



ACT Financial Solutions

Fuel Price Risk Management post-IMO 2020

Fuel Hedging The Why and How

- On average, a ferry's total expenditure comprises of about 30-50% in Fuel oil.
- In 2018, oil prices were extremely volatile, dropping from a high of \$86 / bbl to a low of \$50 / bbl.



Source: Reuters, ACT FS



A comprehensive analysis of the impact of fuel costs on your bottom line is essential to setting up the *right* hedging strategy. It's also important to consider the following:

- Competition & Market Share
- Financial Goals & Budgeting
- Risk Appetite



Fuel Hedging Consumer swap

Without physical delivery

> There is no premium paid up at inception.



Source: Reuters, ACT FS

- > At the end of each month you hedge, we compare the Swap's fixed price (F) with the average market price of that month (M*).
 - If M > F, you benefit from the hedge and you are paid the difference (M-F) per hedged unit.
 - If F < M, you do not benefit from the hedge and you pay the difference (F-M) per hedged unit.

ACT FS

Fixed Price (F)

Your Company

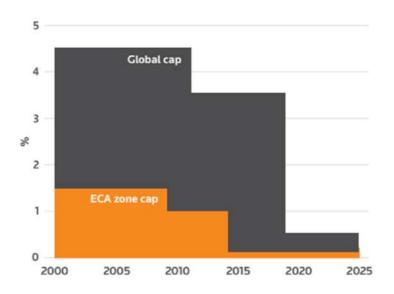
Pay your supplier

Supplier

Pay your supplier

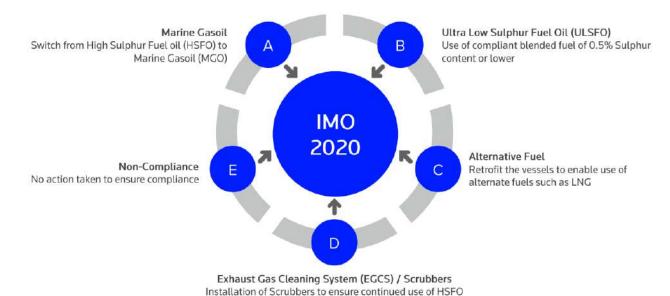
IMO 2020 & The impact on fuel consumption

EVOLUTION OF THE GLOBAL SULPHUR CAP



Source: IMO

COMPLIANCE OPTIONS



Source : Refinitiv

Compliance options The reality of 0.5% Fuel Oil

Quality

- ISO quality Standard not to be available before the 1 January 2020
- Composition of blends remains unknown
- Stability and compatibility of fuel oil from different bunkering hubs remain unknown

Availability

Small ports expected to have logistic and cost issues

Reality

- Incompatible fuel blends can result in mechanical damages
- Possible need for increased maintenance of machineries



A volatile and chaotic market with multiple price levels & indices.

Compliance options Two main options left

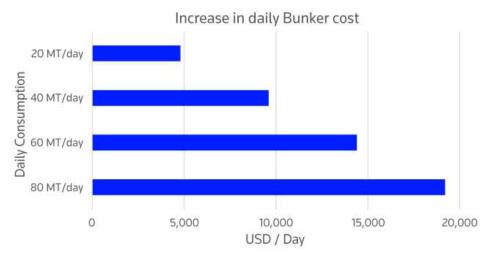
Use of HSFO for vessels with scrubbers

- Scrubber demand is expected to rise in 2019 and beyond.
- Falling price for 3.5% Fuel Oil makes scrubbers more economic and may justify the high cost of investment.



ii. Use of Low Sulfur Marine Gasoil.

- MGO is reliable and well-known.
- Without taking any action, one may simply choose to ride the waves and risk facing significant increases in Bunker costs.



Source: Refinitiv

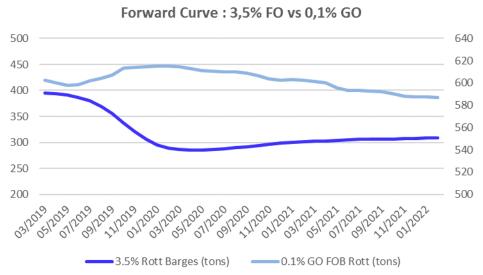
Hedging ideas...

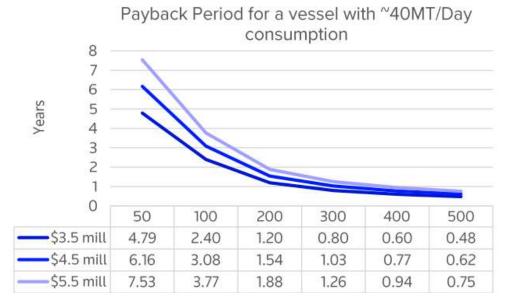
...to increase your competitiveness!!

i. If you installed scrubbers



You can protect yourself against the decrease of spread between HSGO and LSFO prices and therefore limit the payback period of your investment





Source : Bloomberg, ACT FS Source : Refinitiv

Hedging ideas...

...to increase your competitiveness!!

ii. If you did not install scrubbers



You can hedge by buying the spread between the HSFO and the Marine Gasoil, to make sure your competitiveness doesn't decrease any further if the spread increases.

Pros:

- No massive investment cost incurred
- You are hedged against an increase of the spread

Cons:

You cannot take fully advantage of a decrease of the spread

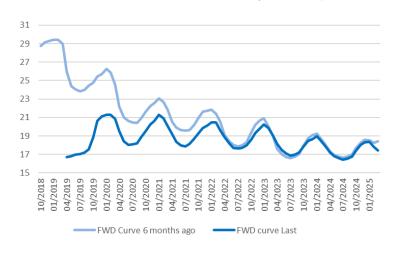
Compliance options Alternatives? Liquified Natural Gas (LNG)

- More than 25% of LNG fueled ships already in use or under construction concern Ferry and RO-RO industry
- In NWE region, the liquid trading hubs such as the UK's NBP and the Netherlands' TTF are key tools in optimizing LNG portfolios.

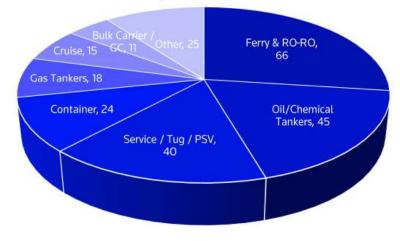


More and more ferries are hedging their future LNG exposure through swaps or options on Natural Gas indexes mentioned above.

Forward curves of TTF Day Ahead prices



LNG-fuelled ships in use / under construction





OTC Hedging Solutions

Kenza Berte

Commodity Derivatives Trader

ACT Financial Solutions B.V.

Gustav Mahlerlaan 1009, 1082 MK Amsterdam, the Netherlands

+31 20 219 9252

kberte@actcommodities.com

OTCHedging@actcommodities.com