



Lotte Chemical Pakistan (LOTCHEM)

Improving Global PTA Margins to Support Earnings

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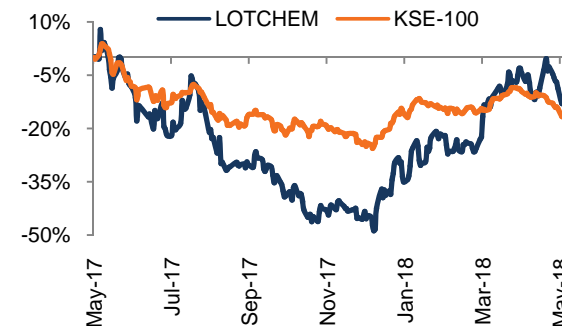
Improving global PTA margins to support earnings

- Investment thesis:** Recent turnaround in global commodities has turned our attention to Lotte Chemical Pakistan (LOTCHEM), Pakistan's one and only producer of Purified Terephthalic Acid (PTA) whose margins move in tandem with international PTA-Paraxylene (PX) margins. PTA-PX margins are in their 4th up trend cycle since 1993 and are currently hovering near US\$150/ton. We expect international margins to remain strong for next 2-3 years due to consolidation of global PTA Industry and higher Global & Local PTA demand in downstream sector.
- Global industry consolidation:** China's top PTA producers have informally cut down their production to match demand and supply of PTA in market as per our channel checks. While in 2017, various mergers and acquisitions also took place that led to shut down of idle capacity.
- PTA Margins at 7-year high:** Global PTA margins have touched 7-year high of US\$158/ton in April 2018 as 1) PTA industry is undergoing consolidation phase, 2) China's ban on import of waste plastic (Polyethylene Terephthalate or PET) material, 3) Higher demand from downstream players, especially polyester and 4) planned turnaround of various international leading players. Based on the aforementioned reasons, we expect margins to average around US\$130 and US\$140/ton during 2018 and 2019 respectively. Various international research reports also suggests margins outlook at US\$130-US\$160/ton for 2018/2019 vs. average of US\$88/ton in last 2 years (2016-2017).

Rated Buy

KATS Code	LOTCHEM
Bloomberg Code	LOTCHEM PA
Reuters Code	LOTT.KL
Market Price	Rs10.25
Market Cap	Rs15.5bn/US\$134.2mn
Free float Market Cap	Rs3.9bn/US\$33.6mn
1-Yr Avg. Daily Vol. (mn)	5.8
1-Yr Avg. Daily Val. (mn)	Rs56.7/US\$0.53
1-Yr High/ Low	Rs12.6/6.0
Estimated free float	25%
Share outstanding (mn)	1,514.21
Index weight	0.18%

LOTCHEM vs KSE-100 Index



Source: PSX, Topline Research

Currency devaluation and rising demand

- **Currency devaluation to improve PKR margins:** Dollar denominated prices and margins are likely to converge in higher absolute PKR margins going forward, as further PKR devaluation of 10% during 2018 is anticipated. We expect PKR devaluation of 7% and 3% during 2019 and 2020, respectively. To note, the company has USD denominated payables, that results into exchange loss. However, quantum of its dollar denominated margins is higher than exchange losses.
- **Pakistan's PTA demand to show steady growth:** During 2017, PTA demand in Pakistan grew by 9% to ~735k tons over last year, mainly due to higher demand from downstream sector amidst Anti Dumping Duties (ADD) and Regulatory Duties (RD) on its major consumers, improved power availability, and better law and order situation. Going forward, we expect demand to grow at 5-year (2018-2022) CAGR of 5% as Pakistan is 6th largest populous country of the world with per capita PTA consumption of 3.5kg vs. 8kg of World and 5.3kg of India. Additionally, increasing urbanization in Pakistan is generating higher demand for FMCG goods, that indirectly generates demand for PTA in Pakistan.
- **Surplus power and GIDC accruals:** The Company is pursuing National Electricity and Power Regulatory Authority (NEPRA) for sale of surplus power (around 20-22 MW) to K Electric (KEL). Post approval, we expect this power sales to contribute ~7% that is around Rs200-220mn (Rs0.12-0.15 per share) to the bottom-line of LOTCHEM. Additionally, the company's annual GIDC amount is around Rs500mn, that has accumulated to Rs2.1bn. Any development (like 50% waive off or reduction in GIDC rate) related to GIDC accruals will have both incremental cash flows and earnings impact. We haven't incorporated both these events in our valuation/earnings forecast.

Expansion in future can not be ruled out

- Possibility of expansion, cannot be ruled out:** Keeping in view the current demand of PTA in Pakistan, LOTCHEM might go into expansion (with capacity of 1mn tons at an estimated capex of US\$400-500mn). This we believe is subject to more protection by the Govt vs. current import tariff of 5%.
- Attractive relative valuation:** Currently, the company is trading at EV/EBITDA of 3x and 2018E P/E of 6.3x vs. 7x, and 11x, respectively of regional peers. Our DCF based target price of Rs15 per share offers potential upside of 45%. Historically, the company has traded at average EV/EBITDA of 7-8x in last 8 years.
- Key Risks:** Key risks to our valuation/earnings assumption includes 1) decline in import tariff, 2) decline in international PTA margins, 3) dumping of PTA from other countries, 4) less than anticipated devaluation, and 5) any unfavorable decision related to GIDC.

