

# Consumer Durables

Refer to important disclosures at the end of this report

## Channel Checks: Muted demand scenario, competitive intensity rising

- Our channel checks continue to suggest sustained demand weakness across the durables space, while increased cashback schemes resulting to some volume offtake. In Mar'19, headline product pricing has seen a reduction in select categories, with some brands attempts to raise prices in Feb'19 saw a reversal in Mar'19.
- Last year's RAC inventory has been largely liquidated and dealers have started to restock the new SKUs for the upcoming summer season; however, there is still uncertainty on volume growth due to weather conditions.
- Competitive intensity in the mass segment of TV remains at elevated levels. Intensity is picking up in mass categories of Washing Machines and Refrigerators as well. Brands such as Haier are focusing on expanding the distribution reach, penetrating well in mass product categories and keeping the price on par with other established brands.
- With the summer season around the corner, brands have started launching new products across categories and the most prominent launches were in ACs. Pricing pressure should continue until demand rebounds. The sustenance of the recent spike in commodity prices amid a weak demand scenario could continue to restrict gross margin expansion.

### Demand offtake remains muted

- We visited various MBOs as well as retailers in Mumbai, and interacted with channel partners and industry experts in other parts of the country. The common denominator of the insights we received from them was lower-than-expected offtake in the festive season in Q3FY19 as well as a pronounced slowdown after that. This has led to high inventory levels across product categories with varied levels of intensity. Store-level footfalls are down ~20-30% yoy depending on the region. After a weak Dec'18, there has been some uptick in sales while subdued demand continues in comparison with the last year. RAC inventory liquidation is already done, dealers have started to restock the new models.
- Pricing trends:** The slowdown in demand has restricted price increases, and in fact led to heavy cash back schemes. With the previous year's AC inventory in the system cleared, lesser discounts have prevailed and new launches have started with the hope for better summers in FY20. Other categories such as Washing Machines, Refrigerators, and Television (large screens) continue to see cash back and financing schemes aimed at reducing the inventory. Pricing rationality should emerge once demand returns.
- Commodity trend:** Commodity prices have a seen spike in the recent past while remaining flat from Oct'18 to Mar'19. Aluminum prices have appreciated by 11% since Jan'19, with copper prices increasing 3% in the same period. However, the rupee, which had depreciated by 11% in Q4FY18 to Q3FY19, has appreciated by 2%, on average. This can restrict the impact of higher commodity prices on margins.

Please see our sector EAP (Page 15): [Emkay Alpha Portfolio – Consumer Durables](#)

### Financial Snapshot (Consolidated)

(Rs mn)	EPS		EV/EBITDA		P/E	
	FY20E	FY21E	FY20E	FY21E	FY20E	FY21E
Amber Enterprises	43.0	55.0	9.5	7.8	18.5	14.4
Crompton Greaves CE	7.3	8.5	20.1	17.4	30.7	26.4
Dixon technologies	86.5	103.2	15.8	13.5	28.9	24.2
Havells India	17.2	20.6	28.7	24.2	44.5	37.3
V-Guard Industries	4.8	5.9	33.8	27.9	46.1	37.4
Whirlpool of India	37.3	43.1	24.8	21.3	42.8	37.1

Source: Company, Emkay Research

<b>Amber Enterprises</b>	BUY
CMP	Target Price
794	1,126
<b>Crompton Greaves CE</b>	ACCUMULATE
CMP	Target Price
225	256
<b>Dixon technologies</b>	BUY
CMP	Target Price
2,500	2,776
<b>Havells India</b>	HOLD
CMP	Target Price
767	719
<b>V-Guard Industries</b>	REDUCE
CMP	Target Price
220	187
<b>Whirlpool of India</b>	REDUCE
CMP	Target Price
1,597	1,293

This report is solely produced by Emkay Global. The following person(s) are responsible for the production of the recommendation:

**Naval Seth**  
 naval.seth@emkayglobal.com  
 +91 22 6624 2414

**Aakash Fadia**  
 aakash.fadia@emkayglobal.com  
 +91 22 6612 1241

## Demand yet to pick post 3Q festive season

We visited various MBOs as well as retailers in Mumbai, and interacted with channel partners and industry experts in other parts of the country. The common denominator of the insights we received from them was lower-than-expected offtake in the festive season in Q3FY19 as well as a pronounced slowdown after that. This has led to high inventory levels across product categories with varied levels of intensity. Store-level footfalls are down ~20-30% yoy depending on the region. After a weak Dec'18, there has been some uptick in sales while subdued demand continues in comparison with the last year. All brands are offering cash backs in the range of 10-25% across various product categories. RAC inventory liquidation is already done, dealers have started to restock the new SKU's and the same is already visible in MBO's. **Haier remains aggressive in expanding distribution reach, launching new SKUs, and focusing on mass-market products. However, our interactions with distributors suggest that Haier will be launching premium products next year.** The consensus is that demand for durables will rebound after May'19 general elections are over.

- **Air Conditioners:** System inventory has been largely liquidated as brands had increased discounting inventory clearance in last couple of months. Further, new product launches have hit the market and without any fresh discounts. Brand preference for Daikin is rising and it should continue to gain market share in the Split AC segment. All the players are promoting only copper components as the selling proposition in the current season.
- **Washing Machines:** Volumes are not as per expectations due to the high inventory pile-up with the dealers and distributors since 3Q and after the muted festive season. Competition from Haier has increased in the Mass Semi-automatic category. Our interaction with Dixon management also suggests that there is some moderation in washing machine volume offtake due to slower-than-expected demand as well as higher system inventory.
- **Refrigerators:** Demand is relatively better than other categories but premium refrigerators are still not seeing offtake as per expectations. The upcoming summer season will be the deciding factor. Haier is again growing at a healthy pace in the Single-Door category.
- **Television:** Large brands have reduced their focus on 32-inch screens due to irrational competition and huge price undercutting. As a result of price undercutting, brands are not making money on 32-inch screens. Big brands continue to gain market share in screen sizes of 43 inches and above. Brands are going to launch new offers with the IPL season and the ICC Cricket World Cup around the corner.

## Pricing trends from channel checks

**Air conditioners: inventory liquidation almost done except for a few brands. Companies are now focusing on the upcoming summer season with new models and fresh inventory.**

- Pricing across brands has corrected by ~4% to as high as ~20% from July'18 to March'19. On a mom basis, the pricing action was brand-specific depending on the inventory levels held by the company. Some volume offtake in South and East India has helped in inventory liquidation. **Brands that are still undercutting prices cuts are Carrier and Whirlpool India.**
- Hitachi, which had been aggressive with its discounting until Feb'19 (Rs3,000 on list prices for the month after slashing prices by ~19% since Jul'18), seem to have liquidated the inventory and has introduced its new range of expandable inverter series ACs for the upcoming season starting at a price of Rs42,000. **This new range offers no discounts and now the focus has been shifted to technology from pricing.**
- On the other hand, market leader Voltas has increased its list prices by 4% in March. However, there is no change in effective pricing as there are various financing and cash-back schemes available across the MBOs. **Voltas still remains the most affordable brand.**
- Inventory has largely been liquidated (as volume offtake has been seen in South and East India) and companies have started launching new products ahead of the summer season. By the end of the month, the entire old inventory of the top brands is likely to be liquidated. **North India and West India continue to remain colder even late into the winter season (i.e., in month of March), resulting in a postponement of RAC purchases. Demand should start to pick up after 'Holi,' in line with the traditional belief that temperatures increase following the festival.**
- New SKUs and inventory have started to hit the market (Lloyds Grande AC series is now available with MBOs with a starting price of Rs44,000), so are expandable inverter technology-based ACs from Hitachi. Sustained price increases will depend on the intensity of summers and demand uptick while slower-than-expected demand could restrict price hikes.

