healthy offtake for RAC and air cooler.
- North is expected to grow in mid-teens:** Offtake in summer 2019 began on a weak note owing to extended winter. Offtake (until May) for RAC grew in low double digits while air cooler grew in mid single

digits. However, June has begun on a strong note led by a heat wave. If the weather pans out as per June predictions, there maybe stock outs. We expect RAC/Air cooler to grow in mid-teens/low double digit in summer 2019.

- Channel inventory has normalized:** Spill over impact from summer 2018 led to heavy channel inventory during FY19. This impacted primary performance during the year. Hereon, healthy offtake and normalized channel inventory will result in robust growth in FY20. Normalized channel inventory will also result in pricing power returning, opportunity for new launches and healthy trade sentiments.
- Commodity headwinds to reverse:** In FY19, EBIT margin was impacted by INR depreciation, higher import duties and volatile commodity costs. We expect this trend to reverse in FY20 led by (1) Healthy volume growth, (2) Higher in-house manufacturing along with local sourcing and (3) Benign commodity inflation.
- Key trends:** Consumer buying in RAC has shifted towards lower priced products (Voltas to gain further market share). Consumer financing for RAC is now at 45% vs. 35% mix in 2018. In air coolers, fans and stabilizer demand is healthy across markets.

Top Picks

We remain bullish on cooling appliances despite a weak season in 2018. Low penetration, rising temperatures, higher affordability, consumer financing and Govt's electrification drive remain key drivers for growth. With summer 2019 expected to end on a strong note, we expect a mean reversion in growth in FY20. Our top picks are Voltas, Symphony, Crompton and V-Guard.

Companies	MCap (Rs bn)	CMP (Rs)	Reco.	TP (Rs)
Havells	481	770	NEU	743
Voltas	196	591	BUY	675
Crompton	152	243	BUY	300
Symphony	104	1,486	BUY	1,634
V-Guard	100	234	BUY	249
TTK Prestige	83	7,139	NR	7,464

Naveen Trivedi

naveen.trivedi@hdfcsec.com
+91-22-6171-7324

Siddhant Chhabria

siddhant.chhabria@hdfcsec.com
+91-22-6171-7336

Table of Contents

Pan-India Weather Study	3
Region-wise weather study	3
City-wise YoY deviation in daily high temperatures	5
Key trends for cooling products in Summer-19	8
Key consumption trends for RAC, Air cooler, Fans and Stabilizer	8
Strategy of leading RAC players in Summer 2019	9
RAC Industry Production: Inverter grew by 74% in FY19	11
Inverter share rising: India plays catch up	12
Our Expectations: Bullish on cooling appliances.....	13
Volume growth in FY20 to drive margin expansion	13
Investment Rationale.....	14
Peer Set Comparison.....	16

Total Number of Households (HHs) by Region

Region	HHs (mn no.)	Mix of HHs
North	87.2	28%
West	61.9	20%
South	71.8	23%
East	85.2	28%
India	306.2	100%

Source: Census 2011, HDFC sec Inst Research

Summer 2019 is slightly cooler (until 31-May) vs. 2018 and 2017.

Summer in South was strong on all parameters (vs. 2018, 2017, historic average etc)

Heat wave in North during June may result in a hotter summer

Pan-India weather study

2018 was a washout year for cooling products owing to an erratic summer and volatile cost inflation environment. To assess summer 2019, we ran a 26 city weather data study across India along with dealer checks.

On a pan-India basis summer was slightly cooler vs. 2017/2018 (-0.23/-0.08°C). However this trend is expected to reverse over the next few days led by a sharp uptick in mercury levels in the North. North is a large market for cooling products and hence can move the needle meaningfully.

Summer in South was harsh, East slightly warmer, West slightly cooler while in North it was delayed...

1 Mar -31 May	Pan-India	North	West	East	South
Day High: 2019 vs. 10 Yr	0.95	0.44	1.26	0.88	1.07
Day High: 2019 vs 2018	(0.08)	(1.07)	(0.41)	0.38	1.38
Day Low: 2019 vs. 2018	(0.14)	(0.91)	(0.39)	0.47	0.84
Day High: 2019 vs 2017	(0.23)	(0.79)	(0.18)	(0.13)	0.37
Day Low: 2019 vs. 2017	(0.07)	(0.52)	0.08	0.15	0.14

Source: Accuweather, HDFC sec Inst Research

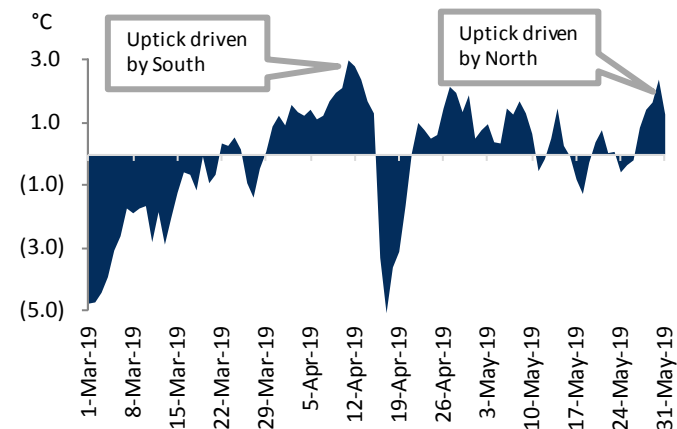
..Heat wave in North may result in stock out!

Exp. of summer in North - June to make up for lost ground

YoY deviation (°C)	1 - 15	16 - 30	1 Mar - 30
	Jun	Jun	Jun
Day High: 2019 vs. 10 Yr Avg	4.53	1.90	1.13
Day High: 2019 vs 2018	3.90	1.14	(0.19)
Day Low: 2019 vs. 2018	1.30	1.22	(0.37)
Day High: 2019 vs 2017	3.58	2.94	0.21
Day Low: 2019 vs. 2017	2.14	1.22	0.14

Source: Accuweather, HDFC sec Inst Research

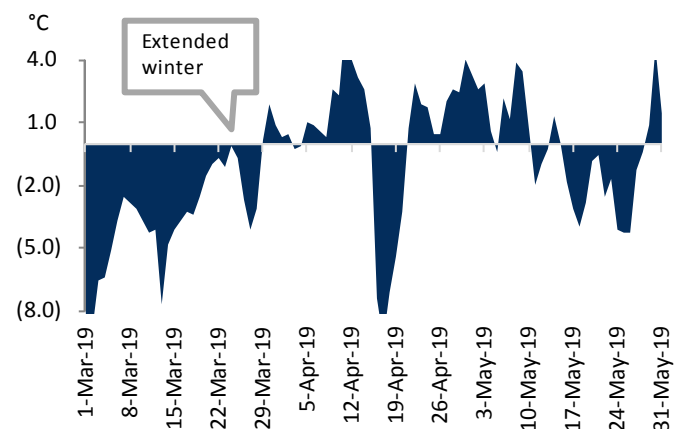
Pan-India: Daily Change in High Temperature (YoY)



Source: Accuweather, HDFC sec Inst Research

- **North Region:** North witnessed a delayed start to summer (delayed by ~20 days). Offtake for cooling products was weak in Mar but improved in Apr. If the weather pans out as per June predictions, there maybe stock outs for key brands and SKUs.

