Shipping

Sector Study

June 2021

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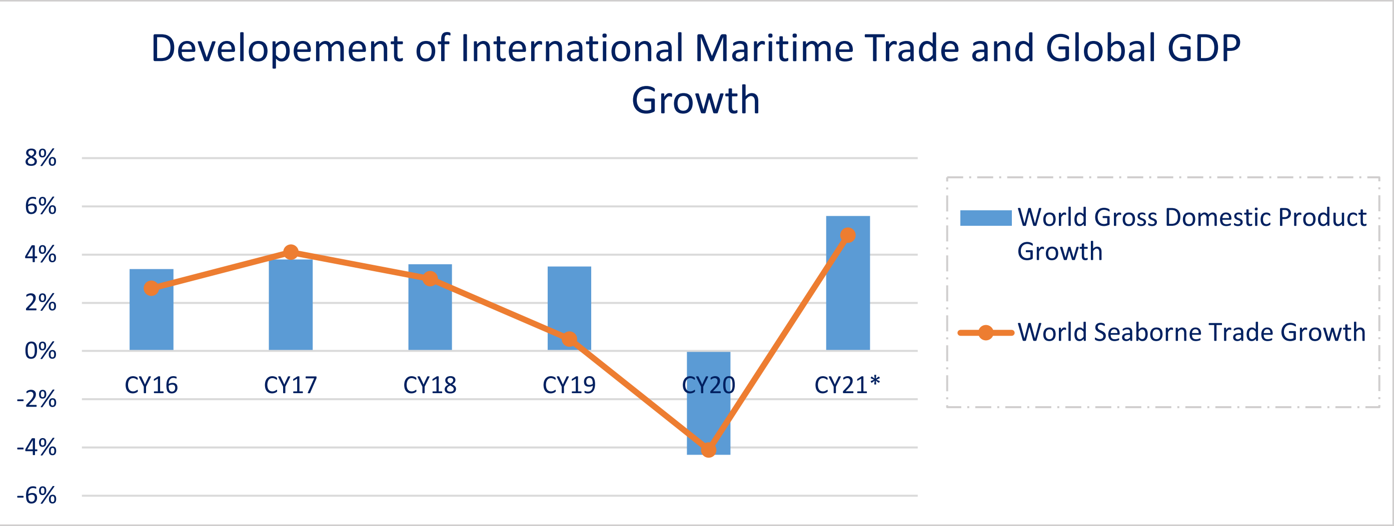
Global Overview

- The global economy relies heavily on shipping industry as it transports around 90% of global trade to people and communities across the world. Intercontinental trade, bulk transportation of raw materials, and the import/export of affordable food and manufactured commodities would all be impossible without shipping.
- At the beginning of 2020, the total world fleet amounted to 98,140 commercial ships of 100 gross tons and above, equivalent to a capacity of 2.06 billion dwt. In 2019, the global commercial shipping fleet grew by 4.1 per cent, representing the highest growth rate since 2014, but still below levels observed during the 2004–2012 period.
- Shipping is an International Industry in its true essence. Its regulations and standards are agreed, adopted and implemented on a global level. The International Maritime Organization (IMO) is the industry's regulatory body inside the United Nations system. The IMO covers all aspects of International shipping to ensure safety, security and efficiency of the industry on a global scale. The regulatory framework for the sector is also provided, developed and maintained by the IMO.
- Maritime trade lost momentum in 2019 and came under pressure in 2020. This was majorly due to trade policy conflicts, unfavorable economic condition, civil upheaval in some countries and sanctions. The situation further aggravated by COVID-19 pandemic which led to decreased demand and sluggish recovery afterwards.
- Growth in global maritime trade is expected to return to a positive territory and expand by ~4.8% in CY21.



*Based on forecasted numbers.

Source: World Bank, Review of Maritime Transport, 2020

SHIPPING

Types of Ships

Container Ships

A ship structured specifically to hold huge quantities of cargo compacted in different types of containers.

Bulk Carrier

The cargo transported in such ships is loose cargo i.e. without any specific packaging to it and generally contains items like food grains, ores etc.

Tanker Ships

Specialized ships for carrying a large amount of liquid cargo. They are further sub-divided into different types
i.e. Oil Tankers, Liquefied Gas Carriers etc.

Roll-on Roll-off Ships

These are the ships that are used to carry wheeled cargo i.e. Cars, trucks, buses etc.

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Types of Ships

Passenger Ships

As the name suggests, these are used for transiting passengers. Mainly classified into: Ferries & Cruise Ships.

Offshore Ships

These ships mainly help in oil exploration and construction jobs at sea. These include supply ships, pipe layers, crane barges etc.

Fishing Ships

These ships are used for recreational and commercial fishing at sea. There are classified into two types i.e. Trawlers and non-trawler ships.

Specialty Ships

These ships have onboard machinery and equipment to perform special tasks. These include: anchor handling tug supply, drilling ships etc.

Source: Marine Insights

SHIPPING

Global Statistics

- In CY19, developing economies continued to account for the majority of cargo loaded (~58%) and unloaded (~65%) in seaports globally. Together developed economies and transition economies exported ~42% of global cargo by sea (cargo loaded) and imported ~35% of such global trade (cargo unloaded).

