Research

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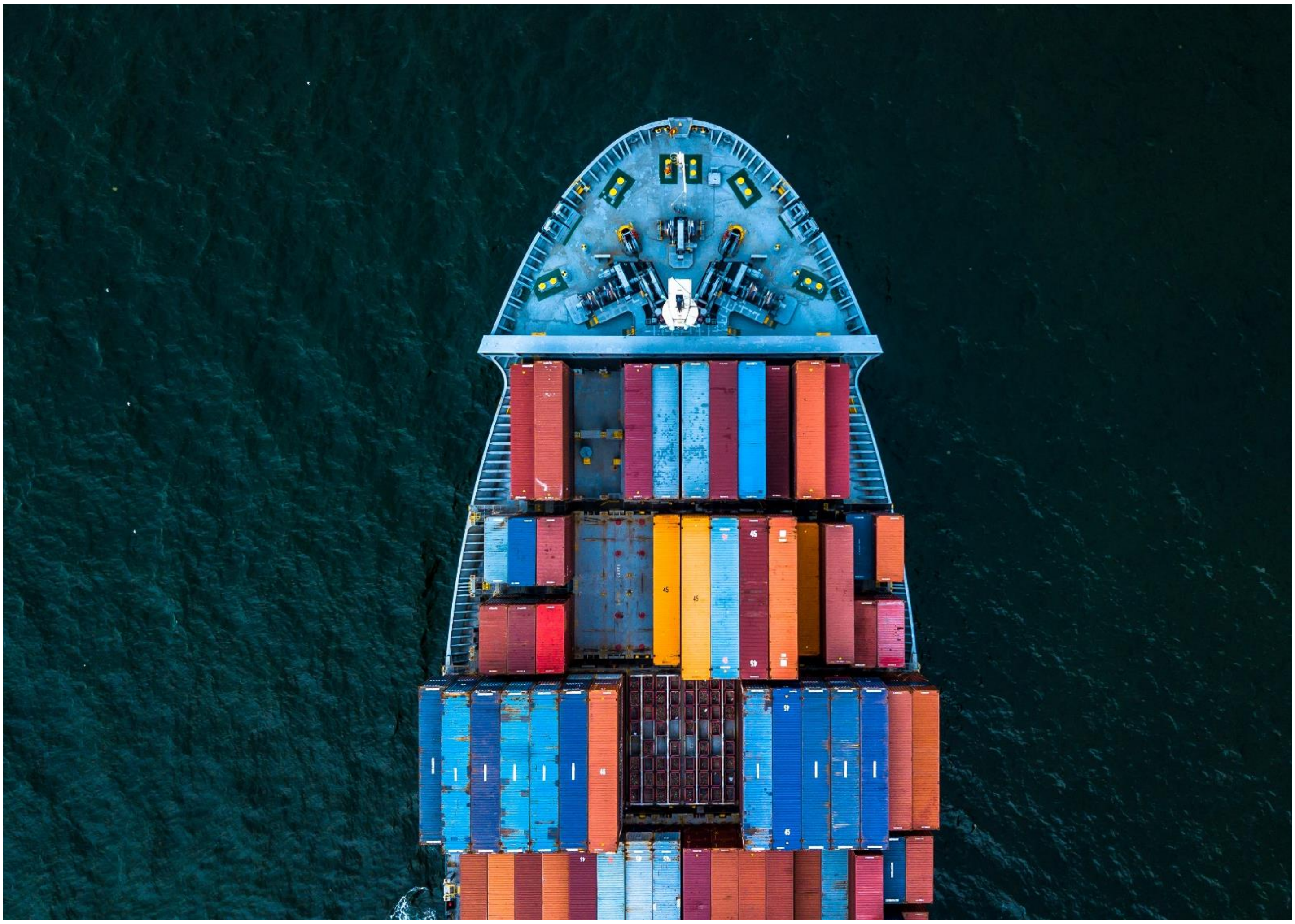
Sailing on low sulphur

LSFO more viable option for shippers in the long run
Existing supply hiccups to ease

