

## India

**ADD** (Initiating coverage)

Consensus ratings*:	Buy 13 Hold 2 Sell 1
Current price:	Rs744
Target price:	Rs871
Previous target:	NA
Up/downside:	17.1%
EIP Research / Consensus:	-9.8%
Reuters:	CORF.NS
Bloomberg:	CRIN IN
Market cap:	US\$2,928m Rs2,18,332m
Average daily turnover:	US\$6.4m Rs477.7m
Current shares o/s:	293.0m
Free float:	42.4%

\*Source: Bloomberg



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	(5.2)	(8.4)	47.4
Relative (%)	(3.8)	(10.1)	(11.3)

Major shareholders	% held
Promoter & Promoter Group	57.6
DSP Equity & Bond Fund	3.7
Kotak ESG Opportunities Fund	2.8

**Analyst(s)**

**Satish KUMAR**

T (91) 9004603998

E satish.kumar@incredcapital.com

**Shaily RUPARELIA**

T 22 4161 1556

E shaily.ruparelia@incredcapital.com

# Coromandel International Ltd

## Diversified entity with favourable valuations

- We forecast EPS growth of 10.4% CAGR over FY21-23F, RoE of 23% (FY23F) and balance sheet gearing to fall from 0.36x in FY20 to -0.04x in FY23F.
- We expect crop protection chemicals (CPC) to drive near-term growth. We forecast CPC revenue growth at 15% CAGR over FY21-23F.
- We value CIL at long-term mean valuation of 15.61x FY23F EPS. We initiate coverage with an Add rating and TP of Rs871.

### A fertiliser major, but CPC to drive future growth

Coromandel International Limited (CIL) is a phosphatic fertiliser, agrochemical (crop protection chemical products or CPC), and plant nutrient manufacturer. We forecast that 70% of its revenue will come from the fertiliser business and 30% from the agrochemicals/plant nutrient business by FY23F. We forecast 5% growth over FY21-23F in in-house production of phosphatic fertilisers. After dipping (6% decline vis-à-vis FY21F) in FY22F, CIL's EBITDA/t will likely rise to Rs4,500/t in FY23F. CPC segment growth will be driven by Neemzal (Azadirachta Indica) and Malathion. In the government's direct benefit transfer (DBT) scheme, the soil health card is linked to the farmer's Aadhar card (a government-issued identity card), with which he can buy subsidised fertilisers. If the government starts penalising users for excess urea usage by not giving them the subsidy on more than required consumption (as per the soil health card) and advises (much needed) complex fertiliser usage, then complex fertiliser usage will increase at a higher-than-estimated low single digit (we assume 5% CAGR), which represents an option value not built into our TP.

### CPC likely to drive growth in coming years

CIL principally manufactures the CPCs – Mancozeb, Malathion, Profenophos, Acephate, Propineb, Phenthoate and Pymetrozine. CIL sells multiple formulations with bought-out chemicals. Historically, Mancozeb has driven 50% of CIL's CPC revenue (Source: CIL's earnings conference call), but going forward Malathion is likely to be the key growth driver. CropLife India has identified Malathion as a key insecticide to deal with desert locust attacks on plants. With changing weather patterns, the chances of locust attacks are increasing, hence, Malathion usage is likely to increase in our view.

### We value CIL at LT mean P/E of 15.6x; initiate with Add & Rs871 TP

We value CIL at a long-term (LT) mean valuation of 15.61x FY23F EPS to arrive at a TP of Rs871. We forecast 15% revenue growth in the CPC segment and overall revenue growth of 8.3% CAGR over FY21-23F. EPS growth of 10.4% CAGR over FY21-23F, and FY23F RoE of 23% justify this valuation. We forecast debt/equity ratio to reduce to -0.04x in FY23F from 0.36x in FY20. Risks: 1) Our EPS growth assumption depends heavily on Malathion. Malathion is increasingly used to save plants from desert locust attacks. Any change in weather, eliminating the risk of desert locusts, will be negative for Malathion. 2) We have assumed that the phosphatic fertiliser industry would be able to pass on the increased costs in 1QFY22F. Any delay in the same will be negative for our EPS.

Financial Summary	Mar-19A	Mar-20A	Mar-21F	Mar-22F	Mar-23F
Revenue (Rsm)	1,32,246	1,31,367	1,44,909	1,57,108	1,70,114
Operating EBITDA (Rsm)	14,431	17,310	20,273	22,152	23,986
Net Profit (Rsm)	7,200	10,651	12,904	14,890	16,191
Core EPS (Rs)	25.2	36.4	44.0	50.8	55.3
Core EPS Growth	6.1%	44.6%	21.1%	15.4%	8.7%
FD Core P/E (x)	30.23	20.46	16.90	14.64	13.47
DPS (Rs)	6.5	12.0	13.0	14.5	14.5
Dividend Yield	0.87%	1.61%	1.75%	1.95%	1.95%
EV/EBITDA (x)	16.91	13.37	11.16	9.96	8.88
P/FCFE (x)	135.26	77.09	36.78	41.29	20.77
Net Gearing	83.2%	35.8%	19.5%	7.4%	(3.9%)
P/BV (x)	6.48	5.05	4.11	3.44	2.89
ROE	23.5%	27.8%	26.8%	25.6%	23.3%
% Change In Core EPS Estimates					
EIP Research/Consensus EPS (x)			0.92	1.00	0.99

SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS, PRICED AS AT 07 APR 2021

## Diversified entity with favourable valuations

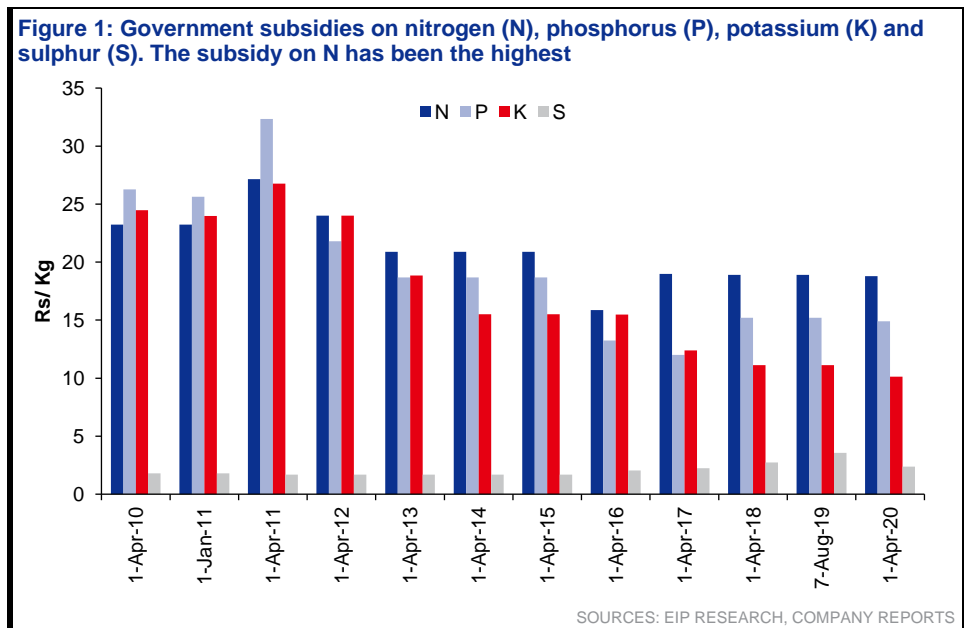
Coromandel International Limited, India's second largest phosphatic fertiliser player, is in the business segments of fertilisers, specialty nutrients, crop protection and retail. The company manufactures a wide range of fertilisers and markets around 4.5mt (Source: Company website), making it a leader in its addressable markets.

Coromandel has also introduced a range of specialty nutrient products, including organic fertilisers. The crop protection business produces insecticides, fungicides and herbicides and markets these products in India and globally. Coromandel is the second largest manufacturer of Malathion in Asia and only the second manufacturer of Phenthoate. Coromandel has also ventured into the retail business, setting up around 800 rural retail centres in the Indian states of Andhra Pradesh, Telangana, Karnataka and Maharashtra.

### Business analysis: Fertilisers

#### Urea is the most subsidised fertiliser in India ➤

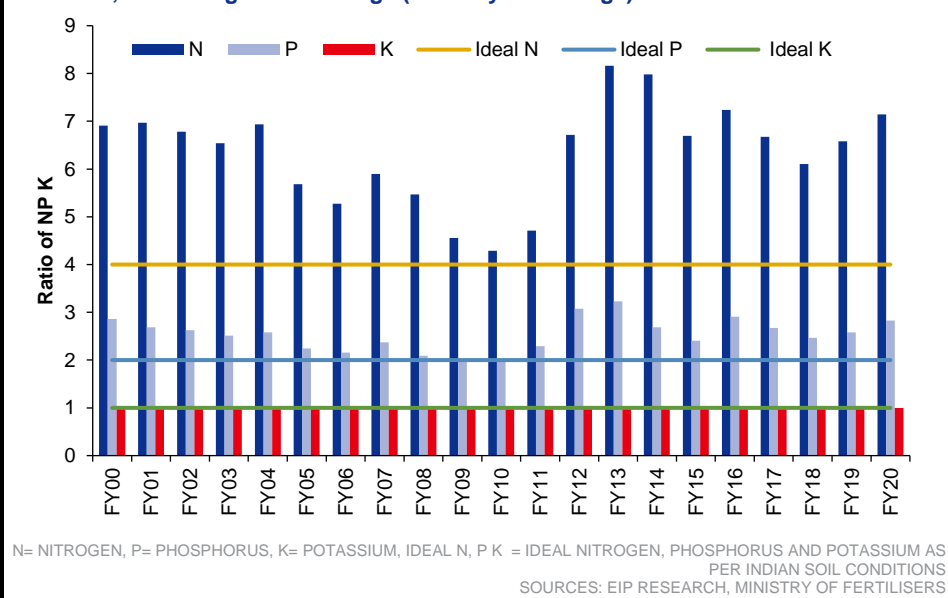
Urea is the primary source of nitrogen for Indian farmers. Over the years the Indian government has subsidised urea heavily.



**Fertiliser usage in India is skewed towards urea ➤**

High subsidy leads to skewed usage of urea by the Indian farmer.

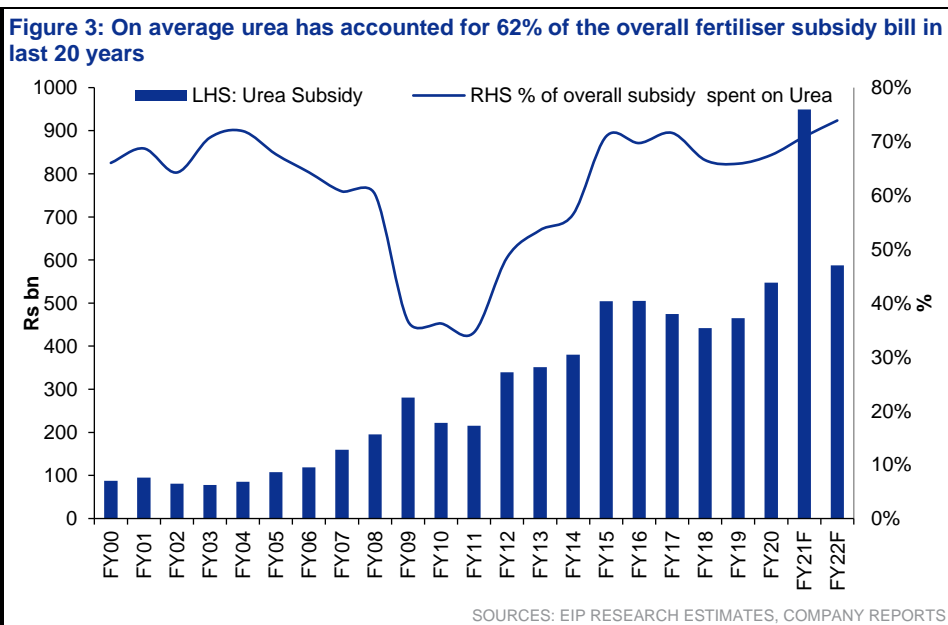
**Figure 2: While the ideal ratio of N:P:K is 4:2:1 as per the average Indian soil construct, the average Indian usage (last 20-year average) was 6.35:2.53:1**



**Urea is sold on fixed retail price, but other fertilisers have defined subsidies and retail prices are not fixed ➤**

Urea is sold at a fixed retail price to Indian farmers. Every company’s cost sheet (fixed + variable) is submitted to the government. The government gives every producer 12% margin on this cost. Also, the government gives fixed subsidies on P, K and S fertilisers.

**Fixed retail price has resulted in huge urea subsidies by the Indian government ➤**

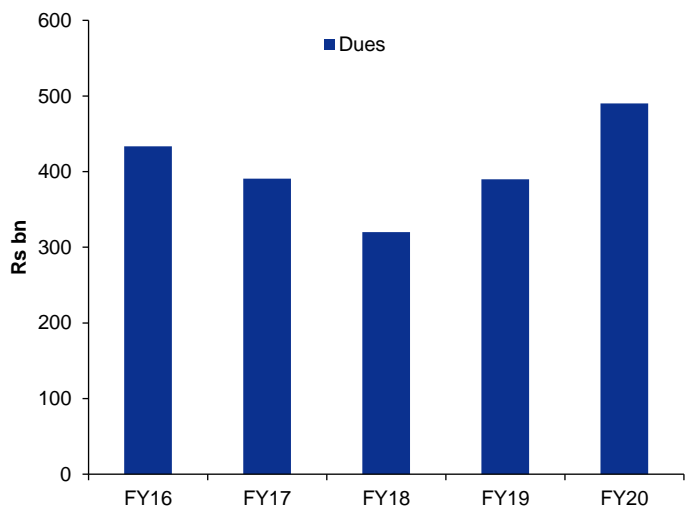


**Reckless use of fertilisers (by farmers) raises the subsidy bill and often creates huge receivables for fertiliser companies, in our view ➤**

With the implementation of the direct benefit transfer (DBT) scheme for the fertiliser sector all over India from Mar 2018, subsidy payments were supposed to

be made on a weekly basis. But, this has not happened due to budget constraints for the government of India. The government said (Source: The Hindu newspaper) it would clear all previous dues before implementing the DBT system's present model to facilitate its smooth functioning. However, this assurance was not fulfilled, again due to budget constraints. The current outstanding dues comprise those under the DBT and those pending from the period preceding the DBT's implementation.

**Figure 4: Fertiliser subsidy dues have not reduced**



SOURCES: EIP RESEARCH, FERTILISER ASSOCIATION OF INDIA ANNUAL REPORT 2019-20

**Figure 5: The table for FY19 shows earlier years' dues plus dues in the DBT**

Particulars	Amount in Rs bn
(A) Under DBT System	
i. Bill generated but not paid	162.43
ii. Bill could not be generated	37.82
Sub Total	200.25
(B) Other than DBT including previous years	
i. Bill generated but not paid	76.62
ii. Bill could not be generated	113.66
Sub Total	190.28
(C) DBT + Non DBT	
i. Bill generated but not paid	239.05
ii. Bill could not be generated	151.48
Total (A+B)	390.53

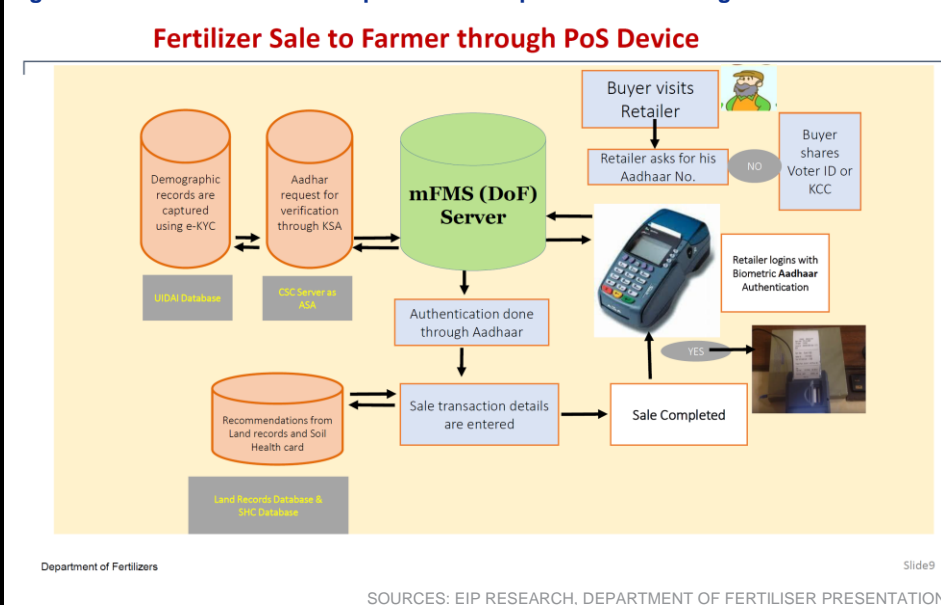
SOURCES: EIP RESEARCH, FERTILISER ASSOCIATION OF INDIA ANNUAL REPORT 2019-20

**Soil health card is a welcome step in educating farmers about their fields' nutrient requirements ➤**

The Indian government has come up with a soil health card scheme. The soil of every farmer's field is analysed and a health card issued on that basis. This health card is meant to help farmers decide on the nutrient requirements of their fields. The health card helps the farmer decide the N:P:K ratio of the fertiliser needed for his field. However, heeding the advice is not mandatory and often farmers ignore this advice and use excess urea in their fields.