International Maritime Trade in CY18-CY19

Designation	Year	Millions of Tons							
		Cargo Loaded				Cargo Unloaded			
		Total	Crude Oil	Other Tanker Trade	Dry Cargo	Total	Crude Oil	Other Tanker Trade	Dry Cargo
World	2018	11,019	1,881	1,321	7,818	11,017	2,049	1,339	7,629
	2019	11,076	1,860	1,308	7,907	11,083	2,033	1,329	7,720
Developed Economies	2018	3,863	206	508	3,149	3,844	932	495	2,418
	2019	3,935	243	507	3,185	3,780	914	473	2,394
Transition Economies	2018	713	204	38	472	99	0.3	5	94
	2019	716	194	41	481	102	0.8	5	95
Developing Economies	2018	6,443	1,471	775	4,198	7,073	1,117	839	5,117
	2019	6,425	1,423	760	4,241	7,201	1,119	851	5,231

Total Global Fleet

98,140
Ships

Capacity

2.06
Billion DWT

Average Age

21.29
Years

Trade Volumes

11.08
Billion Tons

Top Owners

Greece (17.8%)
Japan (11.4%)
China (11.2%)

Leading Flag Registration (DWT)

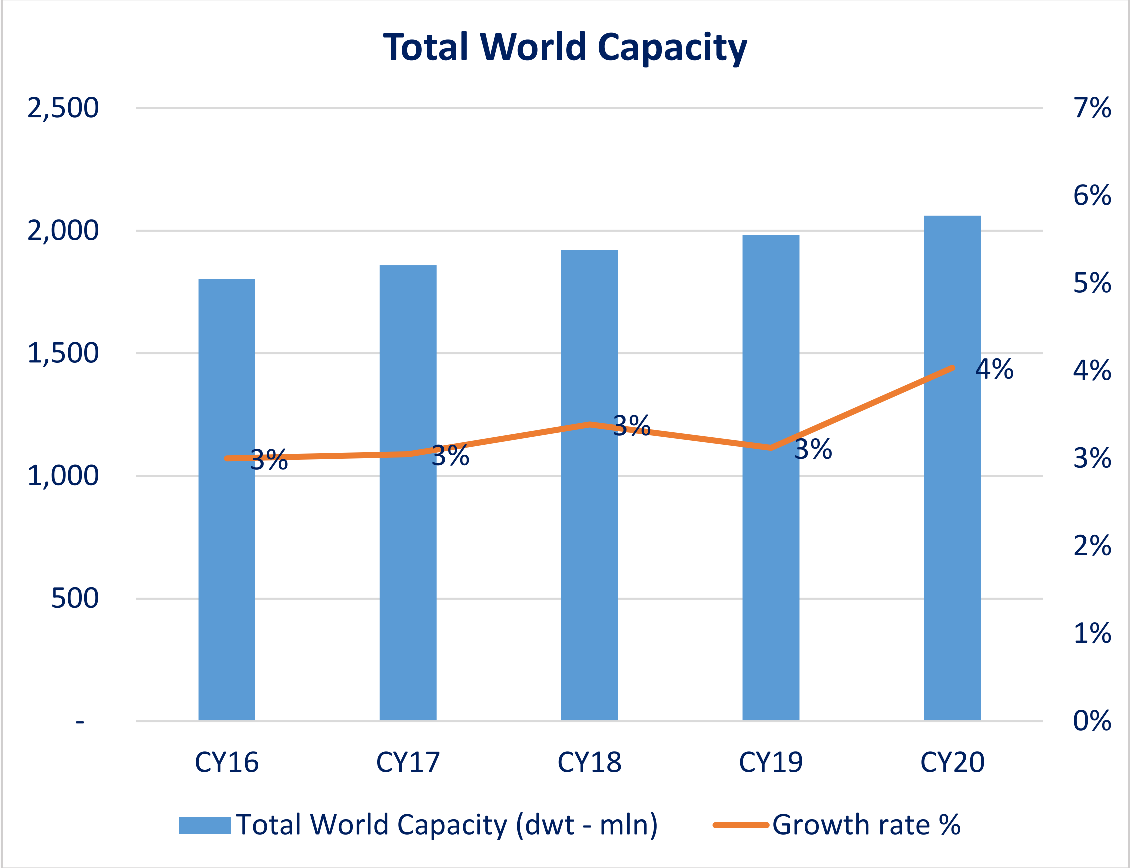
Panama (16%)
Liberia (13%)
Marshall Island (13%)

