

October 15, 2019

Global Marine Fuels Snapshot

Also Available: Ask us how to subscribe to our [*Short Term Outlook Service*](#) and [*Global Marine and Bunker Fuel Outlook Service*](#) which together give a comprehensive picture of the world's dynamic marine bunker fuel industry. By region and for the long term, the Global Marine/Bunker Fuel Service analyzes and forecasts price basis differentials, supply and demand by purity product, import/export trade flow, freight rates and infrastructure investments with full stream balances beginning from the upstream supply region through the midstream and into the petrochemical and refining markets downstream. The Short Term Outlook Service presents 2 year forward estimates by month for all major pricing centers worldwide (nearly 500 individual price and margin forecasts) and provides country level outlooks along the full stream value chain (supply, demand, import, export, and inventory) to assess the underlying industry dynamics, trade patterns, freight rates and more. We also assess geopolitical and macroeconomic events that influence short-term prices and fundamentals outlook.

Global Marine Fuels Price Forecast

The following analysis is divided into two sections:

- Global bunker fuel price forecast
- Bunker fuel price differentials

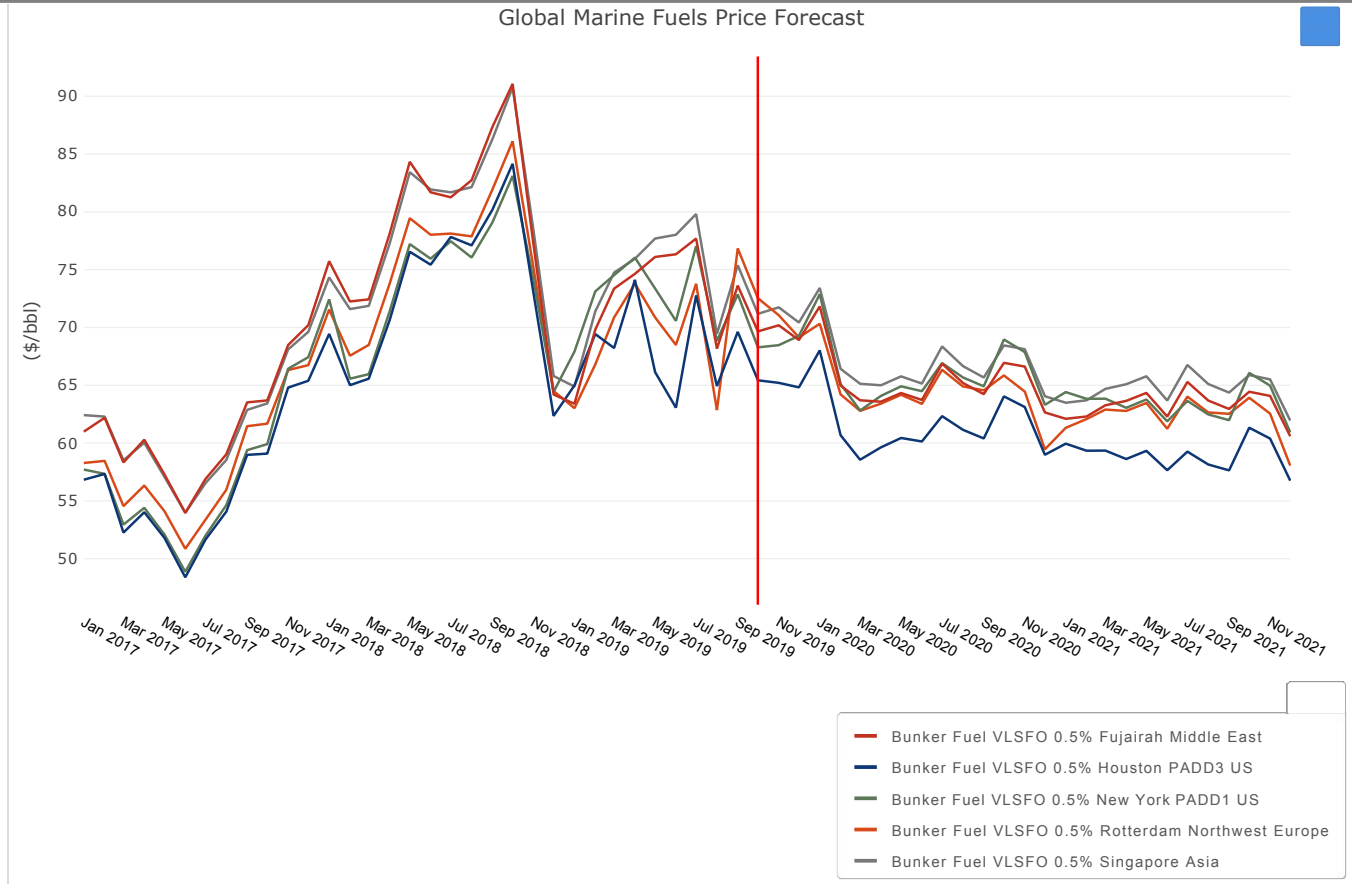
The first section contains analysis of price forecasts for LSMGO 0.1% w/w S, HSFO 3.5% w/w S and VLSFO 0.5% w/w S in following regions:

- Asia
- Middle East
- Europe
- US Gulf Coast

The key factors that are driving the prices:

- Regional supply-demand balances
- Economic growth
- IMO regulation implementation from Jan 2020

Region	Bunker Fuel Type	Marine Bunker Fuel Prices
All Regions	VLSFO	Marine Bunker Fuels Price Forecast



Sources: Platts, Bloomberg, and Stratas Advisors' forecasting model from cited historical data

Asia

LSMGO 0.1% w/w S (Singapore)

The October 2019 price for LSMGO fell to 77.8 USD/bbl from 98.8 USD/bbl in October 2018. Yearly, 2019 prices are 79.9 USD/bbl, 6.2 USD/bbl lower than the 2018 average price. Lower prices were the result of growing supply (LSMGO supply will exceed demand by 115 MBPD in 1Q2020 in the region) and concerns about economic growth and how it may affect gasoil demand in the Asia-Pacific region (Regional GDP growth rate fell from 5.3% in 2Q2019 to 3.7% in 3Q2019). The prices will increase to 90 USD/bbl in October 2020, 12.2 USD/bbl higher than in 2019. In 2020 the price will strengthen as GDP growth improves to 4.2% by 2Q2020, resulting in higher demand for bunker fuels. Additionally, as upcoming IMO regulation comes into effect resulting in higher blending demand for the VLSFO 0.5% w/w S globally. LSMGO will constitute up to 70% v/v basis, which will be a crucial factor driving the prices.

HSFO 3.5% w/w S (Singapore)

The October 2019 price for HSFO fell to 64.7 USD/bbl from 78.6 USD/bbl in October 2018. Yearly, 2019 prices are 63.5 USD/bbl, 3.2 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth

and how it may affect HSFO demand in the Asia-Pacific region (Regional GDP growth rate fell from 5.3% in 2Q2019 to 3.7% in 3Q2019). The prices will decrease further to 54.3 USD/bbl in October 2020, 10.4 USD/bbl lower than in October 2019. In 2020 the price will drop as IMO regulation comes into effect, resulting in reduced demand for HSFO in the bunker fuel market. Demand for HSFO in the region will fall from 1195 MBPD in 4Q2019 to 190 MBPD in 1Q2020.

VLSFO 0.5% w/w S (Singapore)

The October 2019 price for VLSFO fell to 73.2 USD/bbl from 90.7 USD/bbl in October 2018. Yearly, 2019 prices are 74.1 USD/bbl, 4.6 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect VLSFO demand in the Asia-Pacific region (Regional GDP growth rate fell from 5.3% in 2Q2019 to 3.7% in 3Q2019). The prices will increase to 81.6 USD/bbl in October 2020, 8.4 USD/bbl higher than in October 2019. Higher prices are the result of the strengthening of LSMGO prices, which constitutes around 70% of the VLSFO, as compared to HSFO.

Middle East

LSMGO 0.1% w/w S (Fujairah Middle East)

The October 2019 price for LSMGO fell to 90.5 USD/bbl from 106.3 USD/bbl in October 2018. Yearly, 2019 prices are 94.2 USD/bbl, 2.6 USD/bbl lower than the 2018 average price. Lower prices were the result of growing supply (LSMGO supply will exceed demand by 19 MBPD in 1Q2020 in the region) and concerns about economic growth and how it may affect gasoil demand in the Middle East region (Regional GDP growth rate fell from 3.6% in 3Q2018 to 2.6% in 3Q2019). The prices will increase to 102 USD/bbl in October 2020, 11.5 USD/bbl higher than in October 2019. In 2020 the price will strengthen as upcoming IMO regulation comes into effect resulting in higher blending demand for the VLSFO globally. LSMGO 0.1% w/w S will constitute up to 70% v/v basis, which will be a crucial factor driving the prices.