**DBT construct is simple, and mostly seamlessly adopted across India ➤**

**Figure 6: DBT's construct is simple and can capture fertiliser usage data**

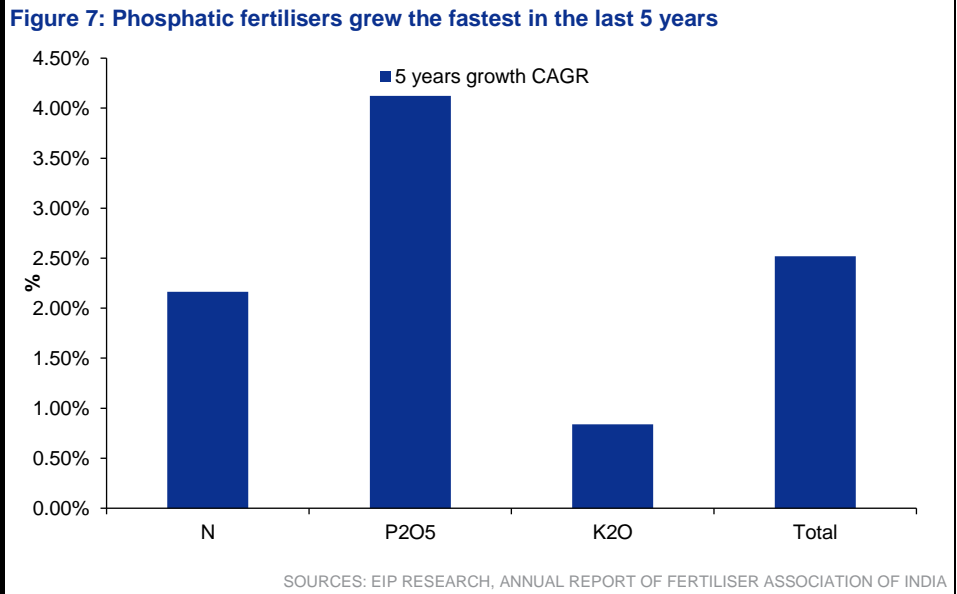


SOURCES: EIP RESEARCH, DEPARTMENT OF FERTILISER PRESENTATION

**DBT will be successful if it uses the soil card and Aadhar data – farmers will be forced to use fertilisers in the right proportions >**

At present the Indian government follows a no-restriction-on-purchase policy, but at some point we believe it will have to force farmers to use the right amount of urea for the soil. Overusing urea causes financial burden and loss of productivity.

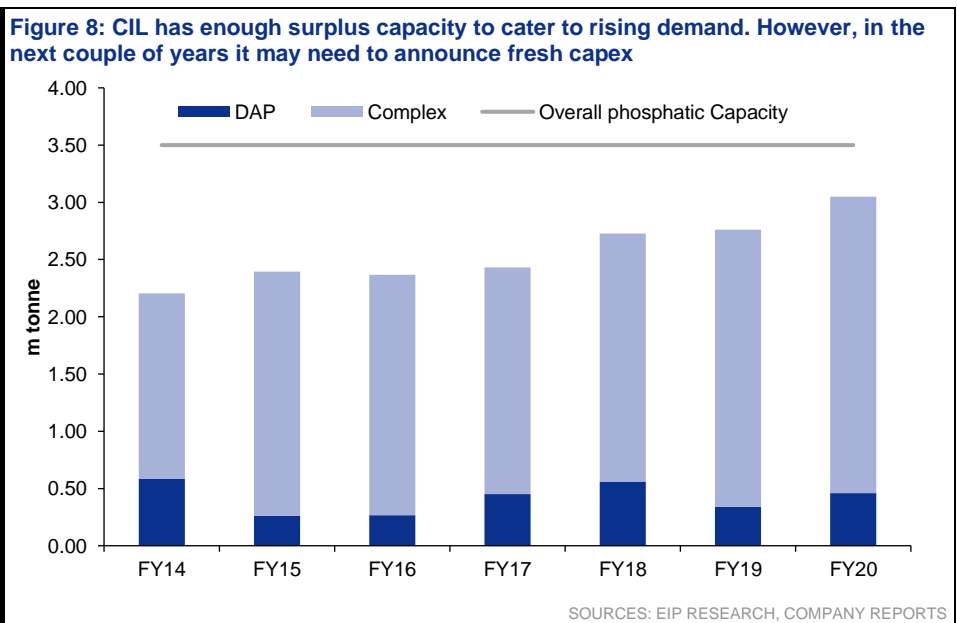
**Phosphatic and potash-based fertilisers (CIL’s main products) are growing faster than urea >**



**Coramandel manufactures P, K and S fertilisers >**

Coromandel manufactures diammonium phosphate (DAP), P<sub>2</sub>O<sub>5</sub> or simply P, K<sub>2</sub>O or K and SSP (single super phosphate or S). Coromandel’s overall manufacturing capacity is 4.5mt per annum. The phosphatic and potassium-based fertiliser capacity is 3.5mt, whereas SSP’s capacity is 1mt.

**Much of CIL’s sales is in phosphatic (DAP or complex) fertilisers >**



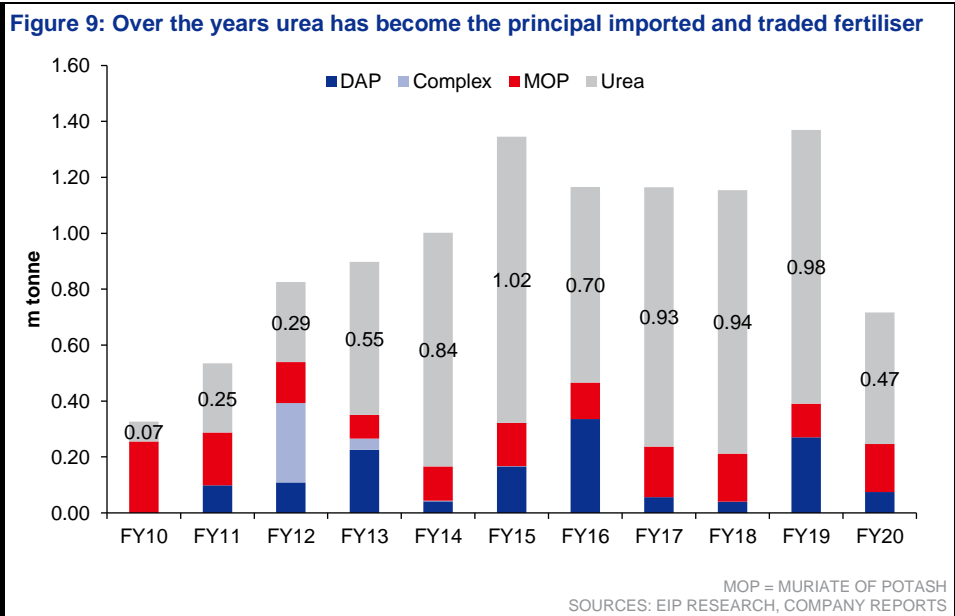
**Company imports most of its raw materials ➤**

To manufacture phosphatic fertilisers DAP, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O<sub>5</sub>, the company requires the following raw materials:

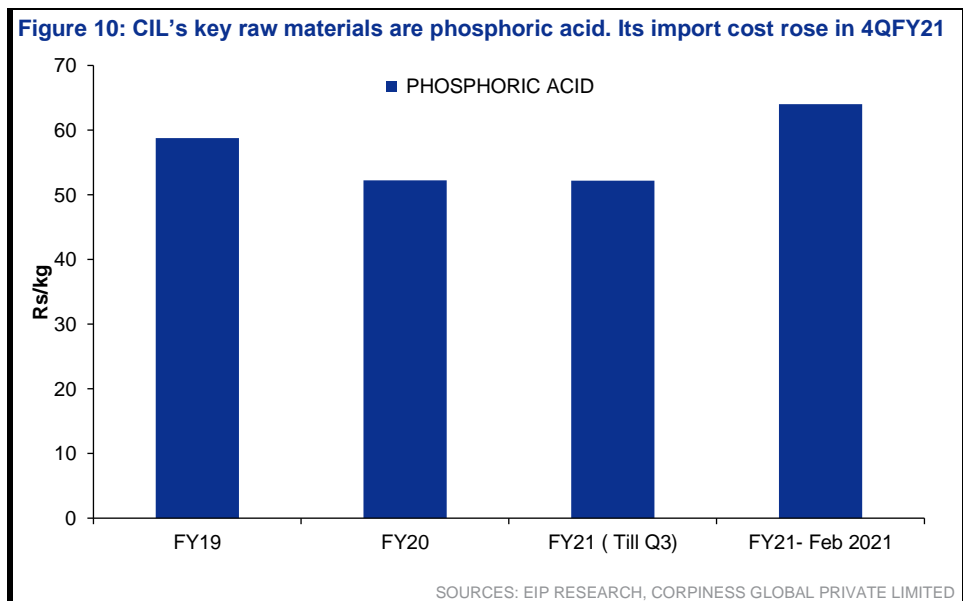
1. Phosphoric acid (H<sub>3</sub>PO<sub>4</sub>)
2. Rock phosphate
3. Frozen Ammonia
4. Potash

CIL has 0.4mt of H<sub>3</sub>PO<sub>4</sub>-making capacity, whereas the requirement of acid is around 0.85m-0.9mt. CIL also imports rock phosphate or potash as India does not have any significant production capacities for these.

**CIL trades imported urea, DAP, complex fertilisers and MOP ➤**

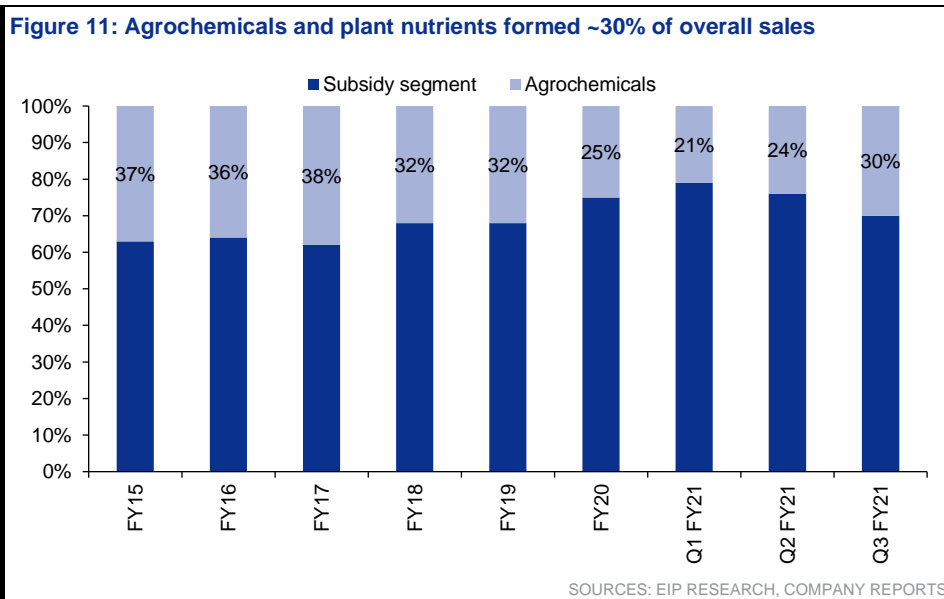


**Rising imported raw material costs could hurt CIL's profits ➤**



## Business analysis: Agrochemicals

CIL's revenue from agrochemicals and other plant nutrients was ~30% of overall sales till 3QFY21 ➤



CIL sells nearly 45 active ingredients in agrochemicals ➤

**Figure 12: CIL's agrochemical active ingredients (AAI)**

Fungicides	Herbicides	Insecticides
Propineb	Metsulfuron Methyl	Carbosulfan
Tricyclazole	Chlorimuron Ethyl	Profenofos
Azoxystrobin	Pendimethalin	Cypermethrin
Benomyl	Imazethapyr	Emamectin Benzoate
Metiram	Glyphosate	Bifenthrin
Pyraclostrobin	Metribuzin	Chlorpyrifos
Hexaconazole	Pretilachlor	Malathion
Thiophanate Methyl	Imazamox	Hexythiazox
Chlorothalonil	Clodinafop	Diafenthiuron
Carbendazim	Paraquat	Chlorpyrifos
Mancozeb		Cartap
Dimethomorph		Dichlorvos
Propiconazole		Buprofezin
Carbendazim		Thiomethoxam
		Acephate
		Monocrotophos
		Imidacloprid
		Permethrin
		Phenthoate
		Fipronil
		Acetamiprid
		Chlorpyrifos
		Terbufos

SOURCES: EIP RESEARCH, COMPANY REPORTS

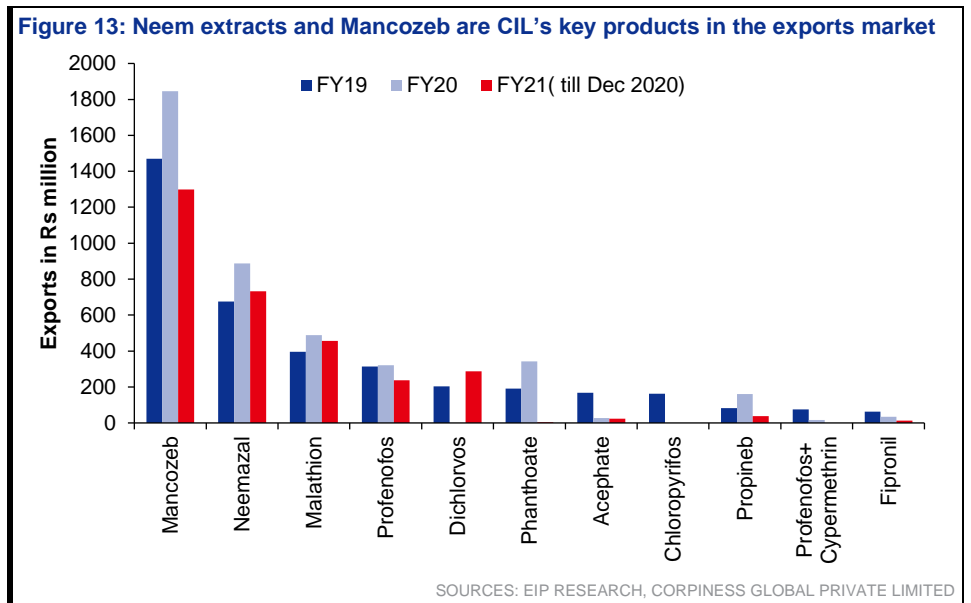
**Mancozeb is CIL’s principal chemical ➤**

In its 4QFY18 earnings conference call, the company mentioned that Mancozeb formed about 50% of its agrochemical business in FY18.

**Coromandel also sells plant nutrients, and is a pioneer in using ‘neem’ (Azadirachta Indica) ➤**

Neem, or Azadirachta Indica and also called Margosa, is a fast-growing tree of the mahogany family (Meliaceae) and is valued as a medicinal plant and as a source of organic pesticides. Indians have used this tree for centuries because of its medicinal properties. Coromandel pioneered the use of neem as a bio pesticide in India.

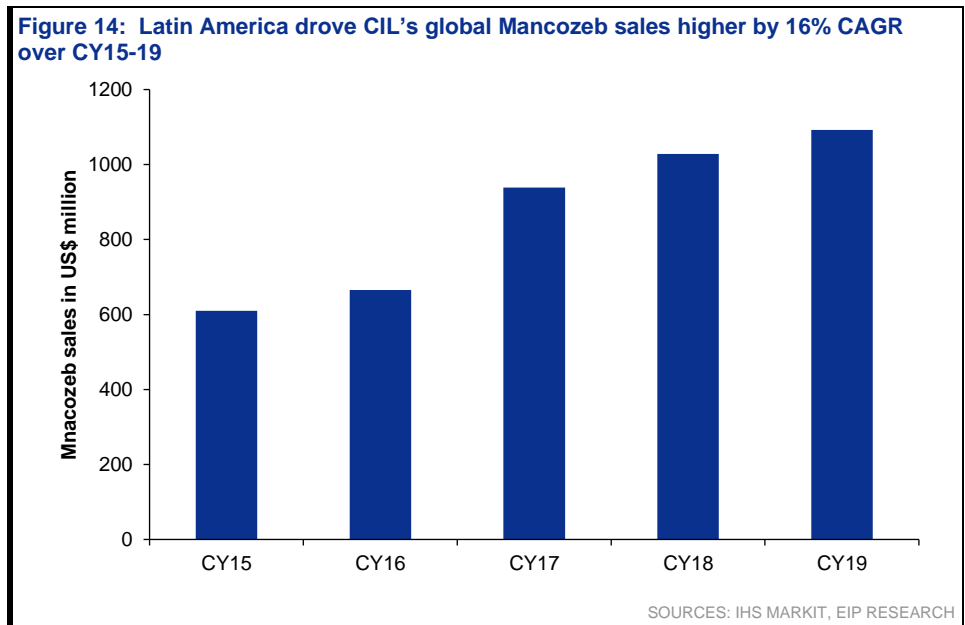
**CIL exports neem extracts and Mancozeb products ➤**





