## PACIFIC FUEL PRICE MONITOR

## October-December 2013 (Q4 2013)

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## 1. Pacific Fuel Price Monitor at a Glance

## Mogas

American Samoa had the lowest tax inclusive mogas retail price closely followed by Kiribati. Pre-tax, New Caledonia, Samoa, American Samoa and Fiji retail prices were lowest and comparable with Australia and New Zealand. The highest retail mogas prices were in Wallis \& Futuna, Niue and Cook Islands. Papua New Guinea (PNG) wholesale prices (for both mogas and ADO) were low but this was not reflected in retail prices.
ADO
American Samoa had the lowest tax inclusive retail ADO price. Pre-tax, retail ADO prices in American Samoa, New Caledonia, New Zealand and Fiji were lowest, followed by Kiribati, Samoa, Federated States of Micronesia (FSM) and Palau, all of which were lower than Australia. The highest ADO prices were in Wallis and Futuna, Niue, Cook Islands, Vanuatu and Tuvalu.

## Kerosene

Kiribati had the lowest tax inclusive retail kerosene prices followed by American Samoa and Fiji. Wallis and Futuna, Palau and Niue had highest kerosene prices.

## LPG

Fiji had the lowest LPG prices, while Palau, Niue, Vanuatu, and Wallis and Futuna had the highest.

## Crude oil

Crude oil prices during the October-December period held steady, averaging USD 108.65/bbl, an increase of only $0.01 \%$ over the previous quarter.

## 2. REGIONAL RETAIL FUEL PRICE COMPARISON (Including taxes and duty)

Figure 1: Regional retail prices including duty and taxes


## Key observations - general

- PICT fuel prices vary significantly from around USD1.00 per litre in American Samoa to above USD 2 per litre in smaller PICTs such as Wallis and Futuna, Niue and Cook Islands.
- Pre-tax margins above the Platts average mogas MOPS price (USD 0.71) for the period fall in the range of USD 0.20 (American Samoa) to in excess of USD 1.10 Wallis and Futuna) indicating a wide divergence in the cost of logistics and commercial margins within PICTs.
- Wide discrepancies such as these represent opportunities for PICTs to work on achieving more favourable fuel prices in the future.
- PICT retail price averages tend to be significantly higher than the regional reference markets of Australia, New Zealand and Hawai'i, with some notable exceptions.
- Large differences in retail fuel prices can often be explained by varying tax treatment and market size of each PICT, but this is not always the case, again representing opportunities for cost reduction in some countries.
- American Samoa and Samoa are achieving good fuel prices compared with their relative market size for both mogas and ADO.
- Solomon Islands, with a total market size similar to American Samoa, has the potential to achieve significantly lower fuel prices.
- Fiji, with its relatively large total import volume related to its status as a regional supply centre has room for improvement based on the available economies of scale.
- PNG, the largest Pacific Island fuel market, reports very high pre-tax fuel prices relative to its market size.
- Tonga, Vanuatu and FSM have similar market scale. However, Tonga is the best performing.
- Niue and Tuvalu have very small volume and very high mogas and ADO prices.


## 3. MOGAS (UNLEADED PETROL) PRICES

Figure 2: Retail mogas price sorted by underlying cost


Figure 3: Retail mogas price sorted by retail price


Figure 4: Regional prices of mogas (excluding tax and duty)


Figure 5: Regional price of mogas (including tax and duty)


Figure 6: Mogas retail prices 4Q-2013 and annual volume


## Key observations - mogas

- While most PICTs import 92 RON mogas; Niue, Cook Islands, New Caledonia, Vanuatu, and Wallis and Futuna import 95 RON, which has a higher cost than 92 RON. This goes some way to explaining variations among PICTs.
- The Pacific-wide retail average pre-tax and after-tax retail price for mogas was USD $1.26 /$ litre and USD 1.58/litre respectively.
- The average pre-tax and after-tax wholesale price for mogas was USD 1.29/litre and USD1.58/litre.
- Average MOPS for mogas 92 and 95 RON during the October-December period was USD0.71/I and USD 0.73/I respectively.
- Pre-tax margins above the Platts average mogas MOPS price (USD 0.72) for the period fall in the range of USD 0.20 (American Samoa) to USD 1.10 Wallis and Futuna).
- Mogas-related tax rates between PICTs range from 4.45 UScpl (Solomon Islands) to 57.8 UScpl (New Caledonia).


