REP-300

Pakistan's Refinery Sector

Upgradation policy to incentivize refineries

06-Mar-2024

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Refinery Sector

Revitalizing Pakistan's refineries

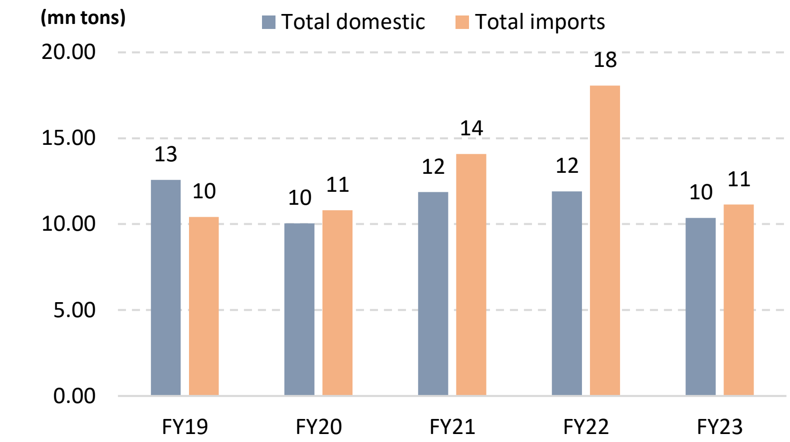
Synopsis

- The Government of Pakistan, with the help of the refinery industry, prepared a refinery upgradation policy, and already respective refineries have initiated feasibility studies for independent upgrades to: comply with Euro V specifications, maximize production of MS and diesel, and by minimizing production of furnace oil (FO).
- Pakistan's total average requirement for the last five years for petroleum products stands at ~24mn tons, out of which 11.35mn tons have been produced locally while the rest (12.90mn tons) were imported.
- Pakistan having a total capacity of ~20mn tons, cannot fully utilize its capacity due to lower demand of FO in the country, amid shift in the energy mix within the power sector. To note, refineries are unable to significantly change their production slate, hence reducing their throughput.
- Government being cognizant about the overall situation, announced a policy on 17th Aug'23 for upgradation of brownfield refineries which was further amended for brownfield refineries in Feb'24.
- Refineries that endorse the policy will receive additional tariff protection or deemed duty incentives, amounting to 10% for Motor Spirit (MS) and 2.5% for diesel for seven years.
- The upgradation policy is anticipated to enable refineries to increase total production of MS (+99%) and diesel (+47%). The production of furnace oil is expected to reduce by 78%.

Attock Refinery Limited (ATRL) to stand out in the refinery sector

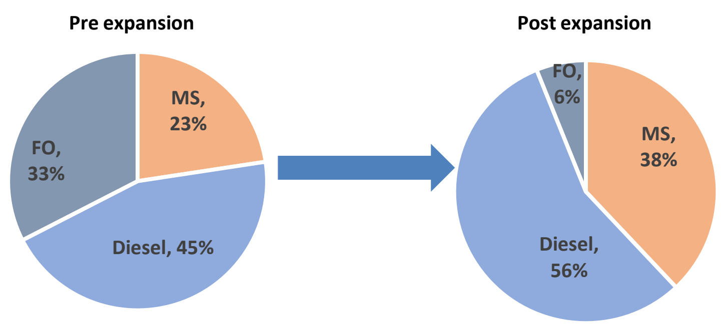
- We anticipate ATRL to opt for the upgradation agreement soon. Our expectations regarding this stems from ATRL having the strongest balance sheet in the refinery sector and massive cash position of PKR 66bn (PKR 616/share), with no debt.
- The signing of the policy will result in an additional EPS of PKR 123/share, taking total earnings in FY25 to PKR 422/share leading to massively discounted forward P/E of 0.9x.