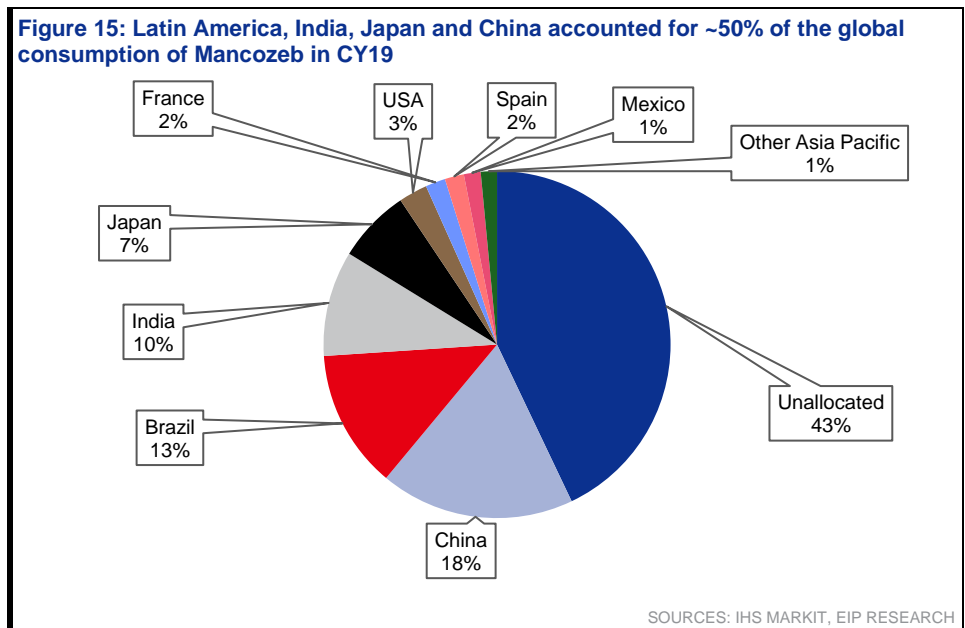
**Mancozeb global sales increased 16% CAGR over CY15-19**

**Figure 14: Latin America drove CIL's global Mancozeb sales higher by 16% CAGR over CY15-19**



**Latin America, India, Japan and China led Mancozeb consumption (CY19)**

**Figure 15: Latin America, India, Japan and China accounted for ~50% of the global consumption of Mancozeb in CY19**

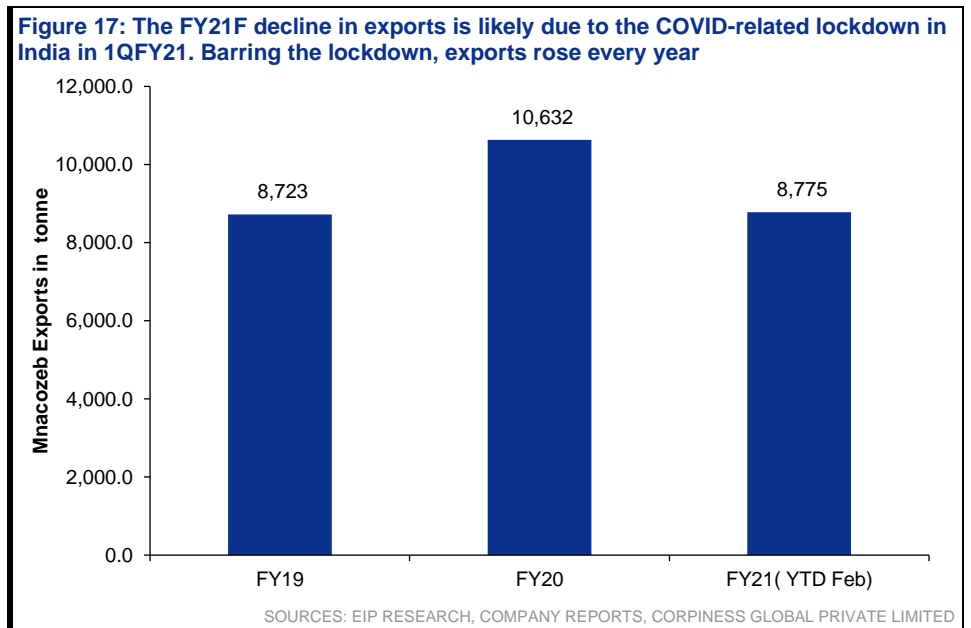


**India, China and Japan were the highest growth regions in value terms for Mancozeb in the last 3 years ➤**

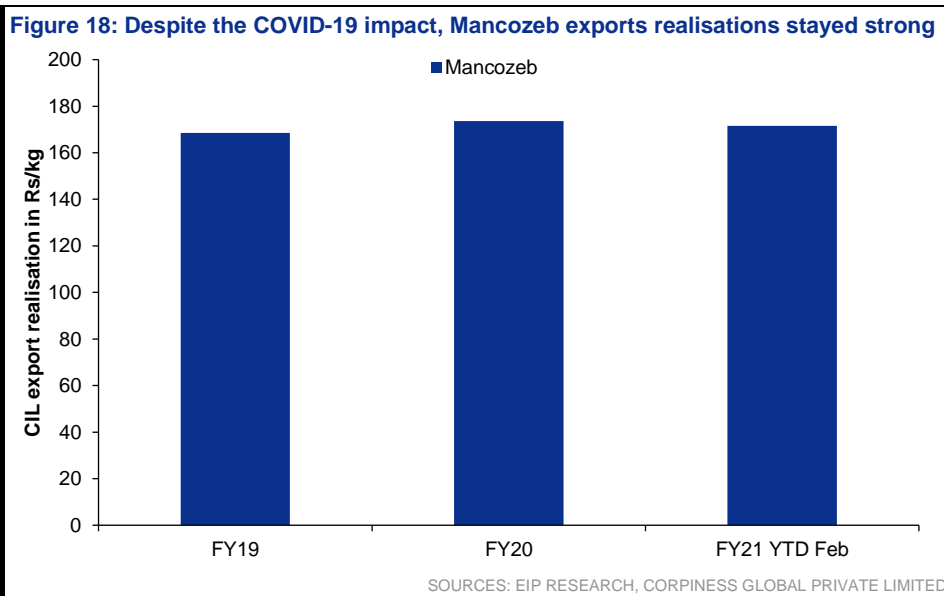


**CIL’s Mancozeb exports are rising ➤**

CIL exported about 10.6k tonnes of Mancozeb in the pure form during FY20. Mancozeb formulation exports were over 10.6kt. CIL’s overall Mancozeb production capacity is 35kt per annum.



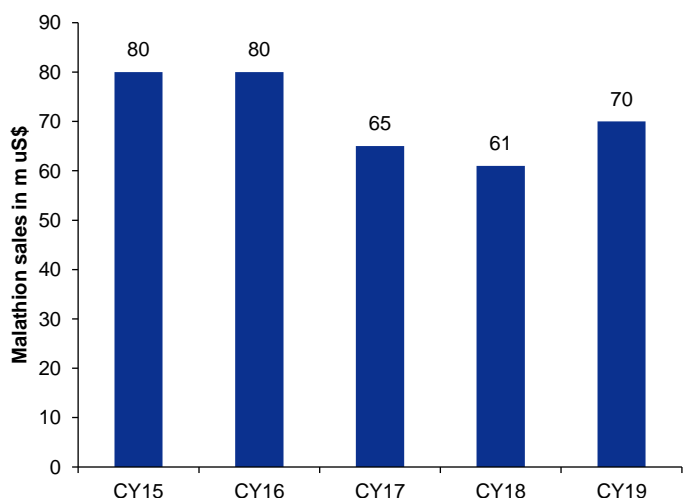
**Mancozeb exports realisations remained firm for CIL, even in COVID-impacted FY21 (YTD Feb 2021) ➤**



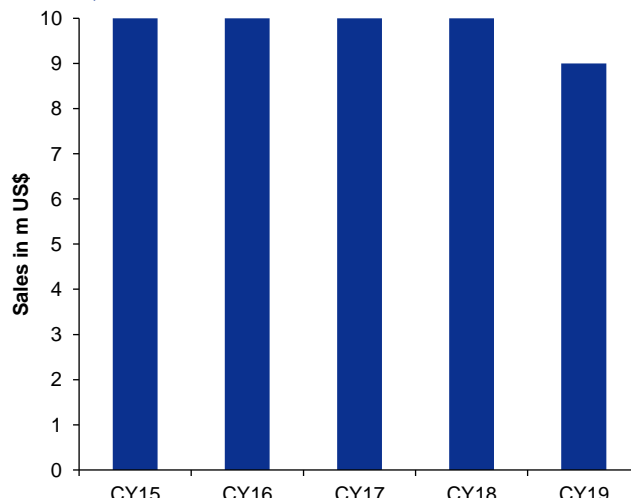
**Malathion and Phenthoate are the other important agrochemicals for CIL ➤**

- We believe Malathion may have done well in India in 2020 as the government carried out locust control operations in over 275,000ha in nine northern, central and western Indian states since 11 Apr 2020. CropLife India (<http://croplifeindia.org/>) had suggested the use of Food and Agriculture Organization-recommended pesticides, which include Malathion.
- Both Malathion and Phenthoate are broad-spectrum commodity-grade organophosphorus insecticides.
- Malathion gained US Environmental Protection Agency registration in 2010 as Fyfanon Plus ULV, a mixture with gamma-cyhalothrin, for use on cotton. It is being phased out in New Zealand, but has been approved in Canada subject to effecting certain risk-mitigation measures.

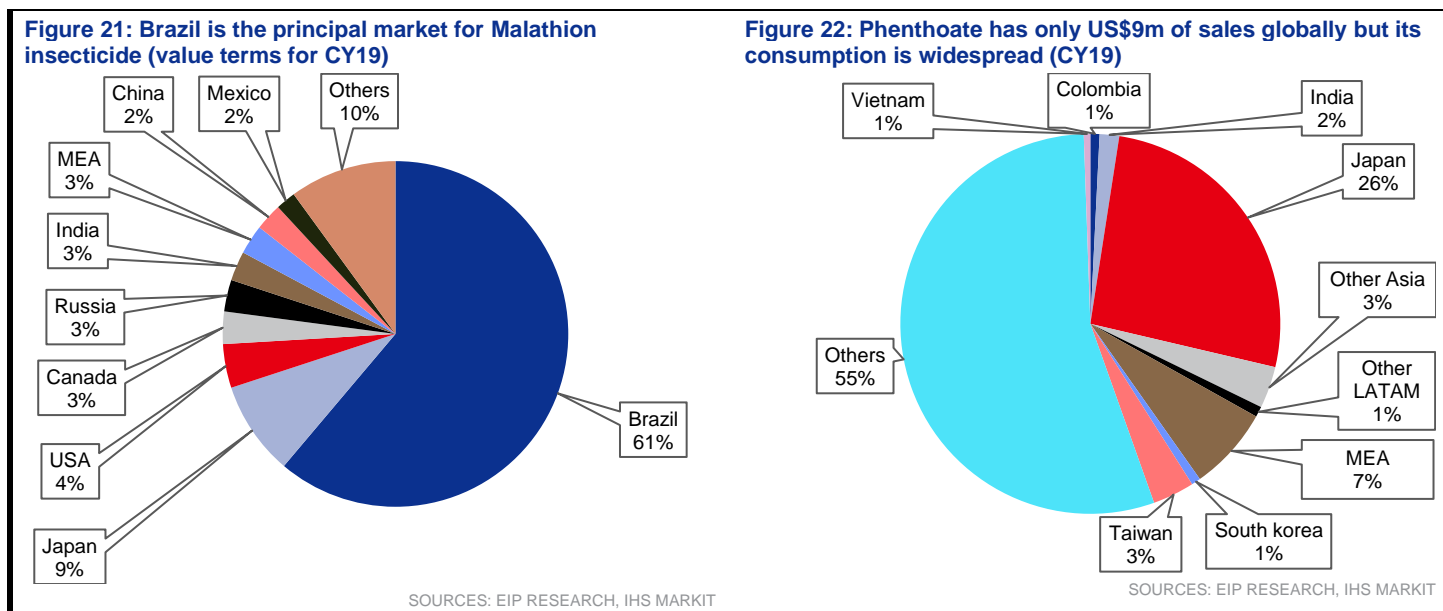
**Figure 19: Coromandel is the second-largest producer of the insecticide Malathion in Asia**



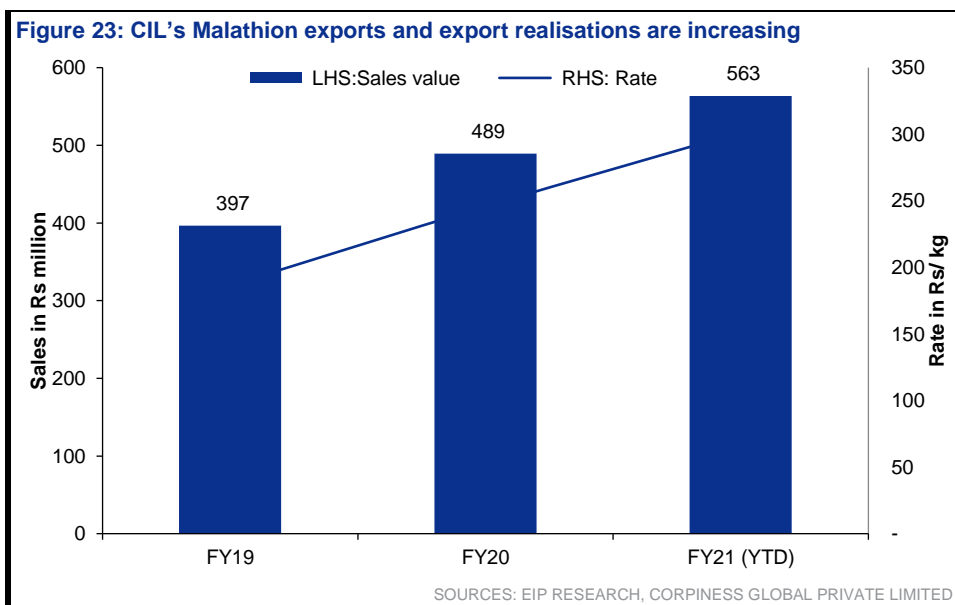
**Figure 20: Phenthoate is also an old (launched 1961) insecticide, however it has not done well in terms of sales**



**Malathion & Phenthoate are important agrochemicals for CIL ➤**



**CIL is doing well in Malathion exports – realisations and sales value are rising ➤**



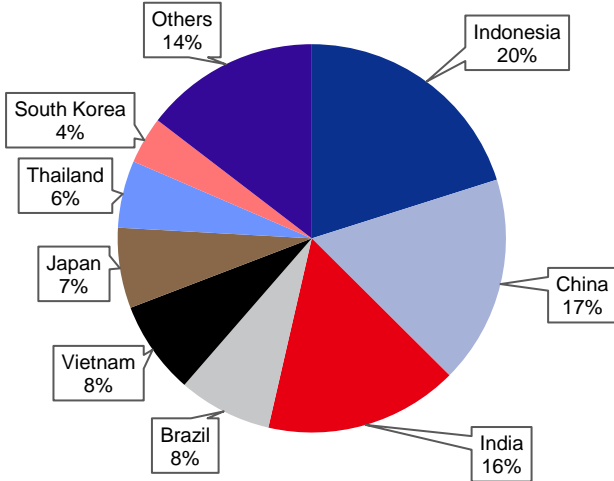
**Malathion is the recommended pesticide to deal with locust attacks – another positive for its consumption ➤**

Global climate change is leading to widespread locust attacks. In 2020, locust swarms that were thought to have originated in Southern Iran due to the Indian Ocean Dipole (a meteorological phenomenon), which caused warmer waters to its west and cooler waters to its east. Scientists expect that rising sea temperatures due to increased greenhouse gas emissions to create more favourable conditions for locust swarms in the coming years. In Mar 2021, India delivered 20,000 litres of the pesticide Malathion to Iran to mount a coordinated regional response to the threat the desert locusts posed. These conditions are favourable for widespread usage of Malathion and positive for CIL.

**Propineb is another big molecule for Coromandel ➤**

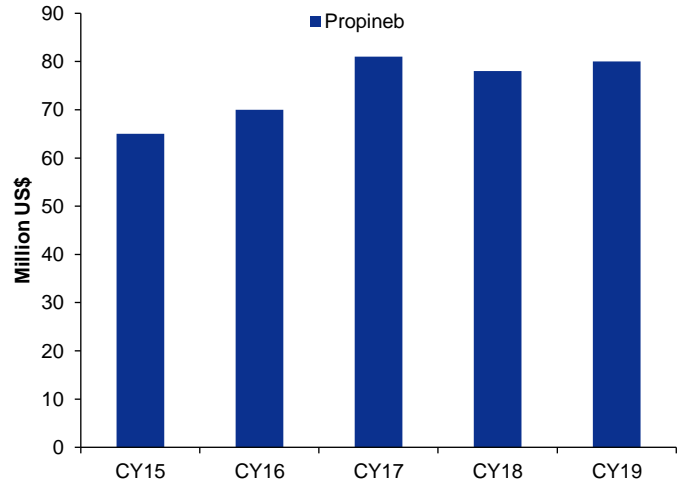
Propineb is mainly used to control downy mildew on vines, scabs on pome fruit and early and late blight on potatoes, as well as other Alternaria and Phytophthora diseases on fruit and vegetables. Bayer is the key manufacturer of this fungicide. In India, apart from Coromandel, Dhanuka Agritech (Reduce, TP Rs689, CMP Rs736) is the key manufacturer of the agrochemical.

