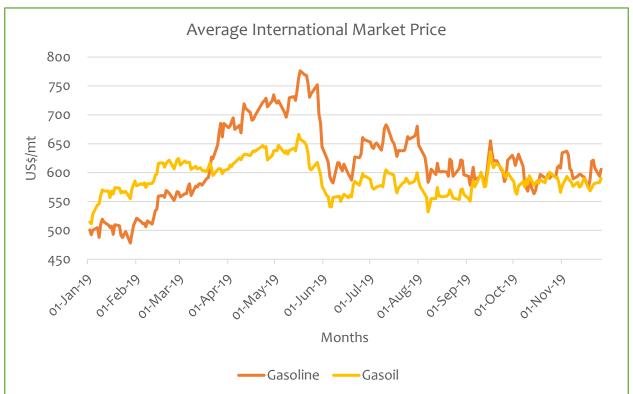


CBOD PETROLEUM PRICE OUTLOOK

1st to 15th December

Refined Products Review and Outlook

The international market prices of gasoline and gasoil for the first pricing window of December (12th November to 26th November) averaged \$599.36/mt and \$579.36/mt respectively. The average prices for both gasoline and gasoil witnessed a 1.85% and 0.71% fall in prices in the current pricing window relative to the previous pricing window. The current average window prices for gasoline and gasoil respectively are 20% and 9% lower than the



highest window prices (12th May to 26th May) observed this year.

Fufex

The Fufex30¹ which is a 30-day forward Ghs/USD FX rate for the petroleum downstream industry is estimated at **Ghs 5.7/USD** for the first pricing window of December (12th to 26th November). 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.

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

Ex-ref Price for 12th to 26th November Pricing window

PRICE COMPONENT	PMS	AGO
Average World Market Price (US\$/MT)	599.364	579.364
CBOD Benchmark Breakeven Premium (US\$/MT)	100	90
FuFex30 (GHS/USD)	5.7	5.7
Volume Conversion Factor (ltrs/mt)	1324.50	1183.43
Ex-ref Price (Ghs/ltr)	3.010	3.224
Price Tolerance	+1%/-1%	+1%/-1%

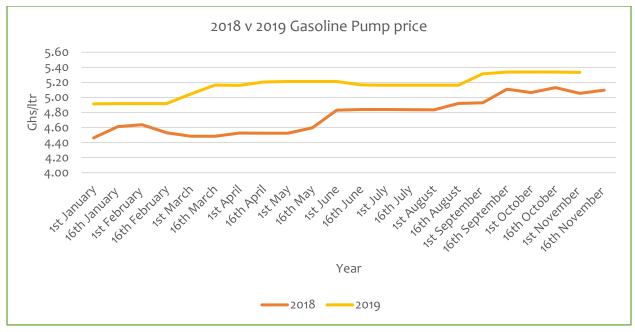
¹ The FufeX30 is a 30-day Ghs/USD forward fx rate used as a benchmark rate for BDC ex-ref price estimations.

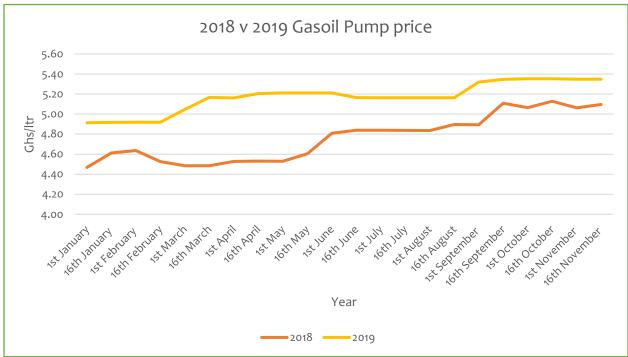
OMC Pricing Performance

The average ex-pump prices for gasoline and gasoil for the second selling window of November (16th to 30th November) remained the same as compared to the previous window. Prices remained at Ghs5.348/ltr and Ghs5.333/ltr. This marked the sixth time within the year that inter-window prices remained the same². Average ex-pump prices of gasoline and gasoil have increased by 9% year-to-date, compared to the 14% increase same period last year and a year-on-year increase of about 5% for gasoline and gasoil respectively.

Ex-pump prices for gasoline is expected to decrease by about Ghp5/ltr, while gasoil prices are expected to increase marginally by about Ghp1/ltr in the next selling window (1st to 15th December), all other things being equal. Pump prices for gasoline and gasoil averaged, GHS5.35/ltr and GHS5.34/ltr respectively for the month of October 2019. This is 4.91% and 4.71% higher than the October 2018 average price of GHS5.10/ltr for both products. This increase, however, is 2.79 and 2.99 percentage points lower than the October 2019 national inflation rate of 7.7% (rebased) compared to the 9.5% (before rebasing) recorded for the same period 2018. A common base must be applied in the computation of inflation rate to be able to accurately determine the effect of the change in pump prices on changes in inflation rate.

² Prices remained the same between the 1st -15th February & 16th -28th February 16th -30th April & 1st -15th May, 16th -31st May & 1st -15th June, 1st -15th July &16th -30th July, 1st -15th August & 16th -31st August, 1st -15th November &16th -30th November 2019





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 November, the top three highest selling OMCs sold

gasoline and gasoil at an average price of Ghs5.360/ltr and Ghs5.360/ltr respectively. Frimps displayed the lowest price at the pump for both gasoline and gasoil, with a price of Ghs5.320/ltr for gasoline and Ghs5.300/ltr for gasoil at its pumps.

Average Ex-Pump prices for 16th to 30th November 2019 (Ghs/ltr)

OMCs	Gasoline	Gasoil
Vivo Energy Shell	5.360	5.360
Total	5.360	5.360
Goil	5.360	5.360
Star Oil	5.360	5.300
Glory Oil	5.358	5.358
Petrosol	5.350	5.320
Radiance	5.350	5.320
Allied Oil	5.340	5.330
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