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REN # REP-004

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Engro Polymer & Chemicals Ltd. (EPCL)

Knows its game!

August 30, 2021
Akseer Research
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Investment Thesis

- We initiate our coverage on Engro Polymer & Chemicals Ltd (EPCL) with a BUY recommendation and June-22 price target (PT) of PKR 79/share; offering a 27% potential upside and 4.8% dividend yield. The stock trades at an attractive CY21 P/E of 3.9x.
- Our investment thesis on EPCL is based on i) the company is the sole PVC producer in the country with lucrative export avenues and ii) Diversification into Hydrogen Peroxide manufacturing.
  - EPCL is the sole manufacturer of PVC Resin with a stated capacity of 295k MT/annum, a market share of 95%, and ~72% share of total revenue mix. The main product of EPCL, PVC suspension Resin, is produced with a wide range of grades and is used in downstream segments including textiles, construction, packaging, automotive, and consumer goods. The stated sectors have lately benefitted a lot from the economic pick up and hence supporting the demand for PVC resin.
  - Caustic soda, constituting ~28% of total revenue and with a market share of ~33% for EPCL, is mainly used in pulp and paper, soap and detergents, and chemical production.
- EPCL is constructing Hydrogen Peroxide plant as part of its future product diversification strategy, which also has export prospects besides fulfilling rising domestic demand.

Key Data	
PSX Ticker	EPCL
Bloomberg	EPCL.PA
Reuters	EPCL.PSX
Recommendation	**BUY**
Target Price (PKR)	**79**
Current Price (PKR)*	62.57
Upside/(Downside) (%)	27%
Dividend Yield (%)	4.8%
Total Return (%)	32%
12-month High (PKR)	63.28
12-month Low (PKR)	35.40
Outstanding Shares (mn)	909
Market Cap (PKR mn)	56,871
Year End	December

Source: Company Accounts, Akseer Research
**Prices as of 30th August, 2021*

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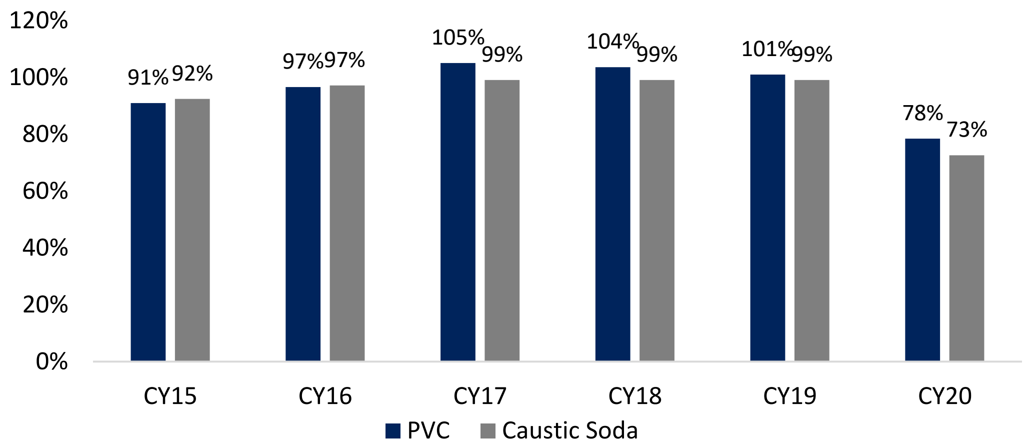
PVC Resin - Exports are another lucrative avenue

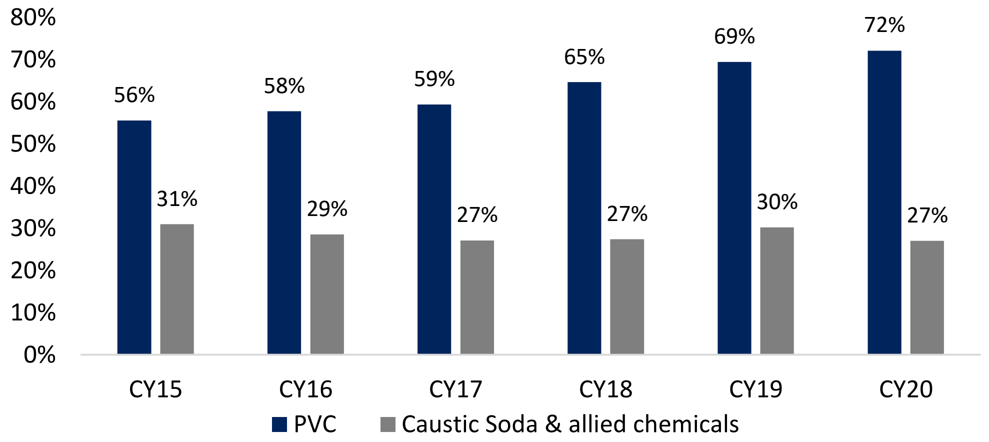
- Global capacity of PVC resin is expected to touch ~56mn MT by end of CY21, at a capacity utilization of 88% and will grow at a CAGR of 4.2% through CY29, as per industry reports.
- Region wise, Asia Pacific constitutes 62% of the global demand and is expected to reach ~34mn MT by CY23 at an annual growth rate of ~6% YoY.
- Domestically, Pakistan has been a net importer as EPCL's capacity couldn't meet the total demand of the country. As per FY20 numbers, total PVC imports stood at 121k tons after consuming EPCL's total volumes of 163k tons, depicting total demand of ~284k MT/annum. With its upgraded capacity of 295k MT/annum, we believe EPCL will easily be able to meet the local consumption.
- Tapping the international avenues based on the consistently rising regional growth, EPCL also exported 8,000 MT of PVC resin during 1HCY21, accounting for 15% of total sales volumes.
- Due to significant price disparity between international PVC prices/ton and EPCL's local PVC prices/ton, we anticipate that higher pricing margins along with steady demand regionally, will lead EPCL to regularly export its surplus capacity in future.
- Moreover, due to significant uptick in demand from downstream segments where pipes and fittings now constitute 54% of PVC's application in the domestic market, the company has invested in THINK PVC (still under development), a concept store showcasing the versatility of PVC material to further penetrate such segments.