## 4. AUTOMOTIVE DIESEL PRICES

Figure 7: Retail diesel price sorted by underlying cost


Figure 8: Retail diesel price sorted by retail price


Figure 9: Regional prices of diesel (excluding tax and duty)


Figure 10: Regional price of diesel (including tax and duty)


Figure 11: Diesel retail prices 4Q-2013 and annual volume


## Key observations - diesel fuel

- Without tax and duty, New Caledonia has the lowest retail ADO prices.
- American Samoa imposes the lowest amount of tax and duty and therefore has the lowest after tax retail price.
- The majority of PICTs import 500ppmS ADO for land transport. Cook Islands and Palau have specifications of 50 ppmS. American Samoa, New Caledonia, Niue, Wallis and Futuna and Vanuatu import 10ppm diesel for automotive use. Those factors contribute to price variations between PICTs
- The Pacific-wide average pre-tax and after-tax retail price for ADO was USD $1.33 /$ litre and USD 1.59/litre.
- The Pacific-wide average pre-tax and after-tax wholesale price for ADO was USD $1.18 /$ litre and USD 1.45/litre.
- Average MOPS for gasoil 10ppm and 500ppm during the October-December period was USD $0.79 / I$ and USD 0.78/I respectively.
- Pre-tax margins above the Platts average ADO MOPS price for the period fall in the range of USD 0.25 (American Samoa) to USD 1.49 Wallis and Futuna).
- ADO related tax rates between PICTS range from 1.21 UScpl (American Samoa) to 48.8 UScpl (Niıı)


## 5. KEROSENE PRICES

Figure 12: Retail kerosene price in the Pacific sorted by retail price


Figure 13: Regional prices of kerosene (excluding tax and duty)


Figure 14: Regional prices of kerosene (including tax and duty)


## Key observations - kerosene

- Kiribati has the lowest retail and wholesale kerosene prices; the highest prices are found in Wallis and Futuna, Niue and Palau.
- The Pacific-wide average pre-tax and after-tax retail price for kerosene was USD1.32/litre and USD 1.49/litre respectively.
- Average MOPS for Asian jet during the October -December period was USD 0.78/litre.


## 6. LIQUEFIED PETROLEUM GAS (LPG) PRICES

Figure 15: Regional prices of LPG (including tax and duty)


## Key observations - LPG

- Saudi Aramco pricing, which is published monthly, is the acknowledged LPG benchmark price for this region.
- Fiji has the lowest LPG retail prices at USD2.05/Kg and Palau has the highest price of USD $4.96 / \mathrm{Kg}$.
- Average Saudi Aramco prices for butane and propane during the October- December period was USD 1.00/Kg and USD 0.93/Kg respectively.
- There is significant potential to reduce regional LPG prices.


## 7. INTERNATIONAL MARKET TRENDS

Figure 16: Comparison - Singapore gasoline, jet fuel/kerosene, diesel and Dated Brent.


Asian petroleum product prices fluctuated in the fourth quarter. They increased in October, fell in November and increased in December again. In Q4-2013, Singapore free-on-board (FOB) prices for gasoline 92 fell by $2.48 \%$, Kerosene prices increased by $0.78 \%$, while the price for 10 ppm and 500 ppm diesel surged by $0.54 \%$ and $0.75 \%$ respectively.

In comparison to the third quarter of 2013, the price of Dated Brent crude in the fourth quarter decreased by USD 1/bbl from USD 109.65/bbl to USD 108.65/bbl.

PICTs are part of the Asia Pacific fuel market, with Singapore being the recognised regional trading market, as well as a petroleum refining and distribution centre. The relevant pricing benchmarks in PICTs fuel market are Singapore prices for diesel (gasoil) with maximum 10, 50 and 500 ppm sulphur, gasoline (92 and 95 RON) and jet/kerosene.