Exhibit: Total domestic production and Import of petroleum products



Source (s): PBS, AHL Research

Exhibit: Product wise weightage: pre & post expansion



Source (s): MoE, AHL Research

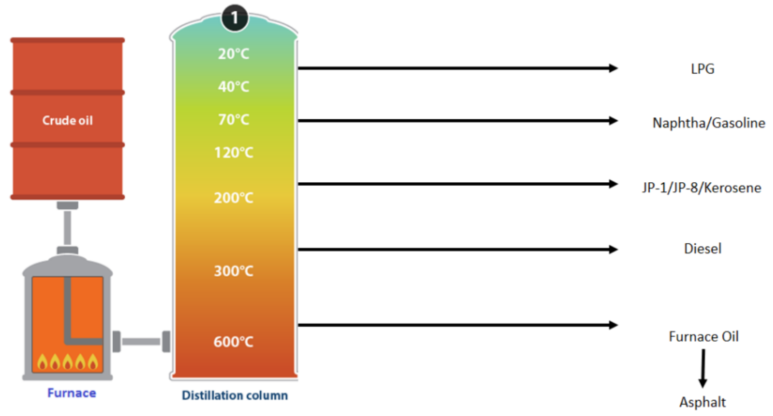
Refinery Sector

Overview of the sector

Pakistan's refinery sector:

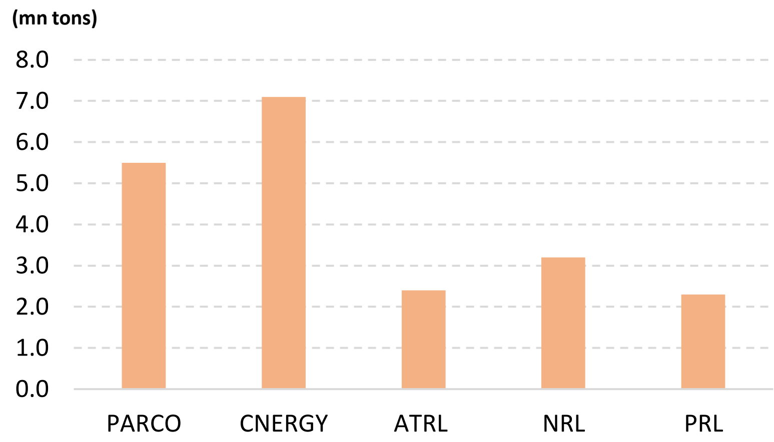
- Refinery sector is the backbone of industrial development and products being used in transportation, industrial use, power generation and other energy products. Major types of refining process are Hydro Skimming, conversion/cracking and deep conversion.
- Presently, in Pakistan there are five oil refining companies, namely, Pak-Arab Refinery Limited (PARCO), Attock Refinery Limited (ATRL), National Refinery Limited (NRL), Pakistan Refinery Limited (PRL) and Cnergyico Pk Limited (CNERGY).
- All refineries in Pakistan are based on Hydro skimming technology, except for PARCO which has a mild conversion refinery.
- In FY23 the country's total refinery capacity was recorded at ~20m tons per annum (~450,000 bpd), but the actual utilization was 10mn tons per annum (Utilization: 50%). Whereas, the total demand in Pakistan was 21mn tons per annum, due to this Pakistan had to import of 11mn tons in FY23.
- The production slate for refineries cannot vary significantly which implies that refineries cannot increase the production of high GRMs products (MS and diesel).
- The production slate of all existing local refineries constitutes of Naphtha, Motor Gasoline (MS), High Speed Diesel (HSD), Furnace Oil (FO), Kerosene, Jet fuel (JP-1 & JP-8), High-Octane Blending Component (HOBC), Liquefied Petroleum Gas (LPG) and Light Diesel Oil (LDO).
- With the change in country's energy mix over last 3-4 years, furnace oil demand is plummeting amid lower offtakes from power generation companies. Due to this refineries reduced their overall production, which resulted in lower utilization.