LOTCHEM: Key Numbers					
	2016A	2017A	2018E	2019F	2020F
EPS	0.2	0.3	1.6	2.2	2.2
Earnings Growth	-143%	27%	491%	37%	-2%
PE at Rs10.25	47.9	37.6	6.4	4.6	4.7
Dividend Yield	-	2%	9%	13%	13%
ROE	3%	4%	22%	27%	24%
PBV	1.5	1.5	1.3	1.2	1.1

Source: Company Accounts, Topline Research

Pakistan's PTA Industry

LOTCHEM is the only manufacturer of PTA in Pakistan

- During 2017, Pakistan's PTA demand crossed 700k tons for the first time in history, up by 9% YoY due to improved power availability in Pakistan and ADD and RD on downstream sectors.
- Lotte chemicals (LOTCHEM) is only producer of PTA in Pakistan with production capacity of 500k tons and market share of ~70%.
- In Aug 2017, ADD of 3.25-11.35% were imposed on imports of Polyester Filament Yarn (PFY) from China and Malaysia along with the regulatory duty of 5%, while ADD of 2.8-11.5% was also imposed on import of Polyester Staple Fiber (PSF).
- On back of this regulatory protection to downstream PTA sector, LOTCHEM customers are currently running at high utilization rates of 81% vs. 77% in 2016. Most importantly, one of the PFY plant operator resumed operation after 4 years of shut down.
- Domestic PET sector is also expected to show steady growth due to convergence of Pakistan's traditional packaging in line with global trends. Moreover, faster urbanization has created higher demand for FMCG goods especially, frozen foods.
- Based on aforementioned reasons, we estimate PTA demand to reach ~770k tons in Pakistan in 2018, thereafter we expect demand to grow at CAGR of 5% per annum, that is in line with our GDP forecast of 5%.

International PTA margins dictate LOTCHEM earnings

- International PTA-PX margins touched its 7-year high in Apr 2018 at US\$158/ton as against last 7-years average of US\$75 per ton. In past, PTA-PX margins have touched high of US\$258 per ton during 2011.
- We estimate, PTA margins to sustain at US\$130/140 per ton during 2018/2019 respectively. While, various renowned international research reports suggests margins outlook at US\$130-US\$160/ton for 2018/2019. On every US\$10/ton of rise in margin, earnings improve by Rs0.25/share (15% of earnings).
- Post 2019, we have assumed margins to decline annually by around US\$10/ton to US\$100 per ton by 2023 after which we expect margins to maintain.

Margins Sensitivity to LOTCHEM EPS

	2018E					2019F				
Margins USD/per ton	90	110	130*	150	170	100	120	140*	160	180
EPS (Rs)	0.6	1.1	1.6	2.1	2.7	1.0	1.6	2.2	2.8	3.5

Source: Topline Research, *Base Case

Currency devaluation to bring higher & sustainable PKR equivalent margins

- Currency devaluation brings greater support to the GP margins/bottom-line of LOTCHEM, as the company's margins are quoted in USD. While, its conversion cost (direct Labor and manufacturing overhead) is PKR denominated.
- This results in higher PKR equivalent gross margins. We expect further currency devaluation of 10% in 2018, and 7% in 2019.
- To note, the company has USD denominated payables of ~Rs3-4bn, that results in exchange losses in event of currency devaluation. However, by currency devaluation of Rs10/USD, the company will have excess margins of ~Rs837mn, while exchange losses will be ~Rs360mn, resulting in net positive impact.
- We estimate, every 5% currency devaluation will have net positive impact of 5-10% to bottom-line (net of exchange loss) of LOTCHEM.

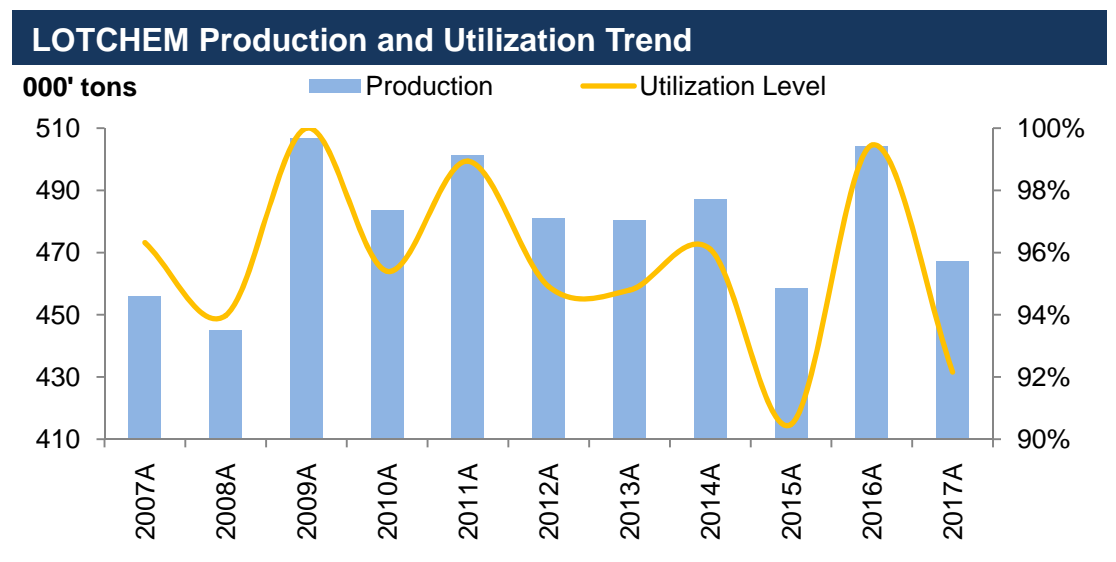
Currency devaluation impact on EPS 2019

PKR-USD	122	132*	142	152
EPS (Rs)	2.0	2.2	2.4	2.6

Source: Topline Research, *Base Case

Possible expansion going forward, if regulatory protection increases

- During last 10 years, average utilization of the company has remained at 96%. Pakistan's total PTA market has crossed 700k mark and is estimated to grow at 5% per annum.
- Keeping in view the current demand of PTA in Pakistan, we expect possible expansion of 1mn ton, that would cost around US\$400-500mn tons. However, for expansion, we believe tariff protection for at least 10-years would be demanded.
- If expansion happens, company will close its old plant of 500k tons and can restart again when supply of both plants will match demand, we believe.