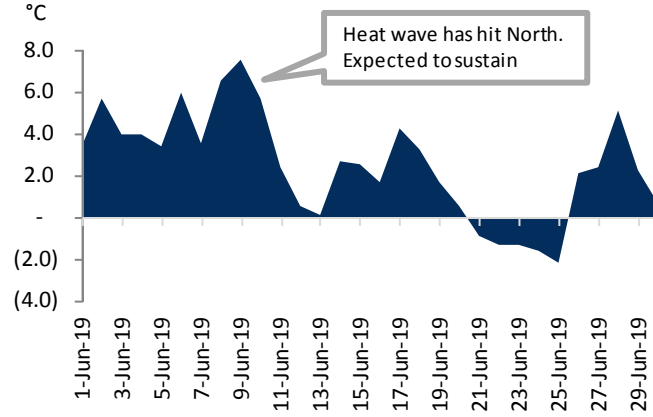
North Region: Daily Change in High Temperature (YoY)



Source: Accuweather, HDFC sec Inst Research

North has been hit by a heat wave. After a delay in onset of summer, mercury levels are expected to remain high in June

North Region Expectations (YoY): Heat wave has hit North

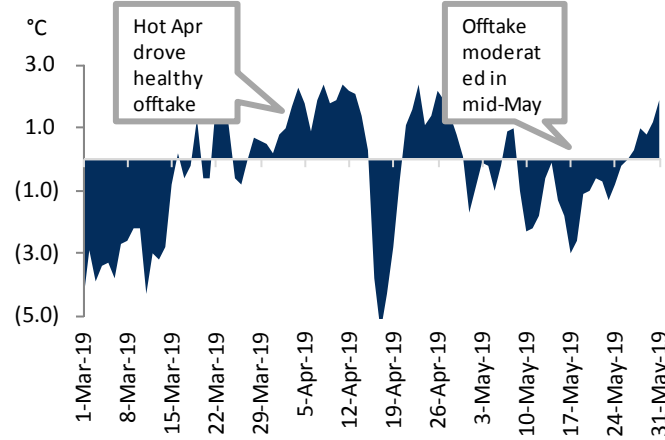


Source: Accuweather, HDFC sec Inst Research

- West Region:** West witnessed a slightly cooler summer primarily led by delay in onset of summer. Few pockets in West have witnessed harsh weather driving robust offtake. Overall offtake in West was healthy in Apr and early May.

Consumer offtake in West and East was healthy during the season

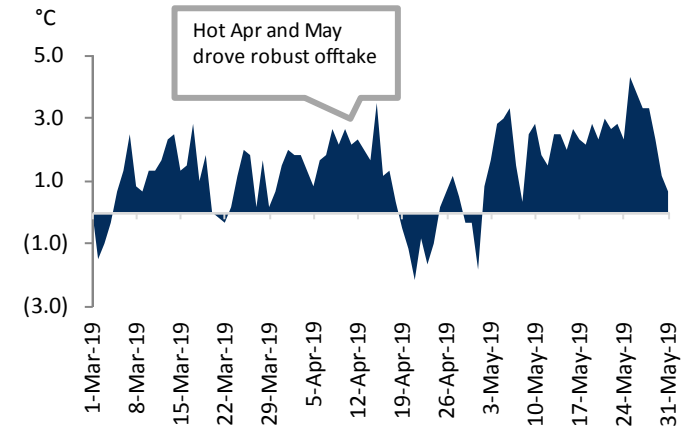
West Region: Daily Change in High Temperature (YoY)



Source: Accuweather, HDFC sec Inst Research

- South Region:** Summer in South was strong on all parameters (vs. 2018, 2017, historic average etc). As a result, all cooling appliances grew in high double digits with key SKUs witnessing stock outs. Growth in South was the strongest across all regions. Cooling appliances players with strong presence in South (Blue Star, V-Guard, LG etc.) will benefit. The season has now ended.

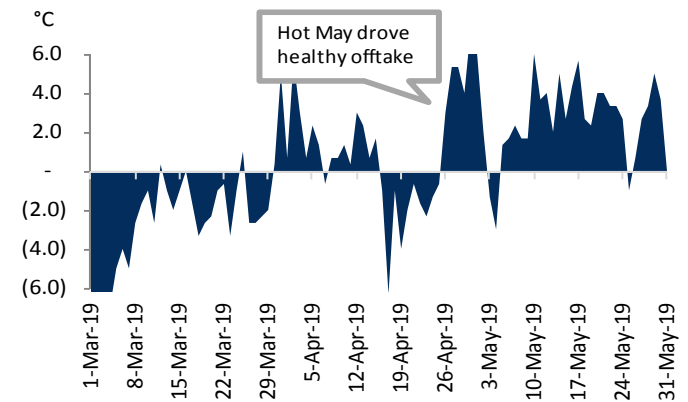
South Region: Daily Change in High Temperature (YoY)



Source: Accuweather, HDFC sec Inst Research

- East Region:** East witnessed a mildly warmer summer. Offtake was healthy in Apr and May.

East Region: Daily Change in High Temperature (YoY)



Source: Accuweather, HDFC sec Inst Research

City-wise YoY deviation in daily high temperatures for summer 2019 (Mar-Apr-May)

