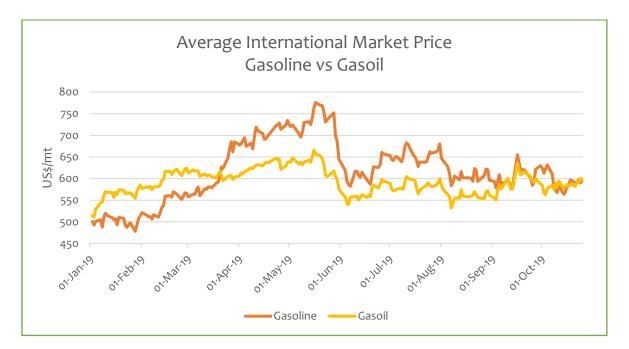


CBOD PETROLEUM PRICE OUTLOOK

1st to 15th November 2019

Refined Products Review and Outlook

The international market prices of gasoline and gasoil for the first pricing window of November (12th October to 26th October) averaged \$586.05/mt and \$587.93/mt respectively. This was 3% (\$19.06/mt) lower in the case of gasoline and 1% (\$5.90/mt) higher for gasoil respectively relative to the previous pricing window (27th September to 11th October). Prices for gasoline fell as a result of the switch in the use of a relatively expensive summer-grade fuel to a cheaper winter-grade fuel. The increase in gasoil prices can be attributed to the disruptions to gasoil flows from Russia and the Middle East.



Fufex

The Fufex30¹ which is a 30-day forward Ghs/USD FX rate for the petroleum downstream industry is estimated at **Ghs 5.60/USD** for the first pricing window of November (12th October to 26th October 2019). The FufeX30 is estimated using the average quoted indicative forward forex rate from major oil financing banks adjusted by the covered-interest parity pricing model and the CBOD internal research outlook.

The Ex-refinery Price Indicator (Xpi)

The Ex-ref price indicator (Xpi) is computed using the referenced international market prices usually adopted by BDCs, factoring the CBOD economic breakeven benchmark premium for a given window and converted from USD/mt to Ghs/ltr using the *FuFeX*.

$XPI = \frac{(International Market Price+CBOD Benchmark Premium) \times FufeX}{Conversion Factor}$

Ex-ref Price for 12th October to 26th October

PRICE COMPONENT	PMS	AGO
Average World Market Price (US\$/MT)	586.050	587.925
27 th September to 11 th October Pricing window		
CBOD Benchmark Breakeven Premium (US\$/MT)	90	90
FuFex30 (GHS/USD)	5.60	5.60
Volume Conversion Factor (ltrs/mt)	1324.50	1183.43
Ex-ref Price (Ghs/ltr)	2.858	3.208

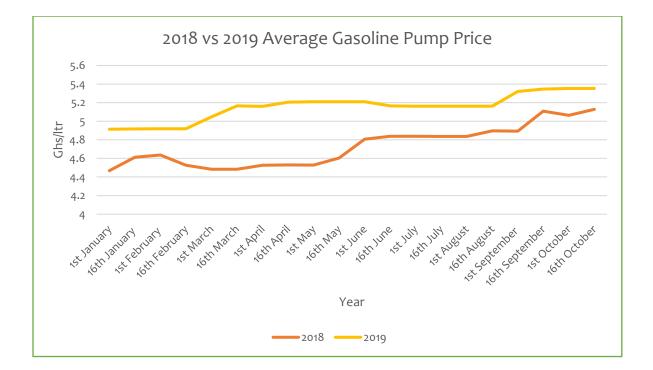
¹ The FufeX30 is a 30-day Ghs/USD forward fx rate used as a benchmark rate for BDC ex-ref price estimations.

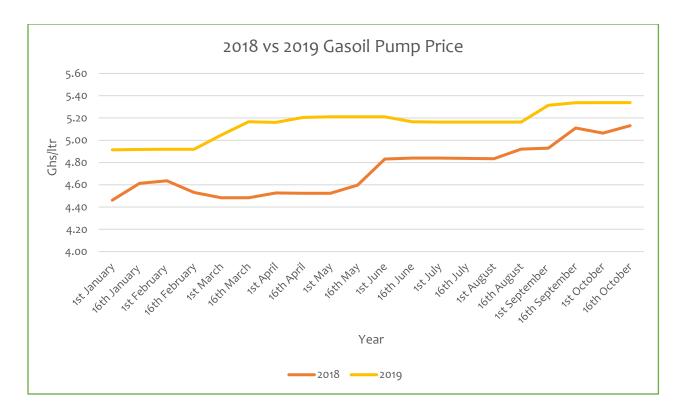
Price Tolerance	+1%/-1%	+1%/-1%

OMC Pricing Performance

The average ex-pump prices for gasoline and gasoil for the second selling window of October (16th to 31st October) remained the same as compared to the previous window's price of Ghs5.353/ltr for gasoline and Ghs5.338/ltr for gasoil. Average pump prices for the window has been the highest observed this year. Average ex-pump prices of gasoline and gasoil have increased by 9% year-to-date, compared to the 15% increase same period last year and a year-on-year increase of about 4% for gasoline and gasoil respectively.

Ex-pump prices for gasoline are expected to decrease by about Ghp8/ltr, while gasoil prices are expected to increase by about Ghp3/ltr respectively in the next selling window (1st to 15th November), all other things being equal.





OMC Pricing Performance

Out of the top 10 OMCs, Vivo Energy Shell, Goil and Total displayed the highest prices at their pumps. For the second selling window of October (16th to 31st) the top three highest selling OMCs sold gasoline and gasoil at an average price of Ghs 5.383/ltr and Ghs5.370/ltr respectively. Frimps displayed the lowest price at the pump for both gasoline and gasoil, with a price of Ghs 5.320/ltr for gasoline and Ghs5.300 for gasoil at its pumps.

OMCs	Gasoline	Gasoil
Vivo Energy Shell	5.385	5.385
Total	5.385	5.385
Goil	5.380	5.340

Average Ex-Pum	p prices for	16 th to 31 st	October 2019	(Ghs/ltr)
			000000	

Star Oil	5.360	5.300
Petrosol	5.350	5.320
Radiance	5.350	5.320
Allied Oil	5.340	5.330
Glory Oil	5.339	5.379
Puma Energy	5.320	5.320
Frimps Oil	5.320	5.300

NB: Table is arranged in descending order, from the highest priced OMC to the lowest priced OMC