CRISIL Impact Note | February 2020



Bunker fuel preference shifts to LSFO among Indian shippers

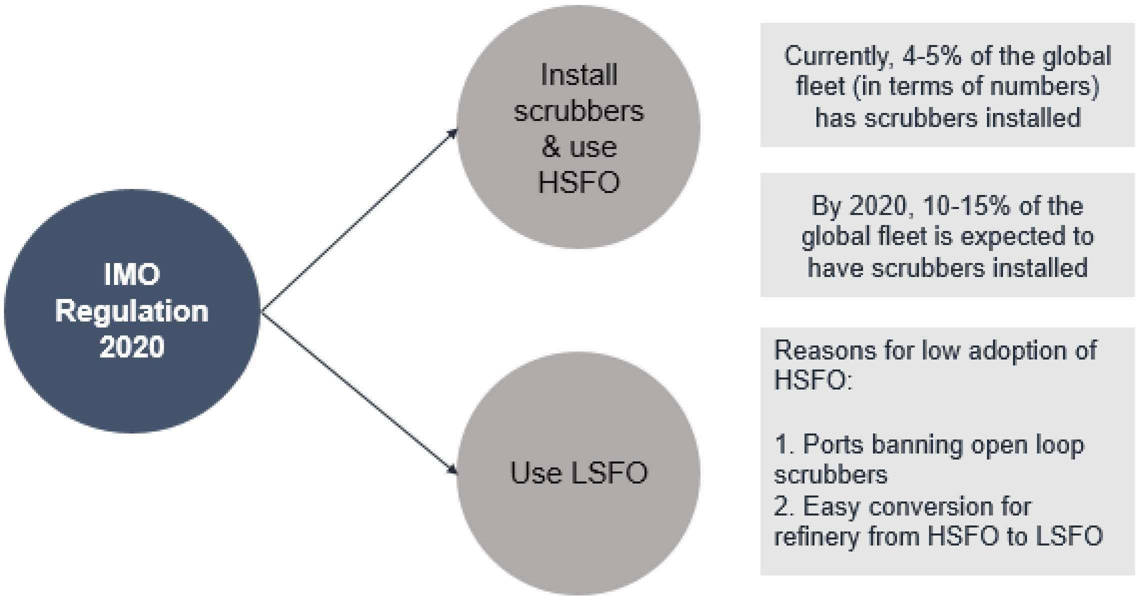
The International Maritime Organization (IMO) has mandated the use of low-sulphur fuel oil (LSFO; 0.5% sulphur) by ships replacing high-sulphur fuel oil (HSFO; 3.5% sulphur), with effect from January 1, 2020.

To be compliant, ship owners have two options: use LSFO, or continue to burn HSFO by equipping ships with exhaust gas cleaning systems called scrubbers.

So far, only 5-10% of the global fleet (by number of vessels) is estimated to have installed scrubbers, and by the end of 2020, this is expected to improve to only 10-15%.

In other words, shippers are preferring a switch to LSFO.