Exhibit: Refining Process



Source (s): MoE, AHL Research

Exhibit: Refinery wise installed capacity



Source (s): Company financials, AHL Research

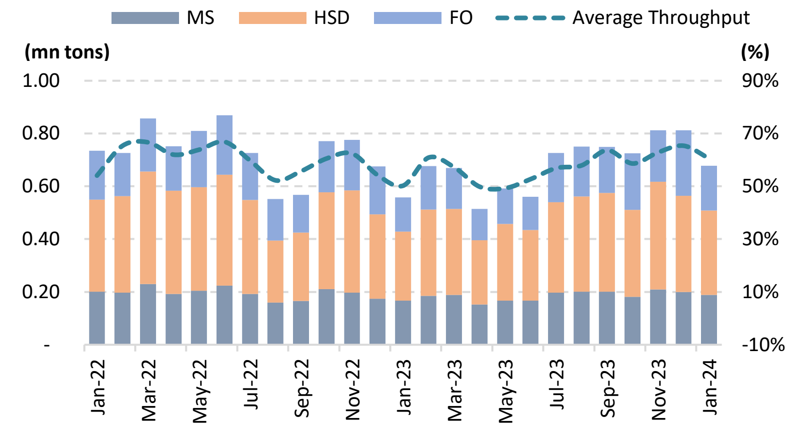
Refinery Sector

Oil refinery policy for upgradation of existing/brownfield

Policy for Upgradation/Modernization/Expansion of Existing Refineries:

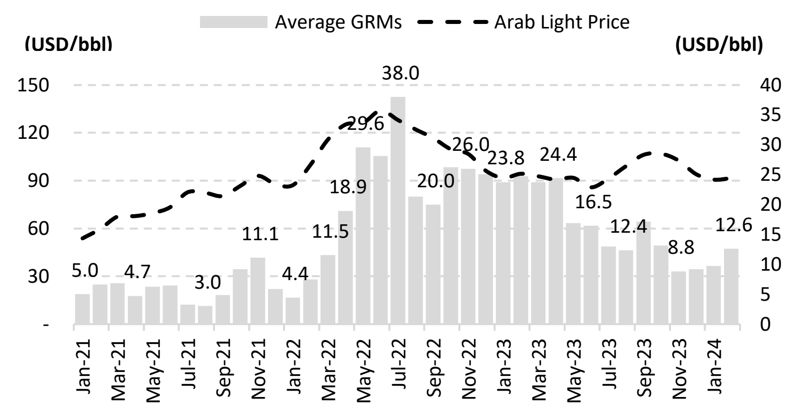
- The policy aims refineries to produce Euro V specifications fuels and also encourages refineries to maximize the production of MS and diesel by minimizing the production of furnace oil.
- The policy allows a minimum customs duty of 10% on imported MS and diesel for a duration of 7 years from the date of notification of amendment of this policy.
- Any customs duty exceeding 10%, reflected in the ex-refinery price, will be directed to the Inland Freight Equalization Margin (IFEM) pool.
- Refineries ineligible for policy incentives must deposit the excess customs duty in IFEM. Additionally, customs duty on crude oil will be reimbursed to refineries via IFEM.
- The policy grants refineries a 10% tariff protection/ deemed duty on the ex-refinery price of MS and diesel for 7 years from the signing of the Upgradation Agreement.
- Within 60 days of policy amendments, refineries must open a joint Escrow Account with OGRA. A portion of the deemed duty (2.5% on Diesel and 10% on MS) will be deposited in the Escrow Account for upgradation of projects.
- Until the account is opened, the incremental incentive goes to the Inland Freight Equalization Margin (IFEM).
- After the 7-year incentive period, a 7.5% deemed duty on High-Speed Diesel (HSD) for sustainability will persist for 20 years or until deregulation, whichever comes first.
- A refinery eligible for this fiscal incentives in this policy, shall, within sixty (60) days following the notification of amendments to this policy, enter into a legally binding upgrade agreement with OGRA.

