

## India

**REDUCE** *(Initiating coverage)*

Consensus ratings\*: Buy 0 Hold 0 Sell 0

Current price:	Rs481
Target price:	Rs379
Previous target:	NA
Up/downside:	-21.2%
EIP Research / Consensus:	-24.2%

Reuters:	
Bloomberg:	ANURAS IN
Market cap:	US\$655m
	Rs48,038m
Average daily turnover:	US\$0.0m
	Rs0.0m
Current shares o/s:	99.9m
Free float:	0.0%

\*Source: Bloomberg



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	0.0	0.0	0.0
Relative (%)	0.0	0.0	0.0

**Analyst(s)**

**Satish KUMAR**

T (91) 9004603998

E satish.kumar@incredcapital.com

**Shaily RUPARELIA**

T (91) 22 4161 1556

E shaily.ruparelia@incredcapital.com

# Anupam Rasayan India Ltd

## Diversified but expensive

- We are negative on Anupam Rasayan due to stagnating sales in key products, unsustainable margins in certain products and low return ratios.
- We forecast revenue CAGR of 15%, EBITDA CAGR of 12% and PAT CAGR of 27% over FY21-23F. We expect RoE to remain subdued at 7% in FY23F.
- We value Anupam Rasayan at 20x FY23F EPS to arrive at a TP of Rs379. We initiate coverage on Anupam Rasayan with a Reduce rating.

### Diversified chemicals company but costly vis-à-vis risks; Reduce

Anupam Rasayan India is a diversified chemicals company. It is involved in custom synthesis and manufacturing (CSM), makes active ingredients (AIs) for agrochemicals and active pharma ingredients (APIs) intermediaries. Exports are the company's principal revenue (~67%) generator. However, sales of some principal end products of the intermediaries are stagnating, in our view. While 2,4,6 trichloro aniline and 2,4 nitrobenzene are growing fast, the former may face spread compression over aniline and the latter is facing competitive pricing pressures. We expect RoE and RoCE to remain subpar at 7.23% and 7.1%, respectively, in FY23F. The stock appears costly vis-à-vis return ratios and 12% EBITDA CAGR over FY21F-23F. We value the stock at 20x FY23F EPS to arrive at a TP of Rs379. We initiate coverage with a Reduce rating.

### Key molecules face stagnation and others have margin risk

Anupam's five molecules are: **(A)** 2-chloro-4-(4-chloro phenoxy) acetophenone; **(B)** 2-hydroxy-4 4-di chloro diphenyl ether; **(C)** 2 4 6-trichloroaniline; **(D)** 1-(4-phenoxyphenoxy)-2-propanol; and **(E)** 2 4-difluoro nitrobenzene. Molecules A and B are facing stagnation as export volumes have been constant for the last couple of years. Molecule C is growing in volumes but enjoying higher-than-normal margins because of aniline oversupply which is likely to ease in a couple of years, in our view. Molecule D is used as an intermediary for Pyriproxyfen, whose global sales declined at 2% CAGR over the last four years (Source: IHS MARKIT). We expect near-term EPS growth to be driven by investor money deleveraging the balance sheet. In the long term, the company needs to find new molecules for growth.

### We value the stock at 20x FY23F EPS; initiate coverage with Reduce

We value the stock lower than its peers as 1) much of the 27% EPS growth over FY21-23F is driven by investor money deleveraging the balance sheet. EBITDA growth is more sedate at 12% CAGR for FY21-23F. 2) 2,4,6 trichloro aniline spreads over aniline are at a cyclical peak and as global overcapacity of aniline falls margins will too (beyond FY23F). Also, while 2,4 di fluoro nitro benzene has high volume potential, it has multiple manufacturers and, hence, price competition remains inevitable, in our view. Risks: A big CSM contract win in agrochemical AIs can be positive for the stock price. It is possible that Anupam Rasayan may get contracts in Pharma API intermediaries as well, which can present an upside risk to our estimates and TP.

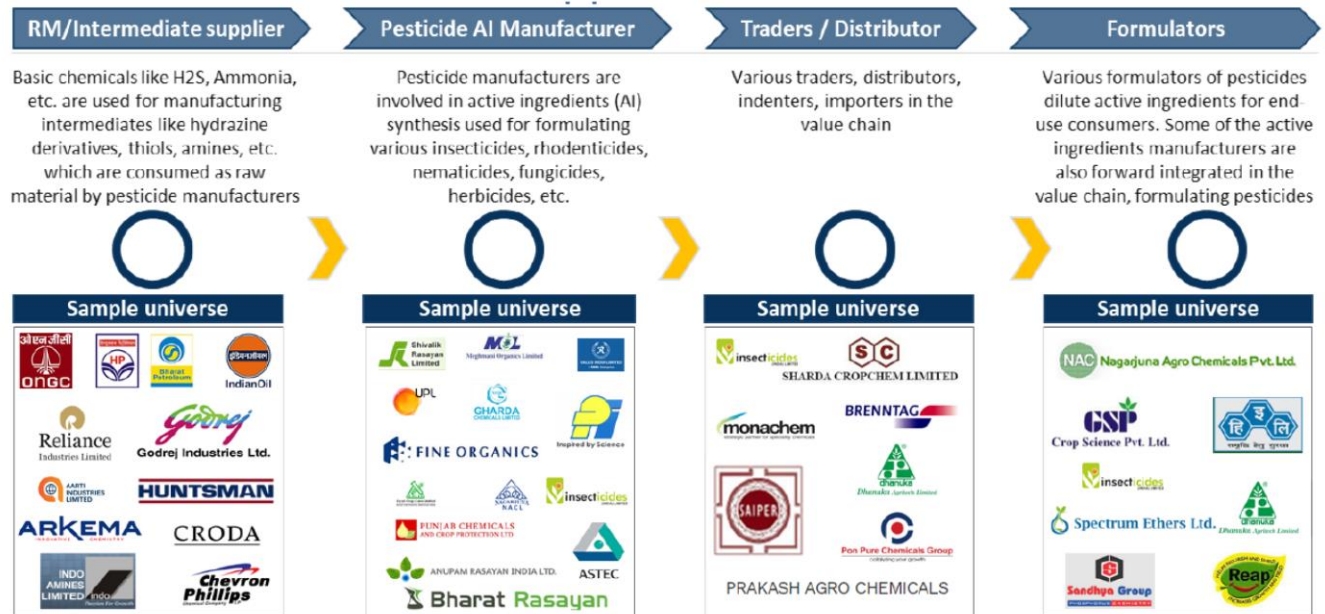
**Financial Summary**

	Mar-19A	Mar-20A	Mar-21F	Mar-22F	Mar-23F
Revenue (Rsm)	5,015	5,289	7,404	8,515	9,792
Operating EBITDA (Rsm)	931	1,349	1,934	2,238	2,588
Net Profit (Rsm)	492	530	931	1,702	2,029
Core EPS (Rs)	6.3	6.8	10.5	17.0	20.3
Core EPS Growth	19.2%	7.6%	54.1%	63.0%	19.2%
FD Core P/E (x)	76.26	70.89	45.99	28.22	23.67
DPS (Rs)	0.0	0.0	0.0	0.0	0.0
Dividend Yield	0.00%	0.00%	0.00%	0.00%	0.00%
EV/EBITDA (x)	58.12	41.05	25.74	21.92	18.61
P/FCFE (x)	199.75	111.19	(41.31)	(39.16)	(41.59)
Net Gearing	120.2%	123.7%	12.6%	6.7%	0.8%
P/BV (x)	7.41	6.33	3.45	3.21	2.97
ROE	10.2%	9.6%	9.4%	11.8%	13.0%
% Change In Core EPS Estimates					
EIP Research/Consensus EPS (x)			0.00	0.00	0.00

SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS, PRICED AS AT 29 MAR 2021

**Figure 1: Anupam Rasayan is a pesticide AI manufacturer. It buys raw materials from chemical manufacturers in India and abroad**

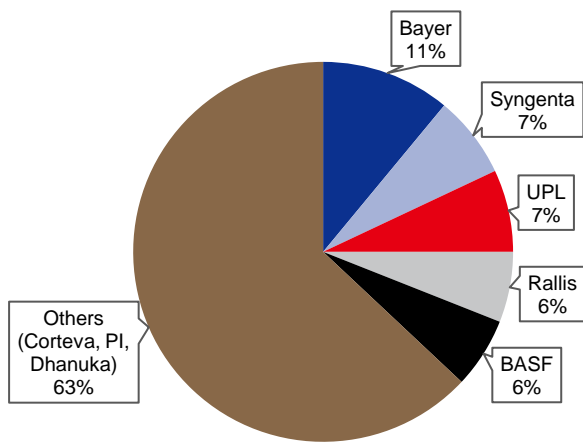
**India crop protection chemicals value chain**



Source: Frost & Sullivan Research & Analysis

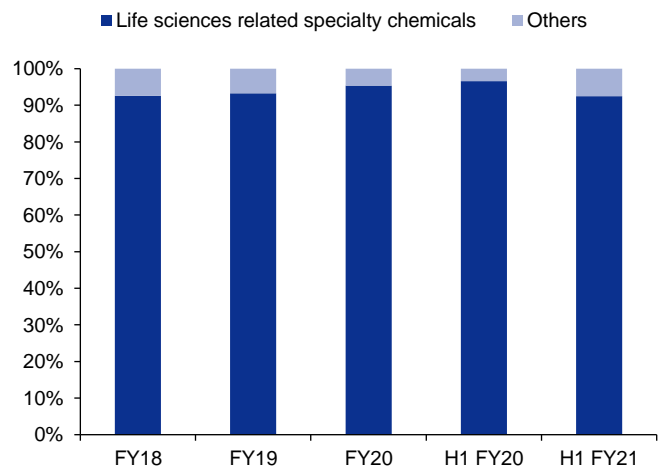
SOURCES: EIP RESEARCH, DRAFT RED HERRING PROSPECTUS (DRHP)