	Delhi	Chandigarh	Lucknow	Agra	Kanpur	Indore	Bhopal	Ahmedabad	Rajkot	Vadodara	Mumbai	Pune	Nagpur	Nashik	Jaipur	Udaipur	Jodhpur	Patna	Ranchi	Kolkata	Bengaluru	Chennai	Hyderabad	Madurai	Coimbatore	Kochi
1-Mar-19	(6)	(6)	(10)	(6)	(10)	(9)	(10)	(6)	(4)	(6)	(1)	(1)	(5)	(2)	(9)	(6)	(6)	(8)	(7)	(7)	1	(1)	(3)	3	2	(1)
2-Mar-19	(13)	(12)	(9)	(13)	(9)	(3)	(4)	(1)	(1)	(1)	(2)	1	(4)	(4)	(10)	(1)	(6)	(7)	(7)	(8)	(1)	(2)	(4)	-	(1)	(1)
3-Mar-19	(10)	(4)	(9)	(10)	(9)	(2)	(2)	(4)	(6)	(4)	(5)	(2)	(2)	3	(9)	(4)	(6)	(8)	(8)	(8)	(2)	(3)	(1)	-	(1)	1
4-Mar-19	(7)	(4)	(6)	(8)	(6)	(4)	(10)	(5)	(4)	(5)	(2)	(2)	-	-	(6)	(5)	(5)	(7)	(7)	(7)	-	(1)	-	-	(1)	-
5-Mar-19	(6)	(5)	(4)	(6)	(4)	(5)	(6)	(4)	(4)	(4)	(3)	(3)	(3)	2	(4)	(4)	(6)	(4)	(5)	(6)	-	4	(3)	4	-	(1)
6-Mar-19	(4)	(2)	(4)	(4)	(4)	(4)	(4)	(4)	(5)	(4)	(5)	(5)	(2)	(3)	(3)	(4)	(3)	(3)	(4)	(5)	1	4	(2)	5	-	-
7-Mar-19	(3)	(3)	(3)	(3)	(3)	(1)	(2)	(2)	(5)	(2)	(1)	(2)	(3)	(2)	(5)	(2)	(3)	(5)	(5)	(5)	3	4	(1)	6	3	-
8-Mar-19	(5)	(7)	(3)	(5)	(3)	(1)	4	(3)	(6)	(3)	-	-	1	(6)	(3)	(3)	(3)	(2)	(3)	(3)	3	1	(2)	4	1	(2)
9-Mar-19	(5)	(6)	(1)	(5)	(1)	(2)	(2)	(4)	(1)	(4)	-	1	6	(4)	(5)	(4)	(7)	(1)	(2)	(1)	-	1	-	3	1	(1)
10-Mar-19	(6)	(3)	(3)	(6)	(3)	(2)	(3)	(2)	(2)	(2)	-	-	1	(4)	(6)	(2)	(5)	(1)	(1)	(1)	1	1	-	5	1	-
11-Mar-19	(4)	(11)	(2)	(5)	(2)	(3)	(3)	(6)	(6)	(6)	(7)	(1)	4	(4)	(5)	(6)	(6)	(2)	(3)	(3)	1	2	1	2	2	-
12-Mar-19	(7)	(5)	(1)	(7)	(1)	(4)	(4)	(4)	(4)	(4)	(5)	-	2	4	(6)	(4)	(9)	1	1	(1)	1	3	1	2	3	-
13-Mar-19	(15)	(13)	(4)	(11)	(4)	(4)	(3)	(2)	(4)	(2)	(4)	(1)	-	1	(12)	(2)	(6)	(1)	(1)	(1)	2	-	1	4	6	1
14-Mar-19	(9)	(11)	(1)	(8)	(1)	(2)	(2)	(3)	(4)	(3)	(5)	(1)	(2)	1	(6)	(3)	(2)	(1)	(2)	(3)	2	2	-	3	6	2
15-Mar-19	(6)	(6)	(3)	(6)	(3)	(2)	(3)	(2)	(3)	(2)	8	4	1	(1)	(6)	(2)	(5)	-	(2)	(1)	1	1	3	-	3	-
16-Mar-19	(5)	(4)	(3)	(5)	(3)	(2)	(4)	(3)	-	(3)	(2)	10	10	3	(5)	(3)	(5)	(2)	-	2	1	-	7	(1)	1	1
17-Mar-19	(3)	(2)	(4)	(2)	(4)	(2)	(6)	(2)	(1)	(2)	(3)	4	3	5	(3)	(2)	(5)	(4)	(1)	-	5	2	3	6	1	-
18-Mar-19	(4)	(3)	(4)	(3)	(4)	(3)	(3)	(1)	2	(1)	1	3	(2)	4	(3)	(1)	(4)	(2)	(5)	(3)	3	1	-	1	1	-
19-Mar-19	(4)	(1)	(3)	(3)	(3)	(2)	(2)	3	2	3	(1)	1	(1)	2	1	3	-	(3)	(3)	(2)	3	-	1	2	3	2
20-Mar-19	(2)	(4)	(3)	(1)	(3)	1	1	-	(1)	-	(1)	2	(1)	(2)	(1)	-	(2)	(2)	(3)	(2)	-	1	(1)	1	-	(1)
21-Mar-19	(2)	-	(1)	(1)	(1)	-	(2)	-	-	-	(1)	1	(4)	(3)	(1)	-	2	(1)	(1)	(1)	1	(1)	(1)	-	-	-
22-Mar-19	-	(1)	(2)	(1)	(2)	1	-	3	3	3	1	2	(1)	3	(1)	3	2	(1)	(2)	1	1	(3)	(1)	(1)	-	2
23-Mar-19	1	(2)	(3)	-	(3)	-	(1)	3	2	3	3	3	(1)	4	2	3	2	(5)	(4)	(1)	-	-	-	(1)	2	-
24-Mar-19	(1)	(4)	1	-	1	1	1	1	1	1	4	1	(1)	1	2	1	-	(3)	-	-	3	1	(1)	1	2	1
25-Mar-19	(2)	(4)	-	(3)	-	1	3	(1)	-	(1)	(1)	3	-	(1)	(1)	(1)	(3)	-	1	2	1	2	2	3	2	2
26-Mar-19	(3)	(4)	(3)	(4)	(3)	(1)	(1)	(2)	(1)	(2)	1	1	1	3	(4)	(2)	(3)	(7)	(2)	1	1	3	-	3	3	1
27-Mar-19	(6)	(4)	(4)	(5)	(4)	(3)	(3)	-	(1)	-	-	1	(1)	5	(4)	-	-	(4)	(3)	(1)	1	-	-	(1)	2	(1)
28-Mar-19	(5)	(3)	(5)	(3)	(5)	-	(1)	2	-	2	-	3	(2)	1	(1)	2	-	(3)	(3)	(1)	2	3	(1)	-	3	3
29-Mar-19	-	(2)	-	1	-	1	1	1	-	1	1	1	-	-	1	1	-	(3)	(3)	-	1	(2)	-	-	1	1
30-Mar-19	3	-	2	3	2	1	2	-	(1)	-	(1)	2	2	3	1	-	(1)	3	(2)	-	-	1	-	-	2	1
31-Mar-19	-	-	3	-	3	-	-	1	(2)	1	-	2	-	4	(2)	1	(3)	6	4	5	1	1	2	1	1	3
1-Apr-19	1	(1)	2	(1)	2	-	(1)	2	1	2	-	1	-	2	(1)	2	(1)	(1)	2	1	2	4	1	2	2	1
2-Apr-19	2	-	1	(1)	1	-	-	2	2	2	-	-	3	-	(2)	2	1	1	9	7	1	2	5	1	1	1
3-Apr-19	(1)	(1)	-	(2)	-	1	1	2	2	2	2	2	1	3	(1)	2	2	2	5	2	3	2	3	-	2	1
4-Apr-19	-	(1)	(1)	(1)	(1)	2	1	4	3	4	(1)	3	-	3	-	4	3	(1)	3	-	2	1	2	-	2	1
5-Apr-19	2	-	1	1	1	1	1	2	2	2	-	(1)	3	5	-	2	3	4	4	(1)	2	1	2	1	(1)	-