**Exhibit 1: Pricing trend across most selling SKUs**

Air conditioners	July'18	Oct'18	Dec'18	Jan'19	Feb'19	Mar'19	MoM	July'18 to Mar'19
Panasonic 1.5 ton 3 star	40990	40990	37991	37151	37150	37150	0%	-9%
Hitachi 1.5ton 3 star	45990	43490	36261	36250	37190	37000	-1%	-20%
Daikin 1.5 ton 3 star	39490	44490	37656	35000	35309	35000	-1%	-11%
Carrier 1.5 ton 3 star	39990	39990	36990	34890	34790	33000	-5%	-17%
Voltas 1.5 ton 3 star	33990	34088	31341	31490	31340	32700	4%	-4%
Lloyd 1.5 ton 3 star	40990	40990	37990	37990	37990	37990	0%	-7%
Whirlpool 1.5 ton 3 star	38490	38490	32766	33990	33990	32900	-3%	-15%
Haier 1.5 ton 3 star						31990		

Source: Industry, Emkay Research

## Refrigerators: Increased competition in direct cool resulting price reduction (mom)

- The Refrigerator segment has seen selective price cuts by brands. Godrej has cut prices of its popular 225L direct cool by 17% from Oct'18, while Samsung and LG have cut prices in the range of 5-9% over the same period.
- **Market leaders LG has rationalized its prices for refrigerators to align its prices with close-second competitor Samsung.** Whirlpool and Haier is adopting a pricing led strategy to grab higher market share.
- Bigger brands like LG, Samsung are offering heavy cash-backs to push volumes in premium category. In case of Samsung, the new product range is expected to get launched in Mar'19 and in order to liquidate older inventory it is offering hefty cash-back schemes.

### Exhibit 2: Pricing trend across most selling SKUs

Refrigerator	July'18	Oct'18	Dec'18	Jan'19	Feb'19	Mar'19	MoM	Oct'18 to Mar'19
<b>Direct cool</b>								
Whirlpool 200L direct cool	13990	13990	14990	14990	14490	15084	4%	8%
Godrej 225L direct cool	26490	23000	20900	19950	20040	18992	-5%	-17%
Samsung 212l direct cool	18000	17090	16200	16200	16200	16200	0%	-5%
LG 215L direct cool	18690	17990	17256	17256	17460	16590	-5%	-8%
Haier 220L direct cool					15900	15900	0%	
<b>Frost Free</b>								
LG Frost free 284L	30265	28490	28990	30164	28490	25914	-9%	-9%
Whirlpool 265L frost free	23490	20994	20994	19990	18990	18990	0%	-10%
Samsung 253L frost free	26090	21490	21990	22864	21490	21490	0%	0%
Haier 258L frost free					21910	21910	0%	

Source: Industry, Company. Note: Prices in July'18 are pre-GST rate cut

## Washing Machines: Weak demand and entry of Voltas-Beko giving jitters; Incumbents responding with price cuts, especially in the Semi-Automatic segment

- **Front-Load category** has seen a price reduction by IFB to the tune of 3% in Feb. It is now selling at Oct'18 prices. In between, IFB took a price increase to offset input cost inflation; however, the weak demand scenario has resulted in price cuts.
- **Top-Load category** has seen price reductions by IFB, Samsung, and Whirlpool. **Whirlpool has again reduced prices by 2% mom for 6.5kg machine with cumulative cut now standing at 12% from Oct'18 to Mar'19. IFB, on the other hand, had to roll back the price increase that it had initiated in month of Feb'19 on heightened competition from Haier and other incumbents such as Whirlpool and Samsung.**
  - In the Top-Load (Fully-automatic) washing machines category, price cuts ranged from ~2% to as high as ~14% (Oct'18-Mar'19).
  - **The Semi-Automatic** washing machine segment has seen most pricing actions in March as Voltas-Beko has made its presence felt with its 7.5kg model selling at a price of Rs11,990 and the 8kg model selling at a price of Rs13,490. **Incumbents such as Godrej, Whirlpool and LG have responded with price cuts in the range of 9-10% in the month of Mar'19.**

### Exhibit 3: Pricing trend across most selling SKUs

Front Load Fully Automatic	July'18	Oct'18	Dec'18	Jan'19	Feb'19	Mar'19	MoM	Oct'18 to Mar'19
IFB 6kg	28999	26994	28189	27889	27889	26990	-3%	0%
Samsung 6.5 kg	29490	31200	26999	26999	26999	26999	0%	-13%
LG 6.5 kg	33994	32444	32444	32444	32444	32444	0%	0%
Whirlpool 7 kg	27994	30530	28699	27139	27139	27139	0%	-11%
Haier 6kg						22999		

Top-Load Fully Automatic	July'18	Oct'18	Dec'18	Jan'19	Feb'19	Mar'19	MoM	Oct'18 to Mar'19
Panasonic 6.5 kgs	16294	19800	18999	16999	16999	16999	0%	-14%
Godrej 6.5kgs	19200	18300	16439	16439	16439	16439	0%	-10%
IFB 6.5kgs	18990	18290	18039	17849	19269	17849	-7%	-2%
Whirlpool 6.5kgs	16900	16300	15900	15000	14600	14299	-2%	-12%
LG 6.2 kgs	13450	18490	16999	16499	16499	16499	0%	-11%
Samsung 6.2 kgs	16100	16100	15900	15900	15900	14900	-6%	-7%
Haier 6.5kg					13999	13999	0%	

Semi-Automatic	July'18	Oct'18	Dec'18	Jan'19	Feb'19	Mar'19	MoM	Oct'18 to Jan'19
Godrej 7 kg	12499	12699	12959	12899	12900	11594	-10%	-9%
Panasonic 8.2kgs	NA	14400	13679	13300	13779	13779	0%	-4%
Whirlpool 7.5kgs	12500	11800	11599	11649	11649	10590	-9%	-10%
LG 8.0kgs	14040	12690	15490	16400	16400	14800	-10%	17%
LG 6.5kg	11799	11090	10759	10759	10759	10759	0%	-3%

Source: Company, Industry, Company. Note: Prices in July'18 are pre-GST rate Cut

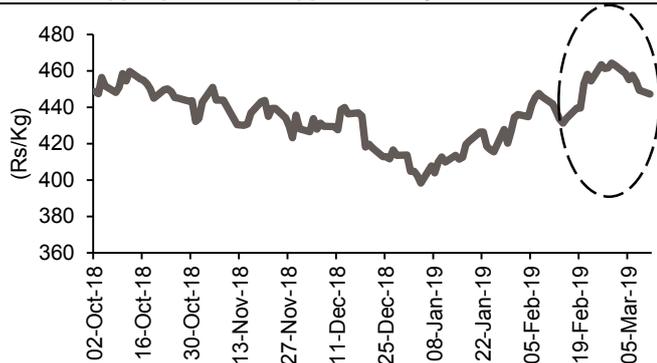
### Other takeaways from MBO visits in Mumbai

- Demand for Air-conditioners continues to remain subdued as the weather remains unfavorable, while washing machine and refrigerator demand is relatively better.
- Voltas-Beko has increased its presence at MBOs and has placed itself in the mass premium range.
- After playing the pricing strategy in top-load washing machines and direct cool refrigerators, **Haier has now set its focus on Front-load washing machines with aggressive pricing.** BOSCH, on other hand, has reduced its prices and is now targeting the mass premium range instead of the earlier premium range.
- Inventory liquidation in ACs is almost done with the exception of a few brands that are offering discounts to clear their old inventory.
- Whirlpool continues to remain competitive in terms of pricing in Washing machines and Refrigerators.