HSFO 3.5% w/w S (Arab Gulf)

The October 2019 price for HSFO fell to 61.8 USD/bbl from 75.6 USD/bbl in October 2019. Yearly, 2019 prices are 60.2 USD/bbl, 3.6 USD/bbl lower than the 2018 average price. Lower prices were the result of growing supply (HSFO supply will exceed demand by 188 MBPD in 4Q2019 in the region) and concerns about economic growth and how it may affect HSFO demand in the Middle East region (Regional GDP growth rate fell from 3.6% in 3Q2018 to 2.6% in 3Q2019). The prices will decrease further to 51.1 USD/bbl in October 2020, 10.7 USD/bbl lower than in October 2019. In 2020 the price will drop as IMO regulation comes into effect, resulting in reduced demand for HSFO in the bunker fuel market. Demand for HSFO in the region will fall from 460 MBPD in 4Q2019 to 58 MBPD in 1Q2020.

VLSFO 0.5% w/w S (Fujairah Middle East)

The October 2019 price for VLSFO fell to 71.6 USD/bbl from 91 USD/bbl in October 2018. Yearly, 2019 prices are 72.5 USD/bbl, 6.8 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect VLSFO demand in the Middle East region (Regional GDP growth rate fell from 3.6% in 3Q2018 to 2.6% in 3Q2019). The prices will increase to 79.8 USD/bbl in October 2020, 8.2 USD/bbl higher than in October 2019. Higher prices are the result of the strengthening of LSMGO prices, which constitutes around 70% of the VLSFO, as compared to HSFO grades.

Europe

LSMGO 0.1% w/w S (Antwerp)

The October 2019 price for LSMGO fell to 74.9 USD/bbl from 92.1 USD/bbl in October 2018. Yearly, 2019 prices are 76.2 USD/bbl, 5.8 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect gasoil demand in the Europe region (Regional GDP growth rate fell from 1.3% in 3Q2018 to 1.1% in 2Q2019). The prices will increase to 85.3 USD/bbl in October 2020, 10.3 USD/bbl higher than in October 2019. In 2020 the price will strengthen as upcoming IMO regulation comes into effect resulting in higher blending demand for the VLSFO globally. LSMGO will constitute up to 70% v/v basis, which will be a crucial factor driving the prices.

HSFO 3.5% w/w S (Rotterdam)

The October 2019 price for HSFO fell to 45.6 USD/bbl from 69.7 USD/bbl in October 2018. Yearly, 2019 prices are 52 USD/bbl, 6.7 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect HSFO demand in the Europe region (Regional GDP growth rate fell from 1.3% in 3Q2018 to 1.1% in 2Q2019). The prices will decrease further to 45.8 USD/bbl in October 2020, 0.8 USD/bbl lower than in October 2019. In 2020 the price will drop as IMO regulation comes into effect, resulting in reduced demand for HSFO in the bunker fuel market. Demand for HSFO in the region will fall from 8 MBPD in 4Q2019 to 7 MBPD in 1Q2020.

VLSFO 0.5% w/w S (Northwest Europe)

The October 2019 price for VLSFO fell to 75.3 USD/bbl from 86.1 USD/bbl in October 2018. Yearly, 2019 prices are 70.8 USD/bbl, 4.3 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect VLSFO demand in the Europe region (Regional GDP growth rate fell from 1.3% in 3Q2018 to 1.1% in 2Q2019). The prices will increase to 78.5 USD/bbl in October 2020, 3.2 USD/bbl higher than in October 2019.