Table 1: Monthly average of daily published mean of Platts Singapore prices

| Month <br> average | Dated <br> Brent <br> (USD/bbl) | Asian <br> gasoline <br> 92 RON <br> (USD/bbl) | Asian <br> gasoline <br> 95 RON <br> (USD/bbI) | Asian Jet <br> fuel/ <br> Kerosene <br> (USD/bbl) | Asian <br> gasoil <br> 10ppm <br> (USD/bbI) | Asian gasoil <br> 50ppm <br> (USD/bbl) | Asian <br> gasoil <br> 500ppm <br> (USD/bbl) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| October | 108.47 | 111.60 | 114.36 | 123.05 | 125.58 | 125.24 | 123.89 |
| November | 107.34 | 111.94 | 114.89 | 122.63 | 125.60 | 125.18 | 123.34 |
| December | 110.15 | 115.97 | 118.82 | 126.69 | 127.62 | 127.50 | 126.35 |

Figure 17: Difference between market prices


## Observations - refiners margin

- All petroleum fuel is produced from crude oil and all fuels are produced concurrently in varying proportions depending on a number of factors including the specific crude being run and the refinery configuration.
- Variances in refiners margin between fuel products over time are an indication of the relative demand for that fuel compared with other fuels.
- Low refiner margins in figure 17 above indicates that jet and diesel fuel are in high demand which is driving and or supporting regional prices while motor gasoline is in relatively long supply.


## 9. GLOSSARY AND CONVERSIONS

## Abbreviations and definition of key terms

| ADO | Automotive Diesel Oil r Diesel Fuel |
| :--- | :--- |
| after -tax price | Prices including tax and duty |
| bbl | Barrel (of oil), approximately 159 litres |
| Cpl | Cents per litre |
| DPK | Dual Purpose Kerosene (i.e. Jet fuel and household use) |
| FOB | Free on Board |
| Gasoil | Refinery designation of diesel fuel |
| kl | Kilolitres |
| Mogas | Motor gasoline - normally unleaded |
| MOPS | Mean of Platts Singapore |
| MR | Medium Range tankers, generally 20-30,000 metric tonnes |
| Pacific- wide | All surveyed Pacific Island Countries (excluding Australia and New Zealand) |
| ppm | Parts per million |
| Retail price | Fuel price at retail/service stations, also called pump price |
| Pre-Tax price | Price excluding tax and duty |
| Pump price | Refer to retail price |
| RON | Research Octane Number |
| S | Sulfur content (usually in diesel fuel) |
| ULP | Unleaded Petrol |
| USD/bbl | US dollars per barrel |
| USD/I | US dollars per litre |

## Conversions

Litres/USG 3.785
Litres/BBL 159
USG/BBL 42

## PICT fuel pricing methodologies

- Pricing methodology varies in PICTs. Some PICTs such as Samoa, Tonga, Papua New Guinea, Wallis \& Futuna, New Caledonia, Vanuatu and Solomon Islands carry out price reviews on monthly basis.
- Fiji reviews petroleum product price on a quarterly basis. Price change is based on MOPS prices of previous quarter.
- American Samoa reviews prices on fortnightly basis.
- In some PICs such as Niue and Cook Islands price change is carried out on an ad hoc basis. Price change is mostly influenced by either a major surge or fall in international market prices.
- In Kiribati there has been no price change for the last two years; even though international market prices of petroleum products have continued to increase.


## Price data sources

- Australian data is sourced from http://www.aip.com.au/.
- NZ data is sourced from http://www.med.govt.nz/.
- Hawaii prices are calculated using US average refiners wholesale prices sourced from http://www.eia.gov/ plus Hawaii taxes for diesel and mogas which was sourced from http://www.api.org/.
- PICT volumes used in this report are based on 2009 annual market volumes as collected and published by the SPC Economic Development Division
- Data for Saudi Aramco LPG prices were adapted from http://gasenergyaustralia.asn.au/
- Figures 16 and 17 are generated using daily MOPS data sourced from Platts Asia-Pacific/Arab Gulf Marketscan.
- Prices for diesel, gasoline and jet/kerosene prices are provided by Platts (The McGraw-Hill Companies, Inc).


## Fuel volumes

- Graphs referring to fuel volumes plot the Q4-2013 average prices against the 2009 annual volume demand for diesel and mogas.
- The size of the ball represents the 2009 annual total volume of all fuels within the PICT, an indicator of the import economies of scale available. (NB. PNG total volume includes Interoil refinery production).


## Disclaimer

The Secretariat of the Pacific Community has taken care in preparing these analyses. However, noting that the data in the analyses have been provided by third parties, SPC gives no guarantee as to their accuracy and reliability.