### Commodity and Forex: Aluminum prices have seen a spike recently

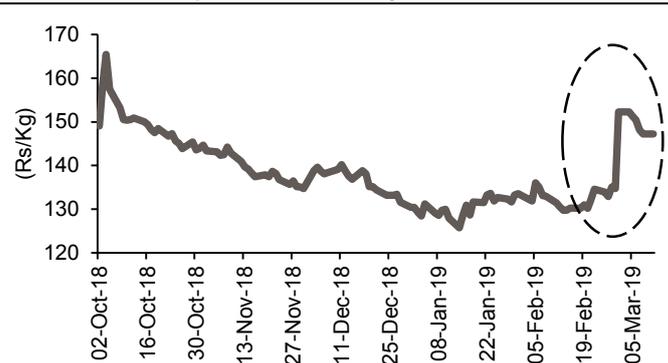
- Commodity prices have seen a spike in the recent past, while it has remained flat from Oct'18 to Mar'19. Aluminum prices have been appreciated by 11% since Jan'19, while copper prices have increased 3% in the same period. However, the rupee, which had depreciated by 11% in Q4FY18 to Q3FY19, has appreciated by 2%, on average.
- Selected brands attempted to pass on the increase in input costs in Feb'19, but it was short-lived as competitive intensity is restricting price rationalisation.
- We do not foresee the competitive intensity to be benign and hence aggressive pricing is here to stay till the time growth rebounds which in turn should keep gross margins under pressure.

**Exhibit 4: Copper prices have appreciated by 3% since Jan'19**



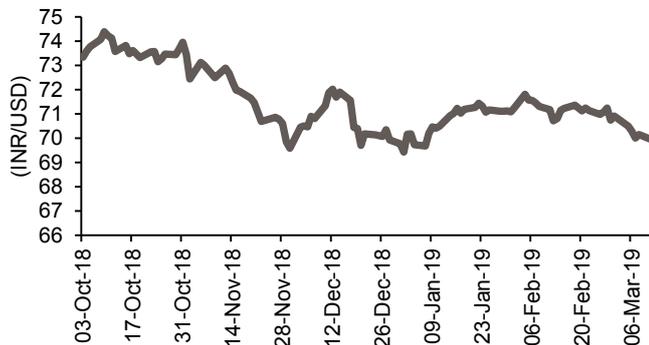
Source: Bloomberg, Company

**Exhibit 5: Aluminum prices have risen by 11% since Jan'19**



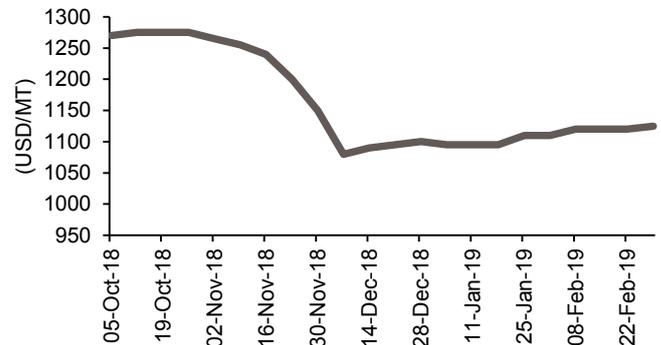
Source: Bloomberg, Company

**Exhibit 6: INR is stable since Jan'19**



Source: Bloomberg, Company

**Exhibit 7: Polypropylene prices have increased by 3% since Jan'19**



Source: Bloomberg, Company

**Exhibit 8: New product launches across the categories**

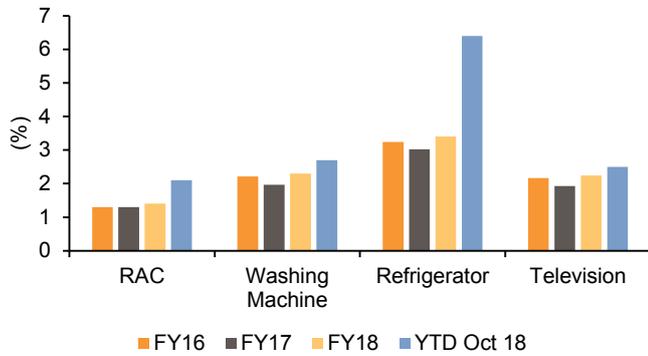
Date	Company	Category	Product	Segment	Price Rs
1st Feb 2019	Daiwa	Television	65-Inch 4K Ultra HD Quantum Luminis Smart LED TV	Premium	NA
5th Feb 2019	Whirlpool	Refrigerators	Side by side 4 doors	Premium	NA
6th Feb 2019	Havells	Air conditioner	India's fastest cooling Air Conditioners- 'Grande Series'	Premium	45,990-79,990
8th Feb 2019	Dyson	Air Purifier	Pure Hot+Cool Air Purifier	Premium	52,000
13th Feb 2019	Wybor	Air coolers	Aron, Igloo, and Iceland.	Mass	NA
18th Feb 2019	Sharp	Air Purifier	FP-J60M-W air purifier	Premium	35,000
22nd Feb 2019	Huawei	Television	55-inch Smart TV		awaited
25th Feb 2019	Xiaomi	Television	65-inch Smart TV	Mass premium	60,000
28th Feb 2019	Daiwa	Television	40-inch Smart TV	Mass	NA
11th Mar 2019	Samsung	Television	New line up of 4K UHD TV's	Mass premium	40,000 +

Source: Industry, Company

### Haier's success is already reflecting in market share gains in Refrigerators

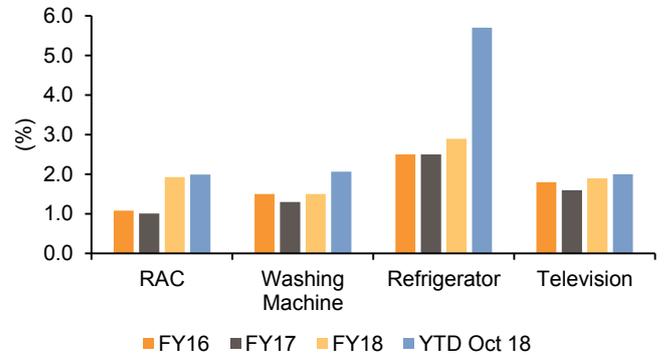
Haier's product launches, distribution expansion, and price aggression are visible in market share gains. Its market share gains in FY17-18 are also driven by fall of Videocon. Our channel checks suggest that Haier will be focusing on the premium category from the next year, with it planning to launch refrigerators with a capacity of more than 340-350ltrs. It has already launched Front-Load Fully-automatic washing machines.