EPCL Capacity Utilization



Source: Company Accounts & Akseer Research

EPCL Revenue Breakdown

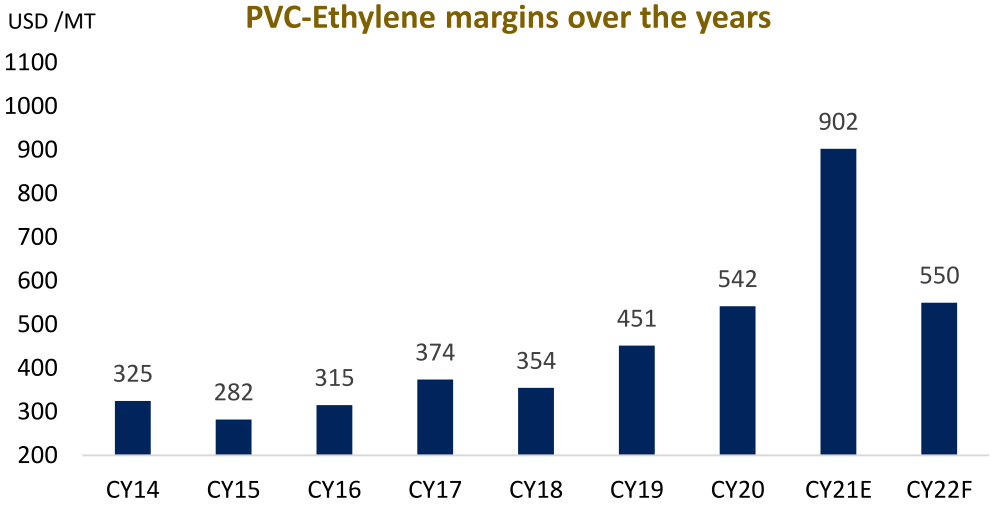


Source: Company Accounts & Akseer Research

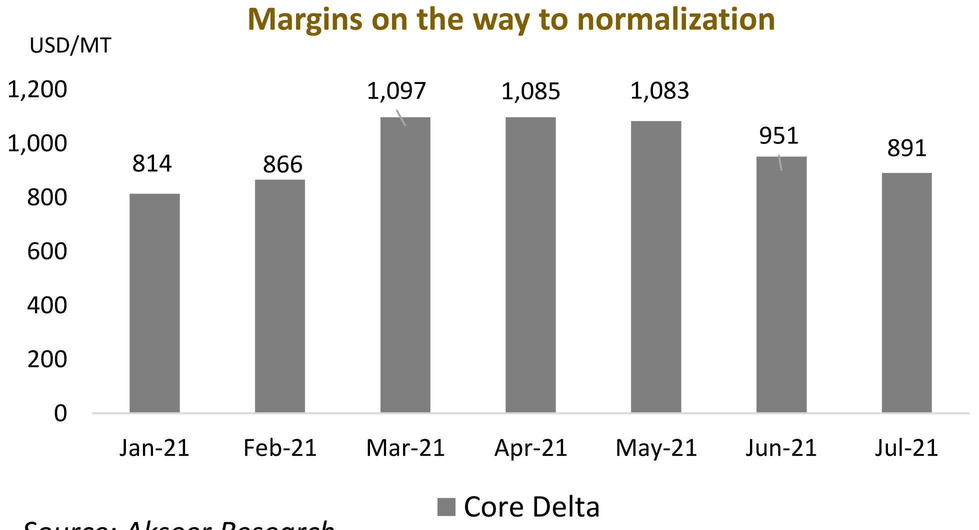
PVC - Ethylene Margins to remain elevated in near term

- For the first time ever, PVC-Ethylene margins crossed USD 1,000/ton in Mar-21, translating into huge profits for EPCL. To recall, PVC-Ethylene margins were severely affected during earlier part of COVID-19 instigated shutdowns and then significantly reversed, reaping benefits for manufacturers. Furthermore, the supply crunch from two major PVC capacities in US (Formosa Plastics USA and Westlake Chemicals), mainly led to all time high margins of USD 1,097/ton during the last week of Mar-21. However, since then they have started to come down.

- Despite retreating from all time high levels, we expect PVC-Ethylene margins to remain elevated in the near term due to supply disruptions amidst reemergence of COVID-19 4th wave. Moreover, Formosa Plastics USA has resumed its 1.2mn MT/annum capacity from 23rd June which will ease off global supply shortage and help gradual normalizing of PVC margins going forward. However, we still assume PVC margins would be around USD 550/ton for CY22F, above last 5-year average of USD 407/ton (Current margins are at USD 872/ton).