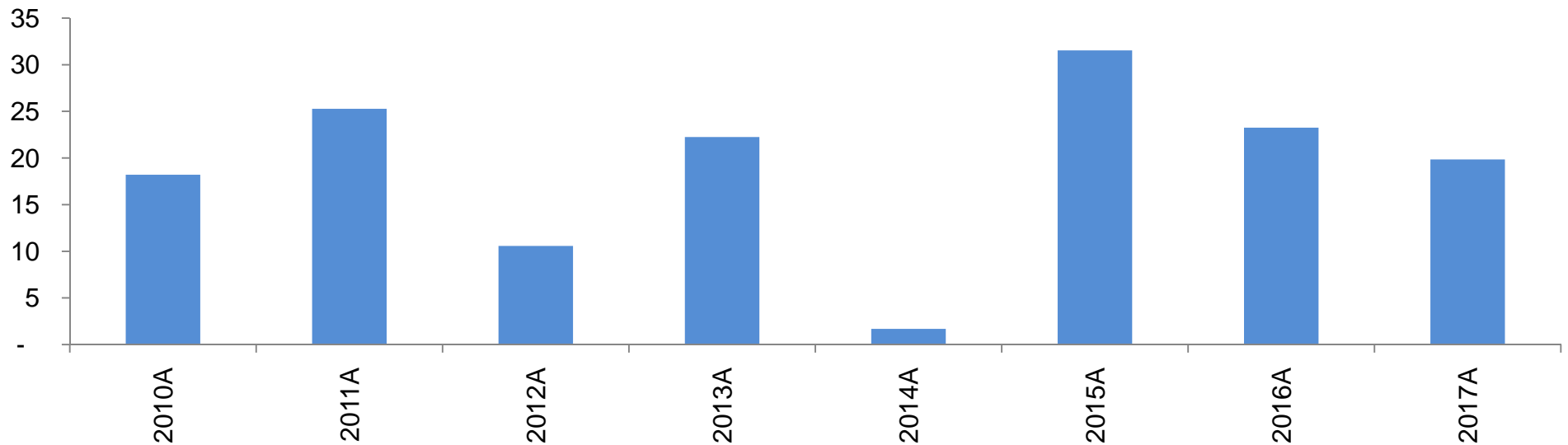
Source: Topline Research, Company Accounts

Import Tariff on PTA at 5%; Lower than historic high of 15%



- LOTCHEM has been earning premium margins on PTA due to custom duty of 5%. Our primary margins working suggests, the company earned premium of US\$22-23/ton (3-4% of PTA price) over internationally quoted margins. Any increase in custom duty going forward could further increase this premium. Historically (2007-2018), duty protection has varied between 3-15%, however we have assumed government will maintain import tariff at this level in future.

Premium margins due to import tariff



Source: Topline Research, FBR

Power surplus and GIDC accrual

- On Jul 22, 2012 company started its own power generation facility of 48MW. In last five years, company's captive power plant (CPP) has surplus power capacity of 20-22MW, for which company has applied to National Electric Power Regulatory Authority (NEPRA) for its approval to sale surplus power to K electric (KEL).
- Post approval of the power sale, we expect addition of ~Rs200-220mn or ~Rs 0.15 per share to the bottom-line of the company. We have not incorporated this development in our valuation/earnings assumption.
- Additionally, being a gas consumer (for its power plant) company is obliged to pay Gas Infrastructure Development Cess (GIDC) of ~Rs500mn per annum. However, company obtained stay order from Sindh High Court (SHC) on July 23, 2015, as GIDC was declared ultra vires to constitution. As of Dec 2017, company has accrued Rs2.1bn on account of GIDC payables.
- In case, GIDC issue is resolved just like CNG operators, where 50% of their retrospective amount was waived by the Govt., then we believe company could have a cash flow impact of Rs0.5/share.

Issues related to taxation of LOTCHEM

- LOTCHEM’s effective tax rate has remained higher at 54% and 57% during 2017 and 1Q2018 respectively due to movement of deferred taxes and applicability of company in turnover tax regime.
- Company has approached FBR to get exemptions from minimum turnover regime due to its higher turnover and low profit margins.
- We expect higher effective tax rate in 2018 as it was observed in 1Q2018. Therefore, we present our sensitivity analysis at varying effective tax rates (in our base case we have taken 32% and 30% tax rate for 2018 and 2019 respectively).

Sensitivity of EPS to effective tax rates										
	2018					2019				
Tax rate	27%	32%*	37%	42%	47%	25%	30%*	35%	40%	45%
EPS	1.7	1.6	1.5	1.4	1.3	2.4	2.2	2.0	1.9	1.7