**Exhibit 9: Haier's volume market share**



Source: Industry, Emkay Research

**Exhibit 10: Haier's value market share**



Source: Industry, Emkay Research

## Channel checks for electricals in Mumbai

We did channel checks for categories such as Fans, LED lightings, and Water Heaters in Mumbai. The aim was to gauge demand, competitiveness, brand-wise strategy, and pricing trends. Key readings; 1) Orient Electric has upped its ante with new launches in the mass premium category Fans and it has the highest number of launches; 2) Crompton (CROMPTON:IN) continues to remain a go-to (value for money) brand; 3) the fans inventory is slightly higher than last year at ~2 months; 4) Panasonic has become aggressive in LED battens; 5) prices have stabilized in LED bulbs; 6) demand in Water heaters remains muted due to slow offtake in new residential sales.

### Fans: slower-than-expected demand; Orient has upped its ante in new launches

- 50-55% of the sales are in the price range of Rs2,300-Rs2,800, 30% of sales is below Rs2,300, and 15% of sales at price points higher than Rs2800.
- **Growth in the Fans segment is lower than anticipated for Jan and Feb 2019 (value growth of 4-5% against expected value growth of 7-8%) due to the delayed arrival of summers. Average inventory stands at ~2 months.**
- **Orient has highest number of new launches followed by Havells and Crompton. In our earlier interactions during last year, the dealers had indicated that Orient had lost market share. The revival of product launches and marketing aggression are clearly showing its focus to win back the lost market share.**
  - Orient has the largest shelf space in shops and it has priced its new launches in the decorative space just 2-3% below Havells and 5% above Crompton.
- Bajaj Electricals and Usha had limited presence in the market, while V-Guard had limited presence in the mass segment with products priced below Rs2,000. **Note:** Mumbai and surrounding markets are weak markets for V-Guard while it is gaining traction in other parts of Maharashtra.
- **Crompton continues to remain the preferred brand for dealers in Fans as they say it is a value-for-money product.**

#### Exhibit 11: New launches in the Fans category by Orient

Date of launch	Ceiling Fans	Segment	Price (Rs)	Date of launch	Lifestyle Fans	Segment	Price (Rs)
16th Jan 2019	Aero Slim smart Fan	Premium	7400	25th Dec 2018	Bladeless	Premium	6200
	Areta Trendz Ceiling Fan	Premium	3450		Monroe	Premium	5100
	Kiara Shine	Premium	3199		Auctor	Premium	5300
	Blitz Deco	Mass Premium	2350		Proteus	Premium	2300
	IS-50	Mass Premium	2020				
	Twister Hi Speed	Mass	1000				

Source: Industry, Emkay Research

#### Exhibit 12: New Launches in Fans Category by Havells

Date of launch	Ceiling Fans	Segment	Price (Rs)
14th November	IOT-based smart fans	Premium	NA
	Range of Premium and technology enabled Fans	Premium	NA

Usha	Ceiling Fans	Segment	Price (Rs)
23rd FEB	Dust-Free Fans	Premium	2400-2700

Source: Industry, Emkay Research

### Lighting: price fall continues in Battens while stabilized in LED Bulbs. Panasonic has become aggressive

- Panasonic has become aggressive in LED lighting, especially in battens. It has cut prices of battens by 7% and now are now available at prices similar to Chinese brands (price of 20W 4 feet LED batten is Rs250 whereas similar Imported Chinese LED battens are available at average price of Rs240).
- Average prices of LED batten have come down by ~3% in the past two months.
- Crompton and GM 20 Watt 4 Feet LED battens are available at Rs275, while Havells, Syska and Philips are available at a price of ~Rs300.

- ***On expected lines, LED bulb prices have remained stable.***
- Chinese LED lights imports have reduced with the depreciation in the INR leading to price increases and making them less competitive. On the other hand, domestic brands have become equally price competitive.
- Antibacterial LED bulb by Crompton is yet to be launched in Mumbai.

#### **Water heaters: new brands foray while demand was muted in the winter season**

- Overall market for water heater continues to remain difficult as there is not much activity in fresh residential sales.
- Havells market share in water heater has increased, especially in storage water heater. Racold lost market share due to the shut-down of its Pune facility last year; however, the company is now sourcing products from its North India-based plant.
- Crompton, Racold, and Havells dominate the instant water heater category with Ketko and Ferroli gaining acceptance.
- Crompton's 1 liter geyser is available at Rs2,200, while Havells and Racold are available at an average price of Rs2450 for the similar capacity.
- Havells, Racold, and Bajaj are the leaders in storage water heater with a price differential of just 2-3% between the brands.

## Takeaways from ACREX 2019 visit

We attended ACREX 2019 HVAC exhibition in Mumbai. Players represented in the exhibition include 1) Brands, 2) Contract Manufacturers, and 3) component suppliers. The aim was to gauge the new product launches, technology advancements, and mindset of component suppliers from China. Key readings: 1) all the brands are focusing on inverter RACs as this theme is picking up faster than expected, 2) new product launches are aimed at the premium end, 3) Chinese component manufacturers are positive on India's growth story and are setting up their distribution network in India.

### New product launches by brands

#### Hitachi

- Hitachi's focus continues to remain on inverter technology and product differentiation and have launched expandable inverter ACs.
- These ACs can run on different tonnage as per the requirement of cooling and help bring down operating costs.
- All these launches will be available in the market from mid-March.

**Exhibit 13: Some product launches at ACREX 2019**

Product	Rating	Type	Features	Price Range (Rs)
KASHIKOI 5400X	5 Star	Inverter Split Air Conditioners	iSee, iclean+, isense, Expandable Inverter AC	52,000 - 77,000
KASHIKOI 5300FX	5 Star	Inverter Split Air Conditioners	iclean+, iSense, 4 way Swing, Expandable inverter AC	49,000 - 73,000
KASHIKOI 5100X	5 Star	Inverter Split Air Conditioners	Expandable Inverter AC, Wide Angle deflector, Wave Balde design, Soft dry	47,000 - 71,000
TOUSHI 5100X	5 Star	Inverter Split Air Conditioners	Soft dry, inner grooved copper tubes, on/off timers, Expandable Inverter	45,000 - 70,000
MERAI 3100X	3 Star	Inverter Split Air Conditioners	Wave blade design, Soft dry, Wide angle deflector, Expandable inverter AC	42,000 - 60,000
Merai 3100S	3 Star	Inverter Split Air Conditioners	Soft dry, Filter clean indicator, Wide angle deflector, Auto Fan speed	41,000 - 56,000
TOUSHI 3100S	3 Star	Inverter Split Air Conditioners	Soft dry, inner grooved copper tubes, on/off timers, Auto Fan Speed	39,000 - 54,000
Summer QC	5 Star	Window Air conditioner	Twin air flow for uniform cooling, kaimin function, super silent	31,000 - 37,000
KAZE Plus	5 Star	Window Air conditioner	Auto Climate technology, Innovative feature, powerful mode	29,000 - 34,000

Source: Industry, Company

#### Mitsubishi Heavy Industries

- Mitsubishi's focus for the upcoming season continues to remain on providing cooling in extreme heat conditions.
- It has launched the DESERT XTREME COOLING (DXK) range of air conditioner which provides 1.5 times better cooling and covers more area than the conventional ACs.
- Mitsubishi is becoming active and has already signed up Shah Rukh Khan as its brand ambassador and will be starting a mega marketing campaign soon.