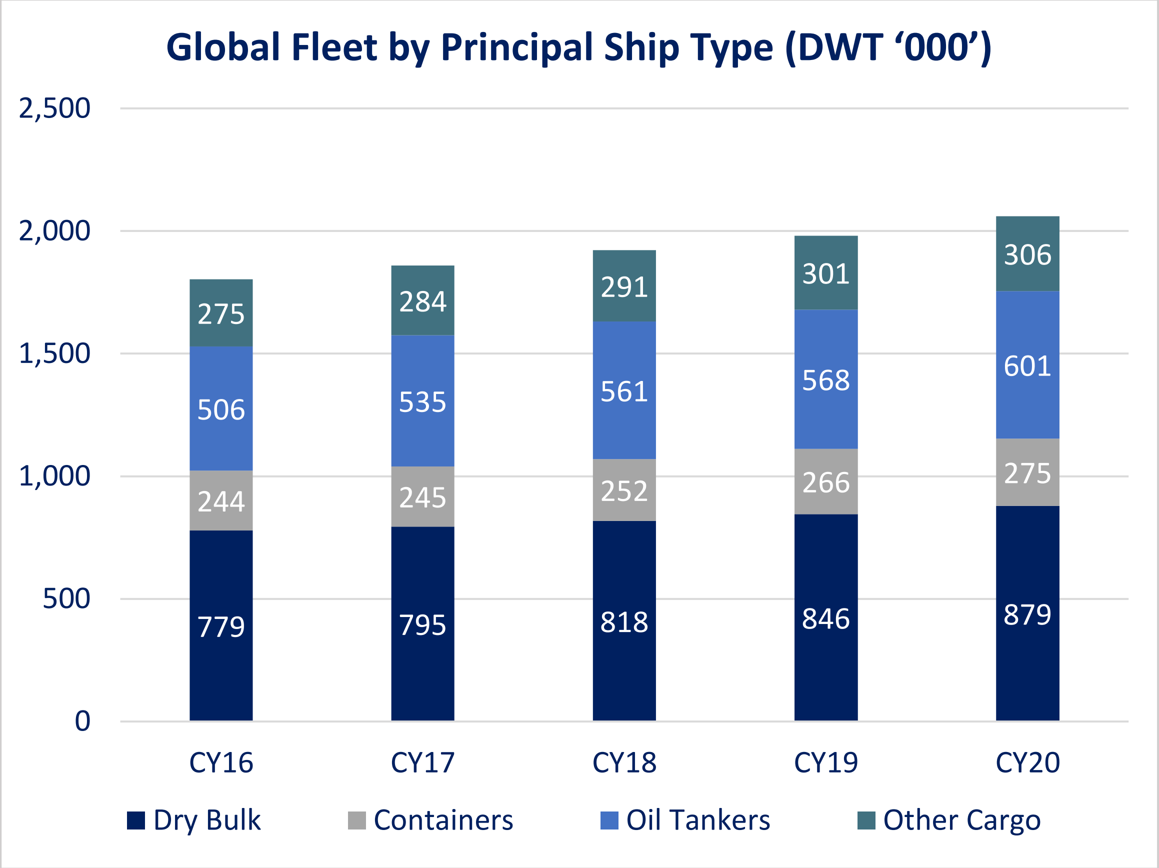
Latest data available is for CY19

Source: Review of Maritime Transport 2020

SHIPPING

Global Fleet





- Total world capacity increased from ~1,982mln DWT in CY19 to 2,062mln DWT in CY20 with YoY growth of ~4%. The global commercial fleet increased by 4% in CY19, the greatest growth rate since CY14.

Source: Review of Maritime Transport 2020

Major Shipping Companies

- Maersk is the top deep sea container shipping company followed by COSCO and Mediterranean Shipping Company at second and third place respectively.

	Top Deep Sea Container Shipping Companies, May 2020 (in terms of deployed capacity & market share)		
Sr #	**Name**	**Country**	**Capacity (000 TEUs*)**
1	Maersk	Denmark	18,000
2	China Ocean Shipping (Group) Company (COSCO)	China	15,200
3	Mediterranean Shipping Company	Switzerland	15,100
4	CMA CGM	France	14,800
5	Hapag-Lloyd	Germany	11,000
6	One	Singapore	8,500
7	Evergreen	Taiwan (China)	8,200
8	Yang Ming	Taiwan (China)	3,500
9	Hyundai Merchant Marine	South Korea	2,000
10	Pacific International Lines	Singapore	2,500
	Total		**9,880**

**Twenty Foot Equivalent Units*

Source: Review of Maritime Transport 2020

Global Ship Recycling

Major Ship Recycling Countries, CY19								
Ship Type (000 ton)	**Bangladesh**	**India**	**Turkey**	**China**	**Pakistan**	**Rest of World**	**World Total**	**Percentage**
Bulk Carriers	3,426	582	161	238	132	32	4,570	37%
Container Ships	1,015	964	10	24	12	86	2,111	17%
Oil Tanker	326	543	435	4	9	153	1,999	17%
Other	1,915	1,162	489	117	114	269	3,538	29%
Total	**6,682**	**3,251**	**1,095**	**383**	**267**	**540**	**12,218**	**100%**

- Bangladesh continues to have the highest percentage of recycled tonnage globally, accounting for more than half of all ships recycled in CY19.
- Bulk carriers accounted for nearly a third of the recycled tonnage in the same year, followed by container ships and oil tankers.
- Turkey was the only one of the top five scrapping destinations to have an increase in ship recycling volumes in CY19. Turkey recycling volumes were up ~40% YOY.
- Pakistan witnessed a significant decline of ~93% in CY19. The decline in Pakistan's contribution was the most dramatic among the other countries, owing to adverse taxation and exchange currency conditions.

Source: Review of Maritime Transport 2020

SHIPPING

Local Overview

- Seaborne trade is an important component of overall economic trade of the country. Due to the ever-increasing thrust of technology and market competitiveness, it is a highly complex, competitive and capital-intensive sector that necessitates long-term planning.
- Pakistan has a unique coastal geographical situation, with sea frontage ranging from the Iranian border in west to Sir Creek in the east.
- Pakistan's coastline dominates sea traffic to and from the Suez Canal, Arabian Sea and Persian Gulf on one side and India and Far East on the other. Afghanistan largely depends on Pakistan for its imports and exports.
- Pakistan relies on sea transportation for over ~95% of its imports and exports.
- Overall seaborne trade during FY19 reached to ~110mln DWTs (FY18: ~100mln DWTs) but fell to ~94mln DWTs in FY20, with a share of ~66mln DWTs in dry bulk trade and ~27mln DWTs in liquid bulk trade.
- Liquid bulk comprises import of crude oil variants by the oil and gas sector, particularly refineries and OMCs. As the global and local energy mix shifts to "clean oil," proportion of white oil imports (such as MOGAS) is expected to increase in the country's total energy import.

Particulars	FY19	FY20
Gross Revenue (PKR mln)	13,575	10,693
Number of Local Companies	1	1
Structure	Listed & Monopolistic	
Total Seaborne Trade (mln ton)	111	94
PNSC Share in Total Seaborne Trade	9%	9%
Fleet Size	11	11
Tankers	6	6
Dry Bulk Carriers	5	5

Source: PACRA Database, ResearchGate

PACRA

Pakistan National Shipping Corporation

- In 1974, Pakistan's shipping sector was nationalized, with all ship-owning businesses merged under the Pakistan Shipping Corporation (PSC).
- The National Shipping Corporation (NSC) and Pakistan Shipping Corporation (PSC) were merged in 1979 to establish Pakistan National Shipping Corporation (PNSC). The Ministry of Maritime Affairs oversees the Corporation.
- PNSC has a unique distinction of being the only national flag carrier with a 100% Pakistani fleet of dry bulk and liquid bulk carrier.
- The company's fleet comprises 11 ships (6 tankers and 5 dry bulk carriers) with a total deadweight capacity of ~831,711MT. The fleet is fairly new with an average age of ~13.5 years.
- In the tanker segment, PNSC has a considerable share of ~26%, whereas in dry bulk, the corporation possesses a share of ~2.3% only. The rest of the Country's shipping business is handled by international shipping companies.