Source: Topline Research, *Base Case

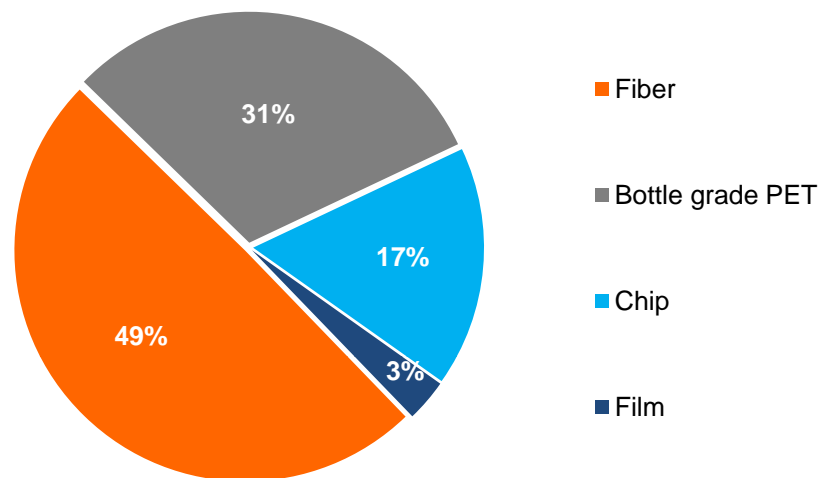
Global PTA Demand Supply Dynamics

Positive Trends Ensuing amid Tight Supply

- China is one of the largest PTA producer and consumer in the world, representing 54% of global PTA capacity as well as global consumption. Chinese PTA production capacity is around 46mn tons, that has grown at 7-years (2011-2017) CAGR of 14% against world's 7-years CAGR of 6%. Currently, global PTA capacity is around 75mn tons.
- China went through massive capacity expansion of around 16mn tons of PTA in 2012 and 2013, that led to oversupply in global market, lowering average utilization rate of producers to 75-78%. While in some exporting countries (like Taiwan and Korea) it dropped to 60%. This resulted in sharp decline in average PTA margins to ~US\$86-96 per ton during 2012-13 vs. US\$259/244 in 2010 and 2011 respectively when capacity utilization was around 83-90%.
- On demand side, PTA has shown 7-year CAGR (2011-2017) of 6% to ~62-65mn tons, where 50% of the world PTA is consumed in fiber industry while bottle grade PET consumes around 31%, and chips consumes 17%. Within the geographic mix, China remains most dominant PTA market with global consumption ratio of around 57% in 2017 vs. only 34% in 2010.
- Going forward, PTA demand is likely to sustain and show 5-years (2018-2022) CAGR of at least 5% according to renowned research reports/portal due to 1) weak outlook of global cotton production (expected to down by ~4% YoY in 2018-19) as reported by World Bank and USDA, resulting in higher demand of polyester (substitute of cotton) 2) steady FMCG demand amid urbanization and convergence to western life style, and 3) capacity addition in downstream sector.
- On margins side, PTA-PX margins have witnessed 3 up cycles and 3 down cycles between 1993 to 2018 with average period up cycle and down cycle of 4.3 years each.

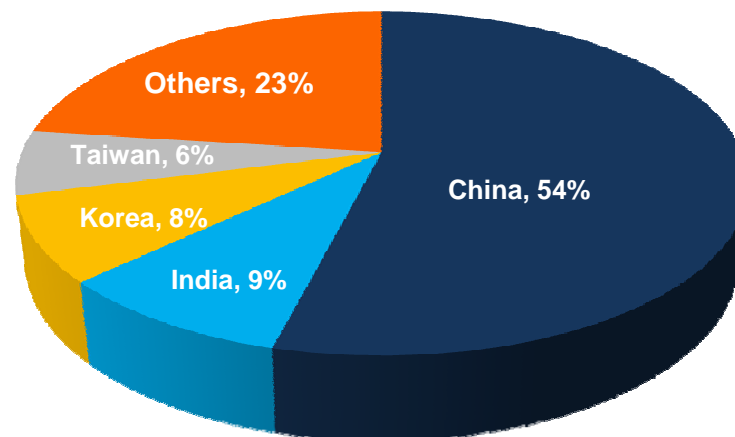
PTA Industry Overview

Consumption mix of PTA



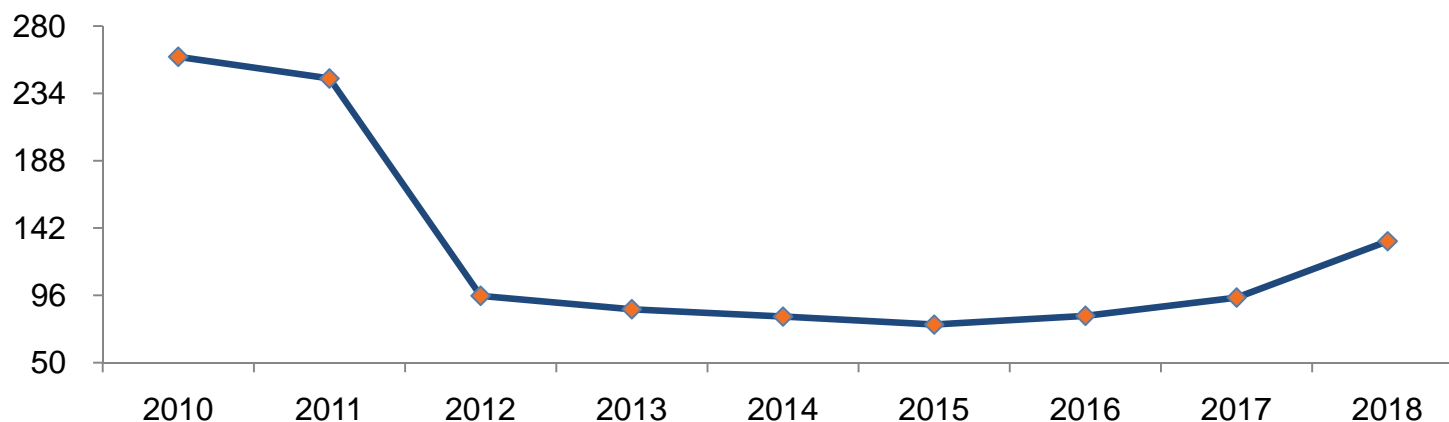
Source: Bloomberg

Largest PTA producers in world



Source: Bloomberg

PTA-PX margin (US\$/ton)