	Delhi	Chandigarh	Lucknow	Agra	Kanpur	Indore	Bhopal	Ahmedabad	Rajkot	Vadodara	Mumbai	Pune	Nagpur	Nashik	Jaipur	Udaipur	Jodhpur	Patna	Ranchi	Kolkata	Bengaluru	Chennai	Hyderabad	Madurai	Coimbatore	Kochi
6-Apr-19	1	2	3	2	3	(3)	(2)	2	2	2	-	(2)	(2)	1	2	2	2	-	3	1	1	2	2	2	3	-
7-Apr-19	1	-	(1)	1	(1)	3	1	4	2	4	(1)	1	2	(2)	3	4	2	-	-	(2)	3	2	3	2	1	-
8-Apr-19	-	(4)	1	-	1	1	3	3	2	3	-	3	7	1	1	3	1	1	1	-	3	2	6	3	1	1
9-Apr-19	6	3	3	1	3	1	1	1	1	1	(1)	1	5	3	4	1	2	(1)	2	1	3	2	3	3	2	-
10-Apr-19	2	1	2	3	3	2	3	2	1	2	(3)	3	4	4	3	2	1	1	4	(1)	4	2	4	3	3	-
11-Apr-19	8	13	4	6	4	2	3	3	1	3	(2)	4	6	(1)	4	3	3	(1)	2	-	2	2	4	2	2	1
12-Apr-19	3	1	5	3	5	6	5	3	1	3	-	2	3	(1)	5	3	3	4	5	-	3	2	3	2	3	1
13-Apr-19	2	(1)	4	4	4	4	5	2	-	2	3	3	4	(1)	4	2	2	2	4	1	3	1	1	2	2	3
14-Apr-19	2	1	4	1	4	2	4	1	(1)	1	2	1	4	2	2	1	1	-	3	(1)	1	1	2	2	2	2
15-Apr-19	1	1	2	1	2	(2)	-	(1)	(4)	(1)	1	-	4	6	(1)	(1)	-	1	4	-	2	1	7	5	4	2
16-Apr-19	(10)	(5)	(9)	(9)	(9)	(4)	(6)	(5)	(6)	(5)	1	(2)	(4)	1	(8)	(5)	(5)	(2)	1	(2)	1	-	1	3	2	-
17-Apr-19	(10)	(10)	(11)	(9)	(11)	(6)	(9)	(5)	(6)	(5)	(3)	(4)	(7)	(2)	(11)	(5)	(7)	(10)	(6)	(3)	2	2	-	2	-	2
18-Apr-19	(8)	(8)	(7)	(7)	(7)	(6)	(7)	(4)	(5)	(4)	(3)	(2)	(5)	-	(9)	(4)	(7)	(3)	-	-	1	(1)	(1)	1	1	1
19-Apr-19	(7)	(5)	(6)	(6)	(6)	(3)	(5)	(3)	(2)	(3)	-	(2)	(3)	1	(8)	(3)	(5)	(3)	(6)	(3)	(1)	(1)	(5)	2	1	1
20-Apr-19	(4)	(3)	(3)	(5)	(3)	(2)	(3)	(1)	-	(1)	(1)	2	(4)	-	(4)	(1)	3	(2)	(5)	1	(1)	(2)	(4)	-	(1)	1
21-Apr-19	3	2	(1)	3	(1)	-	(1)	3	3	3	(1)	-	(3)	(3)	2	3	4	-	(3)	1	(1)	(1)	(3)	(4)	(3)	(1)
22-Apr-19	5	4	2	4	2	1	2	3	1	3	(2)	-	(2)	-	5	3	5	(2)	(2)	(1)	1	(2)	(4)	-	(2)	2
23-Apr-19	5	2	-	3	-	1	2	3	1	3	1	1	1	1	5	3	5	(5)	(2)	-	-	(2)	(2)	(3)	(4)	1
24-Apr-19	3	1	-	3	-	3	2	1	-	1	(1)	1	1	2	2	1	3	(2)	(2)	-	-	(2)	(2)	(2)	(1)	1
25-Apr-19	-	(2)	1	-	1	2	1	1	1	1	1	3	2	5	(1)	1	-	1	(3)	-	2	(2)	1	(1)	-	1
26-Apr-19	(2)	-	4	(4)	4	1	-	2	2	2	1	4	2	8	(1)	2	-	6	2	1	2	1	1	-	(1)	1
27-Apr-19	1	-	5	2	5	1	-	2	3	2	3	3	1	5	(2)	2	-	7	5	4	3	-	1	2	-	1
28-Apr-19	2	2	6	1	6	1	-	2	1	2	3	3	-	2	(1)	2	-	7	5	4	(1)	-	2	1	-	1
29-Apr-19	1	-	5	2	5	2	2	1	1	1	2	1	-	-	(1)	1	2	7	4	1	(1)	(1)	(1)	1	(1)	1
30-Apr-19	3	1	10	4	10	(1)	1	-	(2)	-	2	-	-	2	(1)	-	-	10	8	4	(1)	1	(1)	-	(1)	-
1-May-19	2	4	8	3	8	(1)	(1)	(1)	(2)	(1)	-	(4)	-	(5)	(2)	(1)	(1)	9	4	5	(3)	(2)	(6)	(1)	3	(2)
2-May-19	2	3	7	3	7	(3)	(1)	(1)	(1)	(1)	-	(3)	-	1	(2)	(1)	(1)	6	(1)	1	(1)	4	1	-	1	-
3-May-19	3	5	4	5	4	(1)	-	1	(1)	1	(1)	(3)	6	(2)	(3)	1	-	2	(3)	(3)	-	5	1	2	1	1
4-May-19	1	1	3	2	3	(2)	(4)	(1)	(1)	(1)	-	(3)	1	7	(2)	(1)	(1)	-	(3)	(6)	2	4	4	2	3	2
5-May-19	(1)	-	2	1	2	(3)	(4)	(2)	-	(2)	-	(3)	-	2	(2)	(2)	(1)	5	(1)	-	4	3	3	4	2	2
6-May-19	3	5	3	5	3	(2)	(2)	-	-	-	(1)	-	(2)	-	(1)	-	2	2	-	3	2	4	3	4	5	2
7-May-19	-	2	2	1	2	-	1	1	-	1	(1)	-	-	3	1	1	3	4	-	3	-	5	1	2	1	-
8-May-19	5	7	3	7	3	-	2	1	(1)	1	(1)	(2)	1	3	4	1	3	2	-	3	(1)	3	1	(1)	-	-
9-May-19	4	5	4	6	4	-	1	(1)	(5)	(1)	(2)	(5)	-	4	2	(1)	(1)	3	2	-	1	4	3	3	3	1
10-May-19	1	3	2	1	2	(3)	(1)	(3)	(3)	(3)	-	(4)	(1)	1	(2)	(3)	(5)	4	9	5	2	2	3	5	4	1
11-May-19	(4)	(4)	2	(4)	2	(3)	(3)	(3)	(2)	(3)	(2)	-	(1)	1	(5)	(3)	(4)	6	5	-	3	1	2	2	2	1
12-May-19	(4)	(2)	3	(3)	3	(2)	(2)	(2)	(1)	(2)	(2)	3	(1)	(2)	(6)	(2)	(3)	7	1	4	3	(1)	(1)	4	3	1
13-May-19	(1)	-	2	(1)	2	(1)	(3)	(1)	(1)	(1)	(1)	1	2	(1)	(2)	(1)	(1)	2	3	1	3	-	3	4	3	2