Low adoption of scrubbers



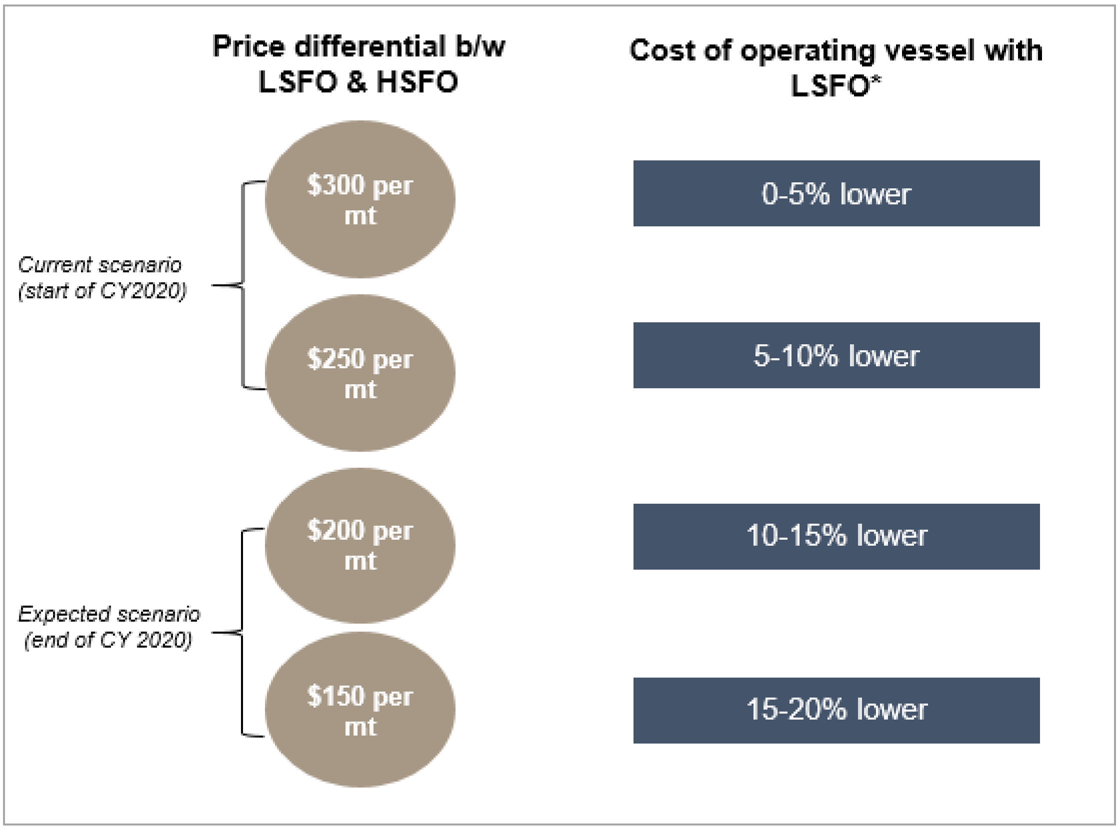
Source: CRISIL Research

The low preference for scrubbers is because of two factors: a ban on open-loop scrubbers, which transfer pollution from air to water, at ports; and, two, the ease of transition to LSFO for refiners, which could lead to concerns about availability of HSFO, especially at small ports.

Also, the cost of installing a scrubber is very high at $2.5-4.5 million (Rs 18-32 crore, which is 5-10% of the typical capital cost for a Suezmax or Aframax vessel).

Factoring this, a cost analysis of vessels with and without scrubbers over a 15-year lifecycle indicates that it is beneficial for a ship to run on LSFO even if the price differential between LSFO and HSFO remains at the current level of $300 per mt. And as the price differential narrows, the economic benefit for players operating on LSFO increases, compared with players using HSFO with scrubbers.

LSFO is the better option in the long run



Note:

a. ** with respect to vessels installed with scrubbers*
b. *Refer to Annexure 1 for LSFO vs HSFO price trend*
c. *Mt denotes metric tonne*

Source: CRISIL Research

In the interim, however, ships moving to LSFO may see costs shoot up, impacting fiscal 2021 margins at the EBITDA (earnings before interest, tax, depreciation and amortisation) level.

In fiscal 2021, operating margins of the players operating on LSFO are expected to dip by 400-500 bps due to higher bunker fuel prices. On the other hand, for those players who have installed scrubbers, margins are expected to dip by 100-200 bps as they will still need to operate ships on LSFO on the scrubber banned ports and also due to increase in maintenance cost on account of scrubber. In case ship owners chose to use the high-priced diesel oil, it could impact their margins even further.

The novel coronavirus outbreak is becoming a global problem. China, the epicenter of the crisis, is a significant importer of coal, iron ore, and crude oil, and exporter for container trade. Consequently, the shipping industry is expected to see some downturn in the fourth quarter of fiscal 2020. Accordingly, demand and freight rates for dry bulk and container would be under pressure over the short term.

To read more about the impact of corona virus on India Inc, click here.

Shortage of LSFO on the east coast has affected transhipment traffic

Meanwhile, Indian ship owners are facing initial hiccups linked to supply and availability of LSFO – especially on the east coast – even though the surge in demand was anticipated.

Our interactions with market participants indicate India's current LSFO demand is 1-1.5 mmtpa (assuming 5-10% of Indian ships have installed scrubbers), which is only 1-2% of global bunker-fuel sales. About 70% of marine fuel sales in India are to Indian flagships undertaking domestic coastal voyage, while international ships account for the remaining 30%.

