



ECOOIL

**IMO 2020
Outlook**

Nuno Matos, 12 February 2020

IMO 2020

WHAT ARE THE NEW RULES?

IMO 2020, WHAT MEANS?

U.N. International Maritime Organization (IMO), will ban ships using fuel with a sulphur content higher than 0.5 percent, compared to 3.5 percent now,

unless a vessel has equipment to clean up its sulphur emissions.

Any vessels failing to comply will face fines, could find their insurance stops being valid and might be declared “unseaworthy” which would bar them from sailing.



HOW WILL IT AFFECT THE FUEL OIL MARKET?

DEMAND WILL BE UNBALANCED

Global shipping fleet consumed in 2019 about 4 million barrels per day (bpd) of high sulphur fuel oil, but about 3 million bpd of that demand has “disappear overnight”, 75%, according to Norway’s SEB Bank.

Most demand is expected to shift to low sulphur distillate fuel.

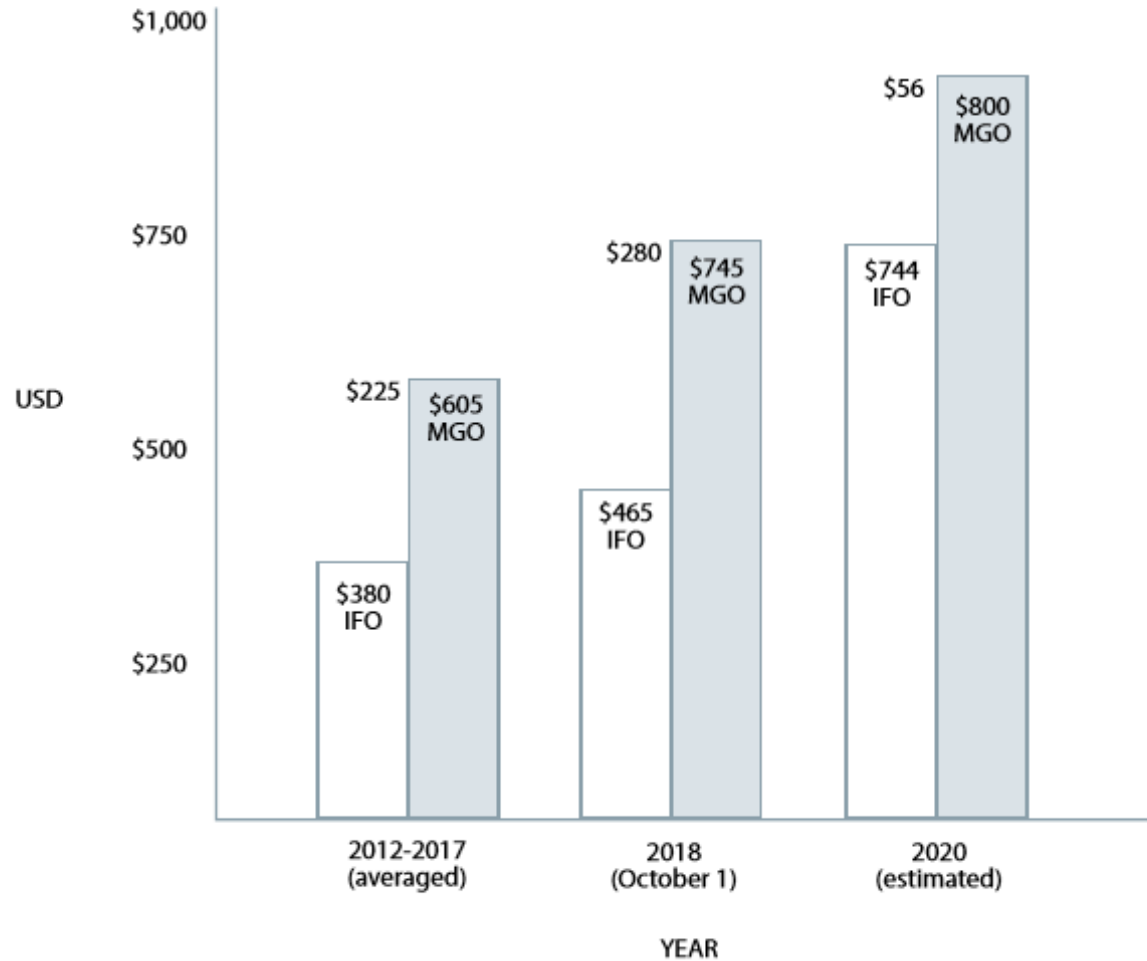
Morgan Stanley predicts this will generate at least 35% extra demand for distillate in the next three years, pushing up total distillate demand growth to be, in future, 80% of the shipping bunker fuel