US Gulf Coast

LSMGO 0.1% w/w S (Houston PADD3 US)

The October 2019 price for LSMGO fell to 81.2 USD/bbl from 98.5 USD/bbl in October 2018. Yearly, 2019 prices are 82.6 USD/bbl, 4.3 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect gasoil demand in the North America region (Regional GDP growth rate fell from 3.8% in 2Q2018 to 1.8% in 3Q2019). The prices will increase to 94.3 USD/bbl in October 2020, 13.1 USD/bbl higher than in October 2019. In 2020 the price will strengthen as upcoming IMO regulation comes into effect resulting in higher blending demand for the VLSFO globally. LSMGO will constitute up to 70% v/v basis, which will be a crucial factor driving the prices.

HSFO 3.5% w/w S (PADD3 US)

The October 2019 price for HSFO fell to 48.8 USD/bbl from 70.5 USD/bbl in October 2018. Yearly, 2019 prices are 55.4 USD/bbl, 5.8 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect HSFO demand in the North America region (Regional GDP growth rate fell from 3.8% in 2Q2018 to 1.8% in 3Q2019). The prices will decrease further to 47.2 USD/bbl in October 2020, 1.5 USD/bbl lower than in October 2019. In 2020 the price will drop as IMO regulation comes into effect, resulting in reduced demand for HSFO in the bunker fuel market. Demand for HSFO in the region will fall from 245 MBPD in 4Q2019 to negligible in 1Q2020.

VLSFO 0.5% w/w S (PADD3 US)

The October 2019 price for VLSFO fell to 68.6 USD/bbl from 84.1 USD/bbl in October 2018. Yearly, 2019 prices are 68.3 USD/bbl, 4.8 USD/bbl lower than the 2018 average price. Lower prices were the result of concerns about economic growth and how it may affect VLSFO demand in the North America region (Regional GDP growth rate fell from 3.8% in 2Q2018 to 1.8% in 3Q2019). The prices will be 76.3 USD/bbl in October 2020, 7.7 USD/bbl higher than in October 2019. Higher prices are the result of higher demand, post-IMO regulation that comes into effect in 2020.