**Exhibit 14: Some product launches at ACREX 2019**

Product	Rating	Type	Features	Price Range (Rs)
DXK 53 CSS – S6/A	3 star	Fixed Speed Air conditioners	High Capacity, 3D Air, long reach air flow, Self-clean operation and self-diagnostic	55,490
DXK 37 CSS – S6/A	3 star	Fixed Speed Air conditioners	High Capacity, 3D Air, long reach air flow, Self-clean operation and self-diagnostic	41,990
DXK 50 CS – S6	1 star	Fixed Speed Air conditioners	High Capacity, 3D Air, long reach air flow, Self-clean operation and self-diagnostic	43,990
DXK 74 CSS - S6/A	3 star	Fixed Speed Air conditioners	High Capacity, 3D Air, long reach air flow, Self-clean operation and self-diagnostic	66,490
WRK12MA1 -6	3 star	Window Air conditioner	High power cooling, long reach air flow, 100% copper, Auto flow system, high capacity	32,990
WRK18MA1 -6	3 star	Window Air conditioner	High power cooling, long reach air flow, 100% copper, Auto flow system, high capacity	37,990
WRK24MA1 -6	3 star	Window Air conditioner	High power cooling, long reach air flow, 100% copper, Auto flow system, high capacity	43,990

Source: Industry, Company

### Haier India

- Haier India's focus for the upcoming season will be its PuriCool range of inverter Air-conditioners where same machine is used for cooling and air-purification.
- It has also revamped its fashion cool series of RAC which is made more maintenance friendly, easy to self-clean, and has stabilizer-free operation.
- All the new launches are in the premium price range.

**Exhibit 15: Some product launches at ACREX 2019**

Product	Rating	Type	Features	Price Range (Rs)
HSU - 12JS5 (DCINV)	5 Star	Inverter Split Air Conditioners	Self-purify, Self-clean, Precise dehumidification, Smart Wi-Fi	NA
HSU - 12JW3 (DCINV)	3 Star	Inverter Split Air Conditioners	Self-purify, Self-clean, Precise dehumidification, Smart Wi-Fi	NA
HSU-12HD7DCINV	3 Star	Inverter Split Air Conditioners	Fashion design, Self-clean, stabilizers free operation, super quiet	NA
HSU-24NMW3(DCINV)	3 Star	Inverter Split Air Conditioners	Self-clean, low voltage, high temperature, long air throw	49,990

Source: Industry, Company

### Voltas

- Voltas' new launches were focused on adjustable inverter ACs apart from its usual range of inverter and fixed-speed air conditioners.
- Voltas has already started the campaign for the adjustable inverters and will be promoting this in a big way.
- The main difference between Voltas and other brands is that Voltas would be pricing adjustable inverter ACs for the mass premium segment rather than for the premium segment.

**Exhibit 16: Some product launches at ACREX 2019**

Product	Rating	Type	Features	Price Range (Rs)
Adjustable inverter AC	3 Star	Inverter Split Air Conditioners	Adjustable mode, Superdry, CO2 reduction, PM 2.5 Filtration, Stabilizers free operation	28,000
Adjustable inverter AC	5 Star	Inverter Split Air Conditioners	Adjustable mode, Superdry, CO2 reduction, PM 2.5 Filtration, Stabilizers free operation	34,000

Source: Industry, Company

### Voltas-Beko

- Voltas-Beko showcased its entire range of products (Refrigerators, Fully automatic Top Load, and Semi-automatics). Its product placement has been in similar to Voltas in the mass premium segment.
- It already has 70 SKUs in the market; however, new product/SKU launches have taken a backseat and will happen only after May'19 as it wants to first focus on the upcoming AC season in the summers as the marketing team is same for both.

**Exhibit 17: Some product launches at ACREX 2019**

Product	Rating	Type	Features	Price Range (Rs)
Frost Free Refrigerator	3 Star	Neo Frost Dual cooling	Store Fresh +, Prosmart inverter position, Active fresh blue light, Ion guard, Antibacterial gasket	24,490 - 32,990
Frost Free Refrigerator	3 Star	Bottom mounted Refrigerator	Store Fresh +, Prosmart inverter position, Active fresh blue light, Ion guard, Antibacterial gasket	40,990 - 86,990
Frost Free Refrigerator	3 Star	High end frost free	Store Fresh +, Prosmart inverter position, Active fresh blue light, Ion guard, Antibacterial gasket	42,390 - 79,990
Frost Free Refrigerator	NA	Side by Side	Store Fresh +, Prosmart inverter position, Active fresh blue light, Ion guard, Antibacterial gasket	82,990 - 110,590
FA Front loading WM	NA	Fully automatic front load	Pro smart inverter motor, SilentTech, Hygiene+, Addgarment, Air therapy	28,590 - 63,090
FA Top loading WM	NA	Fully automatic top load	Monsoon Dry, Time delay, Touch Jet function, Fuzzy control, Silent tech	15,990 - 43,990
Semi-Automatic WN	NA	Semi-automatic twin tub	Double waterfall, Special pulsator, Cassette filter, Rust proof body, Fast dry	13,790 - 17,490

Source: Industry, Company

### LG India

- LG India is focusing on the Dual inverter range of air conditioners, which solves insufficient cooling and noise problems, resulting in faster cooling and longer durability and helps save more energy than the conventional compressors.
- It expects 70% of AC sales to come from the energy efficient 5-star range, a segment in which LG India is extending its product portfolio.
- This season, LG has a line-up of 54 SKUs in the AC segment, in which it has increased the range of 5-star units to 28.

**Exhibit 18: Some product launches at ACREX 2019**

Product	Rating	Type	Features	Price Range (Rs)
Dual Inverter Range of AC's	3 Star	Inverter Split Air Conditioners	Dual Inverter compressor, Fast cooling, High voltage safe, Monsoon comfort	39,990 - 65,990
Dual Inverter Range of AC's	5 Star	Inverter Split Air Conditioners	Dual Inverter compressor, Fast cooling, High voltage safe, Monsoon comfort	46,990 - 100,990

Source: Industry, Company

### Chinese component manufacturers

- Chinese component manufacturers are extremely positive on the Indian HVAC industry and were widely seen in ACREX 2019, displaying copper tubes, heat exchangers, and condenser, compressors, sheet metals, injection molding machines, electric motors, and electronic components, among others.
- GREE, the world's largest contract manufacturer of air conditioners, along with a local partner, is setting up distribution channel for its components.
- All the Chinese components manufacturers showcased their latest offering, which include Digital scroll compressor, Refrigerant scroll condensing unit, single phase and three phase AC motors, and other key components for Air conditioner.