Even though Indian refineries are well-positioned to move to LSFO, delays in commencement of production by some refiners and shutdowns for upgradation to BS-VI norms have led to supply constraints. Moreover, LSFO stocks depleted quickly due to panic buying by ship owners ahead of implementation of the new norm.

On the west coast, refineries were able to fulfil the initial demand for low-sulphur bunker fuel. However, supply constraints on the east coast have led to disturbances in coastal traffic.

The shortage of LSFO has also affected transshipment traffic, which has switched to ports such as Singapore and Colombo, where bunker fuels are available. And though the bunkering requirement of coastal ships has been given priority, they are also facing headwinds due to the shortfall.

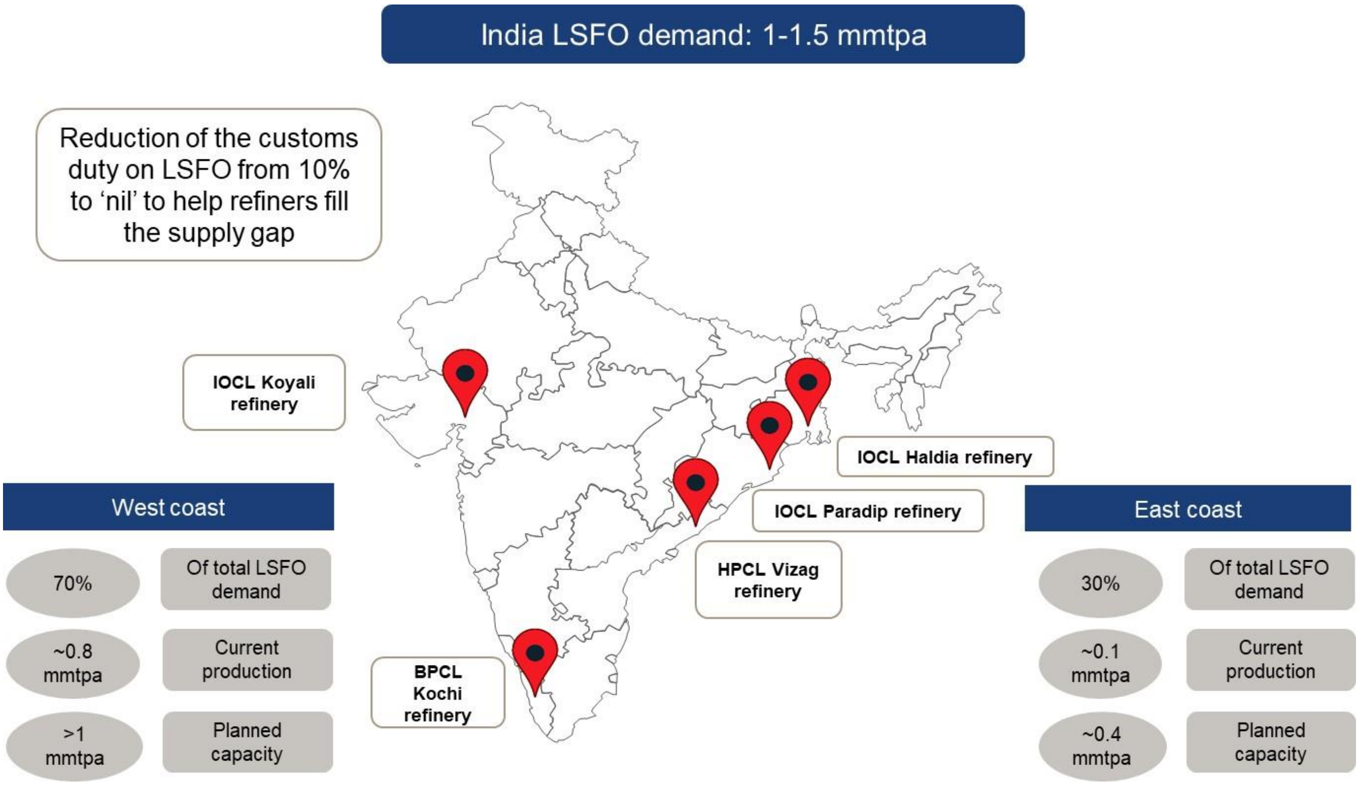
Given the non-availability of LSFO on the east coast, ship owners are filling up the fuel oil non-availability report and are stocking small quantities of HSFO or diesel oil that are enough to reach the nearest port with LSFO availability. This is leading to route inefficiencies and voyage delays.