Source: Akseer Research



Source: Akseer Research

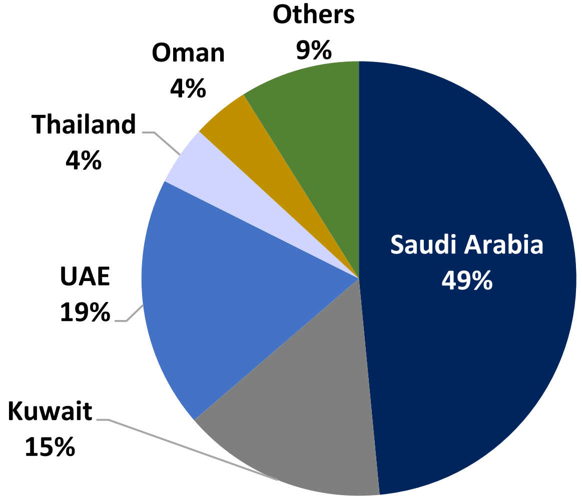
Timely expansions will add value

- EPCL has successfully debottlenecked 50k MT/annum VCM plant facility in Jun-21 to further reduce its dependence on raw material import. To note, VCM is used to produce PVC and this plant facility would help EPCL to reduce import bill on Ethylene as part of its cost-cutting manufacturing process.
- Besides, some other projects in pipeline include:
  - High temperature direct chlorination (HTDC) technology which will reduce EPCL's gas consumption by 10% from CY22 onwards, and
  - 28k MT/annum production facility of Hydrogen Peroxide (H2O2).
- EPCL's parent company Engro Corporation is working on a feasibility study to enter into production of Polypropylene (PP) with an estimated project cost of USD 1.3-1.7bn. The total market size is USD 550mn and currently Pakistan meets all its (PP) demand through imports. The project is independent to Engro Corporation only. Given, EPCL has cancelled one of its potential project LABSA (plant to diversify its product portfolio), Polypropylene plant management can be another potential profitable avenue for EPCL.

Projects in Pipeline	
HTDC	End-CY22
Oxy Vent Recycle (OVR)	2QCY22
Hydrogen peroxide (H202)	End- CY22

Source: Company Accounts & Akseer Research

Polypropylene Imports in Pakistan, 2020



Source: PBS, Akseer Research

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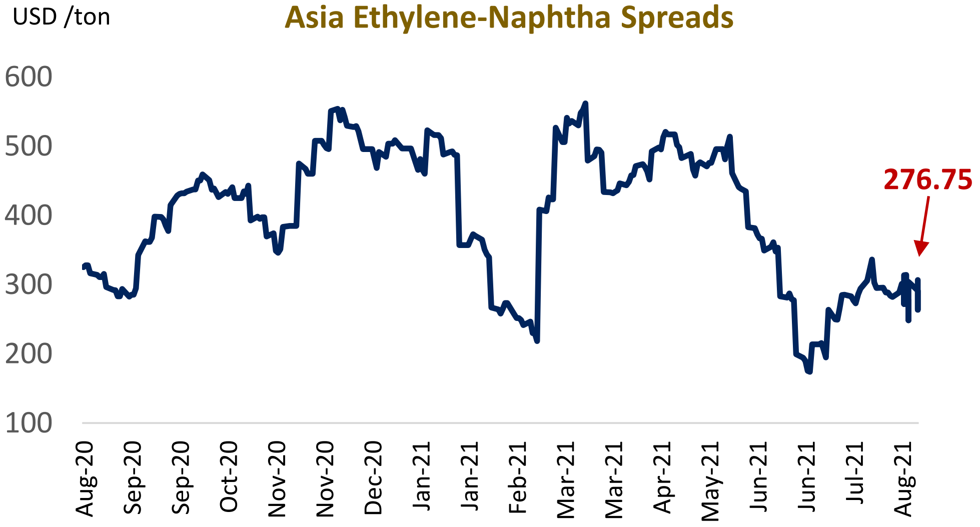
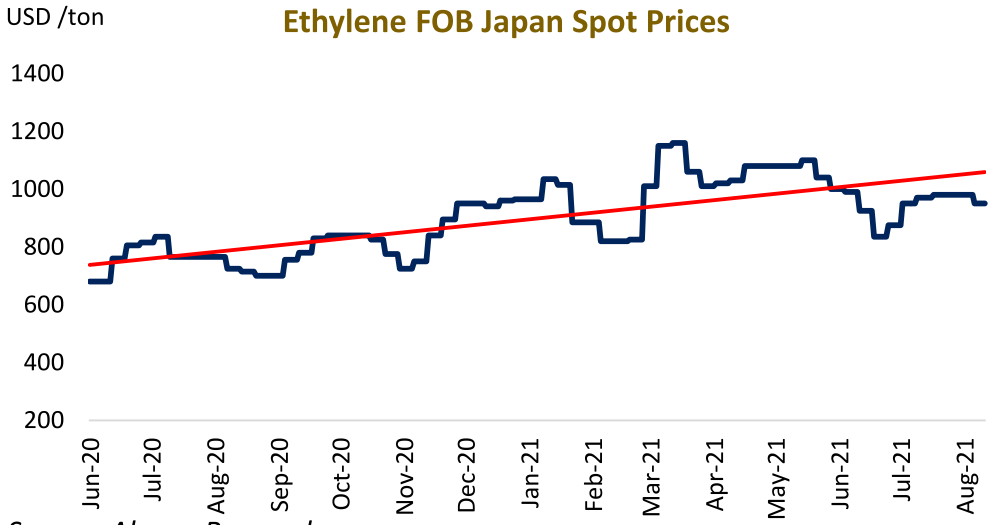
Ethylene – Naphtha spreads remain under pressure

- Due to the absence of Naphtha Cracker plant, Pakistan has to incur huge import bill on chemicals such as Para Xylene, Poly Ethylene, Poly Propylene, Ethylene Glycol etc. Ethylene, a type of Olefin, is derived from a steam cracking process of hydrocarbons at Naphtha plant and then processed in the form of polymers. It is the main raw material for EPCL's manufacturing process for the production of EDC & VCM for onward manufacturing of PVC.