Exhibit: Local production of petroleum products



Source (s):OCAC, AHL Research

Exhibit: Industrial GRM's in relation to oil price (Arab Light)



Source (s): OGRA ,Bloomberg, AHL Research

Refinery Sector

Oil refinery policy for upgradation of existing/brownfield

Policy for Upgradation/Modernization/Expansion of Existing Refineries:

- Upgrade agreement shall include: 1) Output and outcome of the committed upgrade including maximum production of Euro V compliant MS and HSD and reasonable reduction in furnace oil as stipulated in the FEED of the upgrade project, 2) The proposed milestones with tentative timelines, 3) The potential configuration, / units / size 4) The tentative production slate and 5) A project management methodology for on time delivery as per approved cost and specification
- The eligible refinery importing used Plant, Machinery and Equipment (PME) for upgradation will be allowed to withdraw a maximum of 24.5% of the total project cost from the escrow account.
- Whereas, eligible refinery importing new PME will be allowed a maximum of 27.5% of the total project cost from the escrow account.
- Upon executing the Upgrade Agreement, OGRA will grant a waiver to the respective refinery that produces and market non complying Euro-V specifications until the agreed completion date of the upgradation project, set within six years after signing the agreement.
- Deemed duty on HSD shall be reduced to 5% from 7.5% for refineries that do not sign the upgrade agreement within 60 days of the date of notification of this policy.
- The current capacity in Pakistan for MS, diesel and furnace oil is 10,702 tons/day, 21,237 tons/day and 15,417 tons/day respectively.
- After the signing of the policy by five refineries, total capacity for MS, diesel and furnace oil is anticipated to arrive at 21,251 tons/day(+99%), 31,288 tons/day(47%), and 3,414(-78%) tons/day, respectively.

Exhibit: Current capacity (tons/day)

Refinery	(MS/ Diesel)	MOGAS	Diesel	Furnace oil
PARCO	Euro-III/III	3,678	5,600	3,290
ATRL	Euro-V/III	1,923	2,071	1,024
PRL	Euro-V/-	783	1,793	1,350
NRL	Euro-V/V	818	3,273	2,253
CNERGY	Euro-V/-	3,500	8,500	7,500

Source: MoE, AHL Research

Exhibit: Post expansion capacity (tons/day)

Refinery	(MS/ Diesel)	MOGAS	Diesel	Furnace oil
PARCO	Euro-V/V	5,493	8,082	212
ATRL	Euro-V/V	2,379	2,008	908
PRL	Euro-V/V	4,854	6,111	167
NRL	Euro-V/V	2,025	4,087	1,127
CNERGY	Euro-V/V	6,500	11,000	1,000

Source: MoE, AHL Research

Exhibit: Growth post expansion

Refinery	(MS/ Diesel)	MOGAS	Diesel	Furnace oil
PARCO	Euro-V/V	49%	44%	-94%
ATRL	Euro-V/V	24%	-3%	-11%
PRL	Euro-V/V	520%	241%	-88%
NRL	Euro-V/V	148%	25%	-50%
CNERGY	Euro-V/V	86%	29%	-87%

Source: MoE, AHL Research

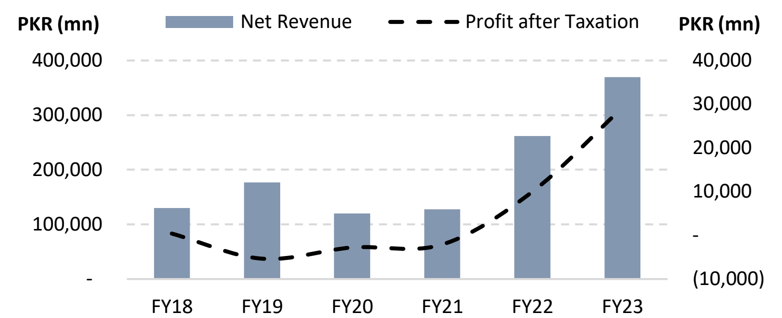
Refinery Sector

Attock Refinery Limited - The shinning star!