### Contract manufacturers

- Zamil Air Conditioners produces branded air conditioners under OEM agreements for several leading international brands. It is expanding its offerings into light commercial units.
- Whirlpool is one of its key clients. Zamil wants to expand its customer base and offerings for Indian markets.

### E-Durables

- E-Durables is one of the leading OEM manufacturers for air conditioners. It has a manufacturing capacity of 1.5mn units.
- Its key customers are Voltas, Havells, and Blue Star.

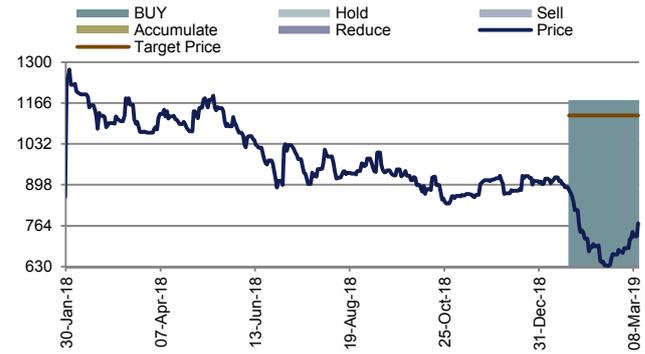
**Amber Enterprises**

**RECOMMENDATION HISTORY TABLE**

Date	Closing Price	TP	Period (months)	Rating	Analyst
11-Feb-19	700	1,126	12m	Buy	Naval Seth
21-Jan-19	880	1,126	12m	Buy	Naval Seth

Source: Company, Emkay Research

**RECOMMENDATION HISTORY CHART**



Source: Bloomberg, Company, Emkay Research

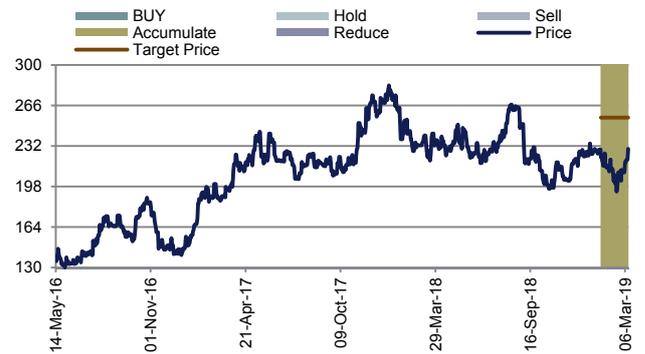
**Crompton Greaves CE**

**RECOMMENDATION HISTORY TABLE**

Date	Closing Price	TP	Period (months)	Rating	Analyst
30-Jan-19	216	256	12m	Accumulate	Naval Seth
21-Jan-19	223	256	12m	Accumulate	Naval Seth

Source: Company, Emkay Research

**RECOMMENDATION HISTORY CHART**



Source: Bloomberg, Company, Emkay Research

**Dixon technologies**

**RECOMMENDATION HISTORY TABLE**

Date	Closing Price	TP	Period (months)	Rating	Analyst
31-Jan-19	2,269	2,776	12m	Buy	Naval Seth
21-Jan-19	2,180	2,683	12m	Buy	Naval Seth

Source: Company, Emkay Research

**RECOMMENDATION HISTORY CHART**



Source: Bloomberg, Company, Emkay Research

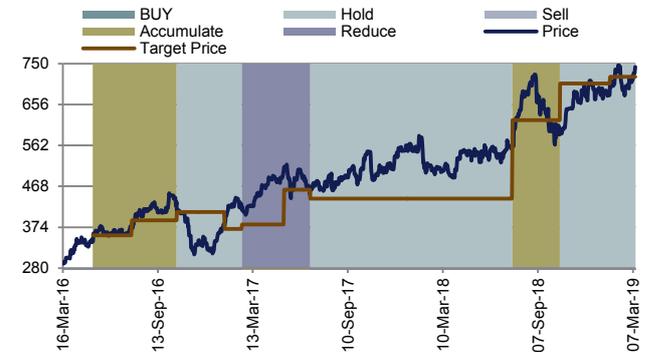
**Havells India**

**RECOMMENDATION HISTORY TABLE**

Date	Closing Price	TP	Period (months)	Rating	Analyst
22-Jan-19	712	720	12m	Hold	Naval Seth
19-Oct-18	597	705	12m	Hold	Naval Seth
19-Oct-18	597	620	12m	Accumulate	Naval Seth
20-Jul-18	560	620	12m	Accumulate	Naval Seth
19-Jul-17	467	440	12m	Hold	Dhaval Mehta
30-Jun-17	460	440	12m	Hold	Dhaval Mehta
11-May-17	513	460	12m	Reduce	Dhaval Mehta
20-Feb-17	413	380	12m	Reduce	Dhaval Mehta
18-Jan-17	379	370	12m	Hold	Dhaval Mehta
19-Oct-16	409	409	12m	Hold	Dhaval Mehta
25-Jul-16	381	390	12m	Accumulate	Dhaval Mehta
28-Jun-16	358	355	12m	Accumulate	Dhaval Mehta
12-May-16	342	355	12m	Accumulate	Prashant Kutty

Source: Company, Emkay Research

**RECOMMENDATION HISTORY CHART**



Source: Bloomberg, Company, Emkay Research

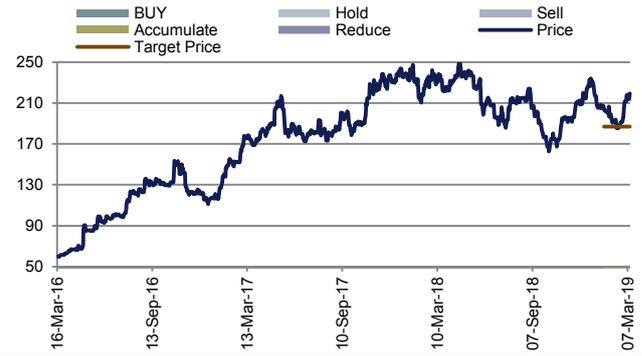
**V-Guard Industries**

**RECOMMENDATION HISTORY TABLE**

Date	Closing Price	TP	Period (months)	Rating	Analyst
01-Feb-19	199	187	12m	Reduce	Naval Seth
21-Jan-19	204	187	12m	Reduce	Naval Seth

Source: Company, Emkay Research

**RECOMMENDATION HISTORY CHART**



Source: Bloomberg, Company, Emkay Research

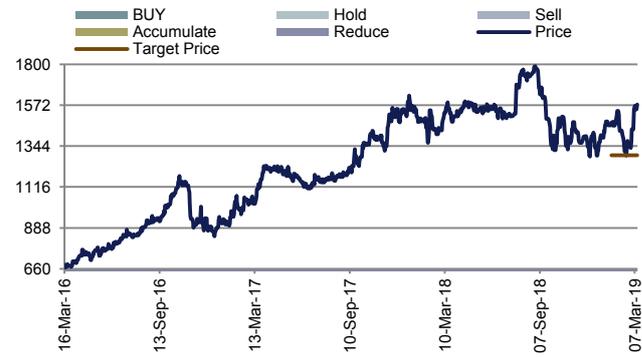
**Whirlpool of India**

**RECOMMENDATION HISTORY TABLE**

Date	Closing Price	TP	Period (months)	Rating	Analyst
08-Feb-19	1,430	1,293	12m	Reduce	Naval Seth
21-Jan-19	1,476	1,293	12m	Reduce	Naval Seth

Source: Company, Emkay Research

**RECOMMENDATION HISTORY CHART**



Source: Bloomberg, Company, Emkay Research

## Emkay Alpha Portfolio – Consumer Durables



### Analyst: Naval Seth

#### Contact Details

[naval.seth@emkayglobal.com](mailto:naval.seth@emkayglobal.com)

+91 22 66242414

#### Sector

Media, Telecom, Consumer Durables

#### Analyst bio

Naval holds an MBA in Finance and has more than 10 years of experience in equity research. His team currently covers 18 stocks spread across three different sectors.