Sr#	Ship Types	Name of ship	Years of Manufacturing	Years of Purchase by PNSC	Age	Capacity (dwt)
1	Tanker	M.T Quetta	2003	2008	16	107,215
2		M.T Karachi	2003	2010	16	107,081
3		M.T Lahore	2003	2010	16	107,018
4		M.T Shalamar	2006	2014	13	105,315
5		M.T Bolan	2013	2019	7	74,919
6		M.T Khairpur	2012	2019	8	74,986
Total						**576,534**
7	Bulk Carrier	M.V Malakand	2004	2010	15	76,830
8		M.V Hyderabad	2004	2011	15	52,951
9		M.V Multan	2002	2012	17	50,244
10		M.V Chitral	2003	2010	16	46,710
11		M.V Sibi	2009	2011	10	28,442
Total						**255,173**
Total						831,711

Source: PNSC, PACRA Database

SHIPPING

Seaborne Trade

- The profitability of shipping sector is positively correlated with global economic activity. However, due to global economic slowdown due to COVID-19, demand for all aspects of global transportation, such as freight, asset values, and demolition costs, remained weak and negatively impacted.

- In FY20, PNSC having a total DWT capacity of ~831,711 MT, lifted cargo of about ~8.81mln tons (~10.38mln tons in FY19) which is equivalent to ~9.34% (FY 2019: ~9.38%) of the country's total ~94.3mln tons (~110.7mln tons in FY19) seaborne trade by volume.

	Pakistan		PNSC's Share	
	FY19	FY20	FY19	FY20
Dry Bulk (mln tons)	80.2	66.6	2.4	1.5
Liquid Bulk (mln tons)	30.4	27.7	7.9	7.4
Total	**110.7**	**94.3**	**10.4**	**8.9**

- Nature/arrangement wise bifurcation of total cargo transported by PNSC is tabulated below:

	FY19	FY20
Dry Cargo|Bulk Carrier (mln tons)	2.3	1.5
Liquid Cargo|Oil Tanker (mln tons)	7.9	7.3
Slot Charter		
Break Bulk (Higher of MT or CBM (W/M)	0.05	0.01
Containerized Cargo Thousand TEUs	2.4	1.7

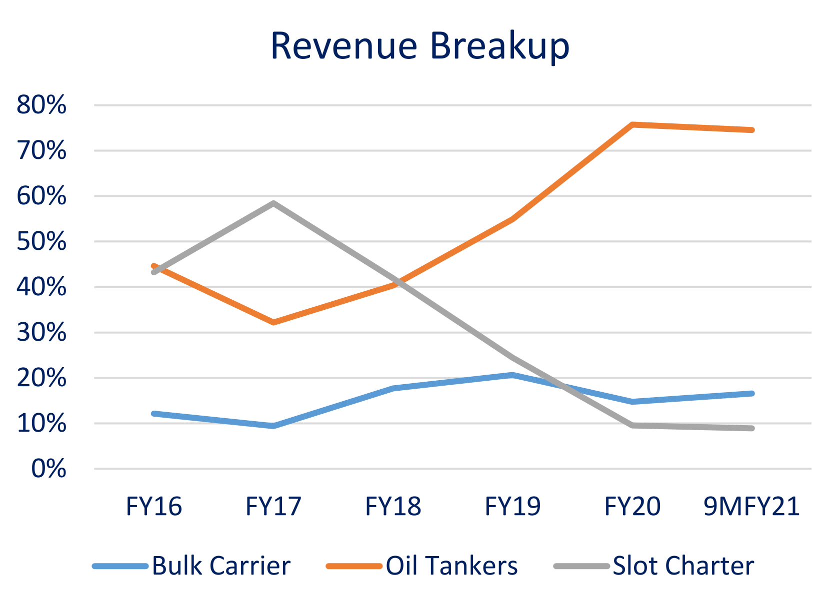
Source: PNSC

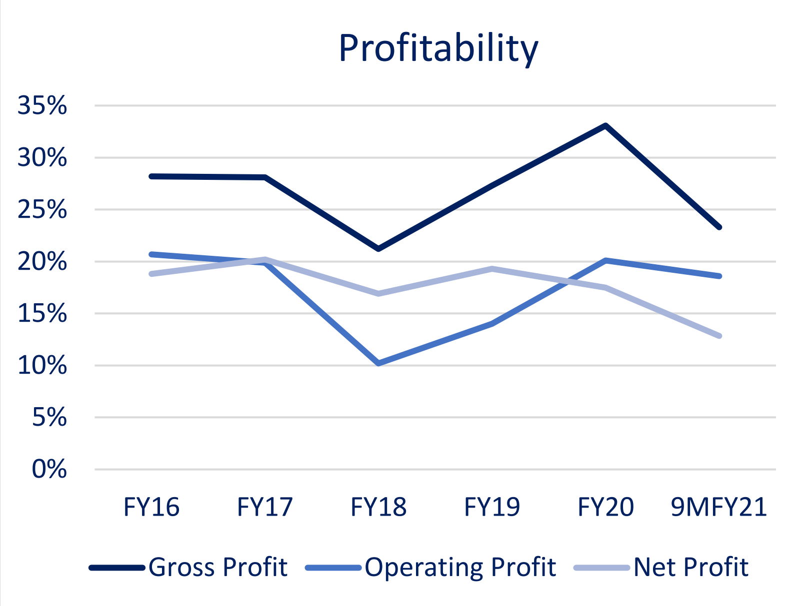
Business Risk | Margins & Revenue Break-up