Source: Bloomberg

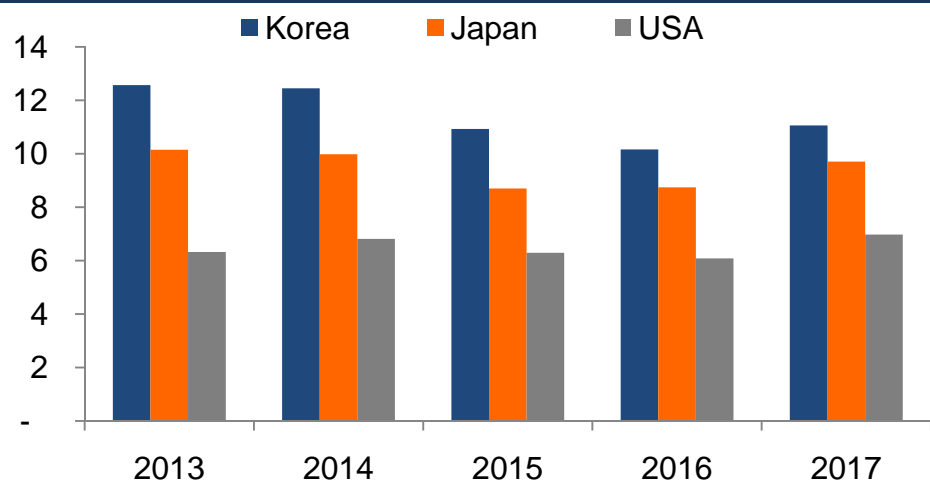
International PTA-PX Margins at 7-year high

- The turnaround/mean reversion in margins was witnessed in mid of the 4Q2017 due to multiple factors like: 1) China's ban on imports on waste PET material, resulting in higher domestic petrochemical sales (i.e. PTA); 2) higher demand from downstream sector (PET, PSF and Polyester Filament Yarn or PFY) as a result of capacity additions and resumption of previously closed polyester plants; 3) industry consolidation leading to shutdown of idle capacity of 3.5mn tons and 4) planned turnaround of various international leading players to tighten supply.
- International PTA-PX margins touched its 7-year high in Apr 2018 at US\$158/ton as against last 7-years average of US\$75 per ton. In past, PTA-PX margins have touched high of US\$258 per ton during 2011.
- We estimate, PTA margins to sustain at US\$130/140 per ton during 2018/2019 respectively. While, various renowned international research reports suggests margins outlook at US\$130-US\$160/ton for 2018/2019.

China's PET waste import ban led to rise in PTA demand

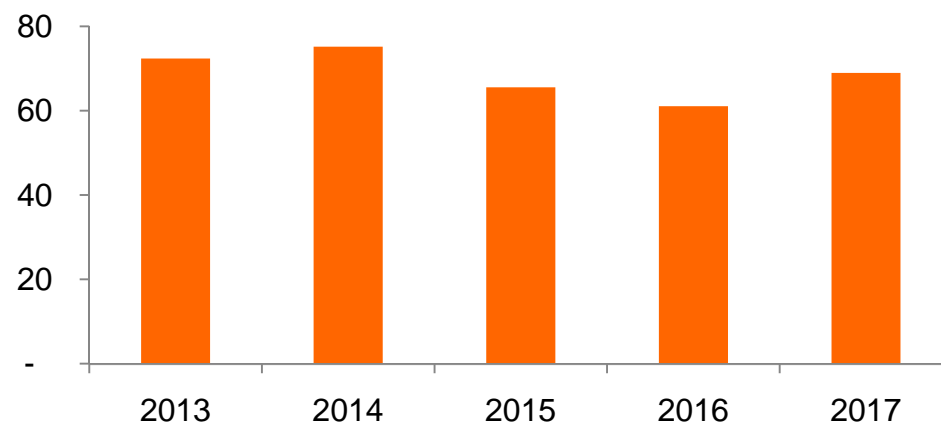
- Back in July 2017, China announced and notified World Trade Organization (WTO) that it will ban import of 24 categories of waste including plastic, unsorted scrap paper, discarded textile and vanadium slag in a move to reduce environmental pollution in China. Further, in Apr 2018, Chinese Ministry of Ecology and Environment announced to ban further 36 items including compressed stainless steel scraps, compressed car scraps and scrapped ships.
- In 2016, total import value of these 60 items was around US\$14.5bn, where plastic imports were around 26% or US\$3.6bn. On back of this move, Chinese domestic PET industry (mainly used for plastic) has touched utilization level of 80-85% vs. 70-75% earlier, that generated higher demand of PTA. Going forward, according to market insights and international reports, PET utilization to remain firm in near term as Chinese ban on imports is likely to sustain till 2020 at least as ban on waste import is part of its 2020 strategic plan. Moreover, USA is fourth largest plastic exporter to China, valued at US\$7bn (or 10% of total plastic imports). The ongoing trade concerns between China and USA can further bring positive outlook to Chinese domestic PTA demand. Resultantly, China's domestic PTA sales can remain firm and grow steadily over the years.