**Figure 2: Anupam Rasayan is one of many players in the Indian agrochemicals market**



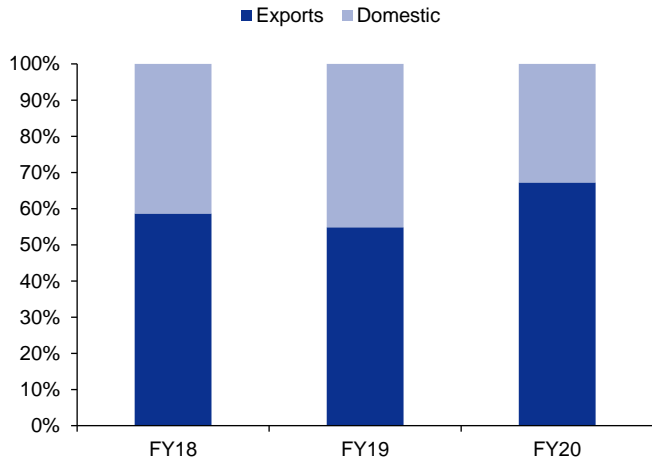
SOURCES: EIP RESEARCH, DRHP

**Figure 3: Anupam Rasayan is present in active pharma ingredients (API)**



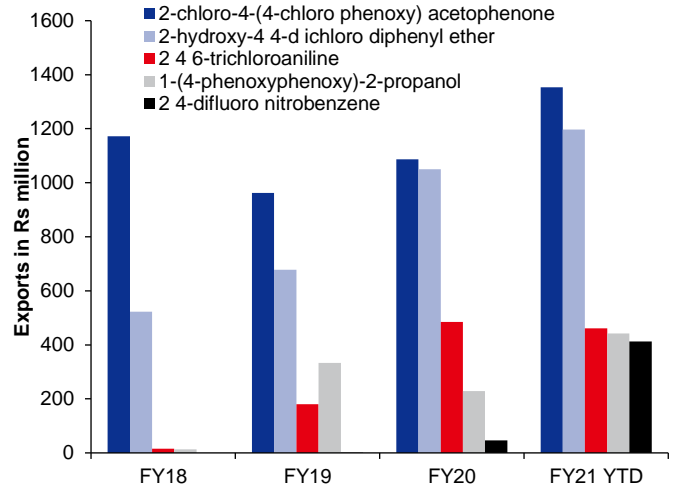
SOURCES: EIP RESEARCH, COMPANY REPORTS

**Figure 4: Exports form on average 2/3<sup>rd</sup> of Anupam Rasayan's overall revenue**



SOURCES: EIP RESEARCH, CORPINESS GLOBAL PRIVATE LIMITED

**Figure 5: 2-chloro-4-(4-chloro phenoxy) acetophenone is Anupam Rasayan's largest export in value terms**



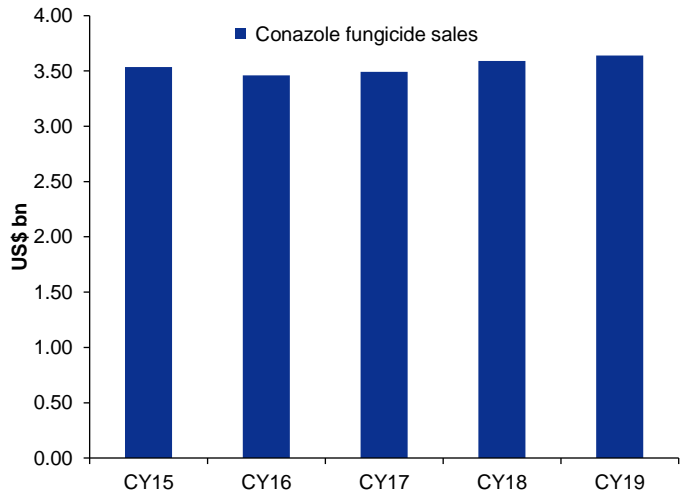
SOURCES: EIP RESEARCH, CORPINESS GLOBAL PRIVATE LIMITED

**Figure 6: 2-chloro-4-(4-chloro phenoxy) acetophenone is used to produce Conazole group of fungicides**

Chemical's name	Uses
2-chloro-4-(4-chloro phenoxy) acetophenone	Conazole Fungicides
2-hydroxy-4 4-di chloro diphenyl ether	Diclofenac Pharma API
2 4 6-trichloroaniline	Chemical intermediaries
1-(4-phenoxyphenoxy)-2-propanol	Intermediate for Pyriproxyfen
2 4-difluoro nitrobenzene	Pharma intermediaries

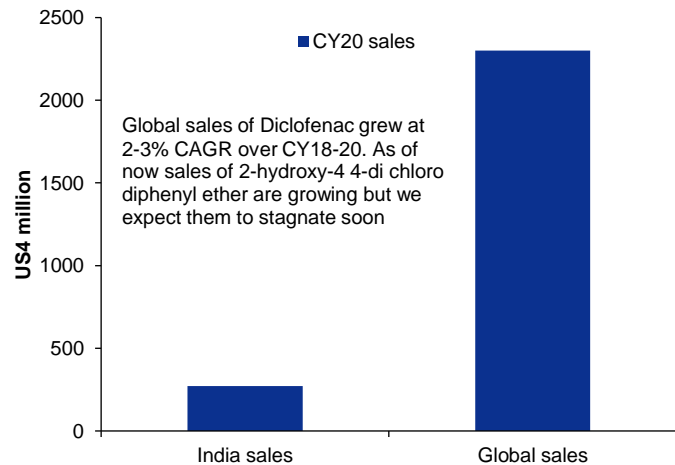
SOURCES: EIP RESEARCH, CORPINESS GLOBAL PRIVATE LIMITED

**Figure 7: Global sales of Conazole fungicides were near stagnant for the last 5 years**



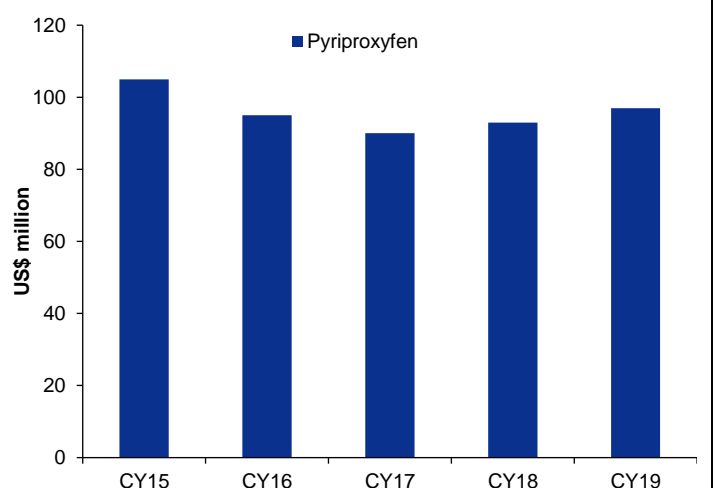
SOURCES: EIP RESEARCH, IHS MARKIT

**Figure 8: 2 Hydroxy-4-4 dichloro diphenyl ether is used to manufacture Diclofenac API. Diclofenac's global sales grew to ~US\$2.3bn, a sedate 2-3% CAGR over CY18-20**



SOURCES: EIP RESEARCH, INDUSTRY CHANNEL CHECKS

**Figure 9: 1-(4-phenoxyphenoxy)-2-propanol is the intermediary for Pyriproxyfen. Pyriproxyfen's global sales declined 2% CAGR for CY15-19**



SOURCES: EIP RESEARCH, IHS MARKIT

## Diversified but expensive, Reduce

Anupam Rasayan India is a diversified chemicals company. It does custom synthesis and manufacturing (CSM), makes agrochemical active ingredients (AIs) and intermediaries for active pharmaceutical ingredients (APIs). Exports are the company's principal revenue (~67%) generator. However, sales of some of the principal end products for intermediaries are stagnating, in our view. This raises concerns about the company's future growth potential. The stock appears expensive vis-à-vis its likely EPS growth. We initiate coverage on Anupam Rasayan with a Reduce rating and TP of Rs416.

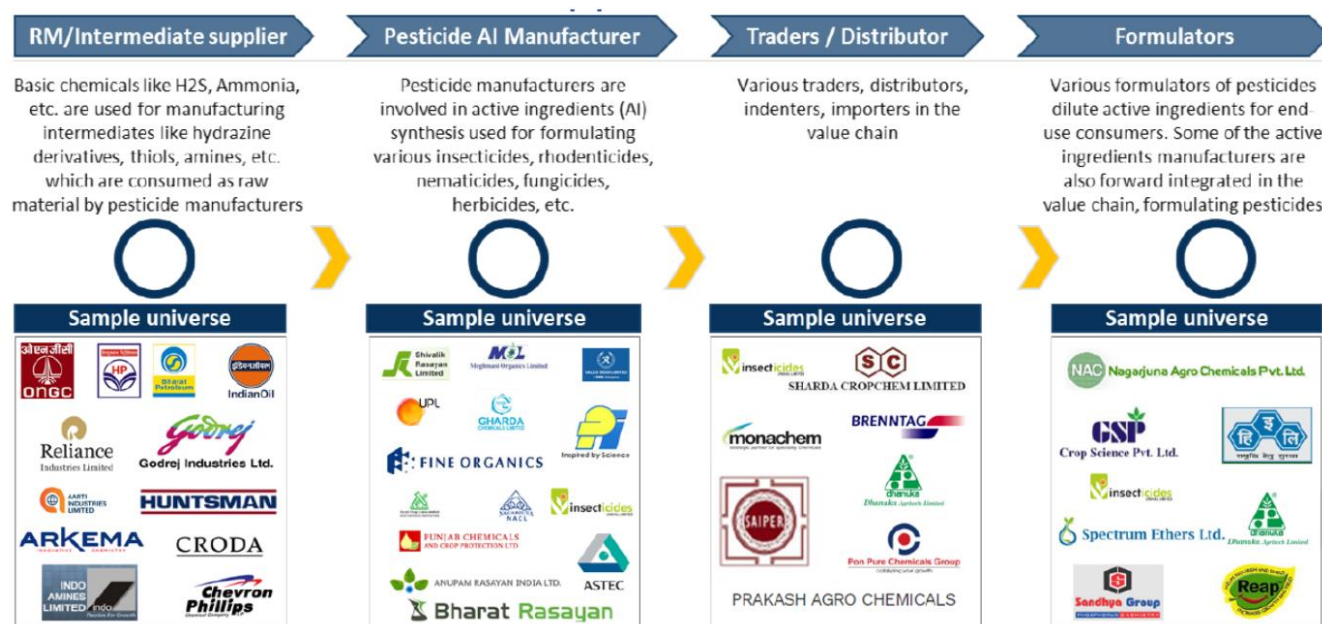
### Business analysis

Anupam Rasayan makes agrochemical AIs and intermediaries. It is present in pharma APIs. The company does CSM for key clients like UPL, Bayer, Syngenta, and BASF. It supplies to agrochemical and key chemical companies.