- During last one year, multiple global Naphtha Cracker centers including Taiwan's Formosa Petrochemical Corp and three naphtha crackers in South Korea witnessed outages and maintenance which affected total global production. The historical breakeven spread of Ethylene-Naphtha is USD 250/ton for integrated producers, as per industry sources. Currently, the Asian region's spreads hover around USD 276/ton and are further expected to remain volatile due to uncertainty in upstream segments and new lockdowns imposed in China. Hence, we expect that potential supply disruptions resulting from 3QCY21 turnarounds (slide no. 6) will likely keep global ethylene prices up in the near term.



Source: Akseer Research



Source: Akseer Research

Turnarounds in Southeast Asia in 3QCY21

Producer	Location	Affected unit	Ethylene ('000t)	Propylene ('000t)	Period/Duration
Ethylene Malaysia	Kerteh, Malaysia	Cracker	400	N/A	Mid-June to mid-July, 35 days (Delayed)
Petronas	Pengerang, Malaysia	Cracker + FCC	1,390	1,360	Expected restart in 4Q
Lotte Titan	Pasir Gudang, Malaysia	No.1 cracker	285	145	5 July, 35 days
PCS	Pulau Ayer Merbau, Singapore	No.2 cracker	625	350	Mid-July, 35 days
PTT Polyethylene (PTT PE)	Mab Ta Phut, Thailand	Cracker	1,000	25	Mid-Sep to early Nov
Total			**3,300**	**1,880**	

Source: Argus & Akseer Research

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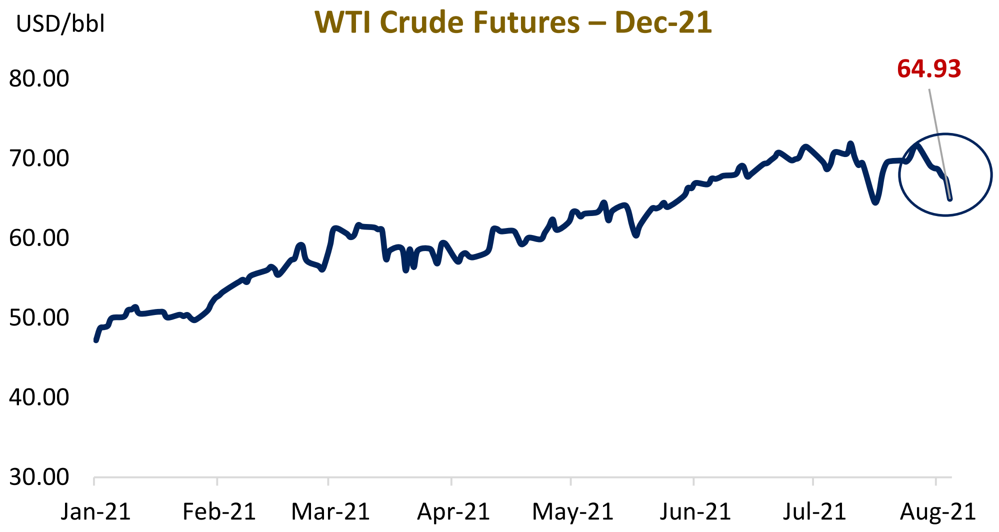
WTI Crude Oil Outlook

- The world has its eyes on China, the key global oil importer which is currently under strict lockdowns despite highest vaccination rate in the world. Although, domestic inventory build-up in USA has seen sharp decline (3mn barrels/week), the uncertainty revolving around latest Delta Variant has risen concerns for global fuel demand. Thus, WTI crude oil futures are expected to settle ~USD 65/barrel for Dec-21, as per global news.
- Meanwhile, the global oil market still lingers on the unsettlement of OPEC+ decisions on pumping additional supply into market (Next meeting on 1st Sep-21). Apparently, OPEC has shown clear signs of not carrying forward with additional oil supply, nonetheless, such decisions and restricted mobility within Asia region may alarm market participants on blurred outlook for oil demand in near term.
- We anticipate that crude oil outlook will likely affect Ethylene-Naphtha margins but global steam crackers facilities will support Ethylene prices up through strategic turnarounds and restricted market supply at the same time.



Source: Akseer Research

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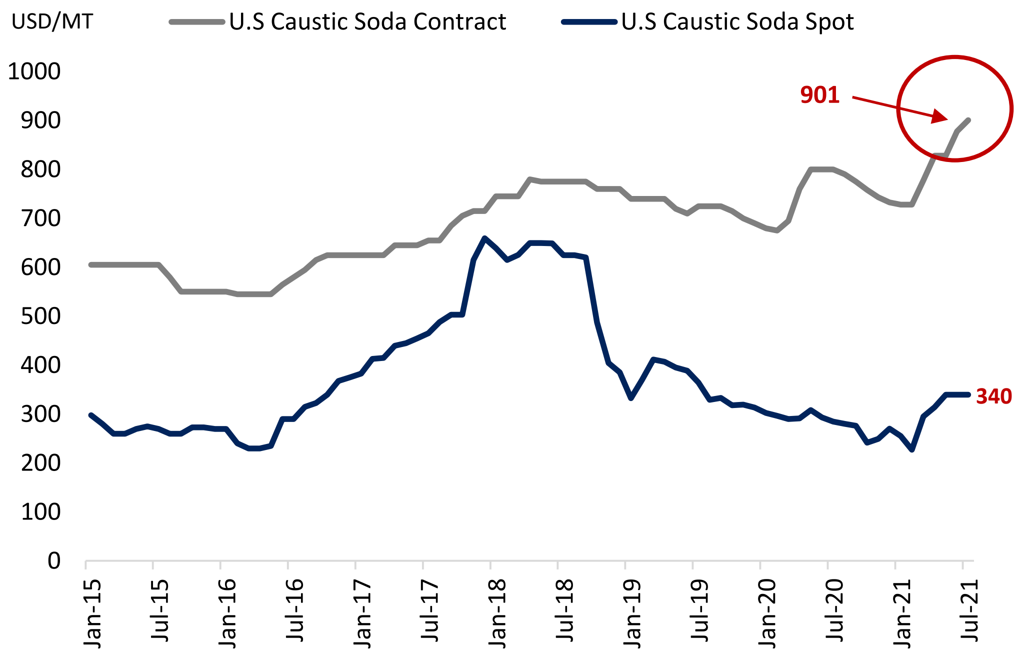
Caustic Soda Market