PRICES

What experts were expecting

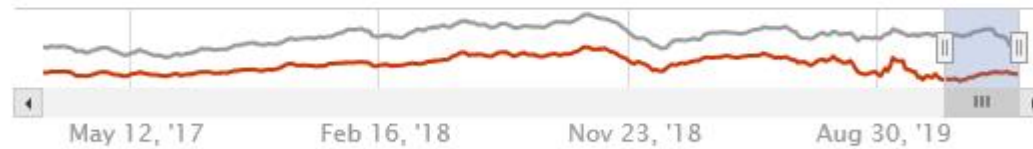
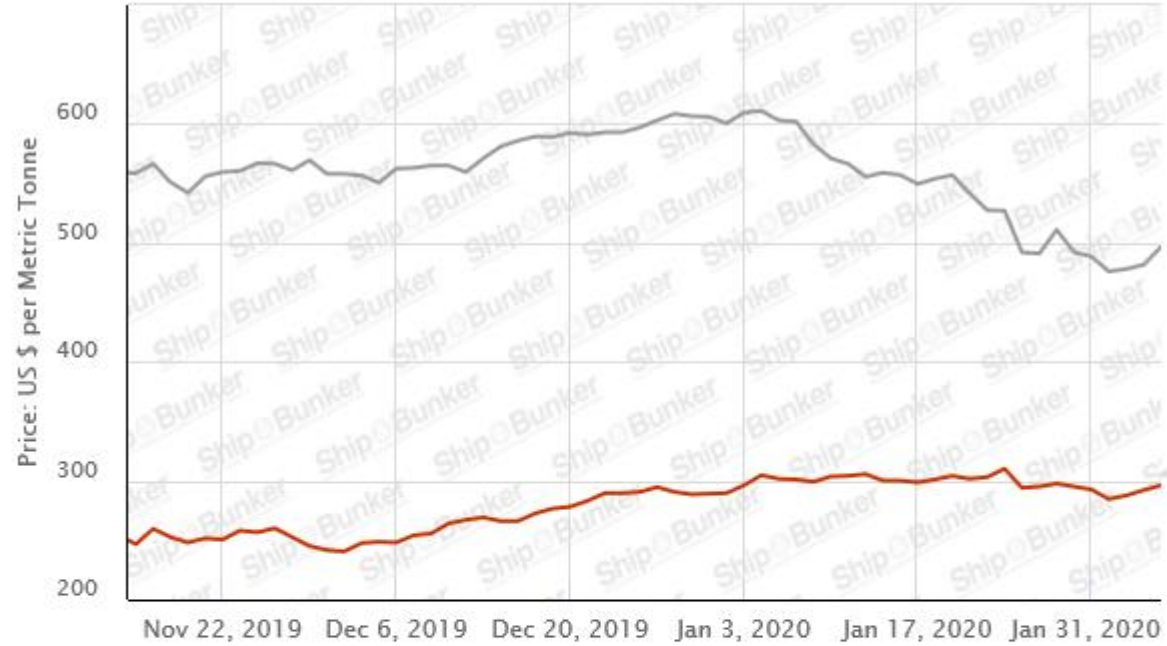
Figure 1: Price differences between IFO380 (3.5% sulphur) and MGO (0.5% sulphur) fuels



From: Preparing for IMO 2020: Marine Emission Solutions, from Danfoss

PRICES

What really happen



Download Data (1 month)