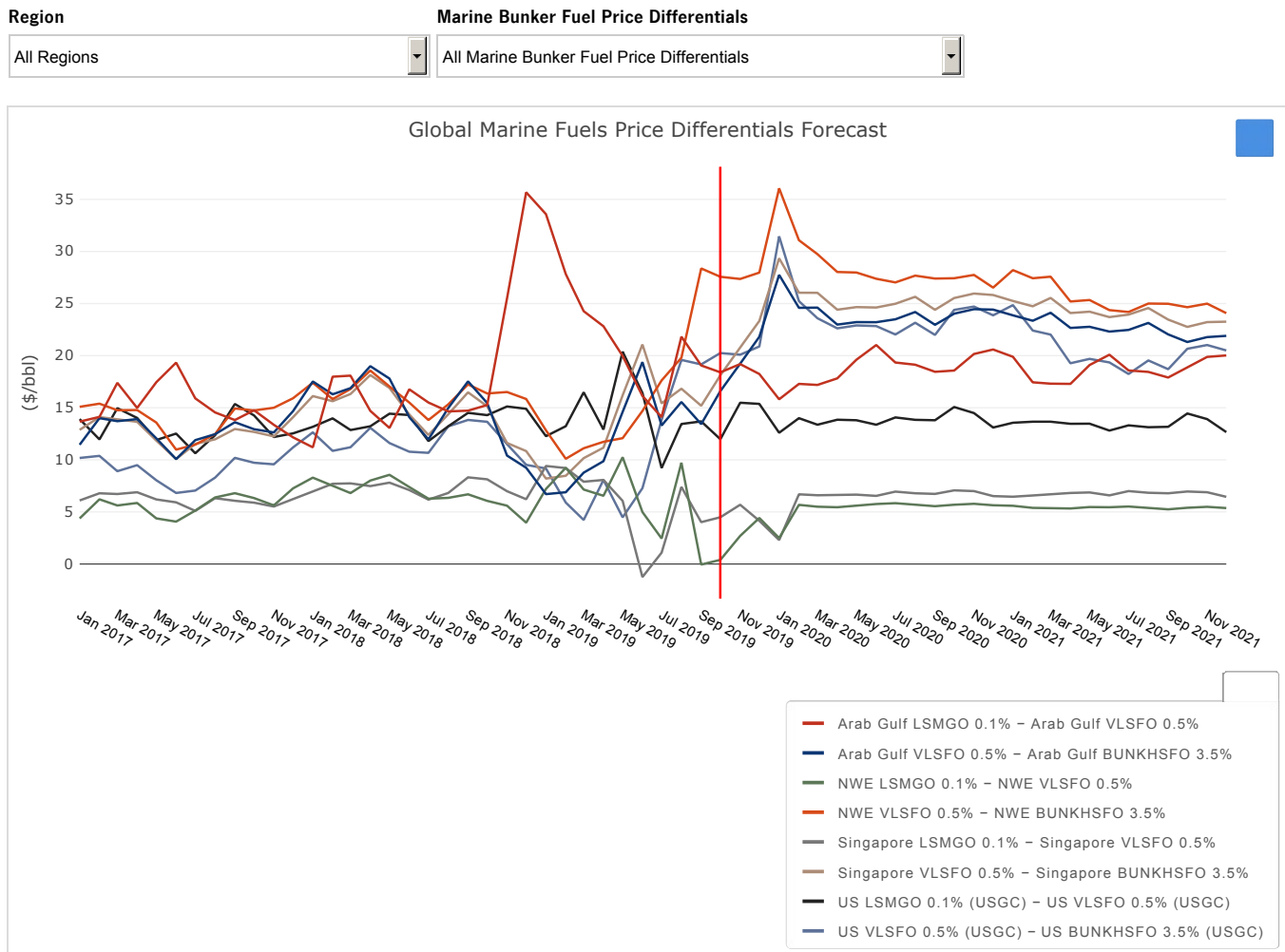
Global Marine Fuels Price Differentials

The first section contains analysis of price differential forecasts for LSMGO 0.1% w/w S, HSFO 3.5% w/w S and VLSFO 0.5% w/w S in following regions:

- Asia
- Middle East
- Europe
- US Gulf Coast

The key factors that are driving the differentials:

- Relative changes in prices of fuels
- IMO regulation implementation from Jan 2020



Sources: Platts, Bloomberg, and Stratas Advisors' forecasting model from cited historical data

Asia

Singapore LSMGO 0.1% – Singapore VLSFO 0.5%

The LSMGO – VLSFO differential is 4.6 USD/bbl in October 2019 as compared to 8.1 USD/bbl in October 2018. The differential between 2018-2019 will remain at this level. The LSMGO – VLSFO differential is 4.6 USD/bbl in October 2019; the differential will widen to 8.4 USD/bbl in October 2020. This is partly due to the strengthening of LSMGO prices in 2020 (October 2020 prices, 12.2 USD/bbl higher compared to October 2019) relative to VLSFO (October 2020 prices, 8.4 USD/bbl higher compared to the October 2019 year over year). Post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. As HSFO constitutes 20-30% of VLSFO blend, thereby putting downward pressure on VLSFO as well.

Singapore VLSFO 0.5% – Singapore HSFO 3.5%

The VLSFO – HSFO differential is 11.3 USD/bbl in October 2019 as compared to 15.1 USD/bbl in October 2018. The differential in 2018-2019 will remain at similar levels. The VLSFO – HSFO differential is 11.3 USD/bbl in October 2019; the differential will widen to 30.4 USD/bbl in October 2020. This is partly due to the strengthening of Singapore VLSFO prices in 2020 (October 2020 prices, 8.4 USD/bbl higher compared to the October 2019 year over year) relative to Singapore HSFO (October 2020 prices, 10.4 USD/bbl lower compared to the October 2019 year over year). Post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. The fall in demand will result in a decrease in prices of 11.3 USD/bbl lower compared to the October 2019 year over year.

Middle East

Arab Gulf LSMGO 0.1% – Arab Gulf VLSFO 0.5%

The LSMGO – VLSFO differential is 18.9 USD/bbl in October 2019 as compared to 15.2 USD/bbl in October 2018. The LSMGO – VLSFO differential is 18.9 USD/bbl in October 2019; the differential will widen to 22.1 USD/bbl in October 2020. This is partly due to the strengthening of LSMGO prices in 2020 (October 2020 prices, 11.5 USD/bbl higher compared to October 2019) relative to VLSFO (October 2020 prices, 8.2 USD/bbl higher compared to the October 2019 year over year). Post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. As HSFO constitutes 20-30% of VLSFO blend, thereby putting downward pressure on VLSFO as well.