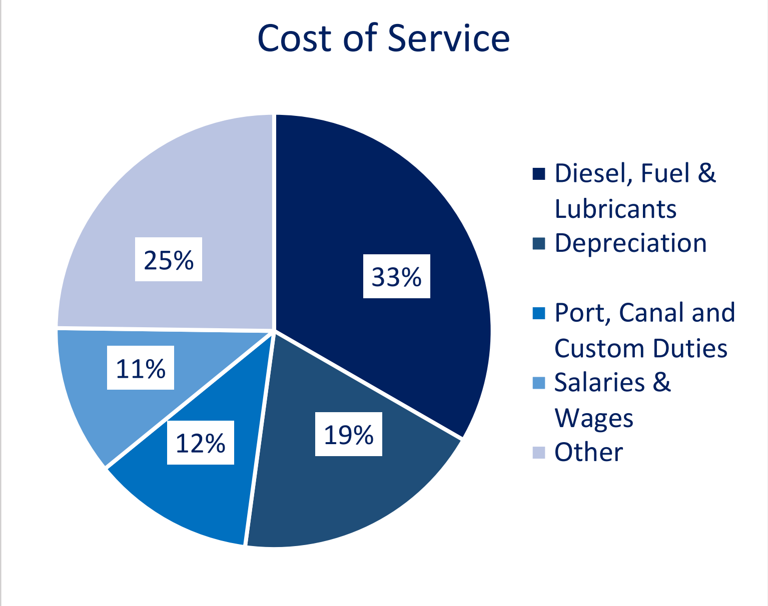
- Revenues from the dry bulk carrier and oil tanker are the biggest contributors to the overall revenue earned in the shipping sector. Revenue from oil tanker increased over the period due to higher volumes handled. The revenue for 9MFY21 was recorded at PKR~9,466mln with YOY growth of ~0.14%.

- The largest component of the cost of service is fuel and lubricants comprising ~33% of the total cost in FY20 (~26% in FY19). The cost of service is expected to remain on the higher side, going forward, due to uptick in international oil prices coupled with the applicability of IMO 2020 global regulation to reduce sulphur content of ships' fuel from 3.5% to 0.5%.

- Though the Sector Margins improved till FY20, i.e. from ~27% in FY19 to ~33% in FY20, the gross margins sharply declined during 9MFY21 i.e. ~23% due to elevated direct expenses.







Note: Calculation based on PNSC Financials.

Source: PACRA Database, PNSC

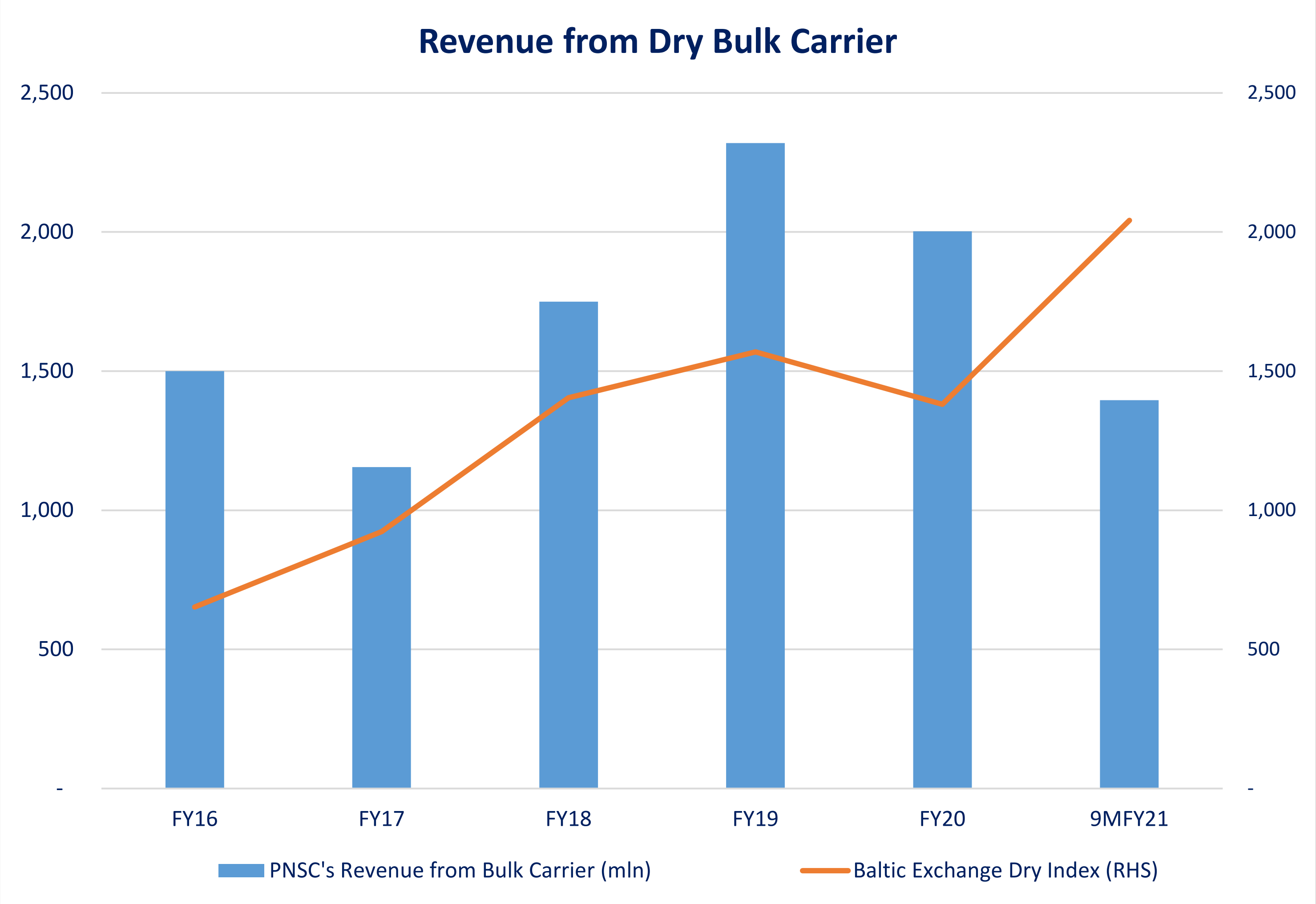
Business Risk | Baltic Exchange Dry Index

- The Baltic Dry Index issued by London-based Baltic Exchange, takes into account 23 different shipping routes carrying coal, iron ore, grains and many other commodities.