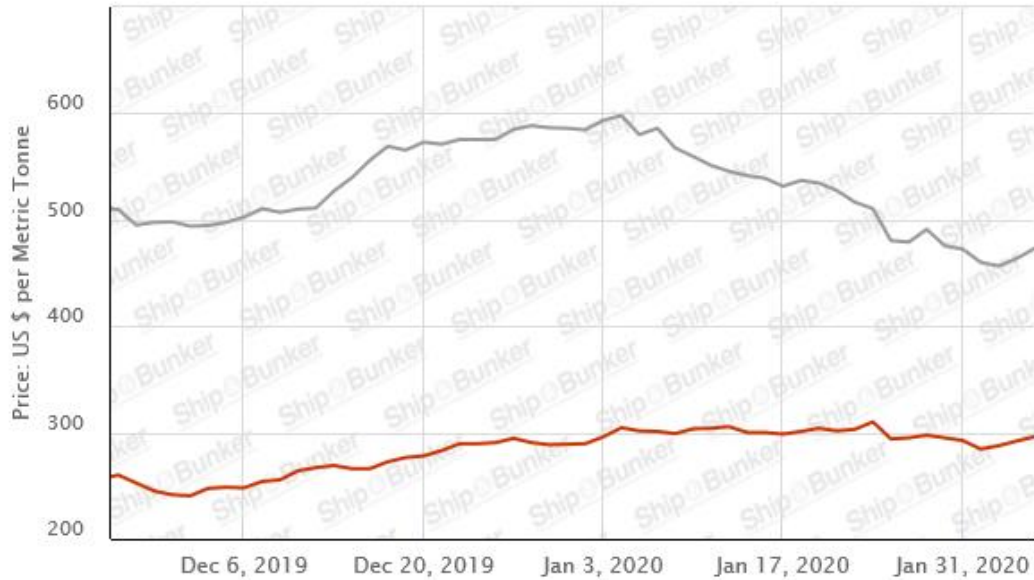
Download Data (1 year)

Nov 15, '19 - Feb 6, '20	High	Low	Average	Spread
Rotterdam - IFO380	\$310.00	\$240.50	\$278.50	\$69.50
Rotterdam - MGO	\$611.00	\$476.00	\$559.50	\$135.00

From:
<https://shipandbunker.com/prices/emea/nwe/nl-rtm-rotterdam#IFO380>



PRICES



Download Data (1 month)

Download Data (1 year)

Nov 27, '19 - Feb 6, '20	High	Low	Average	Spread
Rotterdam - IFO380	\$310.00	\$240.50	\$282.50	\$69.50
Rotterdam - VLSFO	\$598.00	\$456.50	\$531.50	\$141.50

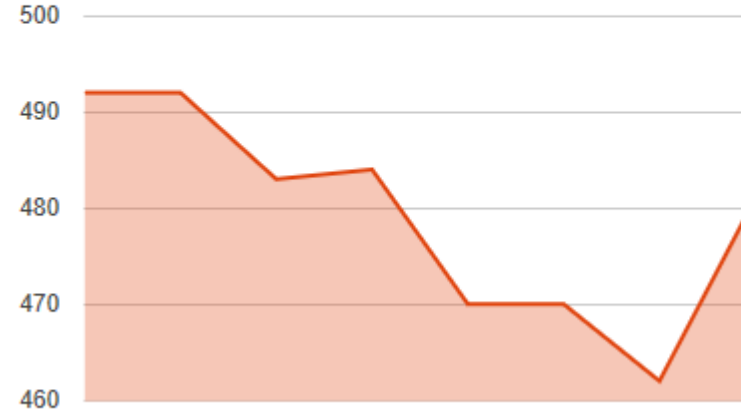


From: <https://shipandbunker.com/prices/emea/nwe/nl-rtm-rotterdam#IFO380> and <https://www.oilmonster.com/bunker-fuel-prices/hamburg-vlsfo-max-05-price/219/130>

