



Global Marine Fuel Index: Methodology

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Abstract

The introduction of IMO rules on sulphur contents in fuel oil in 2020 has caused a paradigm shift in the global supply of fuel oil products. Since the impact is long-term and the implementation by countries is still uncertain, we would like to introduce our Global Fuel Benchmark solution for tracking the impact post the introduction of IMO 2020.

Introduction

The Motivation for Global Fuel Benchmark

- There is currently a considerable price premium for Compliant Refined Fuel, as traded in the OTC market relative to the actual product being delivered into the bunker pool
- Oil refiners/traders can blend/replicate an end-user product that meets the new lower sulphur specification by combining cheaper component products such as certain crude oils and high sulphur fuel
- Given that the blend of inputs to meet IMO sulphur standards and with blends varying by supplier, there is limited transparency into the actual refinery margin from blended to delivered product
- There is no representative liquid benchmark reflecting the overall average consumption/product mix for this new post-IMO Fuel market

Proposal

Breakdown of Fuels Referenced:

- Global Compliant Fuel Oil (liquid market) = 0.5% Marine Fuel (Europe) (40%) + 0.5% Marine Fuel (Sing) (60%)
- Global Blended Fuel Oil = Dated Brent (80%) + 1% NWE Fuel oil (20%). *The ratio of low sulphur to high sulphur blendstock, Dated Brent and 1% NWE Fuel Oil respectively, was determined assuming sulphur blends linearly on a mass percentage basis.*

- Global Non-Compliant Fuel = NWE 3.5% Barge Fuel Oil (35%) + Med Barge Fuel oil (10%) + Sing 380 cst (45%) + 3.5% GC Fuel (10%)
- Global Distillate Fuel = ARA Low Sulphur Gasoil (50%) + 10ppm Singapore Gasoil (50%)

Products & Methodology:

1. Packaged vs Blended Marine Fuel Differential:

We consider this to be the potential spread between where compliant marine fuel is trading in the paper market against where a blender could theoretically deliver a compliant product through blending of different components.

$$\text{Differential} = \text{Global Compliant Fuel Oil} - \text{Global Blended Fuel Oil}$$

Example:

Packaged vs Blended Marine Fuel Differential (Feb20)			
<i>Product</i>	<i>Exchange Names</i>	<i>Price</i>	<i>Product Weights</i>
Compliant Fuel Oil			
Marine Fuel - Europe	Marine 0.5% FOB Barges	\$518.50	40%
Marine Fuel - Sing	Marine 0.5% FOB Sing (Platts)	\$563.75	60%
Compliant Refined Fuel Price (per bbl)			\$85.93
Global Blended Fuel Oil			
Dated Brent	Dated Brent	\$63.64	80%
1% NWE Fuel Oil	1% FOB NWE Cg	\$450.25	20%
Blended Fuel Oil Price			\$65.09
Differential			\$20.84

*Using 6.35 Fuel conversion to bbls

2. Global Marine Fuel Benchmark

This index is a hypothetical cost capturing the different post-IMO solutions for bunkering fuel, including non-compliance. The objective is to provide a single number that is more closely reflective of the actual cost of the physical fuel oil. We do not examine the possibility of switching to MGO, however we do incorporate a portion of distillate fuel in line with the capacity of the average bunker engine used for entering ports (~10%).

Benchmark Price = Global Blended Fuel Oil × 70% +

Global Non-Compliant Fuel Oil × 20% +

Global Distillate Fuel Oil × 10%

Global Marine Fuel Benchmark				
<i>Product</i>	<i>Exchange Names</i>	<i>Price</i>	<i>Product Weights</i>	<i>Index Weights</i>
Global Blended Fuel Oil				
Dated Brent	Dated Brent	\$63.64	80%	
1% NWE Fuel Oil	1% FOB NWE Cg	\$450.25	20%	
				\$65.09 70%
Global Non-Compliant Fuel Oil				
HSFO (NWE)	3.5% FOB Rdam Bg	\$267.25	35%	
HSFO (Med)	3.5% FOB Med Cg	\$310.75	10%	
HSFO (Sing)	380cst Sing	\$268.00	45%	
HSFO (US)	3.5% GC	\$43.30	10%	
				\$42.95 20%
Global Distillate Fuel Oil				
LSGO (NWE)	ARA Low Sulphur Gasoil	\$551.77	50%	
LSGO (Sing)	10 ppm Singapore Gasoil	\$73.46	50%	
Global Distillate Fuel Oil				\$73.76 10%
Benchmark Price				\$61.53

*Using 6.35 Fuel conversion to bbls

*Using 7.45 Gasoil conversion to bbls

Justification

Preparations for the IMO 2020 regulation implementation have been underway for years. Refiners, end users and speculators have taken action to prepare for the impending shift in demand patterns and the associated inevitable shift in pricing that will be needed to balance the market. The impact on the market has been inconsistent and unexpected. What has been consistent, however, is the lack of certainty over the actual pricing impact in tradeable products. IMO is now in full effect, yet there is still no definitive answer as to the mix of products that will consistently supplant the demand which was once satisfied by high sulphur fuel.

At present, end-user's only straightforward option for pricing and hedging compliant fuel is to reference the Platts or Argus 0.5% Marine Fuel price. The issue with this limited view is that it ignores the price dislocation between the non-compliant and compliant fuels, as well as the blending components that can be used to produce and deliver a sulphur compliant final product. The reality may be that actual compliant fuel costs will not be accurately reflected by the Platts or Argus market.

The Onyx Global Marine Fuel Benchmark provides a guide reference price to more closely reflect real end-user pricing. This will be reviewed every 3 months and the weightings will be altered according to the different types of fuels and blending components utilised.

Appendix

Product	Contract Name
0.5% Marine Fuel (Europe)	European FOB Rdam Marine Fuel 0.5% Barges (Platts)
0.5% Marine Fuel (Sing)	Singapore FOB Marine Fuel 0.5% (Platts)
Dated Brent	Dated Brent (Platts)
1% NWE Fuel oil	European 1% Fuel Oil Cargoes FOB NWE (Platts)
NWE 3.5% Barge Fuel Oil	European 3.5% Fuel Oil Barges FOB Rdam (Platts)
Med Barge Fuel oil	European 3.5% Fuel Oil Cargoes FOB MED (Platts)
Sing 380 cst	Singapore Fuel Oil 380 cst (Platts)
3.5% GC Fuel	Gulf Coast HSFO (Platts)
ARA Low Sulphur Gasoil	ULSD 10ppm Cargoes CIF NWE (Platts)
10ppm Singapore Gasoil	Singapore Gasoil (Platts)

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