- The market for caustic soda is multifaceted and has wide variety of industrial applications including textile, soap production, pulp/paper and water treatment. Caustic Soda is an integral part of Pakistan's textile industry where demand is highly dependent on export orders mainly from US and Europe.
- As per industry experts, the industrial demand for caustic soda is growing due to increased demand of printing papers, cups, cartons and related items. On supply side, after the forced majeure by top caustic soda producers Formosa and Westlake in Feb-21, Olin Corporation U.S.A also announced its plans to permanently shutdown ~20% of its diaphragm-grade Chlor-alkali capacity at its Louisiana facility. Further, Westlake Chemicals also underwent planned turnaround of its Chlor-alkali unit at Louisiana facility that processed through mid-June. Although, such outages are slowly lifting up, it may still take time to normalize sustainable supply of caustic soda. Resultantly, the contract prices are expected to remain high in near term (during 2QCY21 the average price was up by 30% YoY).
- In 2QCY21, EPCL exported 2,000 MT of caustic soda and due to global supply constraints, we anticipate that Chlor-Alkali segment of EPCL has huge potential of exports once the world's economic activity returns to normalcy.

U.S Caustic Soda Spot vs. Contract



Source: Akseer Research

EPCL holds major market share of caustic soda in southern zone, at around 33% with a 73% capacity utilization.

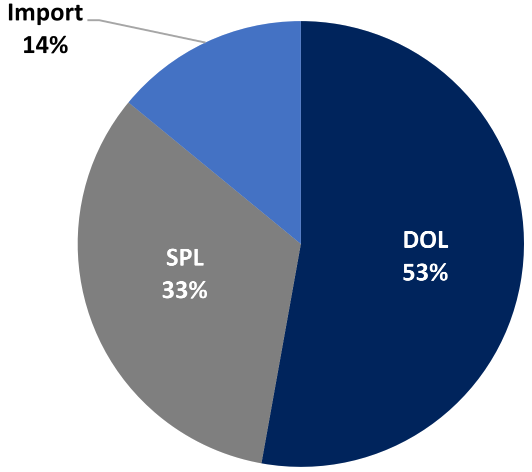
What Hydrogen Peroxide brings to the picture?

- The hydrogen peroxide is generally segmented by high margins through various product functions (disinfectant, bleaching, oxidant), end-user industry (pulp and paper, chemical synthesis, mining, food industry, textile) and geography. Nearly 80% of the Hydrogen Peroxide is used by the textile industry.
- EPCL has announced 28k MT/annum capacity of Hydrogen Peroxide to utilize 3k MT hydrogen by-product from its caustic manufacturing process which is currently used as a fuel for its power plant.
- We deem H_2O_2 market being quite competitive at present, given Descon Oxychem (DOL) (Capacity: 42k MT/annum) and Sitara Peroxide Ltd (SPL) (Capacity: 30k MT/annum) already produce enough to meet Pakistan's the annual demand of ~70k MT/annum. While EPCL will be better at utilizing its current resources, the market will become saturated and the commissioning of EPCL's plant might lead to an excess capacity in the short term.
- Nevertheless, with expectation of high growth both domestically and regionally, we estimate that the excess capacity of H_2O_2 will be utilized soon. Currently, UAE is one of the major export markets for the players.
- As per our estimates, once operational, the H_2O_2 plant will add PKR 0.33/share to the EPS in CY22 and PKR 0.38/share from CY23 onwards. Our estimates remain on the lower side but carry a high upside potential if market dynamics support.

Hydrogen Peroxide Market (Capacity: MT/annum)	
Descon Oxychem (DOL)	42k
Sitara Peroxide Limited (SPL)	30k
Total Import (2020)	7.8k
Total Demand (E)	**~70k-80k**
Excess Capacity	~10k
EPCL (CY22)	**28k**

Source: Company Accounts & Akseer Research

Industry Market Share



Source: Company Accounts, PBS & Akseer Research

Regional Hydrogen Peroxide Market

- The hydrogen peroxide market is expected to grow at a CAGR of 3% from 2021 to 2026, as anticipated by global experts. The positive demand outlook post pandemic will mainly come from the growing paper and pulp industry, as it is used as a bleaching agent into different types of chemical, mechanical and recyclable pulps. The three largest paper producers in the world are China, Japan and USA, accounting for more than half of the total production.

- Asia-Pacific is the fastest growing market for hydrogen peroxide, major players being China, India, Japan, South Korea and ASEAN countries. As per China's National Bureau of Statistics, paper product manufacturers generated 21.2% YoY more revenue in 1HCY21. Hence, China is expected to dominate the Pacific region with its growing demand for paper production in eco-friendly packaging as well as increased usage due to population growth.

- Moreover, with the rapidly growing disinfectant subindustry post COVID-19 spread, demand for Hydrogen peroxide has further accelerated due to its increased usage in the disinfectants. Hence, we believe that regional growth dynamics will consume any short term excess capacity in Pakistan through exports.