HAMBURG VLSFO 0.5% PRICE CHART

1 WEEK 1 MONTH 3 MONTHS 6 MONTHS 1 YEAR ALL

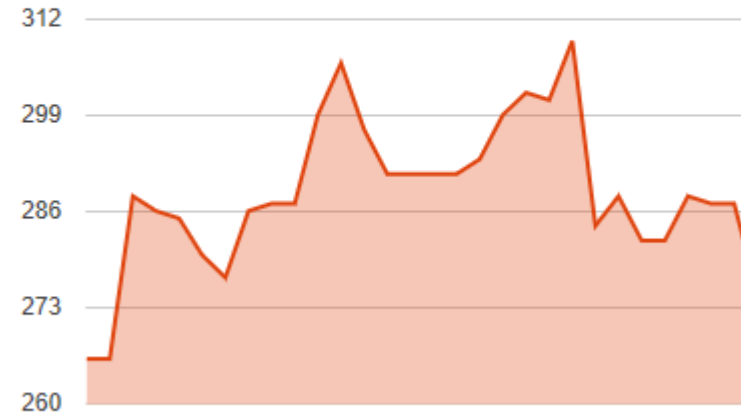
One Month Price Changes



HAMBURG IFO 380 PRICE CHART

1 WEEK 1 MONTH 3 MONTHS 6 MONTHS 1 YEAR ALL

One Month Price Changes



PRICES

World Bunker Prices



World Bunker Prices



From: <https://shipandbunker.com/prices#IFO380>

Demand

VLSFO or IFO 380

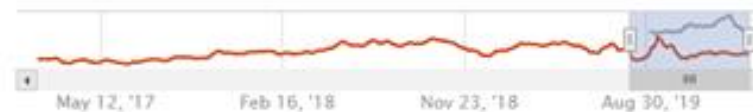
VLSFO or IFO 380

Most shipping fleet is expected to shift to low sulphur distillate fuel.

Location can also play an important role.

Type of traffic will also call for bunker fuels demand adjustments.

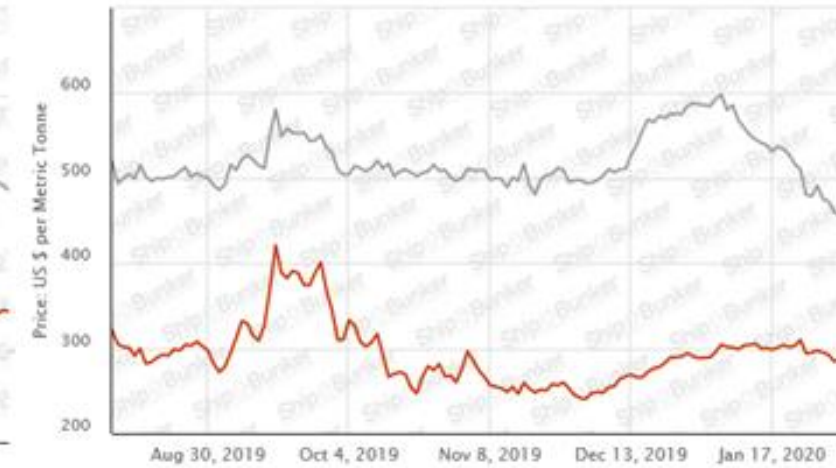
“Compared to Asia, post-IMO Europe will have increased shortages of gasoil and increased surplus of HSFO,” Yap said Friday.



Download Data (1 month)

Download Data (1 year)

Aug 7, '19 - Feb 6, '20	High	Low	Average	Spread
Houston - IFO380	\$490.00	\$290.00	\$356.50	\$200.00
Houston - VLSFO	\$673.50	\$491.00	\$575.00	\$182.50



Download Data (1 month)

Download Data (1 year)

Aug 7, '19 - Feb 6, '20	High	Low	Average	Spread
Rotterdam - IFO380	\$421.00	\$240.50	\$293.50	\$180.50
Rotterdam - VLSFO	\$598.00	\$456.50	\$520.00	\$141.50

“This suggests that compared to Singapore, Rotterdam will see deeper discounts for HSFO and higher premiums for MGO and 0.5% (m/m) with wider overall MGO-HSFO differentials,” he said.” From: <https://gcaptain.com/shippings-2020-low-sulphur-fuel-rules-explained/>



See more in Room for growth in VLSFO marine fuel prices as new futures contract looms (in [International Shipping News](https://www.internationalshippingnews.com/news/room-for-growth-in-vlsfo-marine-fuel-prices-as-new-futures-contract-looms/) 11/02/2019)

(<https://www.hellenicshippingnews.com/room-for-growth-in-vlsfo-marine-fuel-prices-as-new-futures-contract-looms/>)

Economics

VLSFO or IFO

VLSFO or IFO 380

Based on average fuel consumption of 20 to 80 tonnes per day (MT/day), a ship using cleaner fuel faces extra daily expenses of about \$6,000 to \$20,000.

For example, a VLCC, one of the biggest oil tankers at sea, will pay 25 percent more for its fuel, or an extra \$500,000 on top of normal bill of \$2 million, for a typical 25-day voyage from the Middle East to Japan.