### Anupam Rasayan supplies intermediaries & agrochem AIs ►

Figure 10: Anupam Rasayan is a pesticide AI manufacturer. It buys raw materials from chemical manufacturers in India and abroad

#### India crop protection chemicals value chain



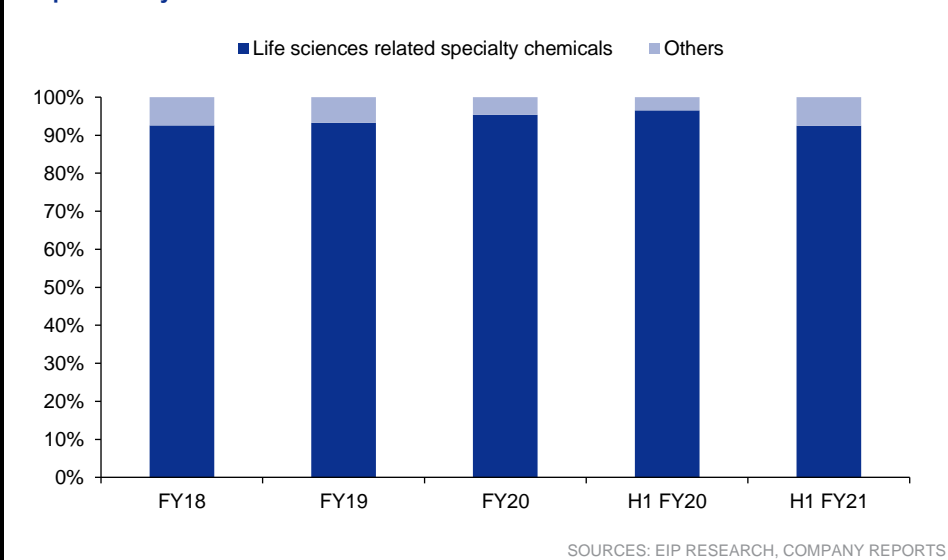
Source: Frost & Sullivan Research & Analysis

SOURCES: EIP RESEARCH, COMPANY REPORTS, DRHP

### Two broad segments – life science-related specialty chemicals and other specialty chemicals ►

Anupam Rasayan has two distinct business verticals (i) life science-related specialty chemicals comprising products related to agrochemicals, personal care and pharmaceuticals, and (ii) other specialty chemicals, comprising specialty pigments and dyes, and polymer additives. In the six months ended 30 Sep 2020, revenues from the life science-related specialty chemicals vertical accounted for 95.37% of Anupam Rasayan's revenue, and 92.48% of its revenue from operations. Revenue from other specialty chemicals accounted for 4.63% and revenue from operations 7.52% in the same period.

**Figure 11: Life sciences-related specialty chemicals formed more than 90% of Anupam Rasayan's overall sales in 1HFY21**



**Company has been in CSM for long and has 45 customers ➤**

Significant entry barriers exist in the custom synthesis and manufacturing industry, including customer validation and approvals, high quality standards, stringent specifications and expectations from customers for process innovation and cost reduction. The acquisition of a customer is a long process as the end-customer is required to register the manufacturer with regulatory bodies as a supplier of intermediate products or active ingredients.

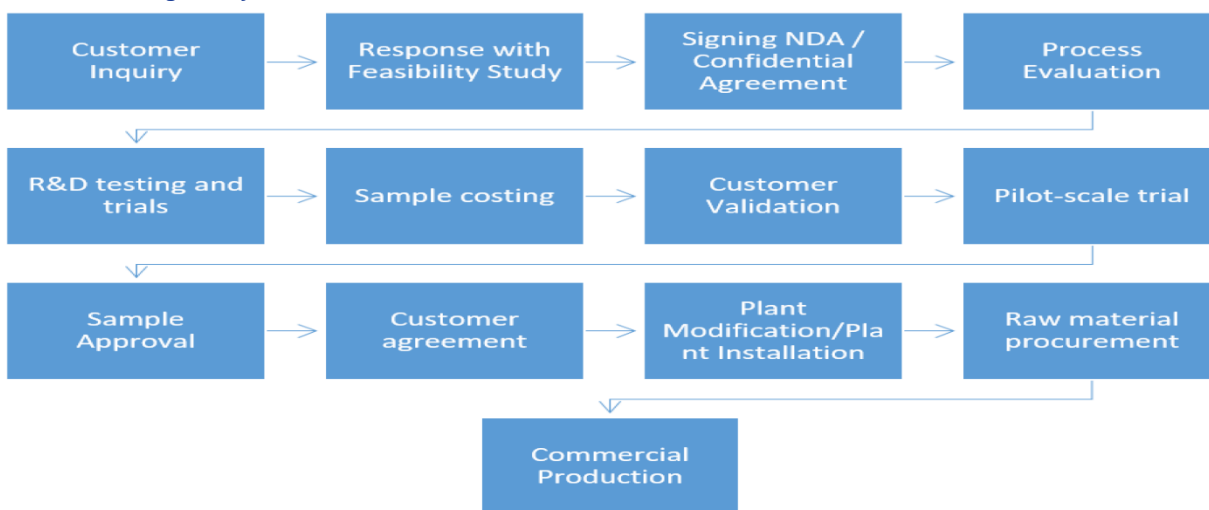
The company has developed strong and long-term relationships with various multinational corporations, including

- Syngenta Asia Pacific Pte. Ltd.,
- Sumitomo Chemical Company Limited
- UPL Limited

In the six months ended 30 Sep 2020, the company manufactured products for over 45 domestic and international customers, including 15 multinational companies.

**CSM is a high entry barrier business, with long product gestation ➤**

**Figure 12: CSM has high entry barriers**

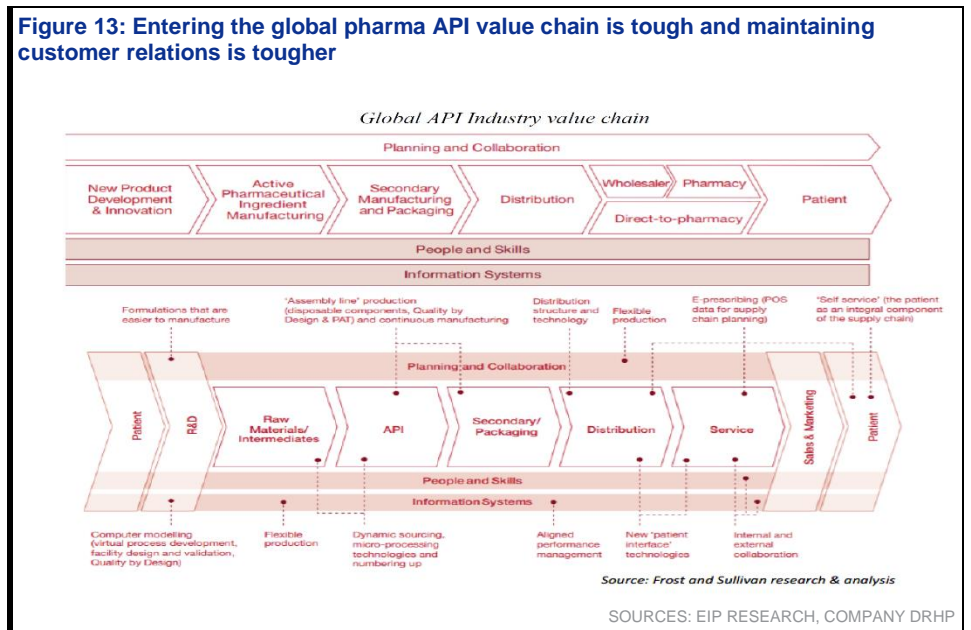


SOURCES: EIP RESEARCH, COMPANY DRHP



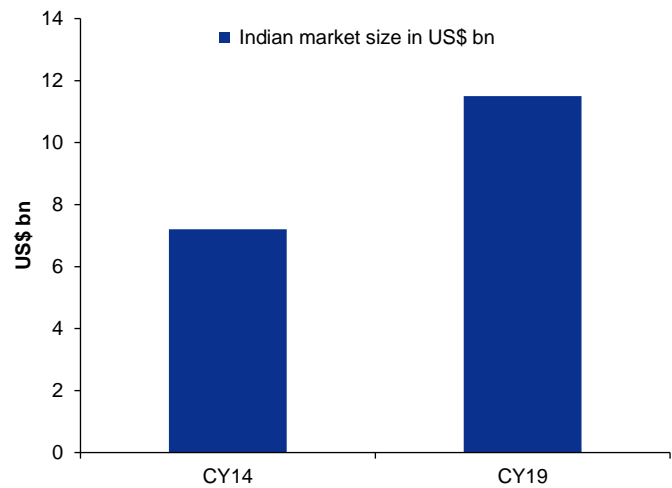
**Global Pharma API complicated; has long-gestation projects**

**Figure 13: Entering the global pharma API value chain is tough and maintaining customer relations is tougher**



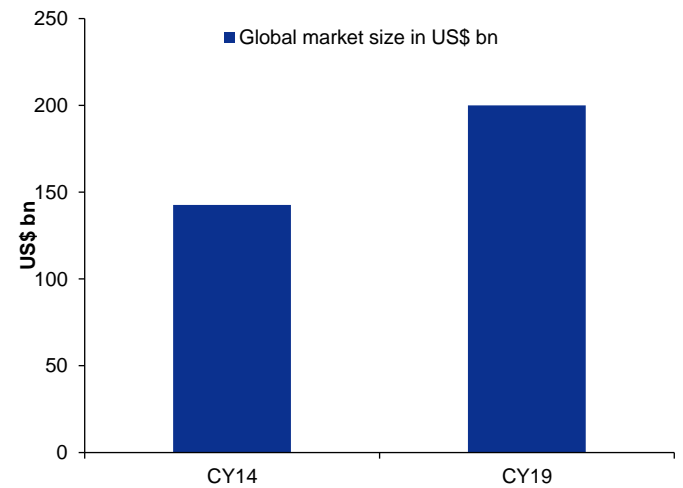
**CSM opportunity is worth US\$200b as on CY19**

**Figure 14: Indian market size for CSM business was US\$11.5bn in CY19, growing at 1.5% CAGR over CY14-19**



SOURCES: EIP RESEARCH, COMPANY DRHP

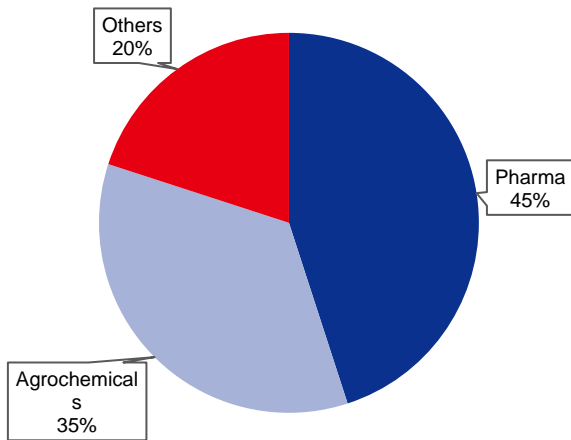
**Figure 15: Global CSM market was US\$200bn in CY19, grew at 7% CAGR over CY14-19**