	Delhi	Chandigarh	Lucknow	Agra	Kanpur	Indore	Bhopal	Ahmedabad	Rajkot	Vadodara	Mumbai	Pune	Nagpur	Nashik	Jaipur	Udaipur	Jodhpur	Patna	Ranchi	Kolkata	Bengaluru	Chennai	Hyderabad	Madurai	Coimbatore	Kochi
14-May-19	(2)	3	5	(1)	5	-	(1)	1	(1)	1	(1)	3	-	-	(3)	1	(2)	6	6	3	4	-	1	4	4	2
15-May-19	(4)	(3)	4	(2)	4	-	1	(3)	(3)	(3)	-	-	2	1	(2)	(3)	(2)	3	3	2	3	-	6	3	1	(1)
16-May-19	(5)	(5)	2	(3)	2	(2)	(2)	(3)	(4)	(3)	-	(1)	1	1	(2)	(3)	(4)	4	3	6	3	1	3	4	2	3
17-May-19	(6)	(10)	1	(5)	1	(3)	-	(4)	(4)	(4)	(1)	(2)	-	4	(4)	(4)	(11)	8	6	3	2	1	2	4	3	2
18-May-19	(8)	(3)	(1)	(8)	(1)	(3)	(4)	(4)	(3)	(4)	-	2	(2)	2	(6)	(4)	(7)	5	1	2	3	-	2	2	4	2
19-May-19	(5)	(2)	(2)	(4)	(2)	(2)	(3)	(1)	(2)	(1)	1	2	(2)	-	(3)	(1)	(4)	3	2	2	3	-	2	4	5	3
20-May-19	(3)	(1)	1	(1)	1	(1)	(2)	(1)	(3)	(1)	-	3	(2)	-	(2)	(1)	(3)	6	4	2	2	2	1	2	5	2
21-May-19	(3)	-	-	(1)	-	-	-	(1)	(2)	(1)	(1)	2	1	1	(1)	(1)	(3)	5	5	2	4	1	2	4	5	2
22-May-19	(7)	(2)	(1)	(5)	(1)	(2)	-	-	(3)	-	(1)	3	2	(1)	(4)	-	(3)	3	5	2	3	3	1	2	4	3
23-May-19	(5)	(6)	-	(3)	3	(1)	-	(2)	(2)	(2)	-	2	3	(3)	(4)	(2)	(3)	4	2	4	2	3	4	2	4	2
24-May-19	(10)	(7)	1	(9)	1	(3)	(2)	(1)	(2)	(1)	(1)	4	1	1	(5)	(1)	(3)	1	5	2	2	2	-	3	5	2
25-May-19	(7)	(7)	(3)	(6)	(3)	(2)	(2)	-	(1)	-	-	1	-	3	(3)	-	(2)	(4)	1	-	3	3	2	6	8	4
26-May-19	(7)	(6)	(4)	(6)	(4)	(1)	(2)	(1)	-	(1)	-	(1)	3	6	(2)	(1)	(3)	-	1	1	3	4	4	8	4	-
27-May-19	(4)	(2)	1	(2)	1	(2)	(1)	(2)	2	(2)	(1)	(1)	7	6	(3)	(2)	(1)	4	3	1	2	1	4	6	4	3
28-May-19	(2)	(2)	2	(2)	2	-	(1)	-	1	-	-	2	4	4	(1)	-	-	4	5	1	2	2	2	6	4	4
29-May-19	(4)	-	6	(1)	6	-	(1)	1	1	1	(1)	5	(1)	-	-	1	1	7	6	2	3	(1)	(1)	5	3	5
30-May-19	2	6	9	3	9	2	1	2	1	2	(1)	3	(2)	-	3	2	2	4	6	1	3	(5)	(1)	4	4	2
31-May-19	(1)	4	2	1	2	1	1	2	(1)	2	-	1	2	9	2	2	-	(1)	3	(2)	2	(1)	1	1	2	(1)
City Avg.	(2.14)	(1.71)	0.02	(1.73)	0.07	(0.92)	(1.09)	(0.48)	(1.01)	(0.48)	(0.50)	0.67	0.45	1.15	(2.00)	(0.48)	(1.45)	0.60	0.51	0.04	1.54	0.98	0.91	2.03	1.85	0.98

Source: Accuweather, HDFC sec Inst Research

Consumer financing is driving growth with financing share at 45% vs. 35% in 2018

Voltas has the widest SKU range in both inverters and fixed speed

In 2019 summer, demand for low priced products is higher (vs. 2018). Hence, Voltas is expected to gain further market share

Key trends for cooling products in Summer-19

RAC

- Market is growing at ~20% led by a scorching summer, pent-up demand and broad-based offtake
- Consumers are opting for lower priced products i.e. fixed speed RACs instead of high-end inverters (unlike 2018). We expect Voltas to benefit from this trend as its pricing strategy (mid-segment) and fixed speed mix is in contrast to its peers (LG, Daikin, Lloyd, Blue Star etc)
- Consumer financing is driving growth with financing share at 45% vs. 35% in 2018. RAC market has not witnessed liquidity stress in terms of consumer financing
- Tier 2,3,4 and 5 cities are growing faster than Tier 1 cities and metros as affordability rises coupled with lower penetration
- Prices are stable with no discounting as volume growth was healthy

- Channel inventory has reduced (unlike last year) and hence players will enjoy off-season stocking

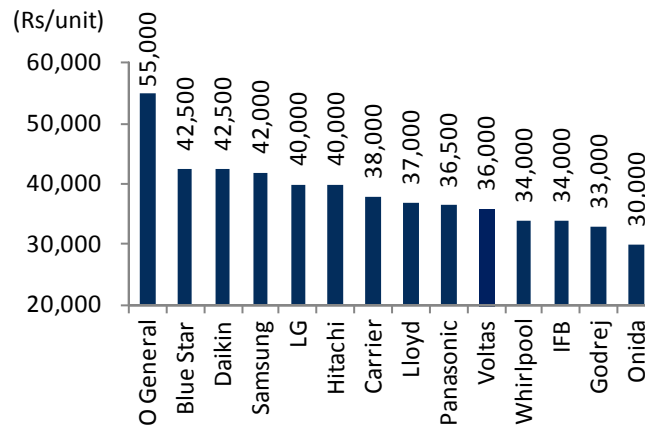
Air Cooler

- Air cooler market is growing in mid-teens led by hotter summer vs. 2018
- Mid-priced products and premium products are growing at a healthy clip
- During May-June prices are stable with no discounting, resulting in healthy EBIT margins
- Air cooler growth in tier 3-4 cities is faster vs. metros
- Symphony's channel inventory is at lower levels and hence co. will benefit from off-season sales also during FY20

Fans and Stabilizer

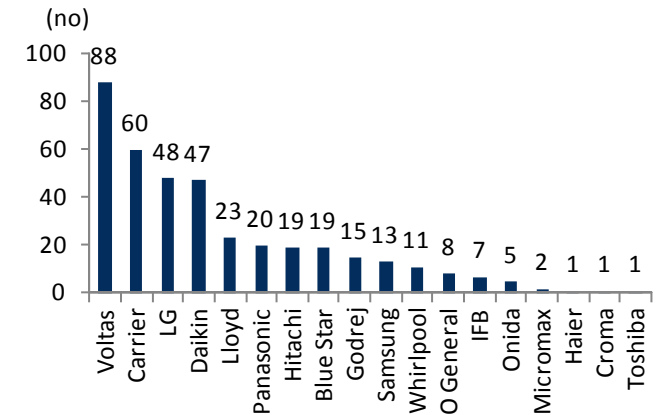
- Stabilizer growth has rebounded after 2 years of muted growth driven by healthy RAC offtake
- Growth in fans has improved led by hotter summer
- Companies continue to drive premiumisation in fans

Avg. Selling Price for RAC (2019 model)



Source: TataCliq, Amazon, HDFC sec Inst Research
Prices are for Inverter, 3 Star, 1.5ton

Number of Split RAC SKUs



Source: TataCliq, HDFC sec Inst Research

Strategy of leading RAC players in Summer 2019

Companies	Volume Market Share	Strategy
Voltas	24%	<ul style="list-style-type: none"> Focus on both fixed-speed and Inverter. The co. believes there is a market for fixed speed given low penetration in RAC (price-sensitive consumers) Cos strategy is to drive distribution and market share gains supported by aggressive pricing and marketing spend
LG	17%	<ul style="list-style-type: none"> In 2019, LG will focus on 5 star inverter RAC range (22 models are 5 star out of 54) The co. has cut prices to drive affordability in the premium 5-star range LG expects 70% of overall AC sales to come from 5-star range In 2017, LG had changed its strategy to retail 100% inverter RACs (vs. 20% mix for industry in 2017)
Daikin	11%	<ul style="list-style-type: none"> Daikin's key strategy in India is 2 fold: <ul style="list-style-type: none"> (a) Expanding distribution in Tier 3 and 4 cities (B) Accelerating market conversion to inverter RAC The co. will also strengthen (a) Multi-split type AC in residential market and (b) After sales service business so as to secure VRV maintenance contracts
Blue Star	11%	<ul style="list-style-type: none"> Sustain and strengthen premium imagery Focus on inverter technology and energy efficient products Distribution expansion in Tier 3, 4 and 5 cities Increased focus in North India (lower share currently) Aiming for 15% market share over the next 5 years (vs. 11% currently) Backward integration for higher value addition