Top three exporters of plastic to China (US\$bn)



Source: Trademap

Total plastic imports in China (US\$bn)

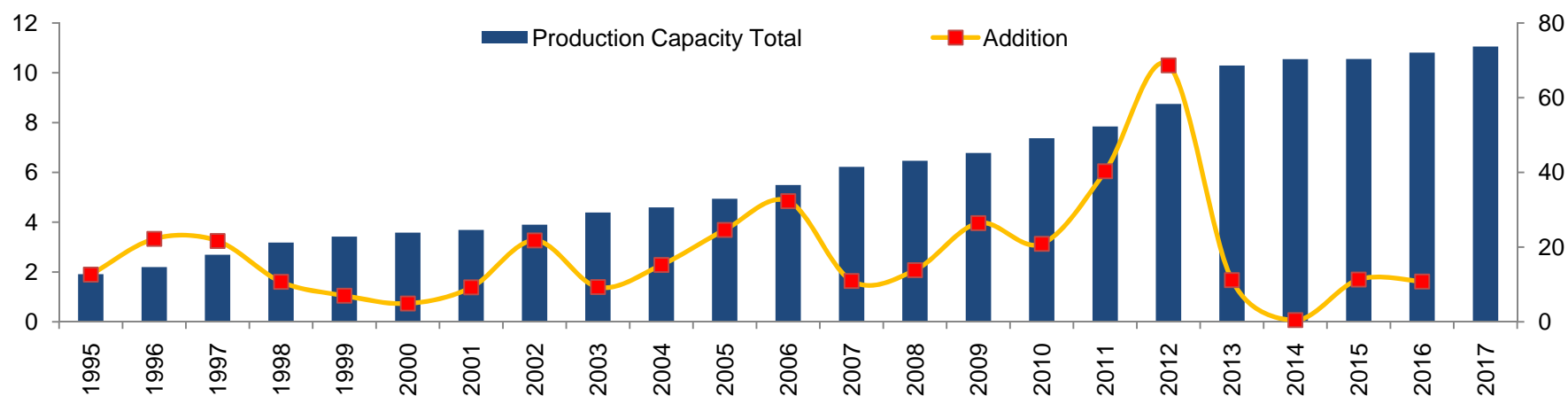


Source: Trademap

Global industry undergoing consolidation

- During the down cycle of PTA margins, leading PTA producers of the world have started informal production cuts to match supply with demand. This resulted into higher PTA-PX margins of US\$127 per ton during 1Q2018. It is currently at US\$148 as of Mar 17, 2018.
- Additionally, few international players closed down their capacities in 2017, like CAPCO, Sinopec, Xianglu Petrochemical and Shaoxing Yuadong Petrochemical. This led to closure of 11.4mn tons PTA capacity (14% of global capacity).
- Major transformations were then witnessed in Chinese and Korean PTA industry, where mergers and acquisition decided the fate of this 14% idle capacity. Where, Reignwood and Fujian Petrochemical acquired 9.45mn tons of idle capacity from Shaoxing Yuadong Petrochemical and Xianglu Petrochemical and decided to completely shutdown 3.5mn tons of the acquired capacity due to higher cost and outdated technology.

Production capacity of PTA and yearly addition (mn tons)



Source: Topline Research, Bloomberg

Tightened Supply to support PTA margins

- Supply of PTA is likely to remain contained during 2Q2018 and 3Q2018 as various international largest players are on planned turnaround of their plants that cumulatively is expected to result in supply shortage of 830k tons of PTA.
- Among major players, Sinopec Fujian RP (capacity: 3mn tons), FCFC (1.2mn tons), Hangbang Petrochemicals (2.2mn tons) and Jiaixng Petrochemicals (1.5mn tons) are on turnaround for 10-30 days from May to July 2018.
- Earlier, in Feb-Apr 2018, few major players including, Hainan Yisheng, Ningbo Yisheng, and Yisheng Dahua with cumulative capacity of 10mn tons were on turnaround, that caused supply shortage of ~450k tons.

PTA plants maintenance schedule

Company	Capacity 000's tons	Shutdown Schedule (2018)	Output Loss 000's tons
Hanbang Jiangyin PC	600	Apr 14 -Apr 17	5
Sinopec Tiajin	340	Apr 16 -Apr 25	10
Hengli Petrochemical	2,200	Apr 16 -Apr 30	100
Yisheng PC	3,750	Mid-May	150
Yisheng PC	2,250	Mid-May	100
Formosa Chemical	1,200	May	70
Pengwei PC	900	May	70
Xianglu Petrochemical	4,500	May	80
Shoxin Huabing Petrochemical	1,400	May	40
Jiaxing Petrochemical	1,500	June-July	205
Total			830

Source: Media Reports

Attractive Valuation

Attractive Valuation

- LOTCHEM is currently trading at 2018E EV to EBITDA of 3.0x vs. 7x of regional players. Additionally, the company is trading at 49% discount in terms of its PE ratio of 6.3x for 2018E vs. regional PE of 11x.
- We have 'BUY' stance on LOTCHEM as our DCF based target price of Rs15 offers an upside of 45%. We have used discount rate (cost of equity) of 14.5% with risk free rate of 8.5% and equity risk premium of 6%.
- In last 8 years (2010-2017), on average company has traded at EV/EBITDA of 8x with low of 4.2x in 2010 and high of 12x in 2015.
- Key risks to our valuation/earnings assumption includes: 1) decline in import tariff, 2) decline in international PTA margins, 3) dumping of PTA from other countries, 4) devaluation of currency below our assumption and 5) any unfavorable decision related to GIDC.