**Figure 24: India, China & Indonesia are Propineb’s main users (for CY19 in value terms)**



SOURCES: COMPANY REPORTS, IHS MARKIT

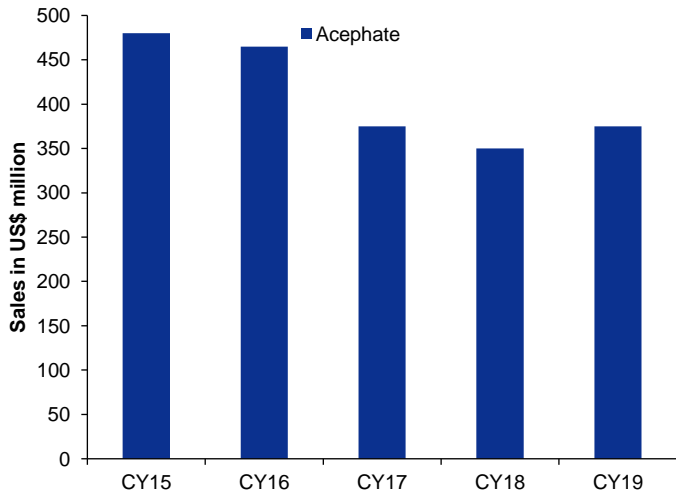
**Figure 25: Propineb’s global sales grew 5.3% CAGR in CY15-19**



SOURCES: COMPANY REPORTS, IHS MARKIT

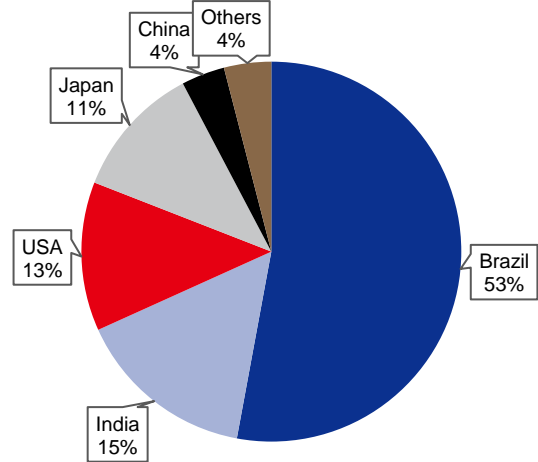
**Coromandel also manufactures acephate, which is quite popular in India and has a decent export market ➤**

**Figure 26: Acephate’s global sales fell 10% CAGR over CY15-19**



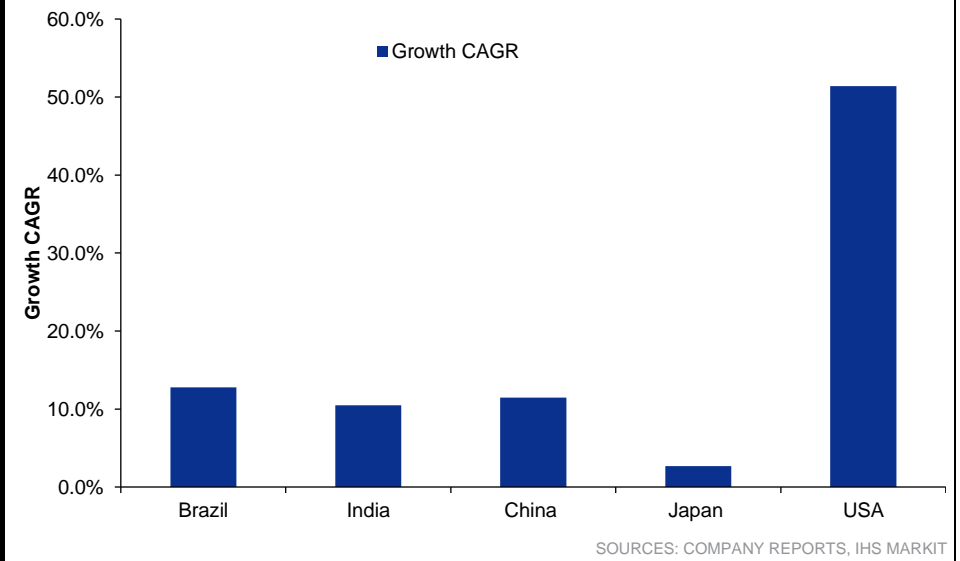
SOURCES: COMPANY REPORTS, IHS MARKIT

**Figure 27: After Brazil, India is the second largest user of Acephate, while the US is the 3<sup>rd</sup> and Japan the 4<sup>th</sup> (CY19)**



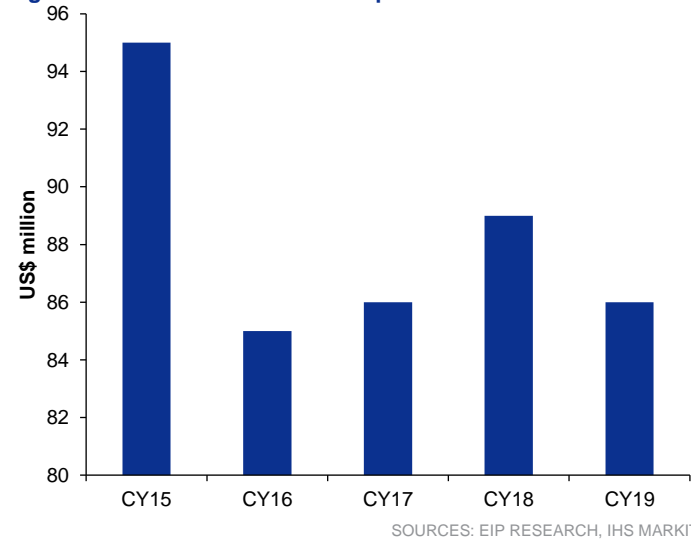
SOURCES: COMPANY REPORTS, IHS MARKIT

**Figure 28: US sales (in value terms) of Acephate grew at more than 50% CAGR for CY17-CY19, while India and Brazil grew at 13%/ 10% respectively for CY17-CY19**

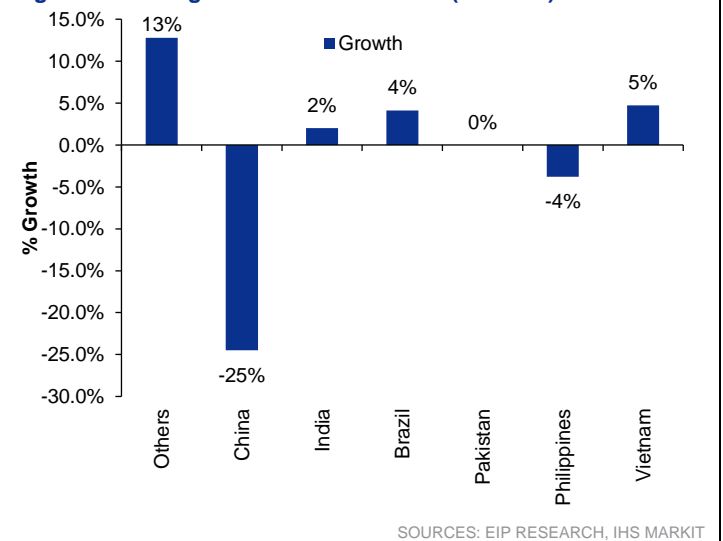


**Profenophos (Coromandel is a manufacturer) is not doing well in the global or Indian markets ➤**

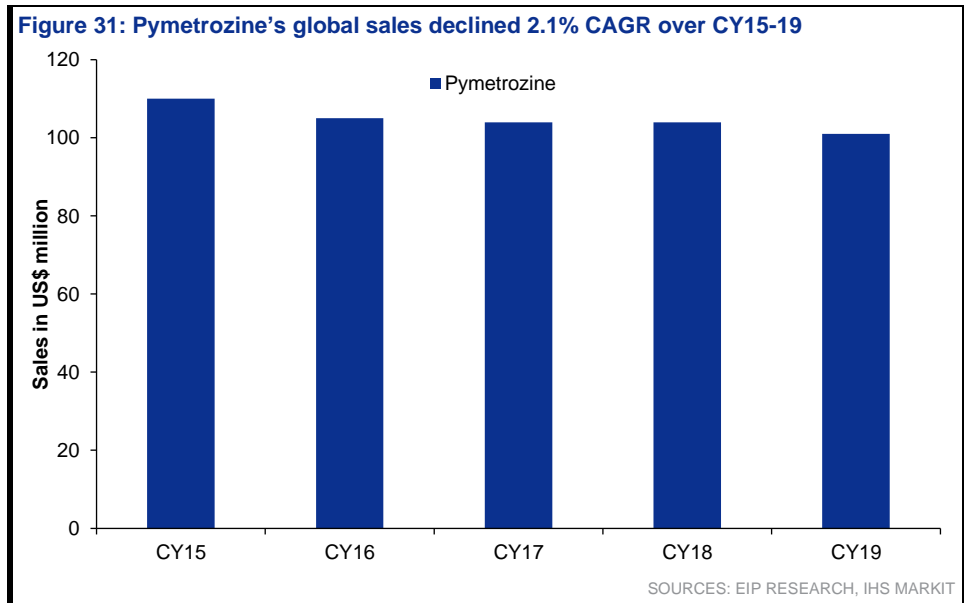
**Figure 29: Global sales of Profenophos declined at 2.5% CAGR**



**Figure 30: India grew at a low rate of 2% (CY17-19)**

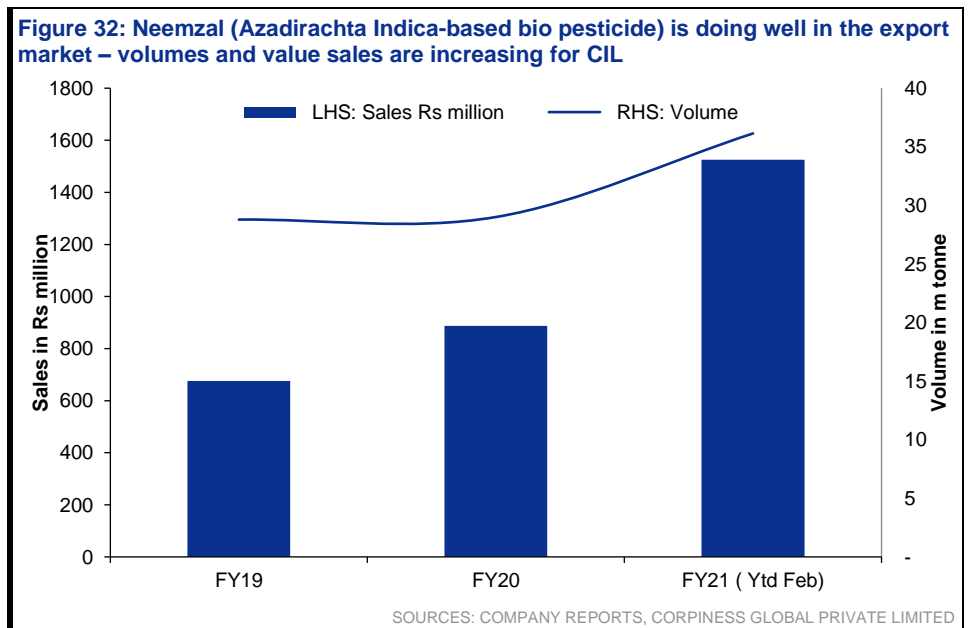


**Pymetrozine, an insecticide manufactured by Coromandel, is also not growing ➤**



**Bio fertilisers are showing significant growth, particularly Neemzal ➤**

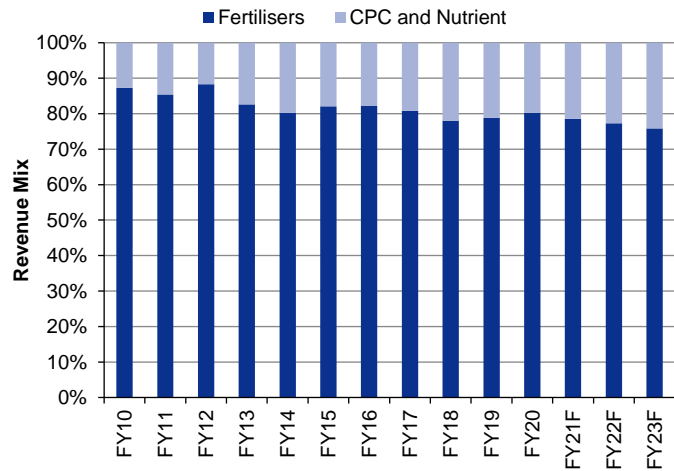
Neemzal is doing well in the domestic and export markets.



## Earnings and valuation

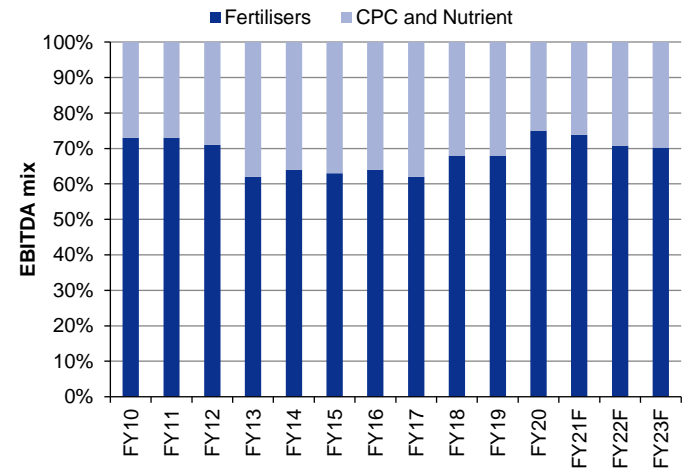
**Fertilisers are CIL's main revenue driver, but CPC+Nutrients will increasingly become its main EBITDA driver ➤**

**Figure 33: Fertilisers will drive CIL's revenue growth**



SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS

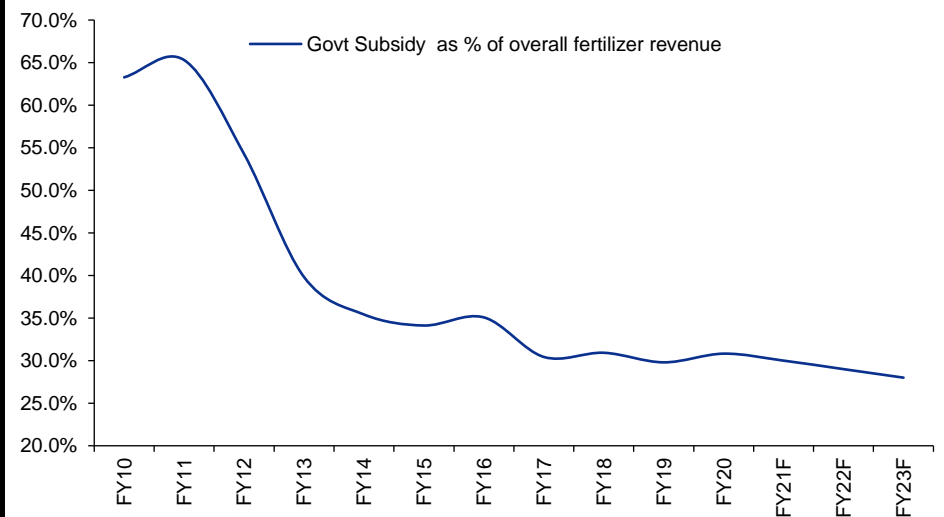
**Figure 34: CIL's EBITDA growth will likely be driven increasingly by CPC and Nutrient**



SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS

**We expect subsidy as % of overall fertiliser sector revenue to come down over the years ➤**

**Figure 35: Fertiliser subsidies' share of the overall fertiliser segment's revenue will likely decline but remain significant at 28% in FY23F**



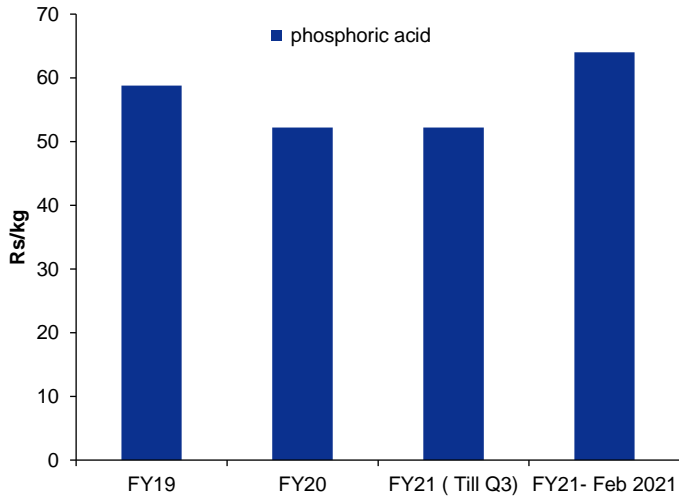
SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS



**4QFY21F could be bad for Coromandel’s fertiliser business ➤**

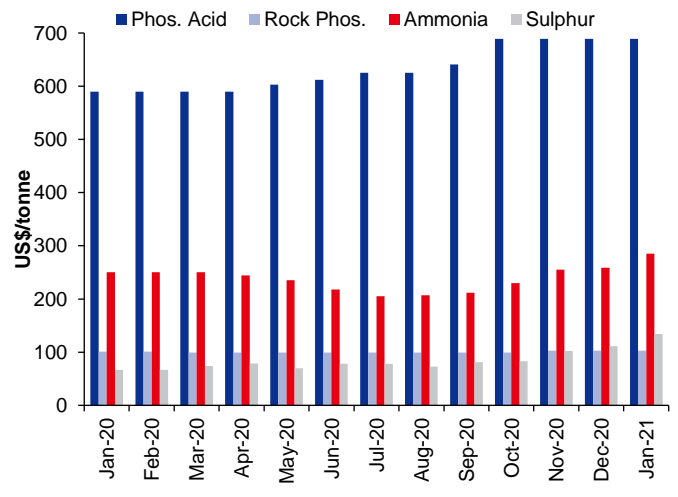
We expect a bleak 4QFY21F for Coromandel as it has not been able to hike fertiliser prices despite the rising cost of ammonia and phosphatic acid. However, we expect CIL to pass through the increased costs from 2QFY22F.