Attock Refinery Limited, the shinning star

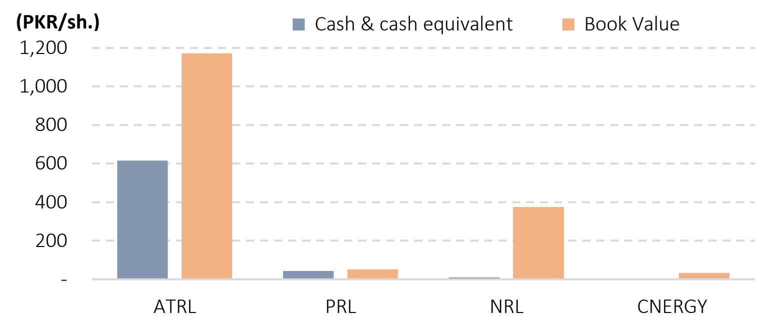
- Attock Refinery Limited refines local crude oil exclusively from Potohar and KPK regions, producing petroleum products such as MS, HSD, FO, Kerosene, and Jet Fuels. The company has the capacity to refine 2.6mn tons annually.
- It is anticipated that ATRL to sign the upgradation policy soon and will increase the production of Euro-V-compliant fuels and reduce the production of furnace oil.
- We estimate the incremental annualized earnings for ATRL at PKR 123/share with the additional deemed duty on MS and HSD. This is expected to take the total profitability of the company in FY25 to reach PKR 422/share, we view.
- ATRL has one of the strongest balance sheets in the refinery sector with a cash and cash equivalent amounting to PKR 66bn (PKR 616/share), book value of PKR 1,171 per share and a debt free position as at 30th Dec'23.
- ATRL is in a favorable position to sign the policy and quickly opt for upgradation, given sufficient cash for capex, however, opting debt for the upgradation cannot be ruled out.
- The no of days payable for ATRL is stretched to 2 months compared to 1 month time for other listed refineries, as the company procures local crude, supporting ATRL's cashflows.
- Also, GRMs are supported due to exchange rate adjustments in prices for MS and HSD.
- With deregulation on the horizon and the refinery situated in the northern region (demand center), ATRL is anticipated to capture a major portion of IFEM charged by other OMCs.
- Our estimate suggests that the stock is currently significantly undervalued and assuming sector's PE multiple of 1.6x (excluding loss-making companies, CNERGY and NRL) ATRL's fair value based on FY25 earnings are expected to arrive at PKR 661/share implying an upside on 79% from last closing price.
- Please find ATRL valuation sensitivity with respect to PE multiple of 2.0x and sector multiple of 4.3x (including loss making refineries)

Exhibit: ATRL sales and profitability trend



Source (s): Company financials, AHL Research

Exhibit: Sector cash position & book value



Source (s): Company financials, AHL Research

Exhibit: Sensitivity Analysis

	Sector P/E*		Sector P/E
P/E	1.6	2.0	4.3
ATRL valuation/share	661	844	1,815

Source (s): Company Financials, AHL Research, *excluding loss making entities

Refinery Sector

Other listed refineries

Pakistan refinery limited (PRL) :

- PRL operates as a subsidiary of Pakistan state oil (PSO). PRL has signed license agreements with Honeywell UOP and Axens, for the refinery expansion and upgrade project (REUP), as per its notice to PSX.
- This project is expected to double the current capacity from 50,000bpd to 100,000bpd and also upgrade the existing refinery to a deep conversion refinery. The project is expected to be completed by the end of 2028.
- The company's profit after tax in 1HFY24 witnessed an uptick of 757% YoY as compared to SPLY, clocking in at PKR 6.51bn (EPS: PKR 10.33).

National refinery limited (NRL) :

- NRL currently stands as Pakistan's third-largest refinery, boasting a production capacity of 63,287bpd.
- Distinguishing itself as the sole refining complex in the country that encompasses a lube refinery, which manufactures various grades of lube base oils, catering to the country's demand.
- The company posted a net loss in 1HFY24 of PKR 4.65bn (LPS: PKR 58.19) as compared to a loss of PKR 5.48bn (LPS: PKR 68.58). In 1HFY24 The fuel segment incurred loss of PKR 4.4bn amid reduced product margins, due to drop in oil prices.