So, alternatives are:

- Pay more or install Scrubbers
- Equipment alone can cost \$1 million to \$6 million, according to manufacturer Wartsila, putting it out of reach of many operators.
- By 2020, about 2,000 ships could have scrubbers, according to Wartsila, SEB Bank and industry analyst AlphaTanker.



Scrubbers a Silver bullet?

A Silver Bullet

There are about 96k vessels in the global fleet, of which about 60 to 70% ply international routes.

From: Handbook statistic,
<https://stats.unctad.org/handbook/MaritimeTransport/MerchantFleet.html>

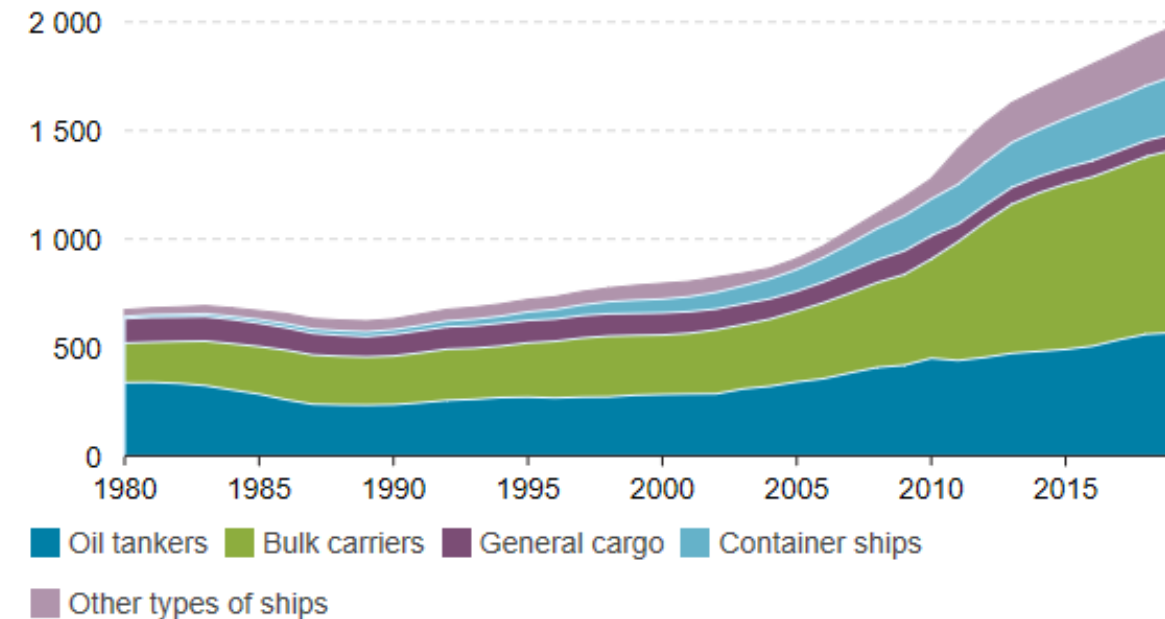
Based on the limited number of manufacturers and time constraints on facilities to install scrubbers, AlphaTanker estimates no more than 500 ships could be fitted each year. Wartsila puts the figure closer to 300.

So, it would take more than 100 years to fit the global fleet.

See more: <https://gcaptain.com/shippings-2020-low-sulphur-fuel-rules-explained/>



Figure 1 | World fleet by principal vessel type
(Millions of dead-weight tons)



Source: UNCTADstat (UNCTAD, 2019a); Clarksons Research.

Note: Commercial ships of 100 gt and above; beginning-of-year figures.

VLSFO

Technical issues

Technical issues

There are 3 main issues to be considered:

Fuel compatibility

Rise of insurance premiums due to risk of engine damage

ISO spec released **ISO/PAS 23263:2019 ISO 8217:2019**

Other remarks to be evaluated:

- Fuel oil blends
- Sludge forming at the bottom of the tanks inside Vessels
- Availability and physical suppliers capacity to manage one more grade
- Viscosity and lubricity issues
- Cat fines

See more: <http://mfame.guru/feature-technical-issues-loom-over-vlsfo-bunker-fuel-in-2020/>





ECO OIL

Thanking you in advance for your attention

nuno.matos@eco-oil.pt

IMO 2020 Outlook

Nuno Matos, 12 February 2020

Madrid, @BluePorts