**Figure 36: Import prices of phosphoric acid rose 22% in Feb 2021**



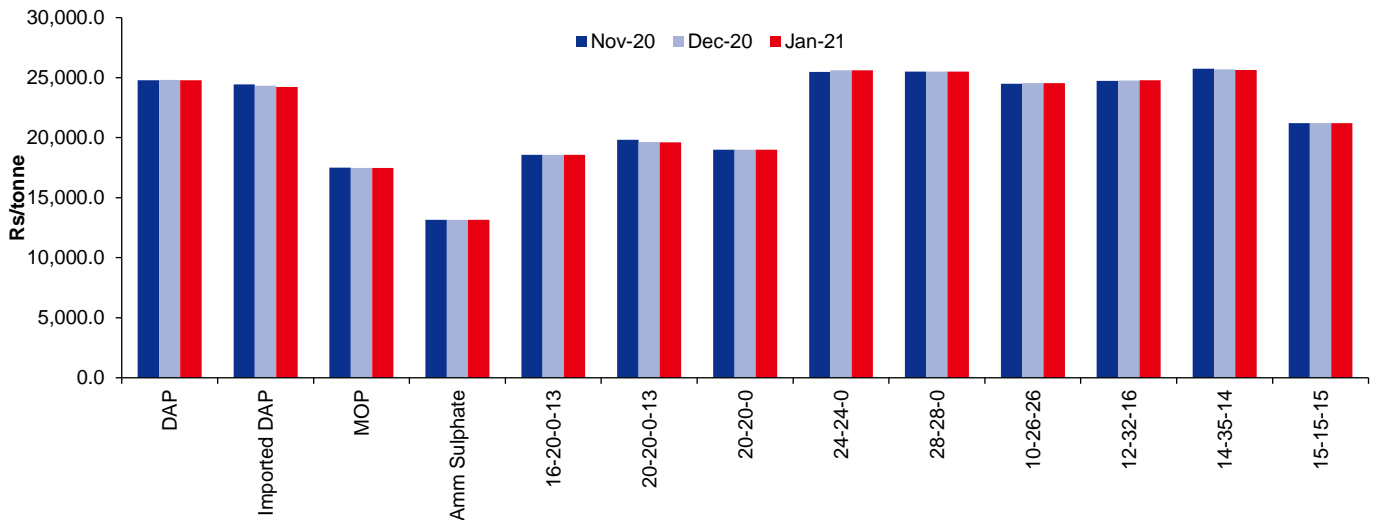
SOURCES: COMPANY REPORTS, CORPINESS GLOBAL PRIVATE LIMITED

**Figure 37: International prices of most input materials have risen**



PHOS ACID= PHOSPHOPRIC ACID, ROCK PHOS= ROCK PHOSPHATE  
SOURCES: COMPANY REPORTS, MONTHLY BULLETIN | DEPARTMENT OF FERTILIZERS

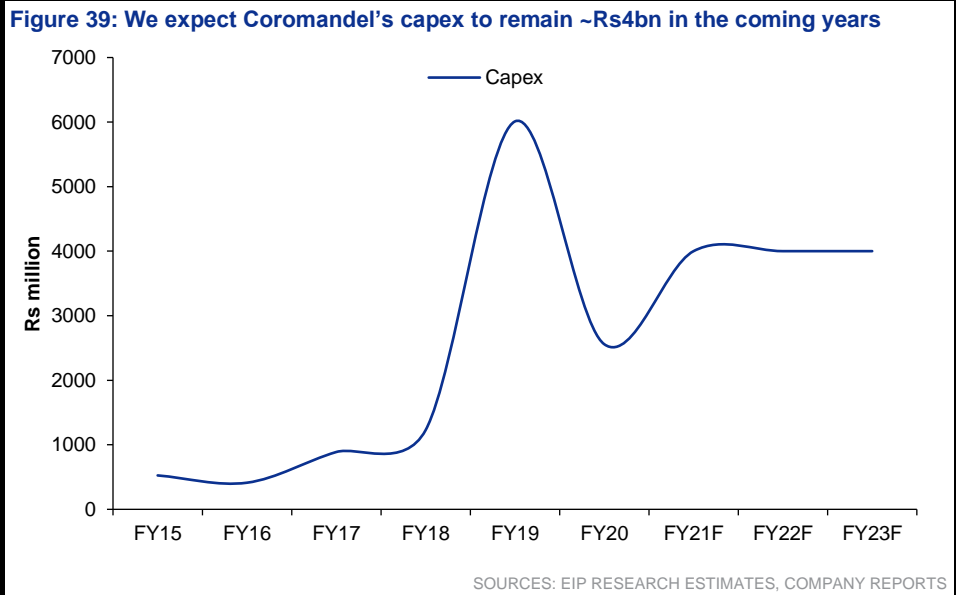
**Figure 38: Base fertiliser prices in India are the same, indicating that Coromandel could face margin pressures in 4QFY21F. We expect fertiliser prices to rise only in the latter part of 1QFY22F**



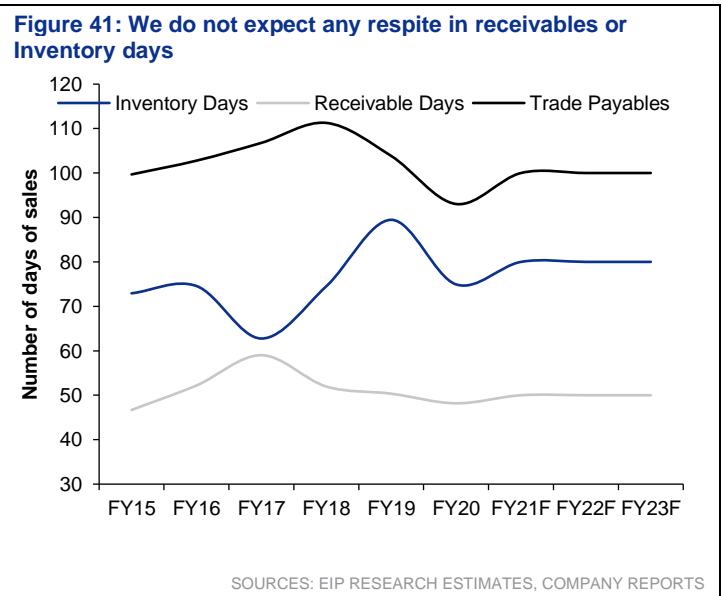
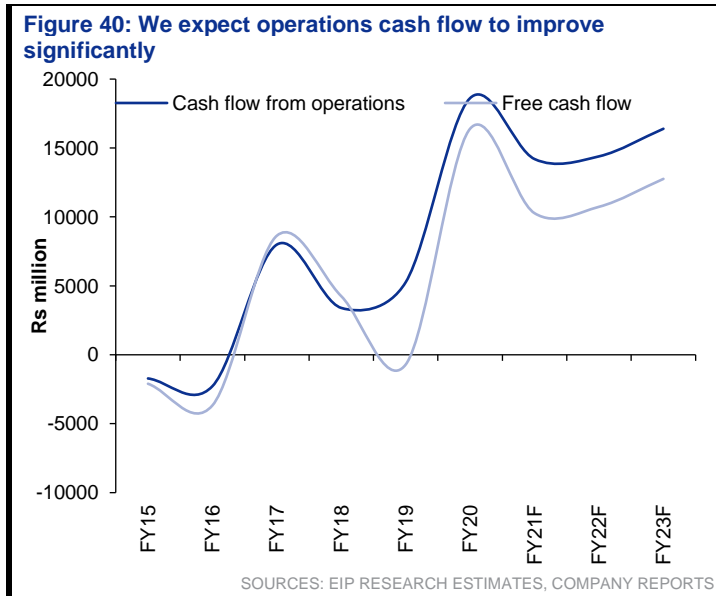
SOURCES: COMPANY REPORTS, MONTHLY BULLETIN | DEPARTMENT OF FERTILIZERS

**Capex to remain moderate ➤**

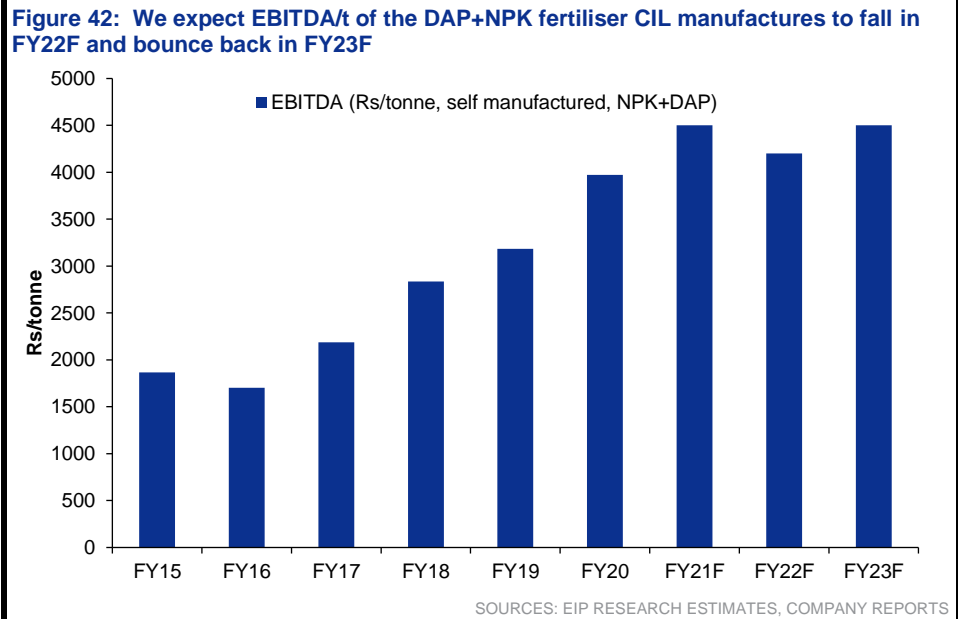
CIL's FY21F capex target is Rs3.5bn-4bn and going forward we expect its capex to remain in the same range. Apart from regular maintenance capex, the company is engaged in a debottlenecking exercise at Vizag and Kakinada to free up capacity.



**Working capital will remain elevated as the Indian government subsidy remains a stress point ➤**

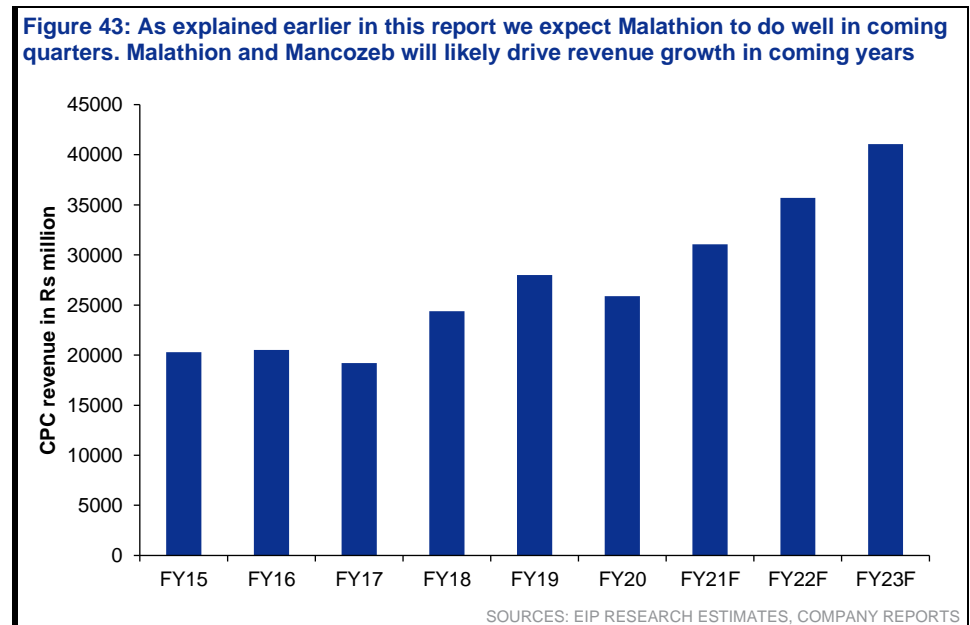


## We expect the EBITDA/t on manufactured fertiliser to trend lower in FY22F and bounce back in FY23F ➤



## CPC segment is likely to grow at 15% CAGR over FY21-23F ➤

We expect Malathion, Neemzal and Mancozeb to drive growth in the pesticides segment.

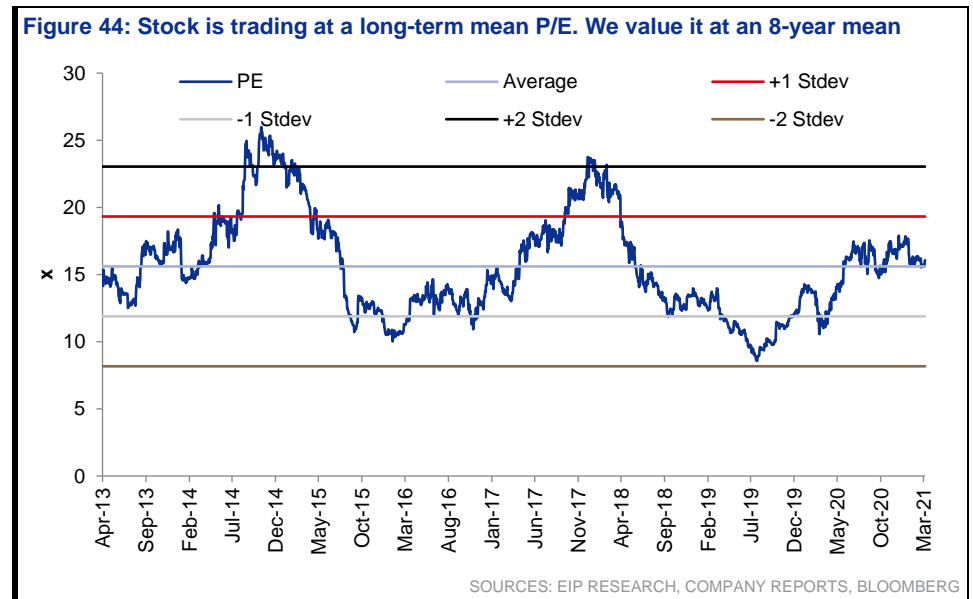


## Valuation & recommendation

### We prefer P/E methodology to DCF and EV/EBITDA to value agrochemical companies ➤

We value Coromandel on a P/E basis as we consider it a more appropriate valuation method for agrochemical companies than the DCF or EV/EBITDA. In our view, DCF is not a suitable valuation method because the earnings of chemicals companies are highly cyclical and forecasting long-term earnings reliably is very difficult. We think a balance sheet-based valuation is inappropriate as short-term debt may rise because of inventory cycles or delay in subsidy payments which can distort the balance sheet for a short period (in many cases, for only one quarter).

## We value Coromandel at 15.61x FY23F EPS; with Add rating ➤



While the stock is currently trading at 15.5x FY22F EPS, we value the company at 15.61x FY23F EPS, which is the long-term mean P/E and arrive at our target price of Rs871. At the CMP, our target price implies downside potential of 16.4% from current levels. We initiate coverage on CIL with an Add rating.

**Figure 45: We value the stock at 15.61x FY23F EPS to arrive at TP of Rs871**

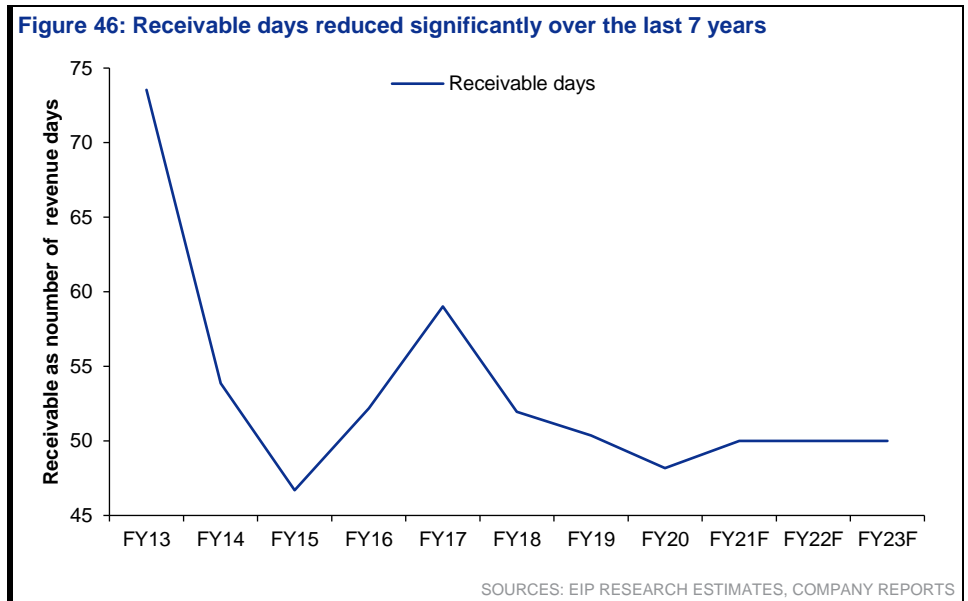
FY22F EPS	Rs/Share	48.2
FY23F EPS	Rs/Share	55.8
P/E (1-year forward on FY23F EPS)	x	15.61
Target Price	Rs/Share	871

SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS

We value the stock at a P/E in line with the long-term mean as:

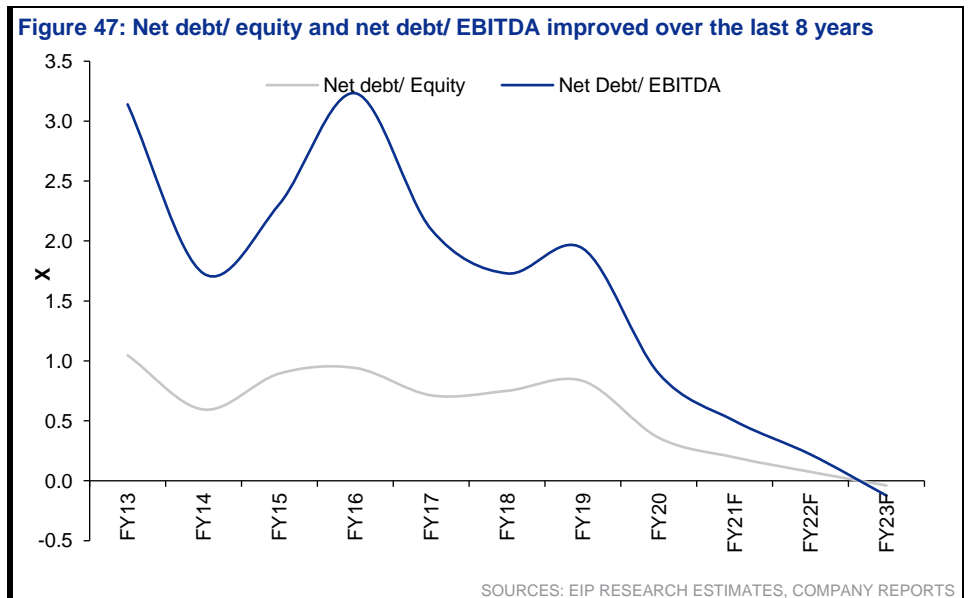
1. Core EPS growth will likely be 10.4% CAGR over FY21F-23F. This EPS growth is a shade lower than the last seven years' (FY13-20) EPS CAGR of 13.4%. However, we believe revenue growth in the next couple of years will be 8.3% CAGR (FY21F-23F), higher than that of the last seven years' (FY13-20) 5.5% CAGR.
2. At the same time, the company's balance sheet has improved as subsidy payments, although delayed, are still much better timed than in the past. This shows in the company's reduced receivable days.