The key strategy among RAC players is (a) Premiumisation, (b) Distribution expansion in tier 3 and 4 cities and (c) Local Manufacturing

Voltas is the only co. which believes that the market for fixed speed RAC is here to stay. Based on (a) Price sensitive consumers and (b) Higher residential use which limits the need for superior energy efficient RAC

LG and Daikin continue to be the most aggressive MNC players in the RAC industry

Fujitsu General (OGeneral) predicated that India will grow into the third largest market in the world in the near future

Fujitsu General (OGeneral) predicated that India will grow into the third largest market in the world in the near future

Companies	Volume Market Share	Strategy
Lloyd	10%	<ul style="list-style-type: none"> Havells is repositioning Lloyd to a mid-premium brand from mass segment (also resulted in price hike) Co. will reinvest price hike in higher marketing spend and R&D Havells is setting up in-house manufacturing for RAC instead of depending on imports from China
Hitachi	6%	<ul style="list-style-type: none"> Focus on premium energy efficient ACs with self cleaning feature (minimizing need for service) Expanding reach in tier 2 and 3 markets
Panasonic	6%	<ul style="list-style-type: none"> Focus on inverter segment and premiumisation in AC (5-star) Premium sales account for 60% share Aim for 15% market share by 2021 vs. 5% currently
O General	5%	<ul style="list-style-type: none"> Entry into market of "standard model" in residential AC Strengthen cost competitiveness by local production Establishment of subsidiary to plan and action India strategy
Haier	na	<ul style="list-style-type: none"> Focus on mid and high-end products Stronger player in Refrigerators vs. RAC In 2019, co is pushing products with automatic self cleaning and air purifier features

Source: Industry, HDFC sec Inst Research

RAC Industry Production: Inverter grew by 74% in FY19

RAC production (-8% in FY19) has lagged RAC industry growth (-3% in FY19), implying the channel inventory has now normalized

FY19 production volumes suggest a clear change in mix (skewed towards inverters) resulting in value growth > volume growth for the industry

FY19 3 star rated ACs used to be 5star rated ACs in 2017 owing to change in energy efficiency norms

Volume	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Star 1	107,525	260,019	223,016	88,326	39,782	1,505	415,913	78,314
Star 2	1,064,021	1,286,143	1,131,687	927,755	561,870	429,452	538,926	4,29,795
Star 3	894,352	1,017,074	1,342,260	2,486,797	2,785,931	3,629,764	2,846,892	23,03,627
Star 4	147,176	245,353	207,138	130,471	47,836	37,009	99,109	13,853
Star 5	541,648	458,976	578,454	1,006,012	1,240,603	1,641,909	1,038,727	1,43,329
Inverter	-	-	-	-	25,006	702,652	1,964,640	34,17,175
Total	2,754,722	3,267,565	3,482,555	4,639,361	4,701,028	6,442,291	6,904,207	63,86,093

Growth YoY (%)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Star 1		142%	-14%	-60%	-55%	-96%	27535%	-81%
Star 2		21%	-12%	-18%	-39%	-24%	25%	-20%
Star 3		14%	32%	85%	12%	30%	-22%	-19%
Star 4		67%	-16%	-37%	-63%	-23%	168%	-86%
Star 5		-15%	26%	74%	23%	32%	-37%	-86%
Inverter						2710%	180%	74%
Total		19%	7%	33%	1%	37%	7%	-8%

Mix (%)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Star 1	4	8	6	2	1	0	6	1
Star 2	39	39	32	20	12	7	8	7
Star 3	32	31	39	54	59	56	41	36
Star 4	5	8	6	3	1	1	1	0
Star 5	20	14	17	22	26	25	15	2
Inverter	-	-	-	-	1	11	28	54
Total	100	100	100	100	100	100	100	100

Source: BEE, HDFC sec Inst Research

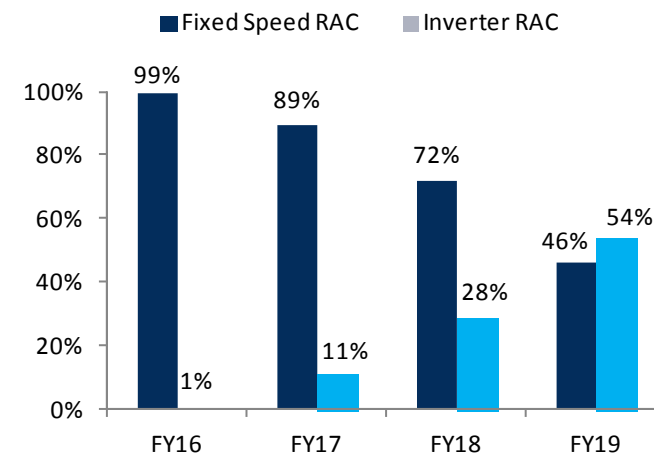
LG is the leader in inverter RAC segment followed by Voltas

Inverter production grew by 74% in FY19 vs. -40% for non-inverters

Inverter share rising: India plays catch up

- In developed economies (like Japan, Australia, UK etc), inverter RAC has grabbed >95% of the RAC market (U.S. is an exception). These countries have focused on driving the sales of higher energy efficient RACs with better quality refrigerants which are not harmful to the environment. However in emerging economies (China, Thailand, Vietnam, India etc) fixed speed ACs still command a meaningful share. China has gradually grown its inverter mix from 7/50/67% over 2009/14/17.
- Over the last 3 years, India played catch-up w.r.t. inverter mix vs. other emerging economies. We don't expect meaningful change in technology (energy efficiency) in the near-term as India is now at par with global norms. However, we do expect inverter share to rise further over the next few years.

India RAC Production: Fixed Speed Vs. Inverter Mix



Source: BEE, HDFC sec Inst Research

Worldwide RAC Market: Inverter RAC Grabs Share

Regions/Countries	Total RAC Units (in 10,000)		CAGR (2009-17)	Inverter mix	
	2009	2017		2009	2017
China	2,430	4,349	8%	7%	67%
Other countries in Asia	690	1,574	11%	12%	41%
Japan	678	893	4%	100%	100%
North America	373	545	5%	8%	17%
Europe	422	583	4%	40%	94%
Middle East and Africa	258	675	13%	0%	4%
Oceania	68	73	1%	45%	100%

Source: Daikin

Mean reversion is coming in cooling appliances

In FY20, Symphony and Voltas are expected to outperform in terms of volume growth