SOURCES: EIP RESEARCH, COMPANY DRHP

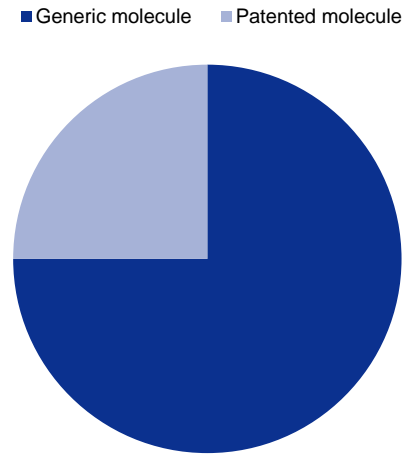
**Indian CSM limited primarily to agrochemicals & APIs**

**Figure 16: APIs and agrochemical AIs formed 80% of the addressable market for Indian companies in CY19**



SOURCES: EIP RESEARCH, COMPANY DRHP

**Figure 17: Indian companies mainly worked on CSM for patented molecules (CY19)**



SOURCES: EIP RESEARCH, COMPANY DRHP

**Anupam Rasayan is a fringe player in agrochemicals CSM**

**Figure 18: Key agrochemicals CSM players in the Indian market**

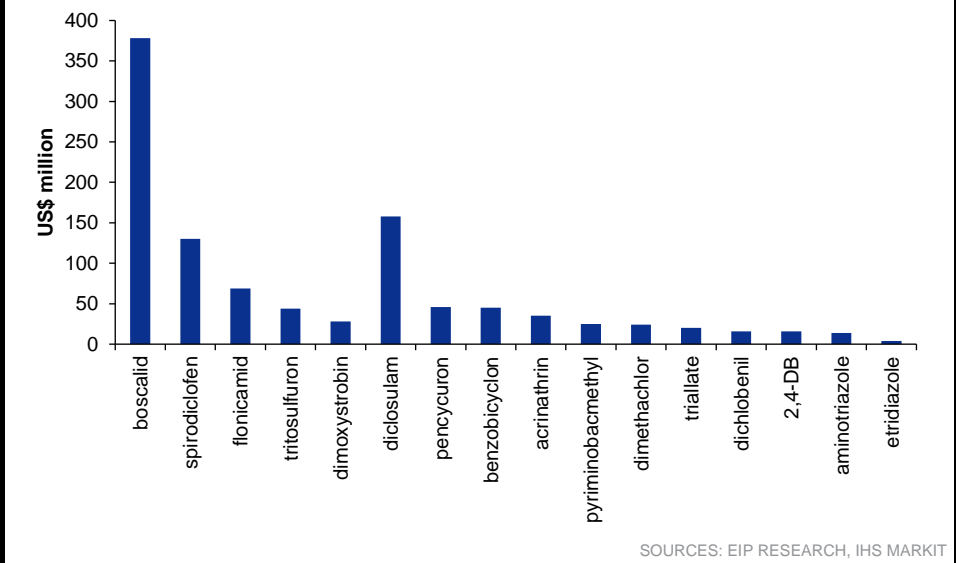
Crop Chemicals	Protection	Active Pharmaceutical Ingredients	Imaging Chemicals	Other specialty Chemicals
PI Industries (20% to 25%)		Divi's Laboratories	Vivimed Labs	Sami labs
Deccan Chemicals		Dishman Pharma	Fujifilm India	Sajjan India
Coromandel International		Nicholas Piramal	Hubergroup India	Syschem India
Anupam Rasayan		Shasun Chemicals	Navin Fluorine International	Infinity spec chem
Navin Fluorine International (10% to 12%)		Jubilant Organosys		Anubhav corp.
Aarti Industries (10% to 12%)		Cipla Ltd		Aamirav ingredients
Hikal Limited		Aarti Industries		Chemcon spec chem
		Anupam Rasayan		
		Vivimed Labs		
		Dr. Reddy's Ltd		
		Aurobindo Pharma		
		Laurus Lab (Synthesis division)		

Note: Figures in brackets indicate market share of key players in the segment

SOURCES: EIP RESEARCH, COMPANY DRHP

**In CY19 US\$1bn worth of agrochemical AI molecules came off patent, but Anupam faced tough competition ➤**

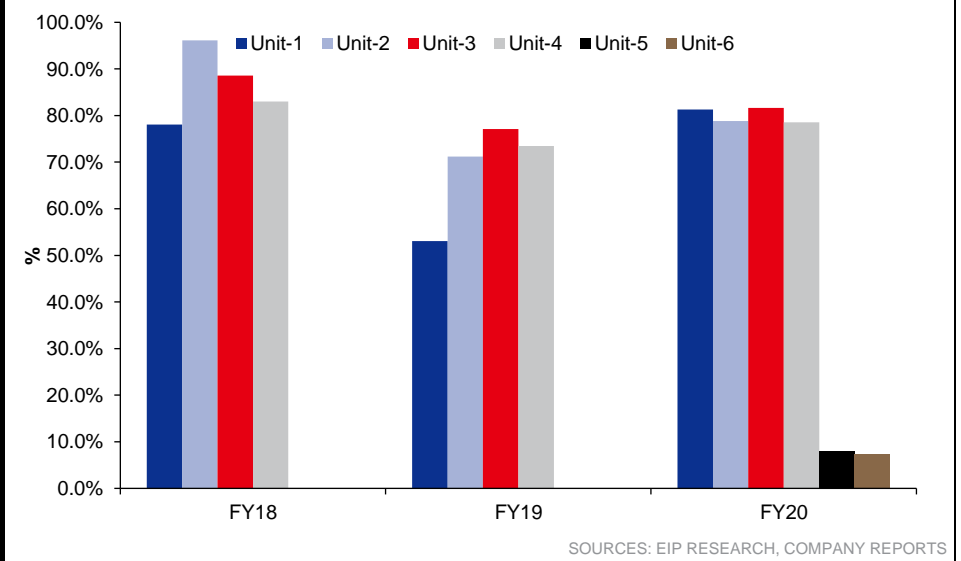
**Figure 19: Close to US\$1bn worth of agrochemicals AIs have become off-patent and/or generic versions were launched in CY19**



**Anupam has surplus capacity in its plants ➤**

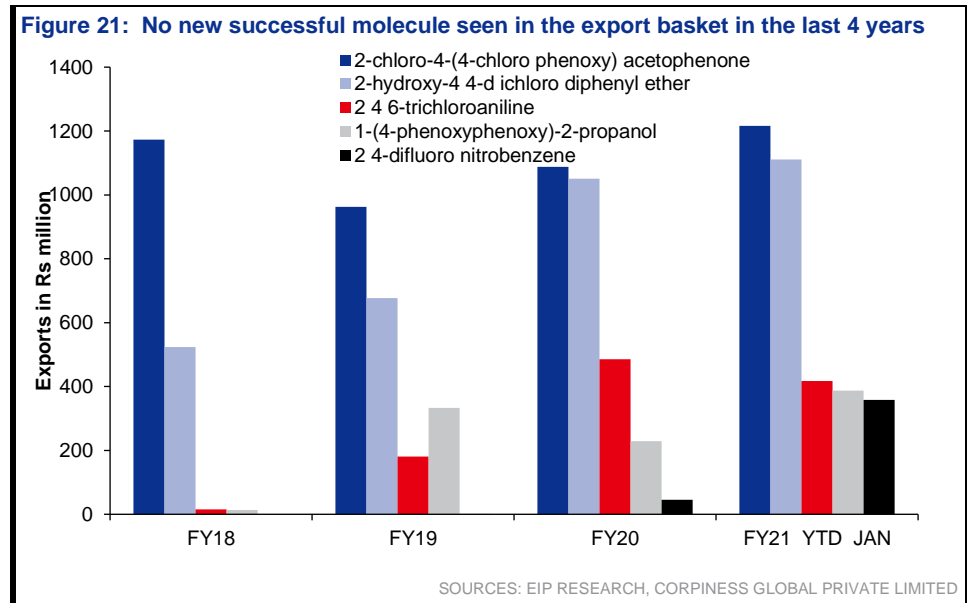
The company has surplus capacity at its plants, however, the key is product demand from its customers, which is uncertain as sales of two out of five principal molecules have stagnated.

**Figure 20: Anupam Rasayan has enough surplus capacity in its new plants**





**Same five export molecules have been at the top for four years ➤**



**These top five molecules are used in agrochemical AIs, APIs ➤**

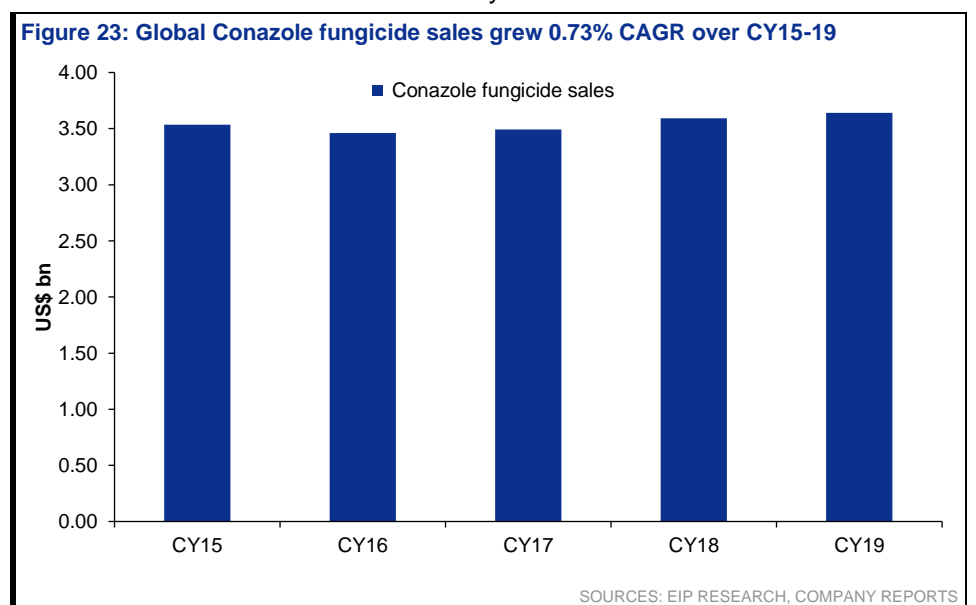
**Figure 22: Top agrochemicals AI, API molecules**

Name of Chemicals	Usage
2-chloro-4-(4-chloro phenoxy) acetophenone	Conazole Fungicides
2-hydroxy-4 4-di chloro diphenyl ether	Diclofenac Pharma API
2 4 6-trichloroaniline	Chemical intermediaries
1-(4-phenoxyphenoxy)-2-propanol	Intermediate for Pyriproxyfen
2 4-difluoro nitrobenzene	Pharma intermediaries

SOURCES: EIP RESEARCH, CORPINESS GLOBAL PRIVATE LIMITED

**No. 1 export molecule appears to be stagnating, its end product market also not doing well ➤**

2-chloro-4-(4-chloro phenoxy) acetophenone is Anupam Rasayan’s principal export molecule. The molecule is used as an intermediary for the Conazole group of fungicides. However, global sales of the Conazole group of fungicides grew at a sedate 0.73% CAGR over the last five years.