Relative Valuation (PEERS)

	Country	EV to EBITDA	PER
Mitsubishi Gas Chemical Co	China	7.4	9.1
Air Water Inc	Japan	7.6	15.1
Sinopec Shanghai Petroche-A	China	6.0	10.7
Nippon Shokubai Co Ltd.	Japan	6.8	12.7
Kumho Petrochemical Co Ltd.	South Korea	6.9	9.5
Mitsui Chemicals Inc	Japan	6.8	8.4
Indorama Ventures Pcl	Thailand	9.8	15.2
Showa Denko KK	Japan	4.6	6.9
Lotte Chemical Pakistan	Pakistan	3.0	6.2

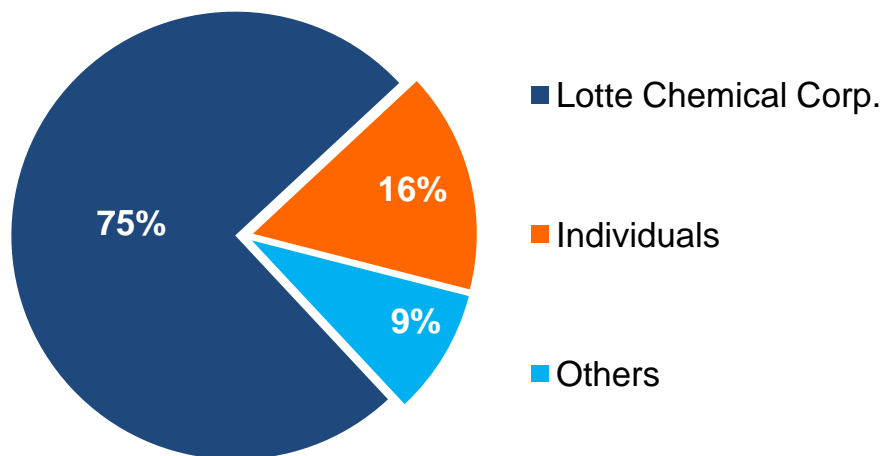
Source: Bloomberg

About Company and its Products

About Company and its products

- Lotte Chemical is a subsidiary of Lotte Chemical Corporation, South Korea , while its ultimate parent company is South Korean Conglomerate Lotte.
- Company has production capacity of 507k tons of Purified Terephthalic Acid (PTA) in Pakistan with facility located at Port Qasim, Karachi.
- Lotte Chemicals sells to local market, however, in case of slow down in local market, the company has well developed export market in Asia and Middle East region.
- In 1998, this PTA plant was started by ICI, later in 2000 PTA business was demerged from ICI to Pakistan PTA Limited (PPTA). In 2008, PPTA became part of Akzo Noble (AKZO) as ICI was globally acquired by AKZO.
- Then in 2009, Lotte corporation acquired PPTA and changed its name to Lotte Pakistan PTA Limited (LPPTA).
- Company majority holding (75%) is held by Lotte Chemical Corporation.

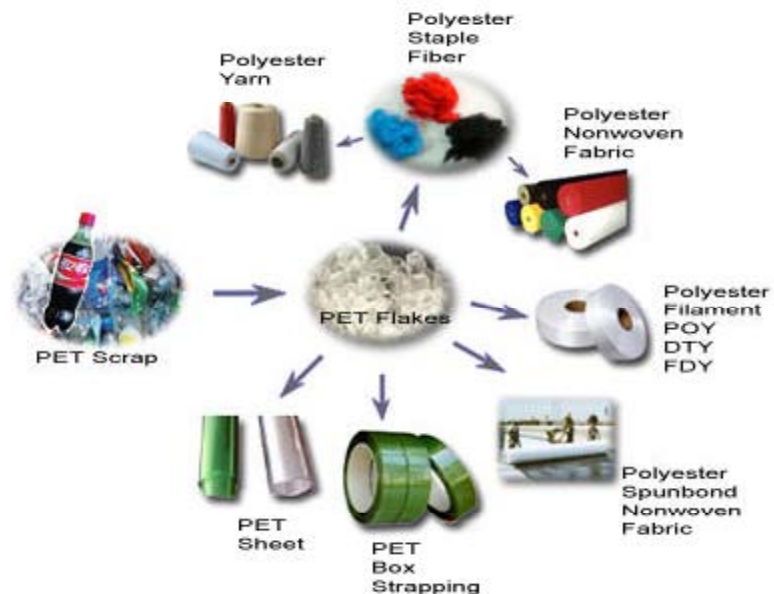
Shareholding Structure



Source: Topline Research, Company Accounts

PTA and its applications

- PTA is mostly used as a raw material for PET, PFY, PSF and Films.
- PET is being used as raw material for soft drink bottles, water bottles, PET films, Sheets, Cooking utensils, Packaging of fresh and frozen food .
- While Polyester is used for textile fabric, that offers economy, comfort , and crease resistance in all types of clothing and fabric for home furnishing.
- Sometimes, PTA is also used as a raw material in Pharmaceutical industry for drugs.



Applications of PTA (PET, PSF, PFY)