- The pricing of the dry bulk carrier based on the Baltic Dry Index, rose to 2,042 points on 31 March 2021, after few sessions of losses, amid supply concerns despite China's efforts to limit rising commodity prices.

- It is expected to trade at 2,236 points in the next quarter, according to Trading Economics global macro models and analysts expectations. Looking forward, it is estimated to trade at 1,764 in 12 months time.

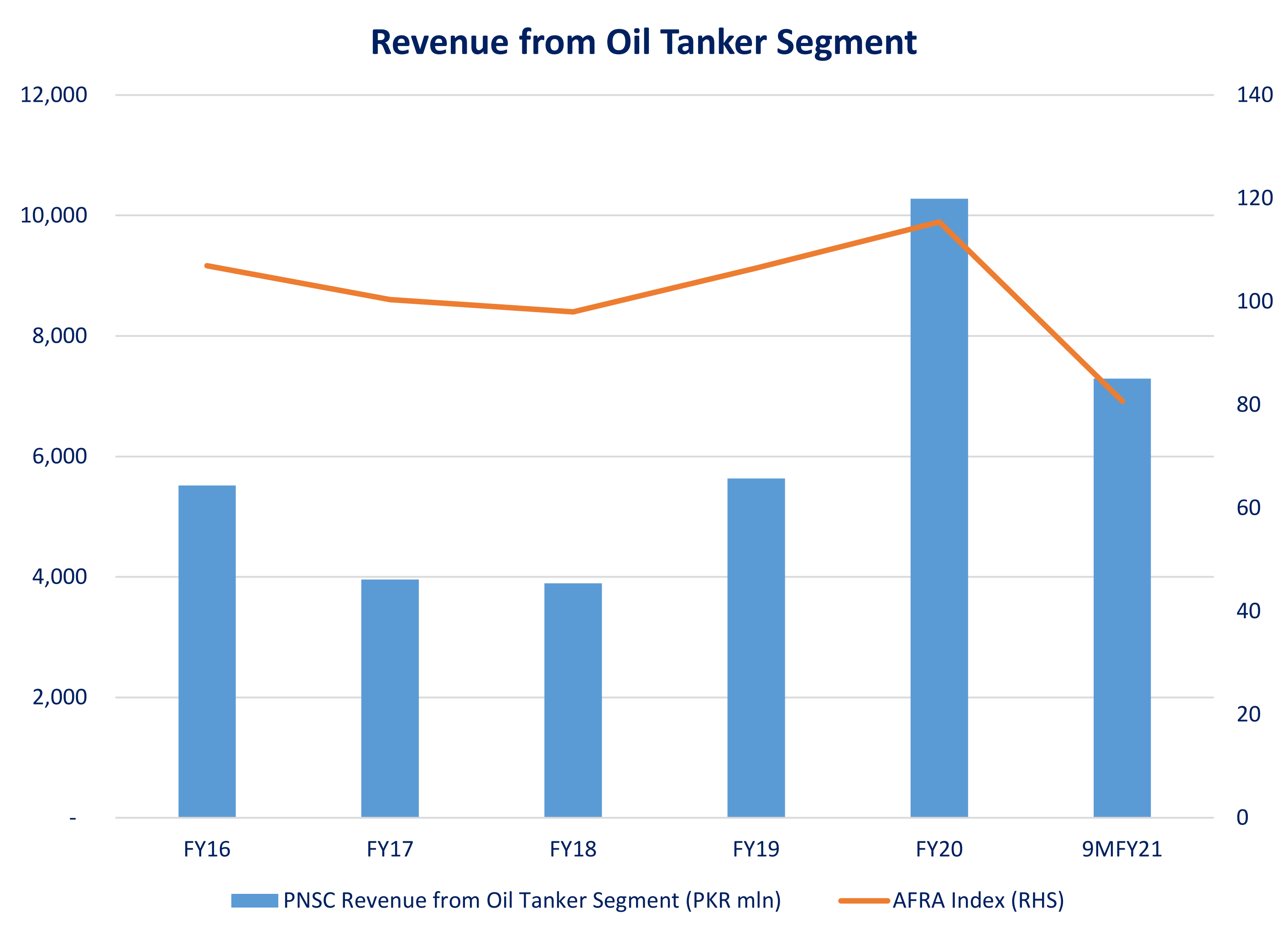
- PNSC's revenue from bulk carrier is linked to Baltic Exchange Dry Index. Despite the ~48% increase in the index, the 9MFY21 revenue of the company remained stagnant due to decrease in volume handled.



Source: Trading Economics, PNSC

Business Risk | Average Freight Rate Assessment (AFRA)