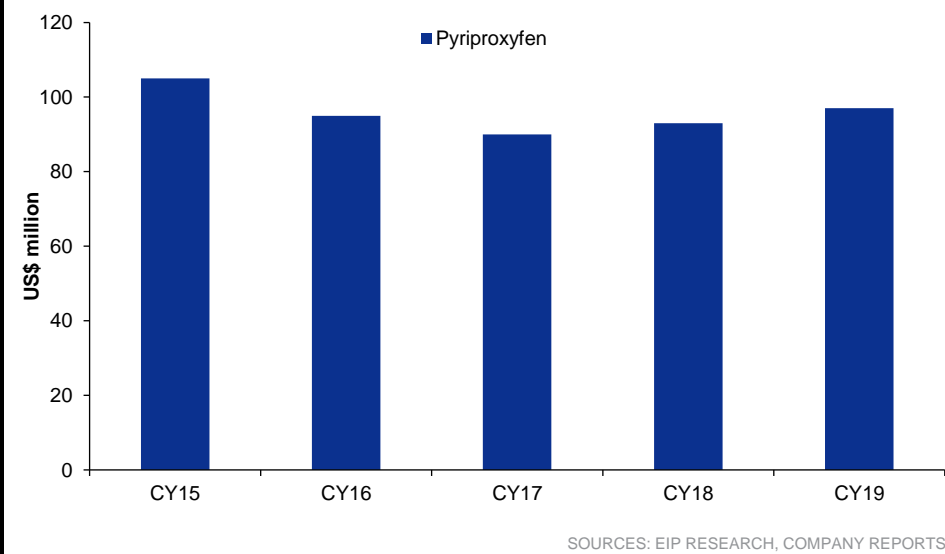
**2-hydroxy-4 4-dichloro diphenyl ether – little room for growth ➤**

Diclofenac is a painkiller used for high grade pain alleviation. 2-hydroxy-4 4-dichloro diphenyl ether is used as an intermediary to manufacture Diclofenac. Global sales of Diclofenac was US\$2bn-2.5bn in FY20 (Source: EIP estimates based on channel checks), growing at 2-3% CAGR over FY18-20. Normally intermediaries form 10-12% of the value of product sales. Hence, the potential market for 2-hydroxy-4 4-dichloro diphenyl ether is ~US\$200m-250m. At sales of US\$15m for FY20, Anupam Rasayan is nearing 8% of market share, which limits its growth potential.

**We believe 1-(4-phenoxyphenoxy)-2-propanol has stagnated and won't grow in coming years ➤**

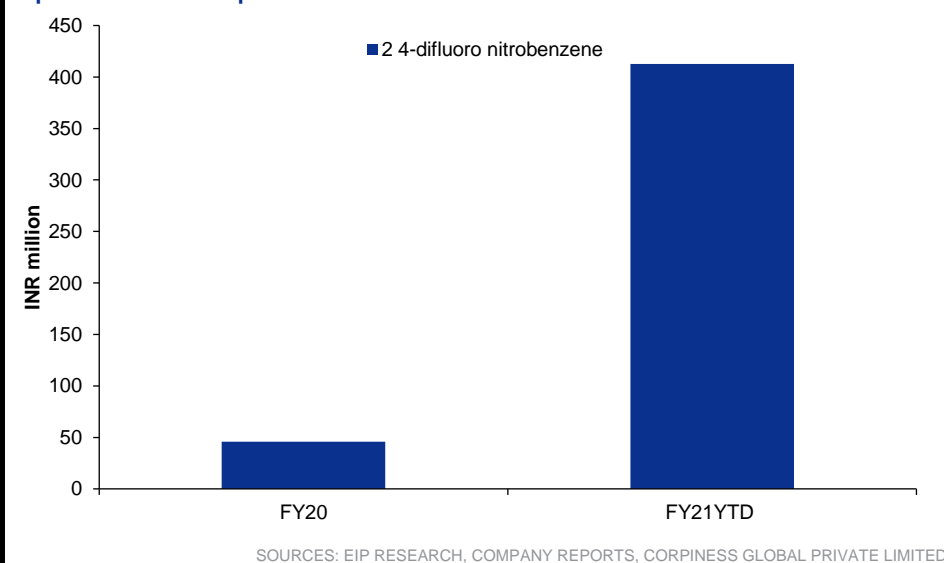
1-(4-phenoxyphenoxy)-2-propanol is used as an intermediary to manufacture Pyriproxyfen – an insecticide. Global sales of this insecticide declined by 2% CAGR over the last five years (CY14-19). Intermediaries form 15-20% of agrochemical AIs (as on CY19) The maximum sales potential 1-(4-phenoxyphenoxy)-2-propanol is US\$15m-19m (20% of US\$97m is ~15m-19m) per annum, in our view. With US\$7m-9m worth of sales in FY20 (Source: Corpiness Global Private Limited), Anupam Rasayan already has 50% market share thus limiting its growth potential.

**Figure 24: Global sales of Pyriproxyfen was US\$97m in CY19. 1-(4-phenoxyphenoxy)-2-propanol has maximum sales potential of US\$19m per annum, in our view. It is an intermediary used to produce Pyriproxyfen**



## 2 4-difluoro nitrobenzene is used as an API intermediary and has considerable potential ➤

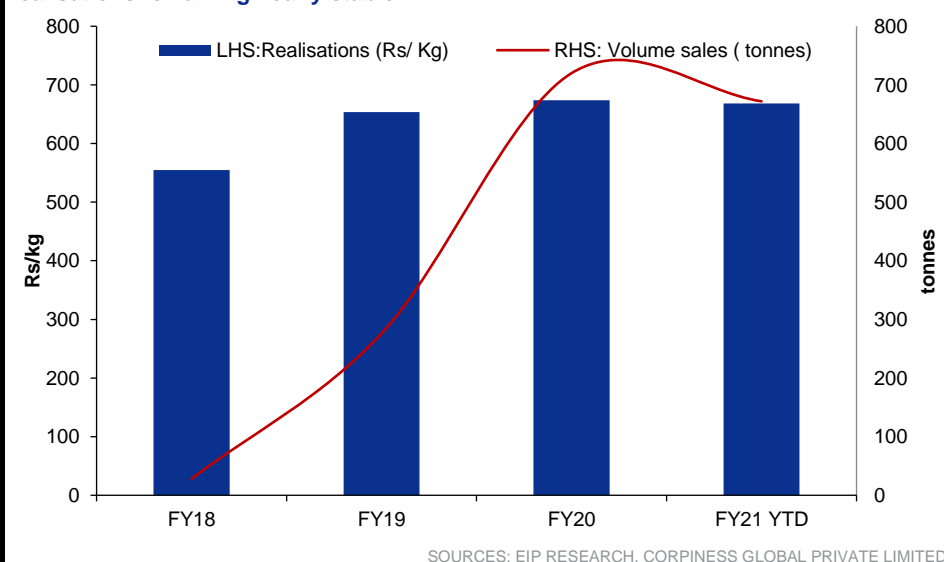
**Figure 25: This molecule's exports are growing at a fast pace. In FY21 (YTD Feb) its exports was 10x compared to FY20**



## 2,4,6 trichloro aniline is doing well in volume growth and realisation terms ➤

2,4,6 trichloro aniline is a chemical intermediary widely used as a feedstock to manufacture various chemicals.

**Figure 26: 2,4,6 aniline volume exports was ~25x that of the last 3 years, with realisations remaining nearly stable**

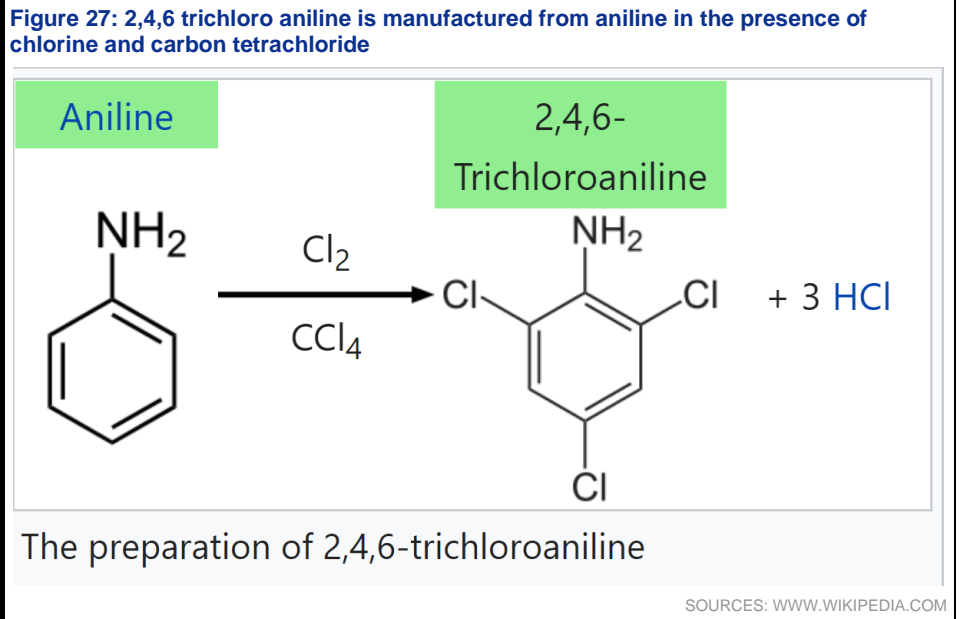


## 2,4,6 trichloro aniline is made by other Indian manufacturers ➤

2,4,6 trichloro aniline is a commodity product manufactured by other Indian manufacturers too. Some of them are:

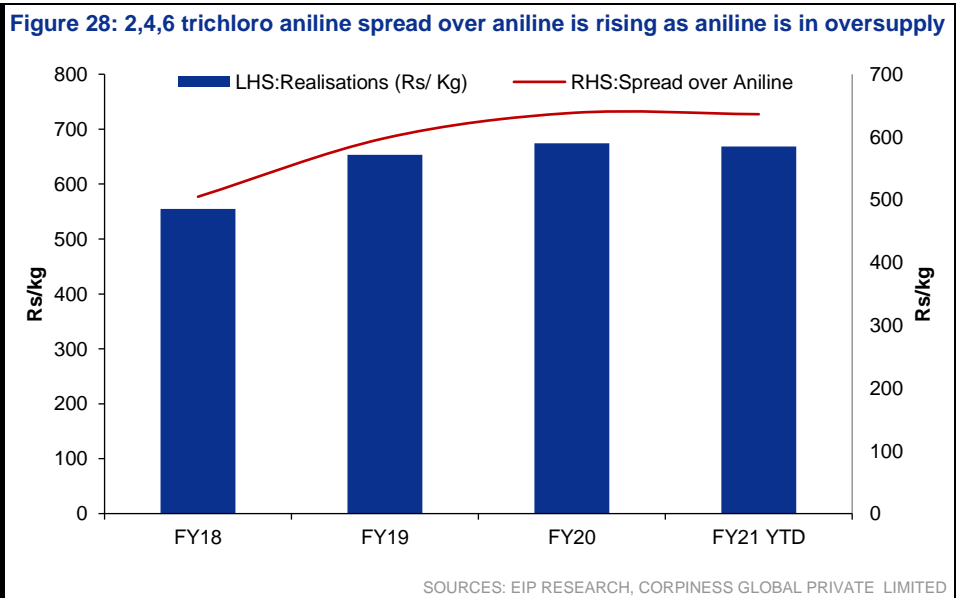
1. Aarti Industries (ARTO IN, REDUCE, Rs1,087, CMP Rs1,333.95)
2. Vinati Organics (VO IN, ADD, Rs1,603, CMP Rs1,420)
3. Anupam Rasayan (ANURAS IN, REDUCE, Rs379, CMP Rs493)

**2,4,6 trichloro aniline is manufactured by chlorination of aniline by chlorine and carbon tetrachloride ➤**



**2,4,6 trichloro aniline spread over aniline matters for profitability, oversupply of aniline bodes well for Anupam ➤**

In the past few years, the oversupply of aniline has helped manufacturers procure materials at lower prices. However, in our view, these favourable times may not last long as new producers may likely enter the market to manufacture 2,4,6 Trichloro Aniline.

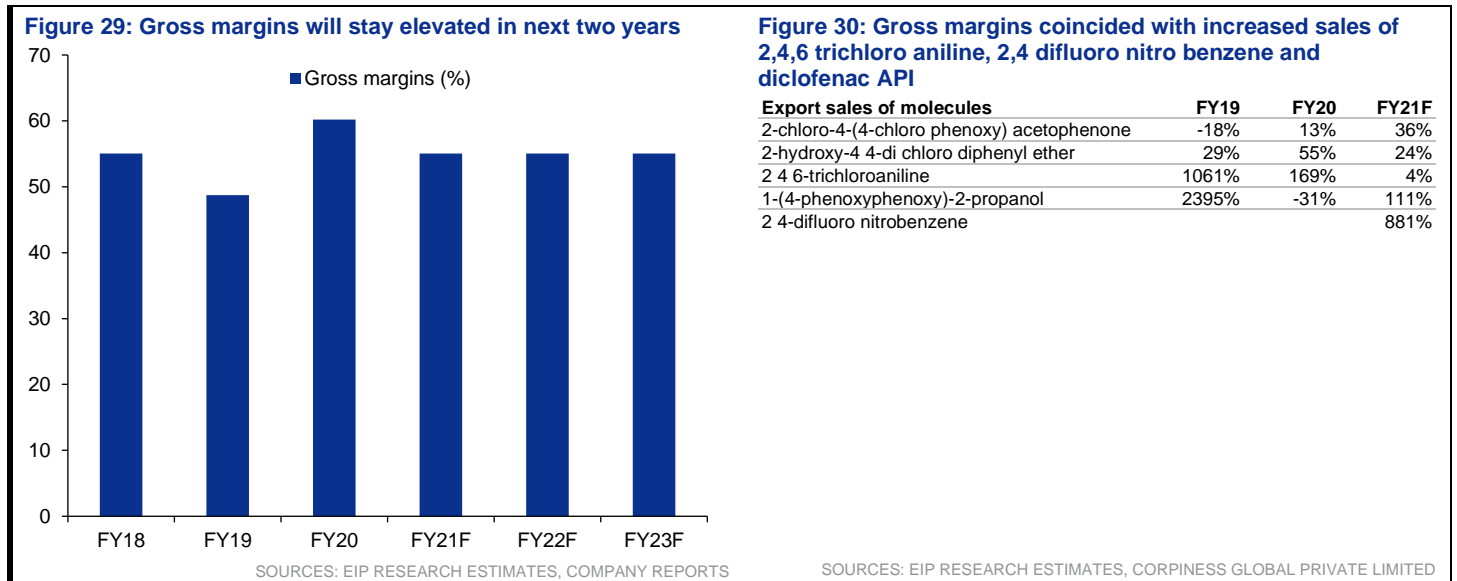


## Earnings and valuation

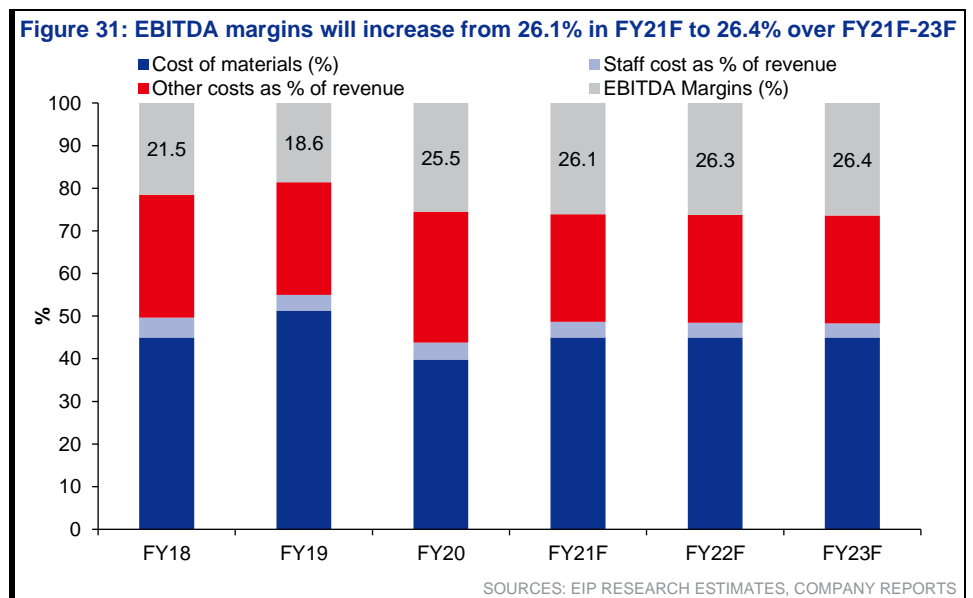
We forecast revenue CAGR of 15% and PAT CAGR of 27% over FY21-23F. The rise in EPS is partially driven by debt reduction as the company will use IPO proceeds to reduce debt on books (Source: DHRP).

### Gross margins likely to remain elevated

Gross margins of Anupam Rasayan jumped in FY20 as it ramped up sales of 2,4,6 trichloro aniline, 2,4 difluoro nitro benzene and Diclofenac API intermediary. Like all anti-inflammation and painkiller drugs, Diclofenac has done well in the last couple of years. The company has the spare capacity to manufacture these products and its exports are rising fast.



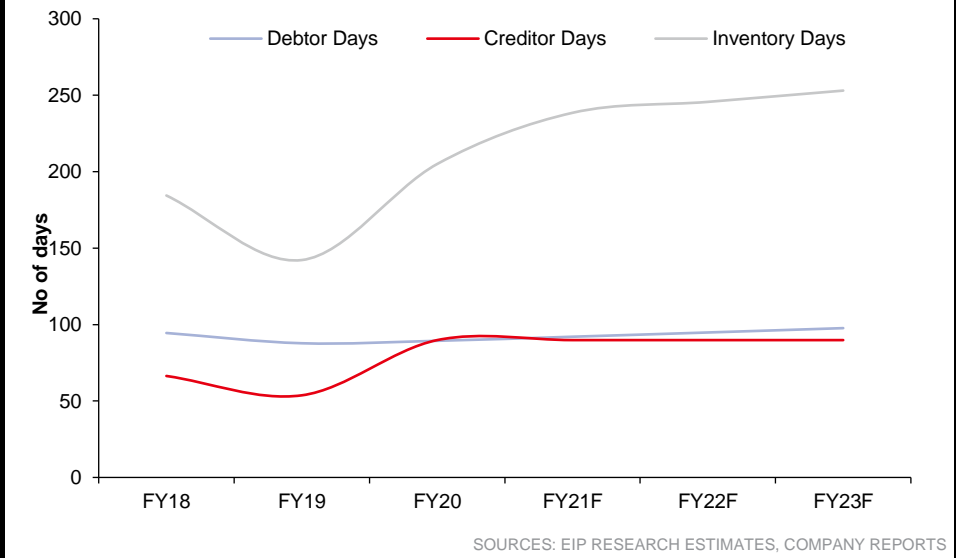
### Operational leverage will result in EBITDA margin expansion



### Inventories and working capital will remain elevated

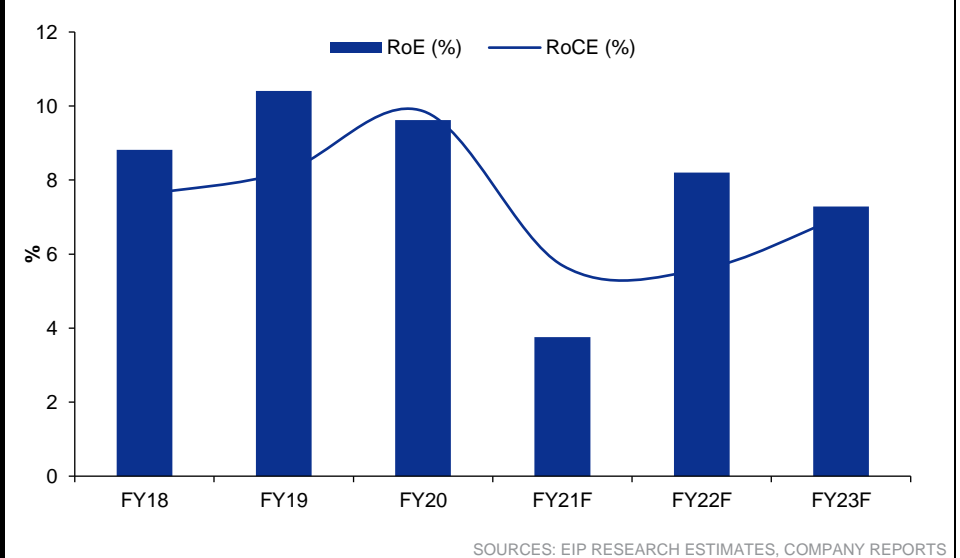
We believe exports are likely to remain Anupam Rasayan's mainstay and likely to increase in the next couple of years (FY21-23F) to 75% of its overall sales. Exports/ CSM are working capital-intensive businesses, hence, we believe working capital will increase in FY22F-23F.