We expect Lloyd to bounce back after a tough FY19

V-Guard's stabilizer is expected rebound after healthy RAC offtake

Crompton is set to benefit from its GTM initiatives

Our Expectations: Bullish on cooling appliances

Volume growth in FY20 to drive margin expansion

Particulars	1QFY18	1QFY19	1QFY20E	FY18	FY19	FY20E	FY21E
Revenue Gr. YoY (%)							
Havells (ECD)	2.0%	43.0%	18.5%	21.0%	30.0%	18.9%	19.5%
Havells (Lloyd)	20.0%	14.0%	20.0%	11.0%	6.4%	16.0%	15.0%
Voltas (UCP)	1.3%	-1.7%	22.0%	15.0%	-2.2%	22.6%	16.5%
Crompton (ECD)	-8.6%	23.0%	14.0%	5.0%	15.9%	13.5%	13.5%
V-Guard (Company)	1.4%	19.0%	15.8%	15.0%	10.6%	16.8%	16.1%
Symphony (Domestic)	-18.2%	-40.7%	72.0%	5.0%	-24.8%	39.1%	20.8%
EBIT Margin (%)							
Havells (ECD)	22.8%	28.7%	29.0%	26.9%	26.8%	27.6%	27.8%
Havells (Lloyd)	4.8%	9.3%	9.5%	8.0%	5.3%	8.0%	8.5%
Voltas (UCP)	14.1%	12.5%	12.9%	14.7%	10.3%	12.4%	12.8%
Crompton (ECD)	17.5%	19.5%	19.7%	18.9%	19.2%	19.4%	19.6%
V-Guard (Company)	5.6%	7.0%	8.7%	7.7%	8.4%	10.6%	11.1%
Symphony (Domestic)	22.6%	1.5%	25.5%	37.6%	30.2%	36.7%	37.1%
Margin YoY Chg (bps)							
Havells (ECD)	(320)	595	30	158	(10)	78	21
Havells (Lloyd)	na	452	19	na	(265)	268	50
Voltas (UCP)	(80)	(155)	37	12	(441)	213	37
Crompton (ECD)	(63)	194	25	181	27	18	22
V-Guard (Company)	(585)	141	169	(213)	67	215	56
Symphony (Domestic)	(380)	(2,102)	2,396	15	(739)	652	40

Source: Company HDFC sec Inst Research

Investment Rationale

Havells

(CMP Rs 770, TP Rs 743, NEUTRAL)

Investment Rationale

- In FY19, Havells attained great success in its ECD segment (up 30% despite a base of 21% in FY18) which consistently led to revenue beat. However, EBITDA growth was challenged (14%). In FY20, we expect the co. to continue to scale its new launches, improve Lloyd's performance and benefit from higher B2B spend. We expect Lloyd's performance to improve over FY20-21E as the season has turned favorable, in-house manufacturing will rise and pricing power will return in the industry.
- We also expect segment margins to revive (FY17-FY18 band) resulting in robust EBITDA growth. We don't expect a re-rating in the stock (high implied valuation for ECD) and believe most near term positives are factored in the stock.

Valuation & Recommendation

- We maintain our NEUTRAL stance as we believe most of the near-term positives are priced-in. We value at 36x on Mar-21 EPS, arriving at a TP of Rs 743.

Financial Summary

YE Mar (Rs mn)	FY17	FY18	FY19P	FY20E	FY21E
Net Sales	61,353	81,386	100,576	117,097	135,728
EBITDA	8,241	10,493	11,922	15,476	18,358
APAT	5,967	7,036	7,916	10,688	12,916
Diluted EPS (Rs)	9.5	11.3	12.7	17.1	20.6
P/E (x)	80.6	68.4	60.8	45.1	37.3
EV / EBITDA (x)	56.1	44.5	39.2	29.9	24.8
Core RoCE (%)	35.5	33.9	27.7	32.3	36.9

Source: Company HDFC sec Inst Research

Voltas

(CMP Rs 591, TP Rs 675, BUY)

Investment Rationale

- In an otherwise dull FY19, Voltas maintained industry leading RAC margins and still gained market share (23.9% Feb YTD vs. 22.1% YoY). This validates the co's focus on the mass-premium segment and deep distribution, unlike premium hunting peers. We expect Voltas' UCP segment to grow by 23% in FY20 given (a) Healthy offtake in summer, (b) Lower channel inventory, (c) Market share gains and (d) Favorable base.
- Low RAC penetration, higher incomes and rising cultural affinity for cooling in India drives our long-term structural stance. Additionally, entry in other categories (via the Volt-Beko JV) only bolsters the multi-year growth story at Voltas.
- We increase our EPS by 2% driven by higher growth in UCP led by scorching summer and market share gains (higher offtake in fixed speed).

Valuation & Recommendation

- Our SOTP for Voltas values EMPS/EPS/UCP at 17/20/35x Mar-21E EPS and Volt-Beko at 1x P/S, translating to a TP of Rs 675 (earlier Rs 658). Maintain BUY.

Financial Summary

YE Mar (Rs mn)	FY17	FY18	FY19P	FY20E	FY21E
Net Sales	60,328	64,044	71,241	83,040	95,740
EBITDA	5,791	6,626	6,117	7,917	9,815
APAT	5,082	5,719	5,168	6,641	7,993
Diluted EPS (Rs)	15.4	17.3	15.6	20.1	24.2
P/E (x)	37.3	34.2	37.8	29.4	24.5
EV / EBITDA (x)	28.6	25.4	27.1	21.3	17.3
Core RoCE (%)	39.2	43.6	31.4	29.6	31.7

Source: Company HDFC sec Inst Research

Symphony

(CMP Rs 1,486, TP Rs 1,634, BUY)

Investment Rationale

- A key concern for investors over the last 2 years has been that there is no growth in air coolers. We remain contrarians, as we believe performance was primarily impacted due to seasonality factors rather losing market share by Symphony. A consumer will purchase coolers when summer is strong (impulse based).
- Our channel checks suggests that offtake was strong in South, healthy in West and modest in North (key market). However, next few days are key for Symphony. Weather predictions suggest a hot June in North. A good June will result in robust growth in FY20 as the co. will return to off-season channel filling and tech-rich new launches (after 2 years). Besides, its international performance will improve given the various initiatives undertaken.

Valuation & Recommendation

- We value the co. at 45x on Mar-21 EPS, arriving at a TP of Rs 1,643. We believe at current price, the risk-reward is favorable. Maintain BUY.

Financial Summary

YE Mar (Rs mn)	FY17	FY18	FY19P	FY20E	FY21E
Net Sales	7,680	7,983	8,440	11,627	13,594
EBITDA	2,009	2,193	1,320	2,738	3,282
APAT	1,691	1,926	1,318	2,086	2,541
Diluted EPS (Rs)	24.2	27.5	15.4	29.8	36.3
P/E (x)	61.5	54.0	96.5	49.9	40.9
EV / EBITDA (x)	50.2	45.5	76.6	36.5	30.0
Core RoCE (%)	106.9	89.9	32.6	49.8	56.6

Source: Company HDFC sec Inst Research

Crompton Consumer

(CMP Rs 243, TP Rs 300, BUY)

Investment Rationale

- Crompton has been focusing on building long term structural platform (distribution) rather than reaping low hanging fruits. Management is focusing on (1) Strengthening leadership in fans (NPD for wider price points, offering 5 year warranty vs. 1-2 year by peers), (2) Leveraging distribution (GTM benefits), (3) Brand leveraging via entering in newer categories and (4) Cost reduction and product mix to drive margins. We model 20% EPS CAGR over FY19P-21E.

Valuation & Recommendation

- Stock was flat in FY19 due to lack of fireworks in their performance. We expect a re-rating in the stock in FY20 (led by outperformance vs. peers). We value at 35x on Mar-21 EPS, arriving at a TP of Rs 300. Maintain BUY.