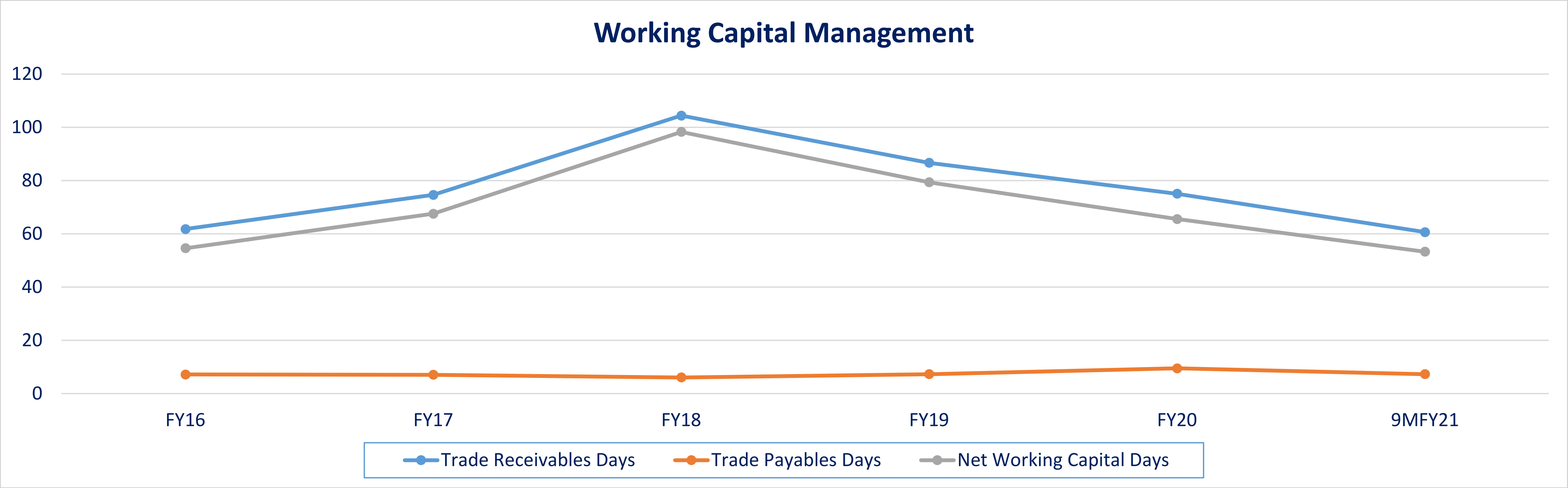
- Average Freight Rate Assessment (AFRA) is a system that uses the global crude oil and refined product tanker fleet classification system to standardize contract terms, establish shipping costs, and determine the ability of ships to travel into ports or through certain straits and channels.
- It was established by Royal Dutch Shell six decades ago, and is overseen by the London Tanker Brokers' Panel (LTBP), an independent group of shipping brokers.
- PNSC revenue from oil tanker segment is linked with AFRA rates. AFRA remained under pressure during 9MFY21 due to slow recovery in global markets amid pandemic.
- Going forward, the rate is expected to increase on the back of global economic recovery and hence will result in increased revenue for PNSC as well.



Source: Trading Economics, PNSC

Financial Risk | Working Capital Management

- Working capital cycle of the sector is mainly a function of receivable days averaging around 2-3 months cycle, depending on the turnaround time of the shipments. Receivable days improved to ~61 days during 9MFY21 from 75 days in FY20, a higher cycle due to delays pertaining to COVID-19.
- A major portion of receivables stems from Pakistan State Oil Company Limited (PSO) as it constituted ~78% of total receivables at End-June’20.