**Figure 46: Receivable days reduced significantly over the last 7 years**



3. All balance-sheet parameters like net debt/ equity, net debt/ EBITDA improved considerably over the last eight years.

**Figure 47: Net debt/ equity and net debt/ EBITDA improved over the last 8 years**



### Peer comparisons

**Figure 48: Sector peer comparison**

Company	Bloomberg Ticker	Closing Price (LC)	Target Price* (LC)	% Upside	Rating	Market cap (US\$ m)	EV/EBITDA (x)		P/BV (x)		RoE (%)		P/E (x)	
							CY21F	CY22F	CY21F	CY22F	CY21F	CY22F	CY21F	CY22F
UPL Ltd	UPLL IN	655	578	-12%	HOLD	6,734	9.3	8.4	2.0	1.7	14.4	13.9	18.3	15.1
Rallis India Ltd	RALI IN	266	355	33%	ADD	696	13.2	12.0	3.3	3.0	16.6	16.0	21.2	19.6
SRF Limited	SRF IN	6,148	6,227	1%	ADD	4,900	18.9	16.3	4.9	4.2	18.8	17.6	29.8	25.8
PI Industries Limited	PI IN	2,416	2,505	4%	ADD	4,931	30.6	23.2	6.2	5.7	17.9	15.6	45.2	38.0
Vinati Organics Ltd	VO IN	1,575	1,603	2%	ADD	2,178	40.9	29.7	10.0	8.4	20.1	23.3	53.2	39.0
Dhanuka Agritech	DAGRI IN	747	689	-8%	REDUCE	468	13.0	11.9	4.2	3.5	26.3	22.7	17.1	16.8
Heranba Industries Ltd	HERANBA IN	666	457	-31%	REDUCE	359	17.5	17.8	6.0	4.9	34.5	24.9	24.2	25.4
Anupam Rasayan India Ltd	ANURAS IN	556	379	-32%	REDUCE	747	44.1	40.8	3.8	3.4	3.7	6.7	136.8	53.4
Laxmi Organics Ltd	LXCHEM IN	202	110	-46%	REDUCE	716	15.9	16.5	3.6	3.2	12.3	10.5	38.6	32.3
Aarti Industries	ARTO IN	1,379	1,087	-21%	REDUCE	3,232	23.2	21.7	6.2	5.0	16.1	13.1	34.6	22.0
Navin Fluorine International Ltd	NFIL IN	2,974	2,599	-13%	HOLD	1,981	41.7	33.5	7.9	7.1	12.8	15.4	54.0	48.6
Insecticide India Ltd	INST IN	466	461	-1%	HOLD	130	7.3	6.8	1.2	1.1	10.7	9.9	12.2	12.0
Coromandel International Ltd	CRIN IN	742	1,000	35%	ADD	2,927	11.8	11.4	4.2	3.6	25.9	22.6	17.8	17.2
Bayer	BAYN GR	54	NR	NR	NR	62,949	7.7	7.1	1.2	1.1	7.7	7.7	9.1	8.3
BASF	BAS GR	72	NR	NR	NR	79,058	8.6	8.4	1.5	1.5	2.8	2.8	16.5	15.5
Corteva	CTVA US	48	NR	NR	NR	35,358	13.0	11.5	1.4	1.3	3.4	3.4	25.0	21.0

NR COMPANY ESTIMATES ARE FROM BLOOMBERG CONSENSUS  
SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS, BLOOMBERG. PRICED AS AT 07 APR 2021

## Risks

1. Our EPS growth assumptions depend heavily on Malathion. We expect at least 25-30% of incremental sales growth in CPC can come from this molecule in FY23F. As explained, Malathion is increasingly being used to save plants from desert locust attacks. Any change in weather that eliminates the risk of desert locust attacks on plants will be negative for Malathion's consumption and, hence, poses a risk to our EPS estimates.
2. We have assumed that the phosphatic fertiliser industry would be able to pass on increased phosphatic acid prices in 1QFY22F. Any delay in this will be negative for our EPS and, hence, target price.
3. We expect normal inflation in cost (at the same rate as the Consumer Price Index). However, any rapid increase in other costs could be another negative for Coromandel.
4. We expect a 5% increase in fertiliser volumes over FY21-23F, but lower growth would mean further risks to our estimates.

## SWOT Analysis

<b>Figure 49: Coromandel International</b>	
<b>Strength</b>	<b>Weaknesses</b>
Leader in phosphatic fertilisers in India.	CIL is still heavily dependent on the fertiliser business (70% of revenue). This business depends on government subsidies.
<b>Opportunities</b>	<b>Threat</b>
US\$4bn worth of agrochemicals are going off patent in the next six to seven years. Manufacturing these generics is an opportunity.	The inability to pass on cost increases in phosphatic fertiliser manufacturing is a big threat.

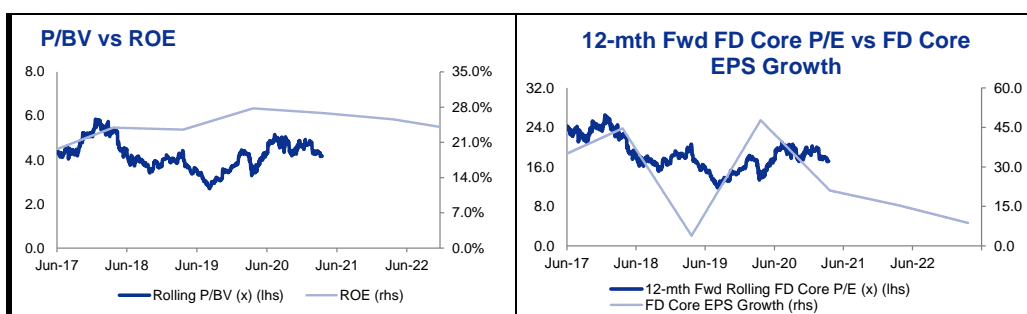
SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS

## Annexure

**Figure 50: Key management profiles at Coromandel International**

<p>Mr. Arun Alagappan Executive Vice Chairman</p>	<p>Mr. Arun Alagappan (45 years) is the Executive Vice Chairman of the company. Mr. Alagappan was the Managing Director of Cholamandalam Investment and Finance Company prior to joining Coromandel International. He holds directorship in various other companies. Mr. Arun Alagappan started his career with GE Capital Services India in 1997. After a two-year stint with GE, he joined the Murugappa Group in 1999 in Parryware (part of EID Parry India Ltd). Between 2005 and 2017, he served in Tube Products of India, heading various divisions and eventually took over as the Business Head of TI Cycles. In Aug 2017, Mr. Alagappan was appointed as Executive Director of Cholamandalam Investment and Finance Company Limited and subsequently took over as the Managing Director in Nov 2019.</p> <p>Mr. Alagappan graduated in Commerce from the University of Madras and completed the 'Owner President/Management Program' from Harvard Business School.</p>
<p>Mr. A Vellayan Chairman</p>	<p>Mr. A Vellayan (67 years) is currently the Chairman of the Indian Institute of Management, Kozhikode, and Roca Bathroom Products Private Ltd. He has directorships in Ambadi Investments Ltd, AMM Foundation and Kanoria Chemicals &amp; Industries Ltd. Mr. Vellayan has held various positions in the Murugappa Group. He has been conferred a Doctor of Science (Honoris Causa) by Aston University, UK. Mr. Vellayan is a Bachelor of Commerce from Shri Ram College of Commerce, New Delhi, and has a Diploma in Industrial Administration from Aston University, UK, and is a Master of Business Studies from the University of Warwick Business School, UK. Mr. Vellayan has solid experience in the fertiliser business, general management and financial planning.</p>

SOURCE: COMPANY WEBSITE

**BY THE NUMBERS**

**Profit & Loss**

(Rs mn)	Mar-19A	Mar-20A	Mar-21F	Mar-22F	Mar-23F
<b>Total Net Revenues</b>	<b>1,32,246</b>	<b>1,31,367</b>	<b>1,44,909</b>	<b>1,57,108</b>	<b>1,70,114</b>
<b>Gross Profit</b>	<b>38,850</b>	<b>40,811</b>	<b>47,095</b>	<b>51,060</b>	<b>55,287</b>
<b>Operating EBITDA</b>	<b>14,431</b>	<b>17,310</b>	<b>20,273</b>	<b>22,152</b>	<b>23,986</b>
Depreciation And Amortisation	(1,138)	(1,580)	(1,628)	(1,710)	(1,910)
<b>Operating EBIT</b>	<b>13,292</b>	<b>15,730</b>	<b>18,645</b>	<b>20,442</b>	<b>22,076</b>
Financial Income/(Expense)	(2,507)	(2,353)	(1,650)	(1,246)	(849)
Pretax Income/(Loss) from Assoc.	4	9			
Non-Operating Income/(Expense)	371	400	420	441	464
<b>Profit Before Tax (pre-EI)</b>	<b>11,160</b>	<b>13,786</b>	<b>17,415</b>	<b>19,637</b>	<b>21,691</b>
Exceptional Items	(239)				
<b>Pre-tax Profit</b>	<b>10,921</b>	<b>13,786</b>	<b>17,415</b>	<b>19,637</b>	<b>21,691</b>
Taxation	(3,721)	(3,135)	(4,512)	(4,747)	(5,499)
Exceptional Income - post-tax					
<b>Profit After Tax</b>	<b>7,200</b>	<b>10,651</b>	<b>12,904</b>	<b>14,890</b>	<b>16,191</b>
Minority Interests					
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
<b>Net Profit</b>	<b>7,200</b>	<b>10,651</b>	<b>12,904</b>	<b>14,890</b>	<b>16,191</b>
Recurring Net Profit	7,358	10,651	12,904	14,890	16,191
<b>Fully Diluted Recurring Net Profit</b>	<b>7,358</b>	<b>10,651</b>	<b>12,904</b>	<b>14,890</b>	<b>16,191</b>

**Cash Flow**

(Rs mn)	Mar-19A	Mar-20A	Mar-21F	Mar-22F	Mar-23F
<b>EBITDA</b>	<b>14,431</b>	<b>17,310</b>	<b>20,273</b>	<b>22,152</b>	<b>23,986</b>
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(4,601)	3,119	(2,072)	(2,235)	(2,248)
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense					
Other Operating Cashflow	1,650	4,182	2,160	469	1,007
Net Interest (Paid)/Received	(2,507)	(2,353)	(1,650)	(1,246)	(849)
Tax Paid	(3,709)	(3,638)	(4,512)	(4,747)	(5,499)
<b>Cashflow From Operations</b>	<b>5,264</b>	<b>18,620</b>	<b>14,199</b>	<b>14,393</b>	<b>16,397</b>
Capex	(6,010)	(2,559)	(4,000)	(4,000)	(4,000)
Disposals Of FAs/subsidiaries					
Acq. Of Subsidiaries/investments	(178)	(20)			
Other Investing Cashflow	217	359	70	341	364
<b>Cash Flow From Investing</b>	<b>(5,971)</b>	<b>(2,219)</b>	<b>(3,930)</b>	<b>(3,659)</b>	<b>(3,636)</b>
Debt Raised/(repaid)	2,316	(13,574)	(4,341)	(5,454)	(2,262)
Proceeds From Issue Of Shares	45	137			
Shares Repurchased					
Dividends Paid	(2,292)	(1,234)	(3,516)	(3,809)	(4,249)
Preferred Dividends					
Other Financing Cashflow	(2,507)	(2,545)	(1,650)	(1,246)	(849)
<b>Cash Flow From Financing</b>	<b>(2,437)</b>	<b>(17,216)</b>	<b>(9,507)</b>	<b>(10,509)</b>	<b>(7,359)</b>
Total Cash Generated	(3,144)	(816)	762	226	5,402
<b>Free Cashflow To Equity</b>	<b>1,609</b>	<b>2,826</b>	<b>5,928</b>	<b>5,281</b>	<b>10,499</b>
<b>Free Cashflow To Firm</b>	<b>1,800</b>	<b>18,753</b>	<b>11,920</b>	<b>11,981</b>	<b>13,609</b>

SOURCES: EIP RESEARCH, COMPANY REPORTS



## BY THE NUMBERS...cont'd

<b>Balance Sheet</b>					
<b>(Rs mn)</b>	<b>Mar-19A</b>	<b>Mar-20A</b>	<b>Mar-21F</b>	<b>Mar-22F</b>	<b>Mar-23F</b>
Total Cash And Equivalents	1,595	783	1,545	1,771	7,173
Total Debtors	18,244	17,341	19,851	21,522	23,303
Inventories	32,414	26,971	31,761	34,435	37,285
Total Other Current Assets	30,996	28,557	29,493	30,675	31,799
<b>Total Current Assets</b>	<b>83,249</b>	<b>73,652</b>	<b>82,650</b>	<b>88,402</b>	<b>99,561</b>
Fixed Assets	14,768	20,750	23,122	25,412	27,501
Total Investments	2,008	2,113	2,113	2,113	2,113
Intangible Assets	235	227	227	227	227
Total Other Non-Current Assets	5,479	4,745	5,537	6,035	6,559
<b>Total Non-current Assets</b>	<b>22,490</b>	<b>27,836</b>	<b>31,000</b>	<b>33,787</b>	<b>36,401</b>
Short-term Debt	29,545	16,251	11,910	6,456	4,195
Current Portion of Long-Term Debt					
Total Creditors	37,625	33,481	39,701	43,043	46,607
Other Current Liabilities	3,616	3,933	4,318	4,666	5,036
<b>Total Current Liabilities</b>	<b>70,785</b>	<b>53,665</b>	<b>55,930</b>	<b>54,165</b>	<b>55,837</b>
Total Long-term Debt					
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities	108	3,857	3,857	3,857	3,857
<b>Total Non-current Liabilities</b>	<b>108</b>	<b>3,857</b>	<b>3,857</b>	<b>3,857</b>	<b>3,857</b>
Total Provisions	1,263	789	789	789	789
<b>Total Liabilities</b>	<b>72,155</b>	<b>58,311</b>	<b>60,576</b>	<b>58,811</b>	<b>60,483</b>
Shareholders Equity	33,584	43,177	53,074	63,378	75,479
Minority Interests					
<b>Total Equity</b>	<b>33,584</b>	<b>43,177</b>	<b>53,074</b>	<b>63,378</b>	<b>75,479</b>

<b>Key Ratios</b>					
	<b>Mar-19A</b>	<b>Mar-20A</b>	<b>Mar-21F</b>	<b>Mar-22F</b>	<b>Mar-23F</b>
Revenue Growth	19.3%	(0.7%)	10.3%	8.4%	8.3%
Operating EBITDA Growth	14.9%	20.0%	17.1%	9.3%	8.3%
Operating EBITDA Margin	10.9%	13.2%	14.0%	14.1%	14.1%
Net Cash Per Share (Rs)	(95.55)	(52.79)	(35.38)	(15.99)	10.17
BVPS (Rs)	114.81	147.36	181.14	216.31	257.61
Gross Interest Cover	5.30	6.69	11.30	16.41	26.02
Effective Tax Rate	34.1%	22.7%	25.9%	24.2%	25.4%
Net Dividend Payout Ratio	25.6%	33.0%	29.5%	28.5%	26.2%
Accounts Receivables Days	46.95	49.44	46.84	48.06	48.09
Inventory Days	107.55	119.68	109.58	113.92	113.99
Accounts Payables Days	139.54	143.30	136.54	142.40	142.48
ROIC (%)	16.4%	20.0%	22.8%	23.2%	23.4%
ROCE (%)	21.8%	25.3%	29.7%	30.1%	29.3%
Return On Average Assets	8.9%	12.0%	13.1%	13.4%	13.0%

SOURCES: EIP RESEARCH, COMPANY REPORTS

---

## DISCLAIMER

---

This report (including the views and opinions expressed therein, and the information comprised therein) has been prepared for and is distributed by CGS-CIMB, by InCred Research Services Private Limited pursuant to an arrangement between EIP and CGS-CIMB. EIP is not an affiliate of CGS-CIMB. EIP is held 100% by Siri Shubhan Investment Advisory and Management Private Ltd. As on the date of this report, EIP does not have any group companies or associates. EIP is registered with SEBI as a Research Analyst vide Registration No. INH000007793. Pursuant to a trademark agreement, EIP has adopted "INCRED" as its trademark for use in this report.