**Figure 32: Anupam Rasayan's working capital to increase with more exports**



**RoE and RoCE to decline from FY20 levels ➤**

**Figure 33: After declining a bit in FY21F (as IPO cash comes into the books), RoE and RoCE will increase but remain well below FY20**



**Business is asset heavy, hence faster increase in capacity utilisation is needed for RoE to improve, but utilisation is improving as asset turnover will only touch 0.40x by FY23F ➤**

**Figure 34: Low asset turnover ratio (0.4x vs peer average of 1x) is the reason for low RoE. Increase in working capital will further reduce asset turns, hence, RoE (as asset intensity will increase and asset turns will decline)**

	FY18	FY19	FY20	FY21F	FY22F	FY23F
Profitability (%)	11.82	10.01	10.02	5.03	13.98	11.66
Asset turnover (x)	0.34	0.38	0.32	0.30	0.35	0.40
Financial leverage (x)	2.19	2.61	2.80	1.79	1.63	1.49
ROE (%)	8.8	9.9	8.9	2.7	7.9	7.0

SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS



## Prefer P/E (to DCF & EV/EBITDA) to value Anupam Rasayan ➤

We value Anupam Rasayan on a P/E basis as we consider it a more appropriate valuation method for agrochemical companies over DCF or EV/EBITDA. In our view, DCF is not a suitable valuation method for Anupam Rasayan as the earnings of chemical companies are highly cyclical and forecasting longer-term earnings is difficult. Also, we think a balance sheet-based valuation is inappropriate as short-term debt may rise because of inventory cycles, distorting the balance sheet for a short period (in many cases, only for one quarter).

## We value the stock at 20x FY23F EPS. Initiate with Reduce rating ➤

**Figure 35: Target price valuation**

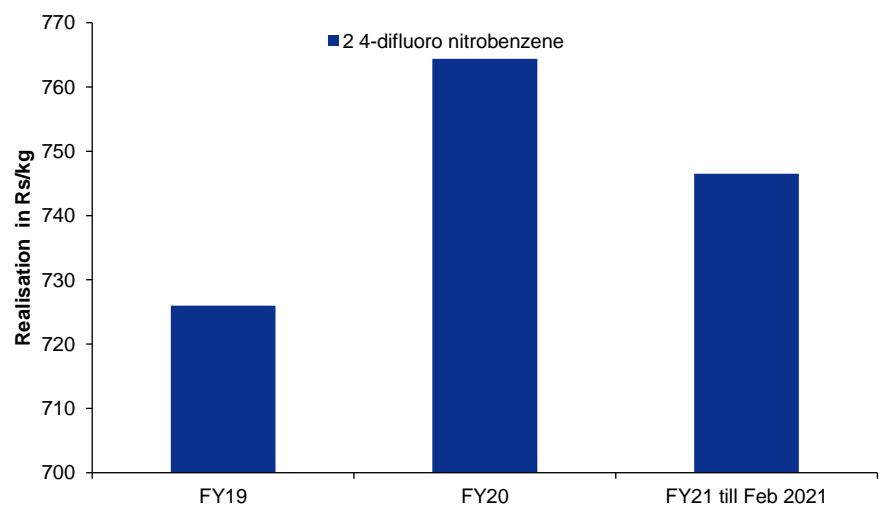
FY22F EPS (Rs)	17.0
FY23F EPS (Rs)	18.9
FY23F P/E (x)	20
Target price (Rs)	379

SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS

We value the stock lower than its peers (at 15% discount to its peers) as:

- Much of the EPS growth of 27% over FY21-23F is driven by investor money deleveraging the balance sheet. EBITDA growth is sedate at 12% CAGR FY21-23F.
- Much of the volume growth will be driven by 2,4,6 trichloro aniline and 2,4-difluoro nitrobenzene. 2,4,6 trichloro aniline spreads over aniline are at its cyclical peak and as global overcapacity of aniline reduces the margins will fall (beyond FY23F). Also, while 2,4 difluoro nitrobenzene has high volume potential, it has multiple manufacturers and, hence, price competition will be inevitable, in our view.
- Key chemicals like 2-chloro-4-(4-chloro phenoxy) acetophenone and 2-hydroxy-4,4-dichloro diphenyl ether sales have stagnated.

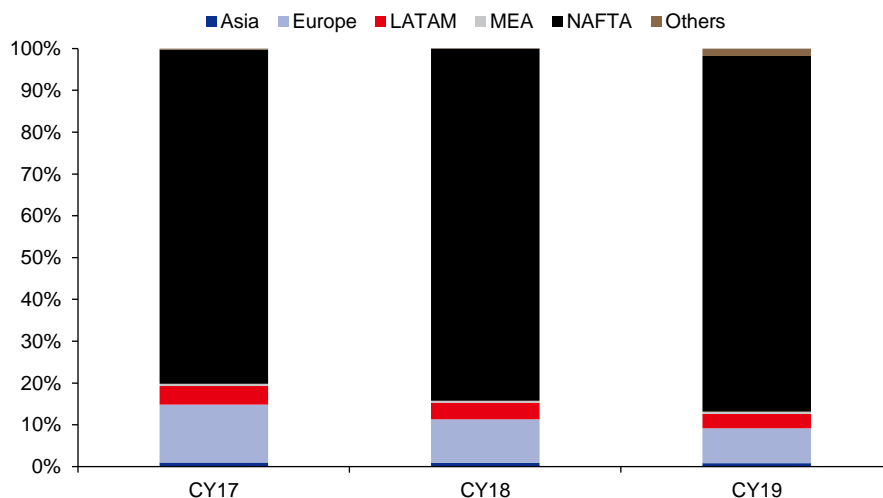
**Figure 36: 2,4 difluoro nitrobenzene realisations came down YTD FY21 over FY20. Part of it may be driven by US\$ appreciation, highlighting the company's lack of pricing power**



SOURCES: EIP RESEARCH, CORPINESS GLOBAL PRIVATE LIMITED

- Anupam Rasayan has ventured into new products like Dicamba (a herbicide by Corteva). However, Corteva has withdrawn this herbicide from the North American market.

**Figure 37: As evident from the graph, North America (NAFTA) is the key region for Dicamba. Corteva's decision to withdraw this molecule will be bad for Anupam Rasayan's growth prospects**



SOURCES: EIP RESEARCH, IHS MARKIT

- EPS growth over FY21-23F is 27%, however operational profit (EBITDA) growth is only 12% CAGR. Moreover, RoE is only 7% by FY23F. Because of subpar EBITDA growth and low RoE, we initiate with Reduce rating.

### Peer comparison

**Figure 38: 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	621	578	-7%	HOLD	6,535	9.3	8.4	2.0	1.7	14.4	13.9	18.3	15.1
Rallis India Ltd	RALI IN	269	355	32%	ADD	720	13.3	12.0	3.3	2.9	16.5	15.7	21.4	19.8
SRF Limited	SRF IN	5,348	6,227	16%	ADD	4,365	18.9	16.3	4.9	4.2	18.8	17.6	29.8	25.8
PI Industries Limited	PI IN	2,316	2,505	8%	ADD	4,841	30.6	23.2	6.2	5.7	17.9	15.6	45.2	38.0
Vinati Organics Ltd	VO IN	1,419	1,603	13%	ADD	2,009	40.9	29.7	10.0	8.4	20.1	23.3	53.2	39.0
Dhanuka Agritech	DAGRI IN	701	689	-2%	REDUCE	450	13.0	11.9	4.2	3.5	26.3	22.7	17.1	16.8
Heranba Industries Ltd	HERANBA IN	637	457	-28%	REDUCE	351	17.5	17.8	6.0	4.9	34.5	24.9	24.2	25.4
Anupam Rasayan India Ltd	ANURAS IN	542	379	-30%	REDUCE	745	44.1	40.8	3.8	3.4	3.7	6.7	136.8	53.4
Laxmi Organic Ltd	LXCHEM IN	184	110	-40%	REDUCE	671	15.9	16.5	3.6	3.2	12.3	10.5	38.6	32.3
Aarti Industries	ARTO IN	1,368	1,087	-21%	REDUCE	3,282	23.2	21.7	6.2	5.0	16.1	13.1	34.6	22.0
Navin Fluorine International Ltd	NFIL IN	2,501	2,599	4%	HOLD	1,706	41.7	33.5	7.9	7.1	12.8	15.4	54.0	48.6
Bayer	BAYN GR	53	NR	NR	NR	61,977	7.7	7.1	1.2	1.1	7.7	7.7	9.1	8.3
BASF	BAS GR	69	NR	NR	NR	74,826	8.6	8.4	1.5	1.5	2.8	2.8	16.5	15.5
Corteva	CTVA US	46	NR	NR	NR	34,088	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 25 MAR 2021

### Risks

- In our view, 2,4,6 trichloro aniline spread over aniline will fall in the next couple of years as aniline oversupply will fade out. However, if oversupply remains then expectations of EPS growth beyond FY23F will remain elevated and the stock could rerate.
- It is unlikely Dicamba can find success in any other region like it did under the North American Free Trade Agreement (NAFTA), but it remains an upside for Anupam Rasayan. Corteva (Not Rated) has withdrawn this molecule in NAFTA because of regulatory action and is unlikely to be launched in any other region in the near term.
- Any new big CSM contract win in agrochemical AIs could be another positive for the stock price.
- It is possible Anupam Rasayan may get contracts in API intermediaries as well. However, we have not found any evidence of this in our analysis of the export data (Source: Corpiness Global Private Limited).
- Multiple rerating despite poor return ratios is another risk to our call. Globally, lower interest rates are inflating asset prices. Hence, it is possible that Anupam Rasayan's P/E could get rerated despite fundamental weakness.