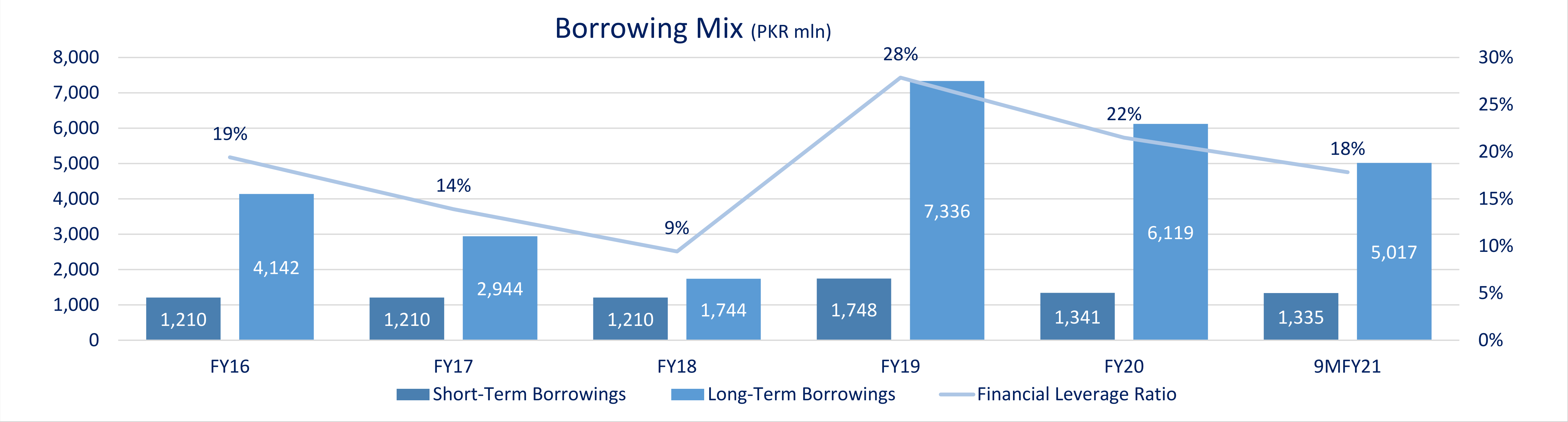


Note: Workings are based on PNSC Numbers

Source: PACRA Database, PNSC

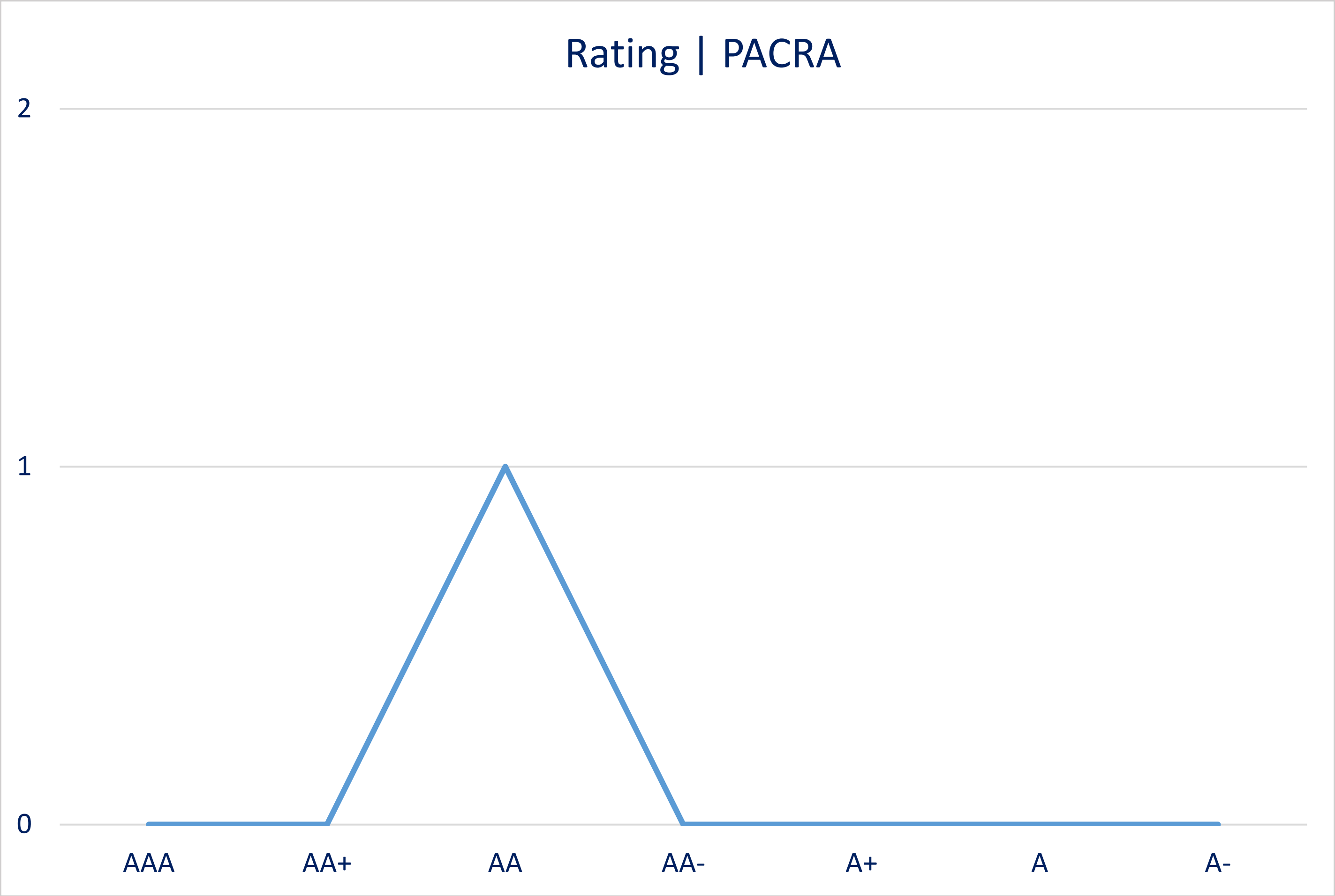
Financial Risk | Borrowing

- The total borrowing of the sector during 9MFY21 stood at PKR~5,017mln (PKR~6,119mln in FY20).
- The graph shows the sector's average borrowing mix. The largest component in this borrowing mix is represented by long term borrowings (LTBs) that make up to ~79% of the total borrowings as at end 9MFY21 (FY20: ~82%).
- Due to reduction in marine trade amid COVID-19 induced lockdown. Reliance on LTBs were necessitated to manage Working capital needs. The financial leverage ratio kept declining from ~28% in FY19 to ~18% in 9MFY21.



PACRA | Rating Curve

- PACRA rates Pakistan National Shipping Corporation.
- Rating bandwidth falls in ‘AA’ category.



SHIPPING

SWOT Analysis

Strengths

- An International Sector in true essence, wherein compliance and safety requirements are devised, managed and monitored on a global scale.
- Significantly important sector of the economy in terms of catering over ~90% of the country's external trade movement.
- Regulated.
- Sovereign Control
- Capital intensive thus high barrier to entry.

Weaknesses

- Significant dependence on specific trade routes
- Inability to set pricing, dependence on international index
- High reliance on global trade dynamics.
- Lack of technological expertise and resources to increase penetration in shipping landscape.

Threats

- Litigation risks
- Major accidents or oil spillage
- Terrorism
- Fluctuation in Interest rate
- Volatility in fuel Cost
- Trade Risks
- Adverse changes in global laws e.g., taxation policies

Opportunities

- Unique coastal geographical position of the country holds the potential to grow tremendously on global shipping services.
- Strategic alliances and joint ventures
- Web-Enabled logistic operations.

SHIPPING | Outlook & Future Prospects

Outlook: Stable

- As the global economy is gradually opening up, the global maritime freight is expected to register an average growth rate of ~4% in the coming periods till 2026. Tanker rates have profited tremendously from high demand for floating storage, but the charter rates are expected to return closer to long-run averages in the second half of the year as broad economic weakness finds its way into the tanker market.
- Current projections for 2022 suggest potential for tanker market improvements, driven by the continued recovery in global oil demand and seaborne oil trade (crude and product tanker DWTs demand are expected to grow by a further 4-5% in 2022, returning to the 2019 level). Although underlying tanker fleet capacity growth is projected to remain limited next year at ~1.7%, some supply side pressure on the market may linger, with fleet capacity expected to end 2022 approximately 8% above the end 2019 level.
- Significant uncertainty over the pace and strength of the tanker market recovery also remains, with oil demand improvements likely to remain closely tied to the roll-out of vaccines, the status of 'lockdown' restrictions in key regions and wider global economic progress.
- The volume of sea borne trade is highly correlated to the overall economic growth. Pakistan registered an economic growth of ~4% during FY21 and is expected to grow by ~5% in FY22. Overall, sea borne trade is expected to increase as well. As PNSC is the only flag carrier of the country, it is well positioned to capitalize over the growing demand and enhance its fleet as well.
- The recent surge in Baltic Dry Index and expected increase in sea borne trade volumes is expected to augment the Sector's Revenue in the coming periods. However, the direct costs of the Sector are expected to remain on the higher side after the implementation of IMO 2020 regulations.
- The sector remains highly underdeveloped in comparison to the regional competitors. Amendments to the Pakistan Merchant Marine Policy, 2001 and new shipping policy for incentivizing investors to establish Pakistan resident ship owning companies may reap results to the growth of the sector in the medium to long term.
- Financial matrix of the Sector is expected to strengthen further, going forward, due to improved working capital cycle and sound capital structure.

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