Financial Summary

YE Mar (Rs mn)	FY17	FY18	FY19P	FY20E	FY21E
Net Sales	39,009	40,797	44,789	50,698	57,409
EBITDA	4,846	5,310	5,858	7,012	8,008
APAT	2,849	3,238	3,727	4,684	5,544
Diluted EPS (Rs)	4.5	5.2	5.9	7.3	8.6
P/E (x)	53.5	47.1	40.9	33.4	28.3
EV / EBITDA (x)	32.0	28.9	26.0	21.9	18.7
Core RoCE (%)	40.6	38.7	39.4	42.7	48.4

Source: Company HDFC sec Inst Research

V-Guard Industries (CMP Rs 234, TP Rs 249, BUY)

Investment Rationale

- V-Guard is coming out of a difficult phase (floods, volatile cost inflation, up-front investments on newer products) with a strong outlook on FY20.
- Hot summer in 2019 is driving healthy RAC offtake, this makes us believe that stabilizer will fire (favorable base) which will drive margin expansion. Meanwhile, newer categories (GM accretive) continue to enjoy distribution expansion and drive incremental growth. Newer categories contributed 7% of revenues in FY19, we expect it to grow to 10% in FY21.

Valuation & Recommendation

- FY20 outlook is strong as we expect revenue growth to accelerate and margins to revive. We value at 35x on Mar-21 EPS, arriving at a TP of Rs 250. Maintain BUY.

Financial Summary

YE Mar (Rs mn)	FY17	FY18	FY19P	FY20E	FY21E
Net Sales	20,856	23,117	25,664	29,981	34,806
EBITDA	2,087	1,870	2,194	3,152	3,815
APAT	1,447	1,601	1,733	2,450	2,996
Diluted EPS (Rs)	3.4	3.8	4.1	5.7	7.0
P/E (x)	68.7	62.2	57.7	40.8	33.3
EV / EBITDA (x)	47.1	52.8	44.8	31.0	25.3
Core RoCE (%)	26.8	20.5	21.1	28.5	31.7

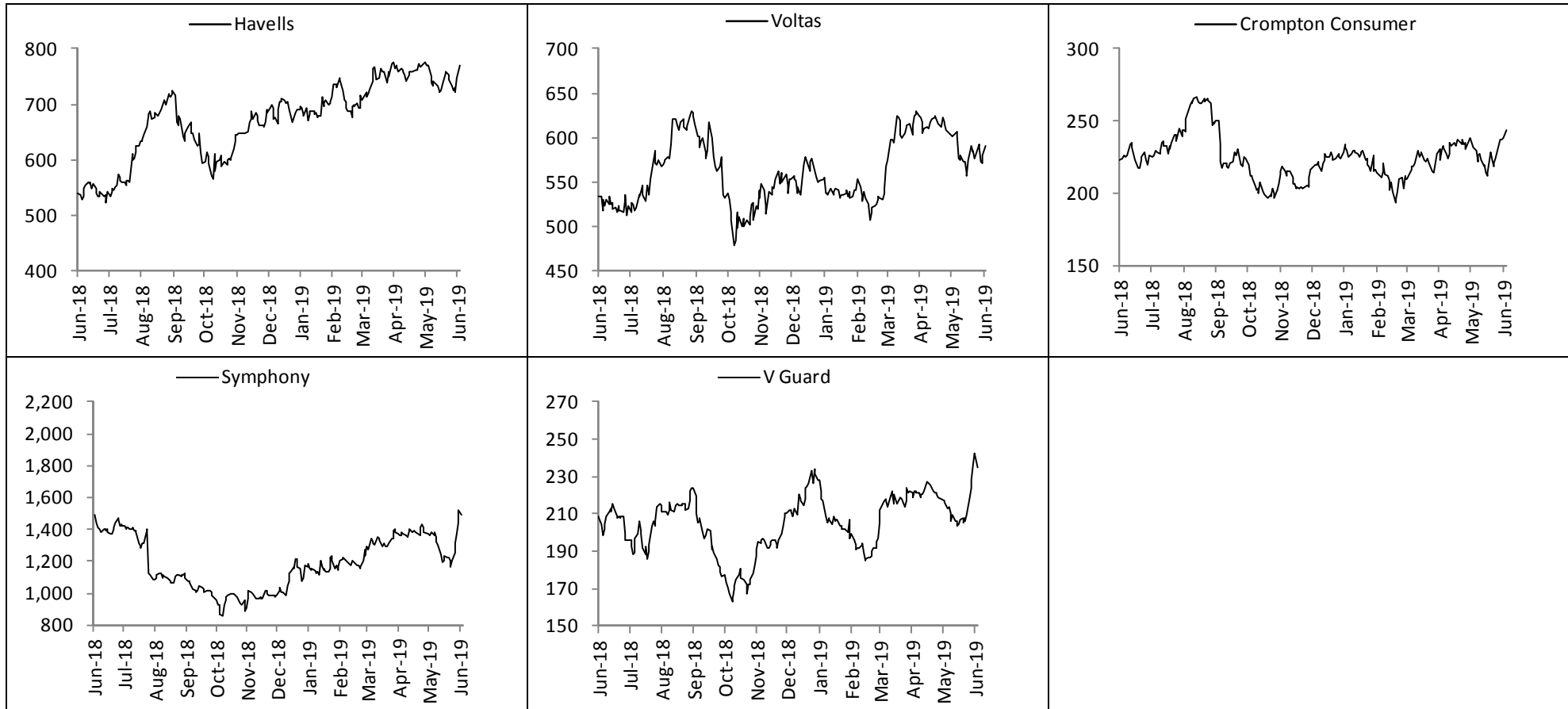
Source: Company HDFC sec Inst Research

Peer Set Comparison

Company	MCap (Rs bn)	CMP (Rs)	Reco.	TP (Rs)	EPS (Rs)			P/E (x)			EV/EBITDA (x)			Core RoCE (%)		
					FY19	FY20E	FY21E	FY19	FY20E	FY21E	FY19	FY20E	FY21E	FY19P	FY20E	FY21E
Havells	481	770	NEU	743	12.7	17.1	20.6	60.8	45.1	37.3	39.2	29.9	24.8	27.7	32.3	36.9
Voltas	196	591	BUY	675	15.6	20.1	24.2	37.8	29.4	24.5	27.1	21.3	17.3	31.4	29.6	31.7
Crompton	152	243	BUY	300	5.9	7.3	8.6	40.9	33.4	28.3	26.0	21.9	18.7	39.4	42.7	48.4
Symphony	104	1,486	BUY	1,634	15.4	29.8	36.3	96.5	49.9	40.9	76.6	36.5	30.0	32.6	49.8	56.6
V-Guard	100	234	BUY	249	4.1	5.7	7.0	57.7	40.8	33.3	44.8	31.0	25.3	21.1	28.5	31.7
TTK Prestige	83	7,139	NR	7,464	138.7	159.5	186.6	51.5	45.6	39.0	27.6	24.0	20.4	21.6	22.1	23.6

Source: Company HDFC sec Inst Research

1 YR PRICE MOVEMENT



INSTITUTIONAL RESEARCH

Disclosure:

We, **Naveen Trivedi, MBA & Siddhant Chhabria, PGDBM**, 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 meant for sole use by the recipient and not for circulation. 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. This document is for information purposes only. Descriptions of any company or companies or their securities mentioned herein are not intended to be complete and 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 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 individual in such country, especially, USA, the same may be ignored and brought to the attention of the sender. This document may not be reproduced, distributed or published for any purposes without prior written approval of HSL.

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. 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-INB/F/E 231109431, BSE-INB/F 011109437, AMFI Reg. No. ARN: 13549, PFRDA Reg. No. POP: 04102015, IRDA Corporate Agent License No.: HDF 2806925/HDF C000222657, SEBI Research Analyst Reg. No.: INH000002475, CIN - U67120MH2000PLC152193

Mutual Funds Investments are subject to market risk. Please read the offer and scheme related documents carefully before investing.

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