The term "EIP" shall, unless the context otherwise requires, mean EIP and its affiliates, subsidiaries and related companies. The term "CGS-CIMB" shall denote, where appropriate, the relevant entity distributing or disseminating the report in the particular jurisdiction referenced below, or, in every other case except as otherwise stated herein, CGS-CIMB Securities International Pte. Ltd. and its affiliates, subsidiaries and related corporations. 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 and remains subject to the "Restrictions on Distribution" set out below. If your status has changed or the distribution restrictions set out below impact your ability to receive this report please contact your usual CGS-CIMB representative.

By accepting this report, the recipient hereof represents and warrants that he is entitled to receive such report in accordance with the restrictions set forth below and agrees to be bound by the limitations contained herein (including the "Restrictions on Distributions" set out below). Any failure to comply with these limitations may constitute a violation of law and limit our ability to provide reports to you.

This report is being supplied to you strictly on the basis that it will remain confidential. No part of this report may be (i) copied, photocopied, duplicated, stored or reproduced in any form by any means; or (ii) redistributed or passed on, directly or indirectly, to any other person in whole or in part, for any purpose without the prior written consent of EIP or CGS-CIMB.

The information contained in this report is prepared from data believed to be correct and reliable at the time of issue of this report.

Under the terms of the agreement between EIP and CGS-CIMB, EIP is not required to issue regular reports on the subject matter of this report at any frequency and it may cease to do so or change the periodicity of reports at any time. Neither EIP nor CGS-CIMB is under any obligation to update this report in the event of a material change to the information contained in this report. Neither EIP nor CGS-CIMB has any and will accept any, obligation to (i) check or ensure that the contents of this report remain current, reliable or relevant; (ii) ensure that the content of this report constitutes all the information a prospective investor may require; (iii) ensure the adequacy, accuracy, completeness, reliability or fairness of any views, opinions and information, and accordingly, EIP and its affiliates/group companies and/or CGS-CIMB, its affiliates and related persons including China Galaxy International Financial Holdings Limited ("CGIFHL") and CIMB Group Sdn. Bhd. ("CIMBG") and their respective related corporations (and their respective directors, associates, connected persons and/or employees) shall not be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof. In particular, CGS-CIMB disclaims all responsibility and liability for the views and opinions set out in this report.

Unless otherwise specified, this report is based upon reasonable sources. Such sources will, unless otherwise specified, for market data, be market data and prices available from the main stock exchange or market where the relevant security is listed, or, where appropriate, any other market. Information on the accounts and business of company(ies) will generally be based on published statements of the company(ies), information disseminated by regulatory information services, other publicly available information and information resulting from our research. Whilst every effort is made to ensure that statements of facts made in this report are accurate, all estimates, projections, forecasts, expressions of opinion and other subjective judgments contained in this report are based on assumptions considered to be reasonable as of the date of the document in which they are contained and must not be construed as a representation that the matters referred to therein will occur. Past performance is not a reliable indicator of future performance. The value of investments may go down as well as up and those investing may, depending on the investments in question, lose more than the initial investment. No report shall constitute an offer or an invitation by or on behalf of EIP and its affiliates/group companies and/or CGS-CIMB or their respective affiliates (including CGIFHL, CIMBG and their respective related corporations) or EIP and its affiliates/group companies, to any person to buy or sell any investments.

By EIP producing this report for CGS-CIMB, EIP has confirmed to CGS-CIMB that the opinions expressed are based on information it believes to be accurate and complete and obtained through reliable public or other non-confidential sources at the time made. (Information barriers and other arrangements may be established where necessary to prevent conflicts of interests arising. However, the analyst(s) may receive compensation that is based on his/their coverage of company(ies) in the performance of his/their duties or the performance of his/their recommendations. In reviewing this report, an investor should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. Additional information is, subject to the duties of confidentiality, available on request.

The report is not a "prospectus" as defined under Indian Law, including the Companies Act, 2013, and is not, and shall not be, approved by, or filed or registered with, any Indian regulator, including any Registrar of Companies in India, SEBI, any Indian stock exchange, or the Reserve Bank of India. No offer, or invitation to offer, or solicitation of subscription with respect to any such securities listed or proposed to be listed in India is being made, or intended to be made, to the public, or to any member or section of the public in India, through or pursuant to this report.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of EIP. Information barriers and other arrangements have been established, as required, to prevent any conflicts of interests.

EIP may have issued other reports (based on technical analysis, event specific, short term views etc.) that are inconsistent with and reach different conclusion from the information presented in this report.

Holding of Analysts/Relatives of Analysts, EIP and Associates of EIP in the covered securities, as on the date of publishing of this report

	Analyst/ Relative	Entity/ Associates
any financial interests in the company covered in this report (subject company) and nature of such financial interest	NO	NO
actual/beneficial ownership of 1% or more in securities of the subject company at the end of the month immediately preceding the date of publication of the research report or date of the public appearance;	NO	NO
any other material conflict of interest at the time of publication of the research report or at the time of public appearance	NO	NO
received any compensation from the subject company in the past twelve months for investment banking or merchant banking or brokerage services or investment advisory or depository or distribution from the subject company in the last twelve months for products/services other than investment banking or merchant banking or broker- age services or investment advisory or depository or distribution from the subject company in the last twelve months	NO	NO
managed or co-managed public offering of securities for the subject company in the last twelve months	NO	NO
received any compensation or other benefits from the subject company or third party in connection with the research report	NO	NO
served as an officer, director or employee of the subject company	NO	NO
been engaged in market making activity for the subject company	NO	NO

#### Analyst declaration

- The analyst responsible for the production of this report hereby certifies that the views expressed herein accurately and exclusively reflect his or her personal views and opinions about any and all of the issuers or securities analysed in this report and were prepared independently and autonomously in an unbiased manner.
- No part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations(s) or view(s) in this report or based any specific investment banking transaction.
- The analyst(s) has(have) not had any serious disciplinary action taken against him/her(them).
- The analyst, strategist, or economist does not have any material conflict of interest at the time of publication of this report.
- The analyst(s) has(have) received compensation based upon various factors, including quality, accuracy and value of research, overall firm performance, client feedback and competitive factors.

#### CGS-CIMB DISCLOSURES

Country	CGS-CIMB Entity	Regulated by
Hong Kong	CGS-CIMB Securities (Hong Kong) Limited	Securities and Futures Commission Hong Kong
India	CGS-CIMB Securities (India) Private Limited	Securities and Exchange Board of India (SEBI)
Indonesia	PT CGS-CIMB Sekuritas Indonesia	Financial Services Authority of Indonesia
Malaysia	CGS-CIMB Securities Sdn. Bhd.	Securities Commission Malaysia
Singapore	CGS-CIMB Research Pte. Ltd.	Monetary Authority of Singapore
South Korea	CGS-CIMB Securities (Hong Kong) Limited, Korea Branch	Financial Services Commission and Financial Supervisory Service
Thailand	CGS-CIMB Securities (Thailand) Co. Ltd.	Securities and Exchange Commission Thailand

#### Other Significant Financial Interests:

As of 31st March 2021 CGS-CIMB does not:

- have a proprietary position in the securities (which may include but not be limited to shares, warrants, call warrants and/or any other derivatives) in the company(ies) covered in this report except for the following:
  - Nil
- act as market maker or have assumed an underwriting commitment in securities of the company(ies) covered in this report except for the following:
  - Nil
- perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to the company(ies) covered in this report and/or solicit such investment, advisory or other services from the company(ies) covered in this report except for the following:
  - Nil

CGS-CIMB, its affiliates, related corporations (including CGIFHL, CIMBG and their respective related corporations) and/or their respective directors, associates, connected parties and/or employees and/or EIP and/or its affiliates and/or its Directors/employees may own or have positions in securities of the company(ies) covered in this report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities.

CGS-CIMB, its affiliates and related corporations (including CGIFHL, CIMBG and their respective related corporations) and/or EIP and/or its affiliates and/or its Directors/employees may do and seek to do business with the company(ies) covered in this research report and may from time to time (a) buy/sell the securities covered in this report, from time to time and/or (b) act as market maker or have assumed an underwriting commitment in securities of such company(ies), and/or (c) may sell them to or buy them from customers on a principal basis and/or (d) may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) and/or (e) solicit such investment, advisory or other services from any entity mentioned in this report and/or (f) act as a lender/borrower to such company and may earn brokerage or other compensation. However, Analysts are forbidden to acquire, on their own account or hold securities (physical or uncertificated, including derivatives) of companies in respect of which they are compiling and producing financial recommendations or in the result of which they play a key part

This report does not purport to contain all the information that a prospective investor may require. Neither CGS-CIMB nor any of its affiliates (including CGIFHL, CIMBG and their related corporations) make any guarantee, representation or warranty, express or implied, as to the adequacy, accuracy, completeness, reliability or fairness of any such information and opinion contained in this report. Neither CGS-CIMB nor any of its affiliates nor their related persons (including CGIFHL, CIMBG and their related corporations) shall be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof.

This report is general in nature and has been prepared for information purposes only. It is intended for circulation amongst CGS-CIMB's and its affiliates' (including CGIFHL's, CIMBG's and their respective related corporations') clients generally and does not have regard to the specific investment objectives, financial situation and the particular needs of any specific person who may receive this report. The information and opinions in this report are not and should not be construed or considered as an offer, recommendation or solicitation to buy or sell the subject securities, related investments or other financial instruments or any derivative instrument, or any rights pertaining thereto.

Investors are advised to make their own independent evaluation of the information contained in this report, consider their own individual investment objectives, financial situation and particular needs and consult their own professional and financial advisers as to the legal, business, financial, tax and other aspects before participating in any transaction in respect of the securities of company(ies) covered in this report. The securities of such company(ies) may not be eligible for sale in all jurisdictions or to all categories of investors.

The report is not a "prospectus" as defined under Indian Law, including the Companies Act, 2013, and is not, and shall not be, approved by, or filed or registered with, any Indian regulator, including any Registrar of Companies in India, SEBI, any Indian stock exchange, or the Reserve Bank of India. No offer, or invitation to offer, or solicitation of subscription with respect to any such securities listed or proposed to be listed in India is being made, or intended to be made, to the public, or to any member or section of the public in India, through or pursuant to this report

#### Restrictions on Distributions

**Australia:** Despite anything in this report to the contrary, this research is prepared for and provided in Australia by CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited. This research is only available in Australia to persons who are "wholesale clients" (within the meaning of the Corporations Act 2001 (Cth) and is supplied solely for the use of such wholesale clients and shall not be distributed or passed on to any other person. You represent and warrant that if you are in Australia, you are a "wholesale client". This research is of a general nature only and has been prepared without taking into account the objectives, financial situation or needs of the individual recipient. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited do not hold, and are not required to hold an Australian financial services license. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited rely on "passporting" exemptions for entities appropriately licensed by the Monetary Authority of Singapore (under ASIC Class Order 03/1102) and the Securities and Futures Commission in Hong Kong (under ASIC Class Order 03/1103).

**Canada:** This report has not been prepared in accordance with the disclosure requirements of Dealer Member Rule 3400 – Research Restrictions and Disclosure Requirements of the Investment Industry Regulatory Organization of Canada. For any research report distributed by CIBC, further disclosures related to CIBC conflicts of interest can be found at <https://researchcentral.cibcwm.com>.

**China:** For the purpose of this report, the People's Republic of China ("PRC") does not include the Hong Kong Special Administrative Region, the Macau Special Administrative Region or Taiwan. The distributor of this report has not been approved or licensed by the China Securities Regulatory Commission or any other relevant regulatory authority or governmental agency in the PRC. This report contains only marketing information. The distribution of this report is not an offer to buy or sell to any person within or outside PRC or a solicitation to any person within or outside of PRC to buy or sell any instruments described herein. This report is being issued outside the PRC to a limited number of institutional investors and may not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose.

**France:** Only qualified investors within the meaning of French law shall have access to this report. This report shall not be considered as an offer to subscribe to, or used in connection with, any offer for subscription or sale or marketing or direct or indirect distribution of financial instruments and it is not intended as a solicitation for the purchase of any financial instrument.

**Germany:** This report is only directed at persons who are professional investors as defined in sec 31a(2) of the German Securities Trading Act (WpHG). This publication constitutes research of a non-binding nature on the market situation and the investment instruments cited here at the time of the publication of the information.

The current prices/yields in this issue are based upon closing prices from Bloomberg as of the day preceding publication. Please note that neither the German Federal Financial Supervisory Agency (BaFin), nor any other supervisory authority exercises any control over the content of this report.

**Hong Kong:** This report is prepared for and distributed in Hong Kong by CGS-CIMB Securities (Hong Kong) Limited ("CHK") which is licensed in Hong Kong by the Securities and Futures Commission for Type 1 (dealing in securities) and Type 4 (advising on securities) activities. Any investors wishing to purchase or otherwise deal in the securities covered in this report should contact the Head of Sales at CHK. The views and opinions in this report are our own as of the date hereof and are subject to change. If the Financial Services and Markets Act of the United Kingdom or the rules of the Financial Conduct Authority apply to a recipient, our obligations owed to such recipient therein are unaffected. CHK has no obligation to update its



opinion or the information in this report.

This publication is strictly confidential and is for private circulation only to clients of CHK.

**India:** This report is prepared by EIPfor and distributed in India by EIP or CGS-CIMB Securities (India) Private Limited (“CGS-CIMB India”), as the case may be. CGS-CIMB India is a subsidiary of CGS-CIMB Securities International Pte. Ltd. which is in turn is a 50:50 joint venture company of CGIFHL and CIMBG. The details of the members of the group of companies of CGS-CIMB can be found at [www.cgs-cimb.com](http://www.cgs-cimb.com), CGIFHL at [www.chinastock.com.hk/en/ACG/ContactUs/index.aspx](http://www.chinastock.com.hk/en/ACG/ContactUs/index.aspx) and CIMBG at [www.cimb.com/en/who-we-are.html](http://www.cimb.com/en/who-we-are.html). CGS-CIMB India is registered with the National Stock Exchange of India Limited and BSE Limited as a trading and clearing member ( under the Securities and Exchange Board of India (Stock Brokers and Sub-Brokers) Regulations, 1992. . CGS-CIMB India is registered with SEBI (SEBI Registration Number: INZ000209135) as a Research Analyst (INH000000669) pursuant to the SEBI (Research Analysts) Regulations, 2014 (“Regulations”).

By EIP producing this report for CGS-CIMB, EIP has confirmed to CGS-CIMB that the research analysts, strategists or economists principally responsible for the preparation of this report are segregated from the other activities of EIP and they have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues, client feedback and competitive factors. Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed or proposed to be performed by EIP, CGS-CIMB India or its affiliates.

This report does not take into account the particular investment objectives, financial situations, or needs of the recipients. It is not intended for and does not deal with prohibitions on investment due to law/jurisdiction issues etc. which may exist for certain persons/entities. Recipients should rely on their own investigations and take their own professional advice before investment.

CGS-CIMB India does not have actual / beneficial ownership of 1% or more securities of the subject company in this report, at the end of the month immediately preceding the date of publication of this report. However, since affiliates of CGS-CIMB India are engaged in the financial services business, they might have in their normal course of business financial interests or actual / beneficial ownership of one per cent or more in various companies including the subject company in this report.

CGS-CIMB India or its associates, may: (a) from time to time, have long or short position in, and buy or sell the securities of the subject company in this report; 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 subject company in this report or act as an advisor or lender/borrower to such company or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.

CGS-CIMB India, and their respective associates have not received any compensation for investment banking, merchant banking or brokerage services from the subject company mentioned in the report in the past 12 months.

CGS-CIMB India, and their respective associates have not managed or co-managed public offering of securities for the subject company mentioned in the report in the past 12 months.

**Indonesia:** This report is prepared for and distributed in Indonesia by PT CGS-CIMB Sekuritas Indonesia (“CGS-CIMB Indonesia”). The views and opinions in this report is prepared from data believed to be correct and reliable at the time of issue of this report and are subject to change. CGS-CIMB Indonesia has no obligation to update the opinion or the information in this report. This report is for private circulation only to clients of CGS-CIMB Indonesia. Neither this report nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable Indonesian capital market laws and regulations.

This report is not an offer of securities in Indonesia. The securities referred to in this report have not been registered with the Financial Services Authority (Otoritas Jasa Keuangan) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market law and regulations.

**Ireland:** CGS-CIMB is not an investment firm authorised in the Republic of Ireland and no part of this document should be construed as CGS-CIMB acting as, or otherwise claiming or representing to be, an investment firm authorised in the Republic of Ireland.

**Malaysia:** This report is prepared for and distributed in Malaysia by CGS-CIMB Securities Sdn. Bhd. (“CGS-CIMB Malaysia”) solely for the benefit of and for the exclusive use of our clients. Recipients of this report are to contact CGS-CIMB Malaysia, at 29th Floor Menara CIMB No. 1 Jalan Stesen Sentral 2, Kuala Lumpur Sentral 50470 Kuala Lumpur, Malaysia, in respect of any matters arising from or in connection with this report. CGS-CIMB Malaysia has no obligation to update, revise or reaffirm the opinion or the information in this report after the date of this report.