That said, the impact on the overall transshipment traffic in India is relatively low, as eastern ports such as Kolkata, Chennai and Ennore account for only 30% of India's transshipment traffic – which is anyway only 10% of the total traffic.

LSFO supply to improve in 2-3 months on output ramp up, duty cut

Our interactions with stakeholders, such as regulators, refiners and bunker fuel traders, indicate this situation is temporary and is expected to stabilise over the next 2-3 months, with almost all refiners ramping up LSFO production.

LSFO shortage mostly on the east coast currently



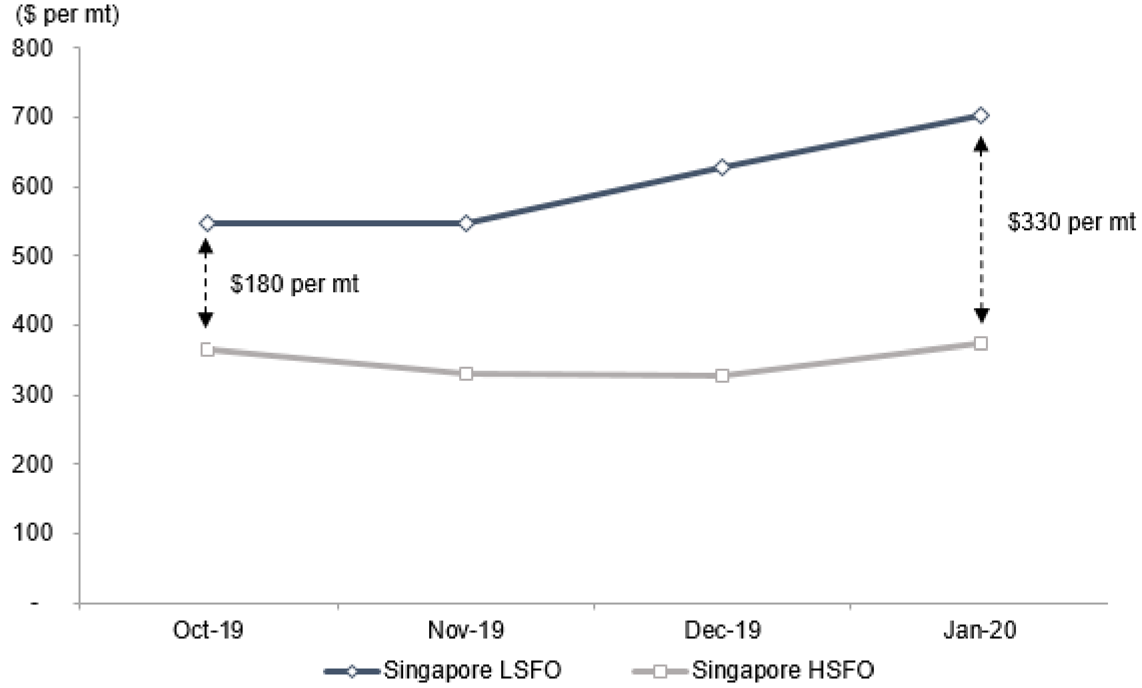
Source: Industry, CRISIL Research

In the context, the reduction in customs duty on imported LSFO from 10% to 'nil' in Union Budget 2020-21 is a positive for ship owners, as refiners may fill the gap by importing the required LSFO mostly from Malaysia or Singapore.

Given that bunker fuel prices in India are linked to Singapore prices, the differential between imported and domestic prices would narrow, making it viable for refiners to supply imported LSFO at bunkering hubs.

The shutdown of the Koyali refinery on the west coast for BS-VI upgradation in February 2020 is, however, a key monitorable.

Annexure 1: price differential between HSFO and LSFO has widened



Source: Industry, CRISIL Research

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