Asia-Pacific	Demand (MT)	Supply (MT)
China	362k	540k*
India	290k	219k
Japan	361k	165k
South Korea	468k	340k

*Figures of as of 2020
*Calculation based on Industry share assumption

Source: Statista & Akseer Research

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Jun-22 PT @ PKR 79/ share, 27% upside potential, BUY

- We have a BUY call on EPCL with Jun-22 Price Target of PKR 79/share, an upside potential of 27% over LDCP and a dividend yield of 4.8%.
- Our PT is computed using DCF Methodology based on Free Cash Flows to Firm (FCFF). We have used a risk free rate of 11%, beta of 1.0x and market risk premium of 6% to arrive at cost of equity of 17%. Our after tax cost of Debt is 8%, leading to a WACC of 13.9%
- We based our assumptions on recent trend in PVC-Ethylene margins and future diversification plans (Hydrogen peroxide plant). We expect earnings momentum to remain robust for CY21E on account of tremendous 1H results and then stable performance from CY22F onwards.

Valuation Metrics (EPCL)	
Beta	1.0
RfR	11%
Terminal growth	3%
Market risk premium	6%
Cost of Debt	8%
Cost of Equity	17%
WACC	**13.9%**

	CY22	CY23	CY24	CY25
Disc. FCFF	6,923	9,161	7,925	5,826
Terminal Value				86,870
PV Terminal Value	50,144			
Debt	24,734			
Equity Value	79,985			
Equity Value per share	88			
Less: DPS (CY22)	8.70			
Target price Jun-22	**79**			
Dividend Yield	4.8%			
Total Return	32%			

Source: Akseer Research

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Key Risks to Investment thesis

- **Lower PVC-Ethylene Margins**
  - PVC - Ethylene Margins play a key role in driving EPCL's profitability. Currently, the core delta is at elevated levels and any earlier than expected normalization in margins would negatively affect our assumptions. We assume margins to normalize from CY22F onwards at USD 550/ton.
- **Removal of Anti-dumping duty**
  - Pakistan has imposed anti-dumping duties on PVC from China, Korea, Thailand, and Chinese Taipei ranging from 3.44%-20.47%. For PVC, the customs duty is also imposed at rates ranging from 11%-20% for different imported variants. Any reduction/removal of customs duty will dampen the local demand.
- **Delay in potential projects**
  - Hydrogen Peroxide market is booming on account of pandemic instigated downstream segments of paper, pulp, disinfectants etc. Any delay in potential projects may hit EPCL with loss of market share.

PCT Code	Description	CD	RD	ACD
39.04 & 39.21	Polymers of vinyl chloride, in primary forms	11%-20%	0%	2%
29.01	Ethylene	0%	0%	2%
	EDC	0%	0%	0%

Source: FBR & Akseer Research

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Future Outlook

- We believe EPCL has competitive advantage within the sector due to its strong response to global chemical dynamics and meeting 100% PVC consumption within Pakistan. Moreover, materialization of Hydrogen Peroxide and HTDC plant are pertinent to EPCL's future growth as they are expected to boost resource efficiency by reducing cost of manufacturing.
- IFC has recently invested USD 15mn to support EPCL's plans of introducing variety of hydrogen peroxide products at the lowest-cost possible, which also supports company's long term business prospects.
- Going forward, we anticipate that EPCL will prominently be a game changer in the chemical sector on account of various construction packages announced by the GoP and world activity gradually returning to its normal course of life.

Key Financial Ratios

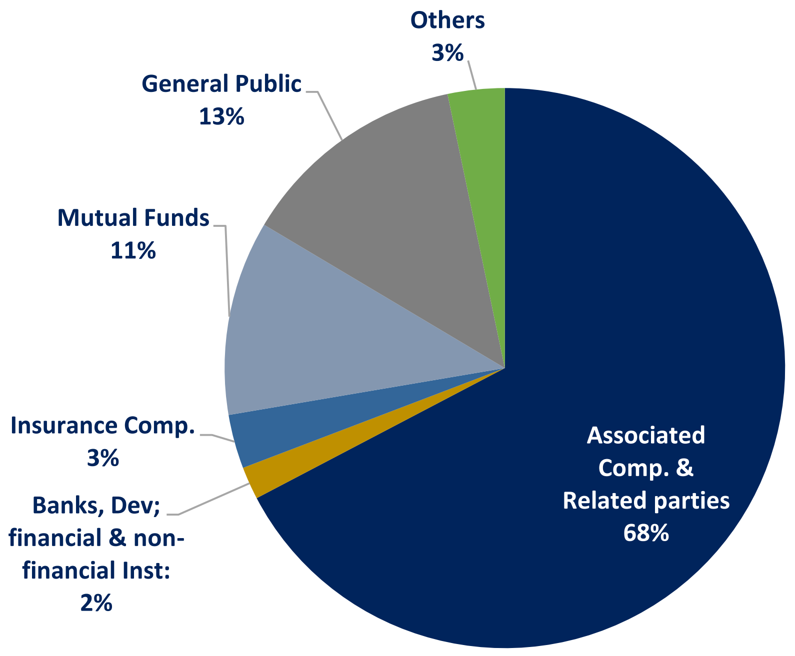
	CY18	CY19	CY20	CY21E	CY22F	CY23F
EPS	6.22	4.07	6.30	15.85	7.23	7.84
EPS Growth	112%	-35%	55%	151%	-54%	8%
DPS	1.10	0.80	1.25	9.50	3.00	3.25
P/E	10.05	15.39	9.92	3.95	8.65	7.98
Dividend Yield	2%	1%	2%	15%	5%	5%
EV/EBITDA	6.26	9.12	6.65	2.94	4.76	4.13
P/B	2.95	3.20	2.18	1.78	1.59	1.42
ROE	40%	21%	26%	50%	19%	19%