## SWOT Analysis

**Figure 39: Anupam Rasayan**

Strengths	Weaknesses
Customer relationships spanning over a decade.	The company has not been able to use long-standing customer relationships to gain access to end-product supply like PI Industries (PI IN, Add, TP Rs2,505) has.
Opportunities	Threats
Venturing into the manufacture of active pharma ingredients (API) is an opportunity.	Most of the growth-delivering products are commodity in nature. Margins can fall putting EPS growth at risk.

SOURCES: EIP RESEARCH ESTIMATES, COMPANY REPORTS

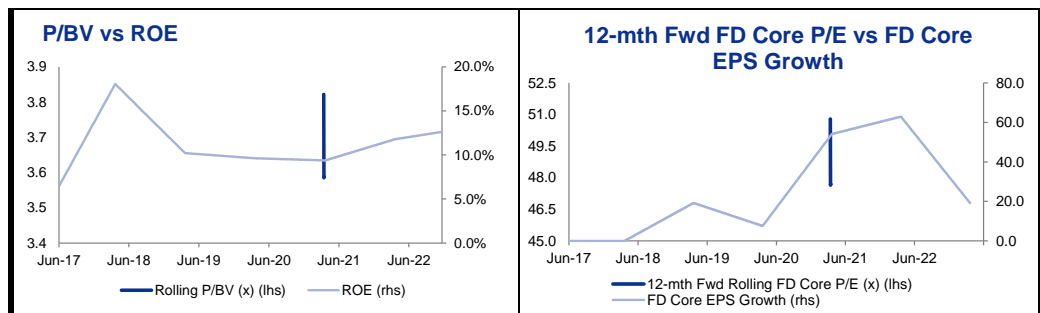
## Annexure

Anupam Rasayan India is engaged in custom synthesis and manufacturing (CSM) of specialty chemicals in India. Its business verticals are (i) life science-related specialty chemicals, comprising products related to agrochemicals, personal care and pharmaceuticals, and (ii) other specialty chemicals, comprising specialty pigments and dyes, and polymer additives on an exclusive basis to its customers. The company has four manufacturing sites in India's state of Gujarat – one each in Sachin and Surat and two state-of-the-art sites in Jhagadia.

**Figure 40: Key management profiles**

Dr. Kiran C. Patel, Chairman of the board Anupam Rasayan	Dr. Kiran Patel has a Bachelor of Medicine and Bachelor of Surgery from Gujarat University. He has diploma certificates in the speciality of internal medicine and the subspecialty of cardiovascular disease from the American Board of Internal Medicine. He completed his fellowship in affiliation with Columbia University of New York in 1982, having served as a cardiovascular fellow at the Overlook Hospital from 1980 to 1982. Dr. Patel was part of the house staff of Jersey City Medical Center in the capacity of Resident, Internal Medicine, from 1978 till 1980. He was elected a fellow of the American College of Cardiology in 1993. He has been certified to practice medicine in the state of Florida by the Department of Professional Regulation, State of Florida. Dr. Patel is also a promoter director on the boards of Rudraksh Academy Private Limited and Solace Healthcare Private Limited.
Mr. Anand S. Desai, Managing Director Anupam Rasayan	Mr Anand Desai has been with Anupam Rasayan since. He has a Bachelor of Science from Vinoba Bhawe University. Mr. Desai is the zonal chairman of the Confederation of Indian Industry (CII), Southern Gujarat region, for 2020-2021, and is a member of the CII's National Committee on Chemicals and Petrochemicals for the year 2020-21. He has over 28 years of experience in the chemicals industry and is actively involved in the daily operations of the company.

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>5,015</b>	<b>5,289</b>	<b>7,404</b>	<b>8,515</b>	<b>9,792</b>
<b>Gross Profit</b>	<b>2,444</b>	<b>3,183</b>	<b>4,075</b>	<b>4,686</b>	<b>5,389</b>
<b>Operating EBITDA</b>	<b>931</b>	<b>1,349</b>	<b>1,934</b>	<b>2,238</b>	<b>2,588</b>
Depreciation And Amortisation	(225)	(287)	(295)	(303)	(311)
<b>Operating EBIT</b>	<b>706</b>	<b>1,062</b>	<b>1,639</b>	<b>1,935</b>	<b>2,278</b>
Financial Income/(Expense)	(49)	(348)	(395)	341	435
Pretax Income/(Loss) from Assoc.	(10)				
Non-Operating Income/(Expense)					
<b>Profit Before Tax (pre-EI)</b>	<b>648</b>	<b>714</b>	<b>1,244</b>	<b>2,275</b>	<b>2,713</b>
Exceptional Items					
<b>Pre-tax Profit</b>	<b>648</b>	<b>714</b>	<b>1,244</b>	<b>2,275</b>	<b>2,713</b>
Taxation	(155)	(184)	(314)	(573)	(684)
Exceptional Income - post-tax					
<b>Profit After Tax</b>	<b>492</b>	<b>530</b>	<b>931</b>	<b>1,702</b>	<b>2,029</b>
Minority Interests					
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
<b>Net Profit</b>	<b>492</b>	<b>530</b>	<b>931</b>	<b>1,702</b>	<b>2,029</b>
Recurring Net Profit	492	530	931	1,702	2,029
<b>Fully Diluted Recurring Net Profit</b>	<b>492</b>	<b>530</b>	<b>931</b>	<b>1,702</b>	<b>2,029</b>

**Cash Flow**

(Rs mn)	Mar-19A	Mar-20A	Mar-21F	Mar-22F	Mar-23F
<b>EBITDA</b>	<b>931</b>	<b>1,349</b>	<b>1,934</b>	<b>2,238</b>	<b>2,588</b>
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(581)	(482)	(2,092)	(800)	(962)
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense	(31)	70			
Other Operating Cashflow	438	558	47	290	232
Net Interest (Paid)/Received	(244)	(453)	(500)	(300)	(300)
Tax Paid	(125)	(92)	(126)	(354)	(413)
<b>Cashflow From Operations</b>	<b>389</b>	<b>949</b>	<b>(736)</b>	<b>1,074</b>	<b>1,145</b>
Capex	(2,483)	(1,804)	(300)	(300)	(300)
Disposals Of FAs/subsidiaries	1	5			
Acq. Of Subsidiaries/investments					
Other Investing Cashflow	(21)	17			
<b>Cash Flow From Investing</b>	<b>(2,502)</b>	<b>(1,782)</b>	<b>(300)</b>	<b>(300)</b>	<b>(300)</b>
Debt Raised/(repaid)	2,301	1,170		(2,000)	(2,000)
Proceeds From Issue Of Shares		354	7,600		
Shares Repurchased					
Dividends Paid					
Preferred Dividends					
Other Financing Cashflow	(244)	(510)	(500)	(300)	(300)
<b>Cash Flow From Financing</b>	<b>2,057</b>	<b>1,014</b>	<b>7,100</b>	<b>(2,300)</b>	<b>(2,300)</b>
Total Cash Generated	(56)	182	6,064	(1,527)	(1,455)
<b>Free Cashflow To Equity</b>	<b>188</b>	<b>338</b>	<b>(1,036)</b>	<b>(1,227)</b>	<b>(1,155)</b>
<b>Free Cashflow To Firm</b>	<b>(1,869)</b>	<b>(379)</b>	<b>(536)</b>	<b>1,074</b>	<b>1,145</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	71	268	5,583	5,093	4,098
Total Debtors	1,206	1,295	1,867	2,212	2,620
Inventories	1,954	2,970	4,838	5,731	6,788
Total Other Current Assets	1,004	982	982	982	982
<b>Total Current Assets</b>	<b>4,235</b>	<b>5,515</b>	<b>13,270</b>	<b>14,018</b>	<b>14,487</b>
Fixed Assets	8,715	10,783	10,788	10,785	10,774
Total Investments	4	4	4	4	4
Intangible Assets					
Total Other Non-Current Assets	271	338	338	338	338
<b>Total Non-current Assets</b>	<b>8,990</b>	<b>11,125</b>	<b>11,130</b>	<b>11,128</b>	<b>11,117</b>
Short-term Debt	1,544	2,371	2,371	2,371	2,371
Current Portion of Long-Term Debt					
Total Creditors	738	1,302	1,822	2,095	2,410
Other Current Liabilities	1,112	1,267	1,095	1,259	1,448
<b>Total Current Liabilities</b>	<b>3,394</b>	<b>4,940</b>	<b>5,288</b>	<b>5,726</b>	<b>6,229</b>
Total Long-term Debt	4,623	5,242	5,242	3,242	1,242
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities		330	330	330	330
<b>Total Non-current Liabilities</b>	<b>4,623</b>	<b>5,572</b>	<b>5,572</b>	<b>3,572</b>	<b>1,572</b>
Total Provisions	137	192	192	192	192
<b>Total Liabilities</b>	<b>8,154</b>	<b>10,703</b>	<b>11,052</b>	<b>9,489</b>	<b>7,993</b>
Shareholders Equity	5,071	5,937	13,910	14,961	16,187
Minority Interests					
<b>Total Equity</b>	<b>5,071</b>	<b>5,937</b>	<b>13,910</b>	<b>14,961</b>	<b>16,187</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	46.9%	5.5%	40.0%	15.0%	15.0%
Operating EBITDA Growth	26.6%	44.8%	43.4%	15.7%	15.7%
Operating EBITDA Margin	18.6%	25.5%	26.1%	26.3%	26.4%
Net Cash Per Share (Rs)	(78.04)	(94.02)	(17.52)	(10.08)	(1.25)
BVPS (Rs)	64.91	76.00	139.21	149.73	162.00
Gross Interest Cover	2.90	2.34	1.79	3.59	4.30
Effective Tax Rate	23.9%	25.8%	25.2%	25.2%	25.2%
Net Dividend Payout Ratio					
Accounts Receivables Days	76.05	86.30	77.94	87.43	90.05
Inventory Days	261.16	426.85	428.05	503.79	518.91
Accounts Payables Days	96.46	176.80	171.23	186.74	186.74
ROIC (%)	8.3%	9.4%	6.5%	6.8%	7.7%
ROCE (%)	7.1%	8.5%	5.0%	5.1%	6.3%
Return On Average Assets	4.7%	5.9%	6.3%	5.3%	6.1%

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 Earnest Innovation Partners Private Ltd. (EIP) 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 28th February 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:

<b>Add</b>	The stock's total return is expected to exceed 10% over the next 12 months.
<b>Hold</b>	The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
<b>Reduce</b>	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:

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

#### Country Ratings

Definition:

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