Arab Gulf VLSFO 0.5% – Arab Gulf BUNKHSFO 3.5%

The VLSFO – HSFO differential is 9.7 USD/bbl in October 2019 as compared to 15.5 USD/bbl in October 2018. The differential in 2018-2019 will remain at similar levels till the end of 2019. The VLSFO – HSFO differential is 9.7 USD/bbl in October 2019; the differential will widen to 28.6 USD/bbl in October 2020. This is partly due to the strengthening of VLSFO prices in 2020 (October 2020 prices, 8.2 USD/bbl higher compared to the October 2019 year over year) relative to HSFO (October 2020 prices, 10.7 USD/bbl lower compared to the October 2019 year over year). Post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. The fall in demand will result in a decrease in prices of 10.7 USD/bbl lower compared to the October 2019 year over year. In 2019, HSFO demand will be 493 MBPD, which will decrease to 60 MBPD in 2020.

Europe

NWE LSMGO 0.1% – NWE VLSFO 0.5%

The LSMGO – VLSFO differential is 0 USD/bbl in October 2019 as compared to 6 USD/bbl in October 2018. The differential between 2018-2019 will remain at a similar level until the end of 2019. The LSMGO – VLSFO differential is 0 USD/bbl in October 2019; the differential will widen to 6.7 USD/bbl in October 2020. This is partly due to the strengthening of LSMGO prices in 2020 (October 2020 prices, 10.4 USD/bbl higher compared to October 2020) relative to VLSFO (October 2020 prices, 3.2 USD/bbl higher compared to the October 2019 year over year). Post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. HSFO

constitutes 20-30% of the NWE VLSFO blend, thereby putting downward pressure on VLSFO as well.

NWE VLSFO 0.5% – NWE BUNKHSFO 3.5%

The VLSFO – HSFO differential is 28.6 USD/bbl in October 2019 as compared to 16.3 USD/bbl in October 2018. The differential in 2018-2019 will remain at similar levels till the end of 2019. The VLSFO – HSFO differential is 28.6 USD/bbl in October 2019; the differential will widen to 32.7 USD/bbl in June 2020. This is due to the post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. The impact of IMO regulation is already impacting prices (The VLSFO – HSFO differential is 28.6 USD/bbl in October 2019 as compared to 16.3 USD/bbl in October 2018), as differentials have widened and are expected to widen more. In 2019, HSFO demand will be 8.2 MBPD, which will decrease to 6.7 MBPD in 2020.

US Gulf Coast

US LSMGO 0.1% (USGC) – US VLSFO 0.5% (USGC)

The LSMGO – VLSFO differential is 12.5 USD/bbl in October 2019 as compared to 14.3 USD/bbl in October 2018. The differential between 2018-2019 will remain at a similar level until the end of 2019. The LSMGO – VLSFO differential is 12.5 USD/bbl in October 2019; the differential will widen to 17.9 USD/bbl in October 2020. This is partly due to the strengthening of US LSMGO prices in 2020 (October 2020 prices, 13.1 USD/bbl higher compared to October 2019) relative to VLSFO (October 2020 prices, 7.6 USD/bbl higher compared to the October 2019 year over year). Post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. As HSFO constitutes 20-30% of VLSFO blend, thereby putting downward pressure on VLSFO as well. However growing demand will help in strengthening VLSFO prices.

US VLSFO 0.5% (USGC) – US BUNKHSFO 3.5% (USGC)

IMO regulation will be implemented starting 2020, however product prices have already started to react to the upcoming regulatory changes. The VLSFO – HSFO differential is 19.8 USD/bbl in October 2019 as compared to 13.6 USD/bbl in October 2018. The VLSFO – HSFO differential is 19.8 USD/bbl in October 2019; the differential will widen to 29 USD/bbl in October 2020. Post-implementation of IMO regulation from Jan 2020, the demand for HSFO will decrease, which will put downward pressure on its prices. The fall in demand will result in a decrease in prices of 1.5 USD/bbl lower compared to the October 2019 year over year.

Glossary

LSMGO 0.1% w/w S: Low Sulfur Marine Gasoil 0.1% Sulfur on w/w basis

HSFO 3.5% w/w S: High Sulfur Fuel Oil 3.5% Sulfur on w/w basis

VLSFO 0.5% w/w S: Very Low Sulfur Fuel Oil 0.5% Sulfur w/w basis

IMO: International Maritime Organization