Source: Company Accounts & Akseer Research

About the Company

- Engro Polymer & Chemicals Ltd (EPCL) is partially owned subsidiary of Engro Corporation and is the only integrated chlor-vinyl chemical complex in Pakistan. The company started as Engro Asahi Polymer & Chemicals Limited in 1999 and got its shareholding divested in 2006 from Asahi Glass Limited.
- The company is engaged in the manufacturing of PVC resin, chlor-alkali products like Caustic Soda, Sodium Hypochlorite and Hydrochloric Acid. EPCL sells, markets and distributes PVC under the brand name "SABZ". It is further exploring other avenues such as Hydrogen Peroxide.
- Over the course of its operations, EPCL has successfully increased its PVC capacity from 100k MT/annum to 295k MT/annum, Caustic Soda Liquid plant at 106k MT/annum, Sodium Hypochlorite at 30k MT/annum, and Hydrochloric Acid at 60 MT/annum. Apart from that, EPCL has in-house power generation of 66 MW that supplies excess power to Engro Fertilizers Ltd.
- Engro Peroxide, Engro Plasticizer, and Think PVC are 100% owned subsidiaries of Engro Polymer & Chemicals Ltd.

Shareholding Pattern (Dec-20)



Source: Company Accounts & Akseer Research

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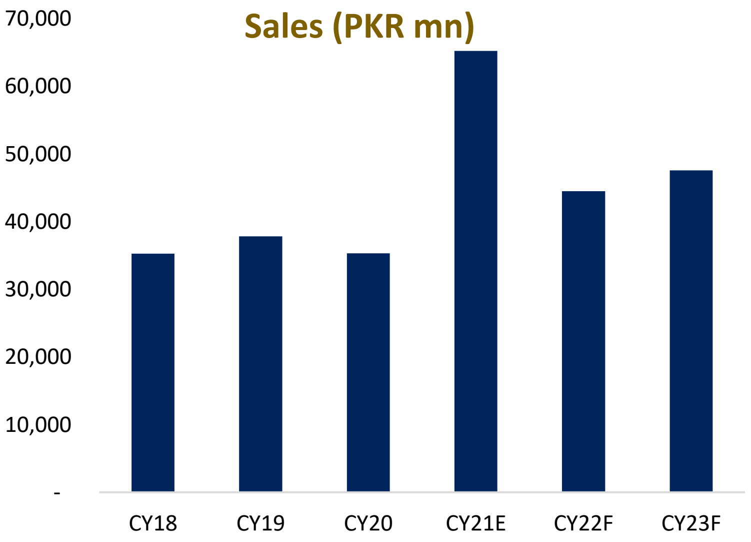
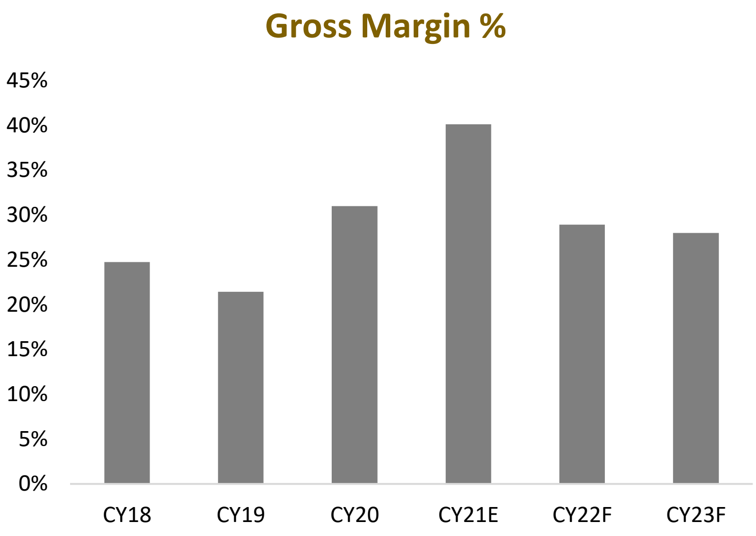
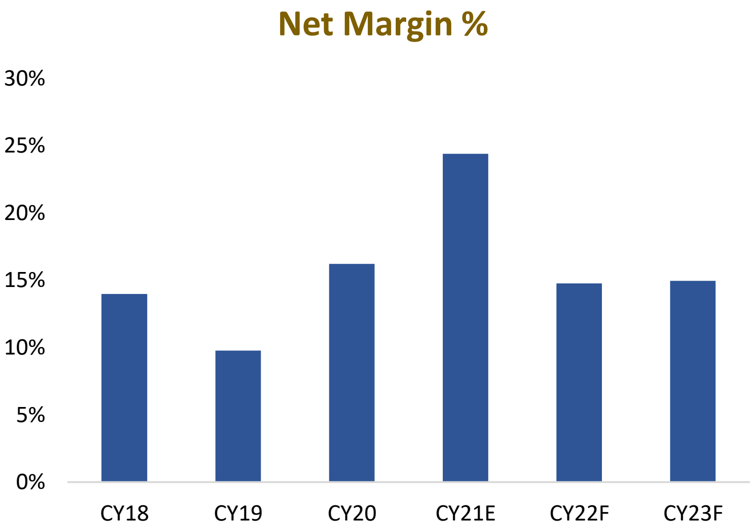
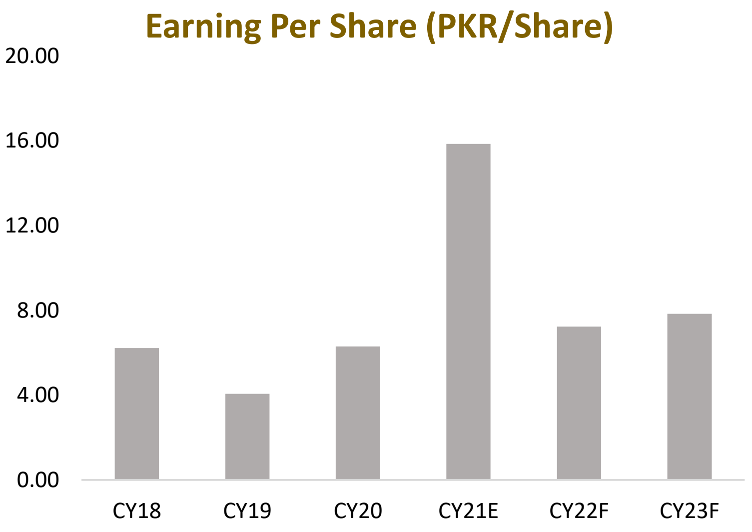
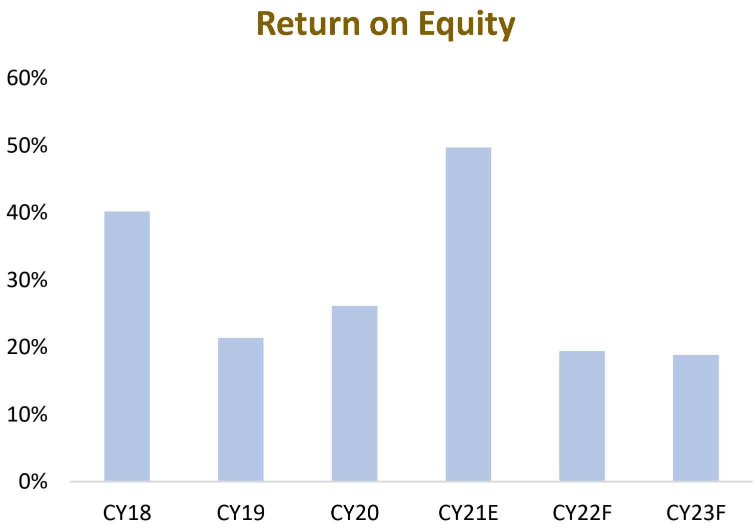
Key Ratios