**New Zealand:** In New Zealand, this report is for distribution only to persons who are wholesale clients pursuant to section 5C of the Financial Advisers Act 2008.

**Singapore:** This report is prepared for and distributed in Singapore by CGS-CIMB Research Pte Ltd (“CGS-CIMBR”). CGS-CIMBR is a financial adviser licensed under the Financial Advisers Act, Cap 110 (“FAA”) for advising on investment products, by issuing or promulgating research analyses or reports, whether in electronic, print or other form. Accordingly, CGS-CIMBR is subject to the applicable rules under the FAA unless it is able to avail itself to any prescribed exemptions.

Recipients of this report are to contact CGS-CIMB Research Pte Ltd, 50 Raffles Place, #16-02 Singapore Land Tower, Singapore in respect of any matters arising from, or in connection with this report. CGS-CIMBR has no obligation to update the opinion or the information in this report. This publication is strictly confidential and is for private circulation only. If you have not been sent this report by CGS-CIMBR directly, you may not rely, use or disclose to anyone else this report or its contents.

If the recipient of this report is not an accredited investor, expert investor or institutional investor, CGS-CIMBR accepts legal responsibility for the contents of the report without any disclaimer limiting or otherwise curtailing such legal responsibility. If the recipient is an accredited investor, expert investor or institutional investor, the recipient is deemed to acknowledge that CGS-CIMBR is exempt from certain requirements under the FAA and its attendant regulations, and as such, is exempt from complying with the following:

- (a) Section 25 of the FAA (obligation to disclose product information);
- (b) Section 27 of the FAA (duty not to make recommendation with respect to any investment product without having a reasonable basis where you may be reasonably expected to rely on the recommendation);
- (c) MAS Notice on Information to Clients and Product Information Disclosure [Notice No. FAA-N03];

- (d) MAS Notice on Recommendation on Investment Products [Notice No. FAA-N16];  
 (e) Section 36 of the FAA (obligation on disclosure of interest in specified products); and  
 (f) any other laws, regulations, notices, directive, guidelines, circulars and practice notes which relates to the above, to the extent permitted by applicable laws, as may be amended from time to time, and any other laws, regulations, notices, directive, guidelines, circulars, and practice notes as we may notify you from time to time. In addition, the recipient who is an accredited investor, expert investor or institutional investor acknowledges that as CGS-CIMBR is exempt from Section 27 of the FAA, the recipient will also not be able to file a civil claim against CGS-CIMBR for any loss or damage arising from the recipient's reliance on any recommendation made by CGS-CIMBR which would otherwise be a right that is available to the recipient under Section 27 of the FAA.

CGS-CIMBR, its affiliates and related corporations, their directors, associates, connected parties and/or employees may own or have positions in specified products of the company(ies) covered in this report or any specified products related thereto and may from time to time add to or dispose of, or may be materially interested in, any such specified products. Further, CGS-CIMBR, its affiliates and its related corporations do and seek to do business with the company(ies) covered in this report and may from time to time act as market maker or have assumed an underwriting commitment in specified products of such company(ies), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) as well as solicit such investment, advisory or other services from any entity mentioned in this report.

As of CGS-CIMBR does not have a proprietary position in the recommended specified products in this report.

CGS-CIMBR makes a market on the specified products.

CGS-CIMBR does not make a market on other specified products mentioned in the report.

**South Korea:** This report is prepared for and distributed in South Korea by CGS-CIMB Securities (Hong Kong) Limited, Korea Branch ("CGS-CIMB Korea") which is licensed as a cash equity broker, and regulated by the Financial Services Commission and Financial Supervisory Service of Korea. In South Korea, this report is for distribution only to professional investors under Article 9(5) of the Financial Investment Services and Capital Market Act of Korea ("FSCMA").

**Spain:** This document is a research report and it is addressed to institutional investors only. The research report is of a general nature and not personalised and does not constitute investment advice so, as the case may be, the recipient must seek proper advice before adopting any investment decision. This document does not constitute a public offering of securities.

CGS-CIMB is not registered with the Spanish Comision Nacional del Mercado de Valores to provide investment services.

**Sweden:** This report contains only marketing information and has not been approved by the Swedish Financial Supervisory Authority. The distribution of this report is not an offer to sell to any person in Sweden or a solicitation to any person in Sweden to buy any instruments described herein and may not be forwarded to the public in Sweden.

**Switzerland:** This report has not been prepared in accordance with the recognized self-regulatory minimal standards for research reports of banks issued by the Swiss Bankers' Association (Directives on the Independence of Financial Research).

**Thailand:** This report is prepared for and distributed in Thailand by CGS-CIMB Securities (Thailand) Co. Ltd. ("CGS-CIMB Thailand") based upon sources believed to be reliable (but their accuracy, completeness or correctness is not guaranteed). The statements or expressions of opinion herein were arrived at after due and careful consideration for use as information for investment. Such opinions are subject to change without notice and CGS-CIMB Thailand has no obligation to update its opinion or the information in this report.

CGS-CIMB Thailand may act or acts as Market Maker, and issuer and offerer of Derivative Warrants and Structured Note which may have the following securities as its underlying securities. Investors should carefully read and study the details of the derivative warrants in the prospectus before making investment decisions.

AAV, ADVANC, AEONTS, AMATA, AOT, AWC, BANPU, BBL, BCH, BCP, BCPG, BDMS, BEC, BEM, BGC, BGRIM, BH, BJC, BPP, BTS, CBG, CENTEL, CHG, CK, CKP, COM7, CPALL, CPF, CPN, DELTA, DTAC, EA, EGCO, EPG, ERW, ESSO, GFPT, GLOBAL, GPSC, GULF, GUNKUL, HANA, HMPRO, INTUCH, IRPC, IVL, JAS, JMT, KBANK, KCE, KKP, KTB, KTC, LH, MAJOR, MBK, MEGA, MINT, MTC, ORI, OSP, PLANB, PRM, PSH, PSL, PTG, PTT, PTTEP, PTTGC, QH, RATCH, RS, SAWAD, SCB, SCC, SGP, SPALI, SPRC, STA, STEC, STPI, SUPER, TASCOS, TCAP, THAI, THANI, THG, TISCO, TKN, TMB, TOA, TOP, TPIPP, TQM, TRUE, TTW, TU, VGI, WHA, BEAUTY, JMART, LPN, SISB, WORK.

#### Corporate Governance Report:

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. CGS-CIMB Thailand does not confirm nor certify the accuracy of such survey result.

<b>Score Range:</b>	90 - 100	80 – 89	70 - 79	Below 70 or	No Survey Result
<b>Description:</b>	Excellent	Very Good	Good	N/A	

**United Arab Emirates:** The distributor of this report has not been approved or licensed by the UAE Central Bank or any other relevant licensing authorities or governmental agencies in the United Arab Emirates. This report is strictly private and confidential and has not been reviewed by, deposited or registered with UAE Central Bank or any other licensing authority or governmental agencies in the United Arab Emirates. This report is being issued outside the United Arab Emirates to a limited number of institutional investors and must not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose. Further, the information contained in this report is not intended to lead to the sale of investments under any subscription agreement or the conclusion of any other contract of whatsoever nature within the territory of the United Arab Emirates.

**United Kingdom and European Economic Area (EEA):** In the United Kingdom and European Economic Area, this material is prepared for and being distributed by CGS-CIMB Securities (UK) Limited ("CGS-CIMB UK"). CGS-CIMB UK is authorized and regulated by the Financial Conduct Authority and its registered office is at 27 Knightsbridge, London, SW1X7YB. The material distributed by CGS-CIMB UK has been prepared in accordance with CGS-CIMB's policies for managing conflicts of interest arising as a result of publication and distribution of this material. This material is for distribution only to, and is solely directed at, selected persons on the basis that those persons: (a) are eligible counterparties and professional clients of CGS-CIMB UK; (b) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"), (c) fall within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc") of the Order; (d) are outside the United Kingdom subject to relevant regulation in each jurisdiction, material (all such persons together being referred to as "relevant persons"). This material is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this material relates is available only to relevant persons and will be engaged in only with relevant persons.

This material is categorised as non-independent for the purposes of CGS-CIMB UK and therefore does not provide an impartial or objective assessment of the subject matter and does not constitute independent research. Consequently, this material has not been prepared in accordance with legal requirements designed to promote the independence of research and will not be subject to any prohibition on dealing ahead of the dissemination of research. Therefore, this material is considered a marketing communication.

**United States:** This report is prepared for and distributed in the United States of America by CGS-CIMB Securities (USA) Inc, a U.S. registered broker-dealer and an affiliate of CGS-CIMB Securities Sdn. Bhd., CGS-CIMB Research Pte Ltd, PT CGS-CIMB Sekuritas Indonesia, CGS-CIMB Securities (Thailand) Co. Ltd, CGS-CIMB Securities (Hong Kong) Limited and CGS-CIMB Securities (India) Private Limited, and is distributed solely to persons who qualify as "U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934. This communication is only for Institutional Investors whose ordinary business activities involve investing in shares, bonds, and associated securities and/or derivative securities and who have professional experience in such investments. Any person who is not a U.S. Institutional Investor or Major Institutional Investor must not rely on this communication. The delivery of this report to any person in the United States of America is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein. CGS-CIMB Securities (USA) Inc, is a FINRA/SIPC member and takes responsibility for the content of this report. For further information or to place an order in any of the above-mentioned securities please contact a registered representative of CGS-CIMB Securities (USA) Inc.

CGS-CIMB Securities (USA) Inc. has managed or co-managed a public offering of securities in the past 12 months.

CGS-CIMB Securities (USA) Inc. has not managed or co-managed a public offering of any of the securities mentioned in the past 12 months.

CGS-CIMB Securities (USA) Inc. has received compensation for investment banking services in the past 12 months.

CGS-CIMB Securities (USA) Inc. has not received compensation for investment banking services from any of the company mentioned in the past 12 months.

CGS-CIMB Securities (USA) Inc. expects to receive or intend to seek compensation for investment banking services within the next 3 months.

CGS-CIMB Securities (USA) Inc. neither expects to receive nor intends to seek compensation for investment banking services from any of the company mentioned within the next 3 months.

As of the end of the month immediately preceding the date of publication of this report, CGS-CIMB Securities (USA) Inc. beneficially owns 1% or more of any class of common equity securities.

**United States Third-Party Disclaimer:** If this report is distributed in the United States of America by Raymond James & Associates, Inc ("RJA"), this report is third-party research prepared for and distributed in the United States of America by RJA pursuant to an arrangement between RJA and CGS-CIMB Securities International Pte. Ltd. ("CGS-CIMB"). CGS-CIMB is not an affiliate of RJA. This report is distributed solely to persons who qualify as "U.S. Institutional Investors" or as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934, as amended. This communication is only for U.S. Institutional Investors or Major U.S. Institutional Investor whose ordinary business activities involve investing in shares, bonds, and associated securities and/or derivative securities and who have professional experience in such investments. Any person who is not a U.S. Institutional Investor or Major U.S. Institutional Investor must not rely on this communication. The delivery of this report to any person in the U.S. is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein. If you are receiving this report in the U.S from RJA, a FINRA/SIPC member, it takes responsibility for the content of this report. For further information or to place an order in any of the above-mentioned securities please contact a registered representative of CGS-CIMB Securities (USA) Inc. or RJA.

**Other jurisdictions:** In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is only for distribution to professional, institutional, or sophisticated investors as defined in the laws and regulations of such jurisdictions.

**Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2019, Anti-Corruption 2019**

**ADVANC** – Excellent, Certified, **AEONTS** – Good, n/a, **AH** – Very Good, n/a, **AMATA** – Excellent, Declared, **ANAN** – Excellent, Declared, **AOT** – Excellent, n/a, **AP** – Excellent, Certified, **ASP** – Very Good, Certified, **BAM** – not available, n/a, **BANPU** – Excellent, Certified, **BAY** – Excellent, Certified, **BBL** – Very Good, Certified, **BCH** – Good, Certified, **BGP** – Excellent, Certified, **BPCG** – Excellent, Certified, **BDMS** – Very Good, n/a, **BEAUTY** – Good, n/a, **BEC** – Very Good, n/a, **BGRIM** – Very Good, Declared, **BH** - Good, n/a, **BJC** – Very Good, n/a, **BJCHI** – Very Good, Certified, **BLA** – Very Good, Certified, **BPP** – Very Good, Declared, **BR** - Good, n/a, **BTS** - Excellent, Certified, **CBG** – Very Good, n/a, **CCET** – Good, n/a, **CENDEL** – Very Good, Certified, **CHAYO** - Good, n/a, **CHG** – Very Good, Declared, **CK** – Excellent, n/a, **COL** – Excellent, Declared, **CPALL** – Excellent, Certified, **CPF** – Excellent, Certified, **CPN** - Excellent, Certified, **CPNREIT** – not available, n/a, **CRC** – not available, n/a, **DELTA** - Excellent, Declared, **DEMCO** – Excellent, Certified, **DDD** – Very Good, n/a, **DIF** – not available, n/a, **DREIT** – not available, n/a, **DTAC** – Excellent, Certified, **EA** – Excellent, n/a, **ECL** – Very Good, Certified, **EGCO** - Excellent, Certified, **EPG** – Very Good, n/a, **ERW** – Very Good, n/a, **GFPT** - Excellent, Certified, **GGC** – Excellent, Certified, **GLOBAL** – Very Good, n/a, **GLOW** – Very Good, Certified, **GPSC** – Excellent, Certified, **GULF** – Very Good, n/a, **GUNKUL** – Excellent, Certified, **HANA** - Excellent, Certified, **HMPRO** - Excellent, Certified, **HUMAN** – Good, n/a, **ICHI** – Excellent, Declared, **III** – Excellent, n/a, **INTUCH** - Excellent, Certified, **IRPC** – Excellent, Certified, **ITD** – Very Good, n/a, **IVL** - Excellent, Certified, **JASIF** – not available, n/a, **BJC** – Very Good, n/a, **JMT** – Very Good, n/a, **KBANK** - Excellent, Certified, **KCE** – Excellent, Certified, **KKP** – Excellent, Certified, **KSL** – Excellent, Certified, **KTB** - Excellent, Certified, **KTC** – Excellent, Certified, **LH** - Excellent, n/a, **LPN** – Excellent, Certified, **M** – Very Good, Certified, **MACO** – Very Good, n/a, **MAJOR** – Very Good, n/a, **MAKRO** – Excellent, Certified, **MALEE** – Excellent, Certified, **MC** – Excellent, Certified, **MCOT** – Excellent, Certified, **MEGA** – Very Good, n/a, **MINT** - Excellent, Certified, **MK** – Very Good, n/a, **MTC** – Excellent, n/a, **NETBAY** – Very Good, n/a, **OSP** – Very Good, n/a, **PLANB** – Excellent, Certified, **PLAT** – Very Good, Certified, **PR9** – Excellent, n/a, **PSH** – Excellent, Certified, **PSTC** – Very Good, Certified, **PTT** - Excellent, Certified, **PTTEP** - Excellent, Certified, **PTTGC** - Excellent, Certified, **QH** – Excellent, Certified, **RATCH** – Excellent, Certified, **ROBINS** – Excellent, Certified, **RS** – Excellent, n/a, **RSP** – not available, n/a, **S** – Excellent, n/a, **SAPPE** – Very Good, Declared, **SAT** – Excellent, Certified, **SAWAD** – Very Good, n/a, **SC** – Excellent, Certified, **SCB** - Excellent, Certified, **SCC** – Excellent, Certified, **SCN** – Excellent, Certified, **SF** – Good, n/a, **SHR** – not available, n/a, **SIRI** – Very Good, Certified, **SPA** - Good, n/a, **SPALI** - Excellent, n/a, **SPRC** – Excellent, Certified, **STA** – Very Good, Certified, **STEC** – Excellent, n/a, **SVI** – Excellent, Certified, **SYNEX** – Excellent, Certified, **TASCO** – Excellent, Certified, **TCAP** – Excellent, Certified, **THANI** – Excellent, Certified, **TIPCO** – Very Good, Certified, **TISCO** - Excellent, Certified, **TKN** – Very Good, n/a, **TMB** - Excellent, Certified, **TNR** – Very Good, Certified, **TOP** - Excellent, Certified, **TPCH** – Good, n/a, **TIPIP** – Good, n/a, **TRUE** – Excellent, Certified, **TU** – Excellent, Certified, **TVO** – Excellent, Declared, **UNIQ** – not available, n/a, **VGI** – Excellent, Certified, **WHA** – Excellent, Certified, **WHART** – not available, n/a, **WICE** – Excellent, Certified, **WORK** – Good, n/a.

1 CG Score 2019 from Thai Institute of Directors Association (IOD)

2 AGM Level 2018 from Thai Investors Association

3 Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of November 30, 2018) are categorised into:

companies that have declared their intention to join CAC, and companies certified by CAC.

4 The Stock Exchange of Thailand : the record of listed companies with corporate sustainable development "Thai sustainability Investment 2018" included:

SET and mai listed companies passed the assessment conducted by the Stock Exchange of Thailand: THSI (SET) and THSI (mai)

SET listed companies passed the assessment conducted by the Dow Jones Sustainability Indices (DJSI)

**Recommendation Framework**

**Stock Ratings**

Definition:

- Add** The stock's total return is expected to exceed 10% over the next 12 months.
- Hold** The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
- Reduce** The stock's total return is expected to fall below 0% or more over the next 12 months.

*The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.*

**Sector Ratings**

Definition:

- Overweight** An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
- Neutral** A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
- Underweight** An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

**Country Ratings**

Definition:

- Overweight** An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
- Neutral** A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
- Underweight** An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.