#### EAP sector portfolio

Company Name	BSE200 Weight	EAP Weight	OW/UW (%)	OW/UW (bps)	EAP Weight (Normalized)
<b>Consumer Durables</b>	<b>0.54</b>	<b>0.43</b>	<b>-20%</b>	<b>-11</b>	<b>100</b>
Amber Enterprises	0.00	0.03	NA	3	5
Crompton Greaves CE	0.15	0.22	43%	6	40
Dixon Technologies	0.00	0.03	NA	3	5
Havells India	0.31	0.16	-48%	-15	30
V-Guard Industries	0.00	0.00	NA	0	0
Whirlpool Of India	0.08	0.00	-100%	-8	0

Source: Emkay Research

\* Not under coverage: Equal Weight

#### Sector portfolio NAV (for future addition)

#### Returns by EAP on rolling basis

Performance	NAV	3M	6M	12M
EAP - Consumer Durables	100			
BSE 200 weighted portfolio	100			

\*Formal performance measurement of EAP starts on 1<sup>st</sup> April 2019

Source: Emkay Research

## Emkay Rating Distribution

BUY	Expected total return (%) (Stock price appreciation and dividend yield) of over 25% within the next 12-18 months.
ACCUMULATE	Expected total return (%) (Stock price appreciation and dividend yield) of over 10% within the next 12-18 months.
HOLD	Expected total return (%) (Stock price appreciation and dividend yield) of upto 10% within the next 12-18 months.
REDUCE	Expected total return (%) (Stock price depreciation) of upto (-) 10% within the next 12-18 months.
SELL	The stock is believed to underperform the broad market indices or its related universe within the next 12-18 months.

Completed Date: 14 Mar 2019 14:14:00 (SGT)  
Dissemination Date: 14 Mar 2019 14:15:00 (SGT)

Sources for all charts and tables are Emkay Research unless otherwise specified.

### GENERAL DISCLOSURE/DISCLAIMER BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL):

Emkay Global Financial Services Limited (CIN-L67120MH1995PLC084899) and its affiliates are a full-service, brokerage, investment banking, investment management and financing group. Emkay Global Financial Services Limited (EGFSL) along with its affiliates are participants in virtually all securities trading markets in India. EGFSL was established in 1995 and is one of India's leading brokerage and distribution house. EGFSL is a corporate trading member of Bombay Stock Exchange Limited (BSE), National Stock Exchange of India Limited (NSE), MCX Stock Exchange Limited (MCX-SX). EGFSL along with its subsidiaries offers the most comprehensive avenues for investments and is engaged in the businesses including stock broking (Institutional and retail), merchant banking, commodity broking, depository participant, portfolio management, insurance broking and services rendered in connection with distribution of primary market issues and financial products like mutual funds, fixed deposits. Details of associates are available on our website i.e. [www.emkayglobal.com](http://www.emkayglobal.com)

EGFSL is registered as Research Analyst with SEBI bearing registration Number INH000000354 as per SEBI (Research Analysts) Regulations, 2014. EGFSL hereby declares that it has not defaulted with any stock exchange nor its activities were suspended by any stock exchange with whom it is registered in last five years, except that NSE had disabled EGFSL from trading on October 05, October 08 and October 09, 2012 for a manifest error resulting into a bonafide erroneous trade on October 05, 2012. However, SEBI and Stock Exchanges have conducted the routine inspection and based on their observations have issued advice letters or levied minor penalty on EGFSL for certain operational deviations in ordinary/routine course of business. EGFSL has not been debarred from doing business by any Stock Exchange / SEBI or any other authorities; nor has its certificate of registration been cancelled by SEBI at any point of time.

EGFSL offers research services to clients as well as prospects. The analyst for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report.

Other disclosures by Emkay Global Financial Services Limited (Research Entity) and its Research Analyst under SEBI (Research Analyst) Regulations, 2014 with reference to the subject company(s) covered in this report

EGFSL and/or its affiliates may seek investment banking or other business from the company or companies that are the subject of this material. Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients that reflect opinions that are contrary to the opinions expressed herein, and our proprietary trading and investing businesses may make investment decisions that may be inconsistent with the recommendations expressed herein. In reviewing these materials, you should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest including but not limited to those stated herein. Additionally, other important information regarding our relationships with the company or companies that are the subject of this material is provided herein. This report is not directed to, 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 or regulation or which would subject EGFSL or its group companies to any registration or licensing requirement within such jurisdiction. Specifically, this document does not constitute an offer to or solicitation to any U.S. person for the purchase or sale of any financial instrument or as an official confirmation of any transaction to any U.S. person. Unless otherwise stated, this message should not be construed as official confirmation of any transaction. No part of this document may be used by private customers in United Kingdom. All material presented in this report, unless specifically indicated otherwise, is under copyright to Emkay. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of EGFSL. All trademarks, service marks and logos used in this report are trademarks or registered trademarks of EGFSL or its Group Companies. The information contained herein is not intended for publication or distribution or circulation in any manner whatsoever and any unauthorized reading, dissemination, distribution or copying of this communication is prohibited unless otherwise expressly authorized. Please ensure that you have read "Risk Disclosure Document for Capital Market and Derivatives Segments" as prescribed by Securities and Exchange Board of India before investing in Indian Securities Market. In so far as this report includes current or historic information, it is believed to be reliable, although its accuracy and completeness cannot be guaranteed.

- This publication has not been reviewed or authorized by any regulatory authority. There is no planned schedule or frequency for updating research publication relating to any issuer.

- Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets

**Disclaimer for U.S. persons only:** This research report is a product of Emkay Global Financial Services Limited (Emkay), which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of Financial Institutions Regulatory Authority (FINRA) or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account. This report is intended for distribution to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a-6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor. In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors.

**GENERAL DISCLOSURE/DISCLAIMER BY DBS BANK LTD AS DISTRIBUTOR OF THE RESEARCH REPORT**

This report is solely intended for the clients of DBS Bank Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies. Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report. This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that: (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein. Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets. Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

**ANALYST CERTIFICATION BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL)**

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible of the content of this research report, in part or in whole, certifies that he or his associate<sup>1</sup> does not serve as an officer, director or employee of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant). The research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests<sup>2</sup> in relation to an issuer or a new listing applicant that the analyst reviews. EGFSL has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the EGFSL and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of EGFSL compensation to any specific investment banking function of the EGFSL.