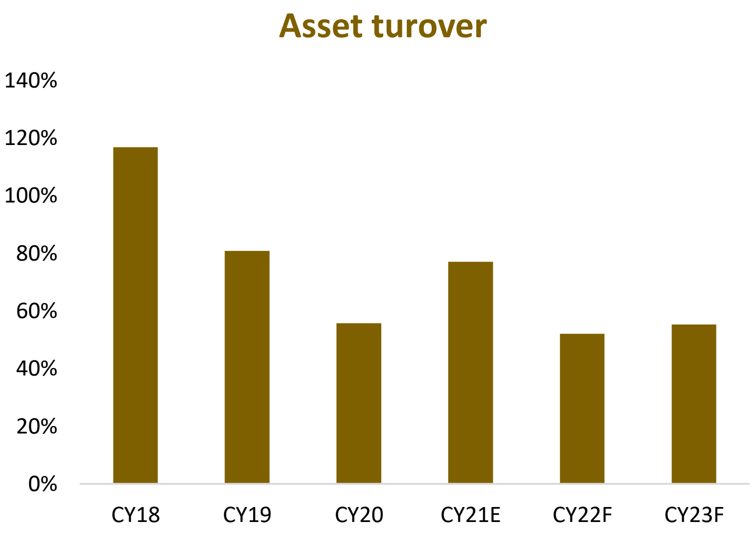












Source: Company Accounts & Akseer Research

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Financial Highlights

Income Statement

Income Statement (PKR mn)	CY18	CY19	CY20	CY21E	CY22F	CY23F
Net sales	35,272	37,837	35,331	59,018	44,514	47,626
Cost of sales	26,536	29,731	24,382	35,338	31,643	34,294
Gross Profit	**8,736**	**8,106**	**10,949**	**23,680**	**12,871**	**13,332**
SG & A	2,044	962	845	1,006	850	866
Operating Profit	**6,692**	**7,144**	**10,105**	**22,674**	**12,021**	**12,466**
Other income	1,249	930	1,180	1,211	1,136	1,161
Other charges	872	1,241	859	1,941	1,655	1,580
Finance cost	606	1,794	2,191	1,960	2,246	2,009
Profit before tax	**6,463**	**5,039**	**8,234**	**19,984**	**9,256**	**10,038**
Taxation	1,533	1,343	2,504	5,574	2,684	2,911
Profit after tax	**4,930**	**3,696**	**5,730**	**14,410**	**6,572**	**7,127**

Source: Company Accounts & Akseer Research

Balance Sheet

Balance Sheet (PKR mn)	CY18	CY19	CY20	CY21E	CY22F	CY23F
PPE	19,398	31,433	37,614	40,520	41,112	38,704
Non-Current Assets	1,065	710	192	191	8,436	7,098
Current assets	16,434	17,650	24,382	37,167	38,650	39,041
Total Assets	**36,024**	**57,519**	**69,094**	**84,150**	**86,775**	**85,411**
Non-Current liabilities	7,890	23,933	27,579	33,861	32,523	27,001
Current liabilities	11,337	15,810	15,388	18,387	18,505	18,491
Total Liabilities	**19,228**	**39,743**	**42,968**	**52,248**	**51,028**	**45,492**
Equity	16,796	17,776	26,126	31,902	35,747	39,920
Total Equity & liabilities	**36,024**	**57,519**	**69,094**	**84,150**	**86,775**	**85,411**

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Rating	Expected Total Return
Buy	Greater than or equal to +15%
Hold	Between -5% and +15%
Sell	Less than or equal to -5%

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