PET/PETE GRANULES



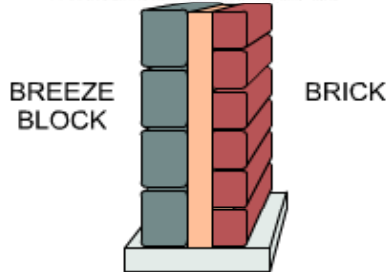
DRINKING BOTTLES



ASSORTED CONTAINERS



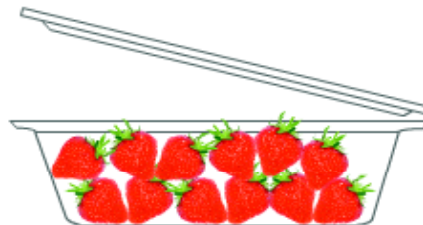
WALL INSULATION



MICROWAVABLE TRAYS



FRUIT CONTAINERS



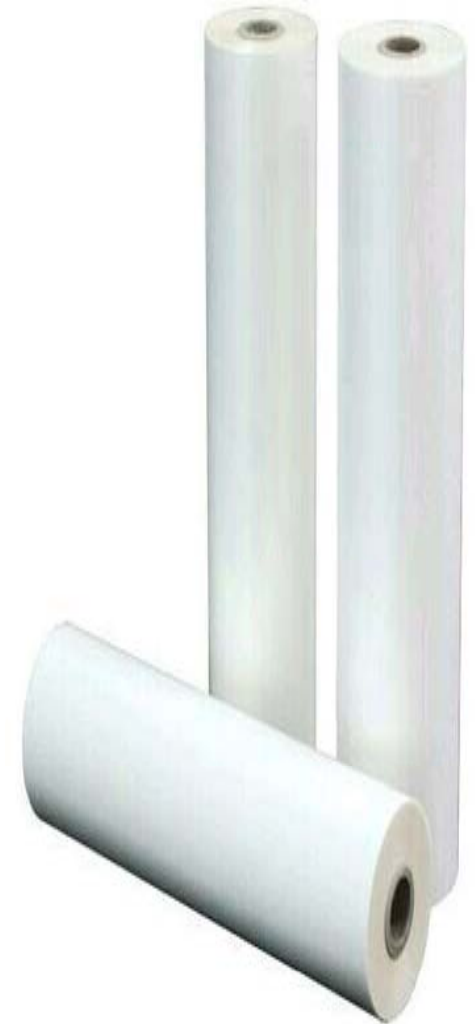
SYNTHETIC CLOTHES



SYNTHETIC CARPET



Type 1 - PETE Polyethylene Terephthalate (PET)



Lotte Chemicals (LOTCHEM): Financial Snapshot

Income Statement

Rsmn	2016A	2017A	2018E	2019F	2020F
Net sales	34,785	37,034	54,595	62,465	64,339
Gross profit	705	1,198	4,290	5,612	4,846
Selling and Dist. expense	78	93	103	113	124
Administrative Expenses	332	351	369	388	409
Other Income	214	249	373	499	646
Finance cost	10	52	446	640	190
Profit before tax	2,166	2,492	3,584	4,786	4,579
Profit after tax	324	412	2,437	3,350	3,297
EPS (Rs)	0.2	0.3	1.6	2.2	2.2

Source: Company Accounts, Topline Research

Balance Sheet

Rsmn	2016A	2017A	2018E	2019F	2020F
Non-Current Assets	6,877	7,389	7,363	7,343	7,330
Current Assets	10,661	13,152	16,243	19,141	21,106
Total Assets	17,538	20,541	23,606	26,484	28,437
Equity	10,275	10,677	11,652	12,992	14,311
Non-Current Liabilities	75	98	108	119	131
Current Liabilities	7,188	9,766	11,846	13,373	13,995
Total Equity & Liabilities	17,538	20,541	23,606	26,484	28,437

Source: Company Accounts, Topline Research

Assumptions

	2016A	2017A	2018E	2019F	2020F
PTA Sales	494,432	484,543	501,683	501,683	501,683
PKR/USD	105	105	116	132	136
Quoted PTA-PX Margins	82	94	130	140	130
Implied PTA-PX Margins	105	114	160	166	156

Key Ratios

	2016A	2017A	2018E	2019F	2020F
DuPont Analysis:					
Tax Burden	0.1	0.2	0.7	0.7	0.7
Interest Burden	4.5	2.6	0.9	0.9	1.0
EBIT Margin	1%	3%	7%	9%	7%
Total Asset Turnover	2.0	1.9	2.5	2.5	2.3
Financial Leverage	1.7	1.9	2.0	2.0	2.0
ROE	3%	4%	22%	27%	24%
Others:					
Gross Margin	2%	3%	8%	9%	8%
EPS Growth	-143%	27%	491%	37%	-2%
Net Margin	1%	1%	4%	5%	5%
Return on Assets	3%	3%	17%	19%	16%
Interest Coverage	50	18	9	8	25
Current Ratio	1.5	1.3	1.4	1.4	1.5

Source: Company Accounts, Topline Research

Analyst Certification and Disclosures

The research analyst(s), denoted by an “AC” on the cover of this report, primarily involved in the preparation of this report, certifies that (1) the views expressed in this report accurately reflect his/her personal views about all of the subject companies/securities/sectors and (2) no part of his/her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

Furthermore, it is stated that the research analyst or its close relative have neither served as a director/officer in the past 3 years nor received any compensation from the subject company in the past 12 months.

Additionally, as per regulation 8(2)(i) of the Research Analyst Regulations, 2015, we currently do not have a financial interest in the securities of the subject company aggregating more than 1% of the value of the company.

Rating System

Topline Securities employs three tier ratings system to rate a stock, as mentioned below, which is based upon the level of expected return for a specific stock. The rating is based on the following with time horizon of 12-months.

Rating	Expected Total Return
Buy	Stock will outperform the average total return of stocks in universe
Neutral	Stock will perform in line with the average total return of stocks in universe
Sell	Stock will underperform the average total return of stocks in universe

For sector rating, Topline Securities employs three tier ratings system, depending upon the sector’s proposed weight in the portfolio as compared to sector’s weight in KSE-100 Index:

Rating	Sector’s Proposed Weight in Portfolio
Over Weight	> Weight in KSE-100 Index
Market Weight	= Weight in KSE-100 Index
Under Weight	< Weight in KSE-100 Index

Ratings are updated daily to account for the latest developments in the economy/sector/company, changes in stock prices and changes in analyst’s assumptions or a combination of any of these factors.

Valuation Methodology

To arrive at our 12-months Target Price, Topline Securities uses different valuation methods which include: 1). Present value methodology, 2). Multiplier methodology, and 3). Asset-based methodology.

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