<sup>1</sup> An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

<sup>2</sup> Financial interest is defined as interest that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at the arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

**COMPANY-SPECIFIC / REGULATORY DISCLOSURES BY EMKAY GLOBAL FINANCIAL SERVICES LIMITED (EGFSL):**

Disclosures by Emkay Global Financial Services Limited (Research Entity) and its Research Analyst under SEBI (Research Analyst) Regulations, 2014 with reference to the subject company(s) covered in this report:-

1. EGFSL, its subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of March 14, 2019
2. EGFSL, and/or Research Analyst does not market make in equity securities of the issuer(s) or company(ies) mentioned in this Research Report  
**Disclosure of previous investment recommendation produced:**
3. EGFSL may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by EGFSL in the preceding 12 months.
4. EGFSL, its subsidiaries and/or other affiliates and Research Analyst or his/her relative's does not have any material conflict of interest in the securities recommended in this report as of March 14, 2019.
5. EGFSL, its subsidiaries and/or other affiliates and Research Analyst or his/her relative's does not have actual/beneficial ownership of 1% or more securities of the subject company at the end of the month immediately preceding the March 14, 2019
6. EGFSL, its subsidiaries and/or other affiliates and Research Analyst have not received any compensation in whatever form including compensation for investment banking or merchant banking or brokerage services or for products or services other than investment banking or merchant banking or brokerage services from securities recommended in this report (subject company) in the past 12 months.
7. EGFSL, its subsidiaries and/or other affiliates and/or and Research Analyst have not received any compensation or other benefits from securities recommended in this report (subject company) or third party in connection with the research report.
8. Securities recommended in this report (Subject Company) has not been client of EGFSL, its subsidiaries and/or other affiliates and/or and Research Analyst during twelve months preceding the March 14, 2019

**COMPANY-SPECIFIC / REGULATORY DISCLOSURES BY DBS BANK LTD AS DISTRIBUTOR OF THE RESEARCH REPORT**

1. DBS Bank Ltd., DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or their subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of 30 Apr 2018.
2. Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

**Compensation for investment banking services:**

3. DBSVUSA, does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.

**Disclosure of previous investment recommendation produced:**

4. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.

**RESTRICTIONS ON DISTRIBUTION**

General	This report is not directed to, 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 or regulation.
Australia	This report is not for distribution into Australia.
Hong Kong	This report is not for distribution into Hong Kong.
Indonesia	This report is being distributed in Indonesia by PT DBS Vickers Sekuritas Indonesia.
Malaysia	This report is not for distribution into Malaysia.
Singapore	This report is distributed in Singapore by DBS Bank Ltd (Company Regn. No. 16800306E) or DBSVS (Company Regn. No. 1860024G) both of which are Exempt Financial Advisers as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. DBS Bank Ltd and/or DBSVS, may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an agreement under Regulation 32C of the financial Advisers Regulations. Singapore recipients should contact DBS Bank Ltd at 6327 2288 for matters arising from, or in connection with the report.
Thailand	This report is being distributed in Thailand by DBS Vickers Securities (Thailand) Co Ltd.
United Kingdom	This report is disseminated in the United Kingdom by DBS Vickers Securities (UK) Ltd, ("DBSVUK"). DBSVUK is authorised and regulated by the Financial Conduct Authority in the United Kingdom. In respect of the United Kingdom, this report is solely intended for the clients of DBSVUK, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBSVUK. This communication is directed at persons having professional experience in matters relating to investments. Any investment activity following from this communication will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this communication.
Dubai International Financial Centre	This research report is being distributed by DBS Bank Ltd., (DIFC Branch) having its office at units 608-610, 6 <sup>th</sup> Floor, Gate Precinct Building 5, PO Box 506538, Dubai International Financial Centre (DIFC), Dubai, United Arab Emirates. DBS Bank Ltd., (DIFC Branch) is regulated by The Dubai Financial Services Authority. This research report is intended only for professional clients (as defined in the DFSA rulebook) and no other person may act upon it.
United Arab Emirates	This report is provided by DBS Bank Ltd (Company Regn. No. 196800306E) which is an Exempt Financial Adviser as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. This report is for information purposes only and should not be relied upon or acted on by the recipient or considered as a solicitation or inducement to buy or sell any financial product. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situation, or needs of individual clients. You should contact your relationship manager or investment adviser if you need advice on the merits of buying, selling or holding a particular investment. You should note that the information in this report may be out of date and it is not represented or warranted to be accurate, timely or complete. This report or any portion thereof may not be reprinted, sold or redistributed without our written consent.
United States	DBSVUSA did not participate in its preparation. The research analyst(s) named on this report are not registered as research analysts with FINRA and are not associated persons of DBSVUSA. The research analyst(s) are not subject to FINRA Rule 2241 restrictions on analyst compensation, communications with a subject company, public appearances and trading securities held by a research analyst. This report is being distributed in the United States by DBSVUSA, which accepts responsibility for its contents. This report may only be distributed to Major U.S. Institutional Investors (as defined in SEC Rule 15a-6) and to such other institutional investors and qualified persons as DBSVUSA may authorize. Any U.S. person receiving this report who wishes to effect transactions in any securities referred to herein should contact DBSVUSA directly and not its affiliate.
Other jurisdictions	In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

**Emkay Global Financial Services Ltd.**

CIN - L67120MH1995PLC084899

7th Floor, The Ruby, Senapati Bapat Marg, Dadar - West, Mumbai - 400028. India

Tel: +91 22 66121212 Fax: +91 22 66121299 Web: [www.emkayglobal.com](http://www.emkayglobal.com)

**SINGAPORE****DBS Bank Ltd**

Contact: Janice Chua  
12 Marina Boulevard, Marina Bay Financial Centre Tower 3  
Singapore 018982  
Tel. 65-6878 8888  
Fax: 65 65353 418  
e-mail: [equityresearch@dbs.com](mailto:equityresearch@dbs.com)  
Company Regn. No. 196800306E

---

**THAILAND****DBS Vickers Securities (Thailand) Co Ltd**

Contact: Chanpen Sirithanarattanakul  
989 Siam Piwat Tower Building,  
9<sup>th</sup>, 14<sup>th</sup>-15<sup>th</sup> Floor  
Rama 1 Road, Pathumwan,  
Nagkok Thailand 10330  
Tel. 66 2 857 7831  
Fax: 66 2 658 1269  
e-mail: [research@th.dbs.com](mailto:research@th.dbs.com)  
Company Regn. No 0105539127012  
Securities and Exchange Commission, Thailand

---

**INDONESIA****PT DBS Vickers Sekuritas (Indonesia)**

Contact: Maynard Priajaya Arif  
DBS Bank Tower  
Ciputra World 1, 32/F  
Jl. Prof. Dr. Satrio Kav. 3-5  
Jakarta 12940, Indonesia  
Tel. 62 21 3003 4900  
Fax: 62 21 3003 4943  
e-mail: [research@id.dbsvickers.com](mailto:research@id.dbsvickers.com)

---



Naval Seth, MBA

naval.seth@emkayglobal.com

+91 22 6624 2414