Cnergyico PK Limited:

- Cnergyico PK Limited (CNERGY) has an oil refinery that has a nameplate capacity of 156,000 bpd, making it the largest refinery of Pakistan.
- The refinery complex of the company constitutes 35% of the total refinery capacity in the country.
- The company's net loss in 1HFY24 was recorded at PKR 1.60bn (LPS: PKR 0.30) as compared to a loss of PKR 5.33bn (LPS: PKR 1.0) in SPLY.

Exhibit: Refinery sector financial highlights 1HFY24

	ATRL	YoY	NRL	YoY	PRL	YoY	CNERGY	YoY
Net Revenue	205,880	9.0%	155,552	-2.7%	182,188	39.8%	99,849	-0.7%
Cost of Sales	184,959	10.0%	157,796	-1.2%	168,687	31.1%	95,519	-11.6%
Gross Profit	20,922	0.3%	(2,244)	nm	13,501	689.8%	4,331	nm
Gross Margins	***10%***		***-1%***		***7%***		***4%***	
Admin Expense	708	7.1%	587	19.4%	919	65.0%	743	26.6%
Others Income	7,471	131.8%	133	-8.7%	2,328	35.5%	1,371	-80.2%
EBIT	25,760	18.2%	(2,892)	163.0%	12,379	350.4%	3,164	nm
Finance Cost	(86)	nm	3,445	-44.4%	1,975	52.3%	4,766	67.1%
PBT	25,869	20.0%	(6,337)	-13.2%	10,417	619.5%	(1,601)	-69.9%
Taxation	9,994	40.5%	(1,684)	-7.1%	3,909	467.5%	2	-53.3%
Effective tax rate	***39%***		***27%***		***38%***		***0%***	
PAT	16,414	6.9%	(4,653)	-15.2%	6,509	757.4%	(1,603)	-69.9%
Net Margins	***8%***		***-3%***		***4%***		***-2%***	
EPS (PKR)	153.95		(58.19)		10.33		(0.30)	
DPS (PKR)	2.50		-		-		-	

Source (s): Company Financials, AHL Research

Refinery Sector

Attock Refinery Limited - The shinning star!

Exhibit: Refinery Sector Multiples

Dec'23	Unit	ATRL	NRL	PRL	CNERGY	Sector
Current Price*	PKR	**372.6**	265.3	29.0	4.6	
12-M Trailing EPS	PKR	**284.0**	(45.4)	12.0	(1.7)	
PE 12-M Trailing	x	**1.3**	(5.8)	2.4	(2.6)	1.6
BVPS	PKR	**1,171.0**	374.5	50.6	33.2	
P/B	x	**0.3**	0.7	0.6	0.1	0.3
Gross Margins	%	**10.2**	(1.4)	7.4	4.3	5.7
EBITDA Margins	%	**13.1**	(0.8)	7.1	6.6	7.1
Net Margins	%	**8.0**	(3.0)	3.6	(1.6)	2.8
12-M Trailing EBITDA	PKR mn	**55,238.8**	12,761.8	18,264.4	5,378.8	91,643.8

Source: Company Financials, AHL Research, *05-Mar-2023

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Arif Habib Limited (AHL) uses three rating categories, depending upon return form current market price, with Target period as Dec 2024 for Target Price. In addition, return excludes all type of taxes. For more details, kindly refer the following table;

Rating	Description
BUY	Upside of subject security(ies) is more than +15% from last closing of market price(s)
HOLD	Upside of subject security(ies) is between -15% and +15% from last closing of market price(s)
SELL	Upside of subject security(ies) is less than -15% from last closing of market price(s)

Equity Valuation Methodology

AHL Research uses the following valuation technique(s) to arrive at the period end target prices;

- Discounted Cash Flow (DCF)
- Dividend Discount Model (DDM)
- Sum of the Parts (SoTP)
- Justified Price to Book (JPTB)
- Reserved Base Valuation (RBV)

Risks: The following risks may potentially impact our valuations of subject security (ies);

- Market risk
- Interest Rate Risk
- Exchange Rate (Currency) Risk