



### Forecasters' Folly



The upper 60s came and went, with the initial negative narrative being overtaken by 'it is not so bad and we are going to:' 75, 77, 80 or even more. Take your pick. But the macros have not changed and, if anything, they are a wee bit worse and everything works at the margin. So be careful. In flat price the story has been pretty directionless to stronger. A random walk along the flat price chart saw a slow morning, before picking up steam into the early hours of US trading. According to traders, Exxon has been selling alongside Chevron, a Team America defector, and shortly before the window they may have got their way, with flat price and spreads both easing off. As flat price reached the day's peak at \$73.31/bbl, Brent front spreads peaked at 66c just after 15:00 BST, before shedding 8c to close the window at 58c. Further down the curve, little changed. But the short end remains strong. One trader said, "we are no way oversold or pricing below where we ought to be", even despite the historic short positioning in managed money. But for every short, there is a long, so...

The latest instalment of the Dangote debacle is here! While many hoped that additional supply of gasoline would see the astronomical prices descend back to more reasonable levels, this does not look likely to be the case. Domestically refining crude to produce gasoline should have cut out costs of imports and issues with exchange rates with the calamitous naira. The NNPC, however, has increased gasoline prices by around 11% as Dangote supply enters the market. Given the very foundational rules of supply and demand, should it not be that increased supply should see prices fall? Well, it turns out the stakeholders would like to see a bigger return on their investment, so prices may be slightly higher than was hoped by consumers. The much-anticipated availability of gasoline paid for in naira will have to wait another couple of weeks, expected to begin in October. For now, the NNPC is buying fuel from Dangote in USD. Mr Dangote needs the money of course. Prompt EBOB cracks are well down from August \$10-15/bbl range, at around \$7.10/bbl, so the margins to make this money are tight. The front month Brent 321 crack spread is also down, from \$11.27/bbl from \$12.57/bbl start the start September.

| Summary                     |          | 16-Sep-24     | 1-Day Change  | 7-Day Change  |
|-----------------------------|----------|---------------|---------------|---------------|
| <b>Physical and Futures</b> |          |               |               |               |
| Brent Nov (fut)             | (\$/bbl) | 72.540        | +0.160        | +1.390        |
| WTI Nov (fut)               | (\$/bbl) | 68.750        | +0.260        | +1.560        |
| Dubai Nov (phys)            | (\$/bbl) | 72.395        | -0.245        | +0.865        |
| <b>OBI Continuous</b>       | (\$/bbl) | 72.540        | +0.160        | +1.390        |
| <b>Crude Swaps Oct</b>      |          |               |               |               |
| Brent                       | (\$/bbl) | 71.940        | +0.200        | +1.210        |
| DFL                         | (\$/bbl) | 0.340         | -0.050        | +0.260        |
| WTI                         | (\$/bbl) | 68.540        | +0.270        | +1.500        |
| Dubai                       | (\$/bbl) | 71.550        | +0.190        | +1.410        |
| <b>Tenor</b>                |          | <b>Nov-24</b> | <b>Dec-24</b> | <b>Jan-25</b> |
| <b>Crude Futures</b>        |          |               |               |               |
| Brent (fut)                 | (\$/bbl) | 72.540        | 71.960        | 71.550        |
| WTI (fut)                   | (\$/bbl) | 68.750        | 68.060        | 67.620        |



## In detail

Markets oscillated significantly yet without much final consequence again today. Nov Brent surpassed even the \$73/bbl barrier this afternoon, peaking at \$73.31/bbl at 15:13 BST before cooling to finish the day at \$72.54/bbl. In the end, Brent and WTI consolidated their gains in the latter end of last week. The former rose by 16c/bbl, while the latter gained 26c/bbl and closed at \$68.75/bbl. Both stand well over a dollar higher than a week ago.

The EIA's September short term energy outlook (STEO) projects an average of \$82.80/bbl for Brent spot price in 2024 as, down from the August STEO's \$84.44/bbl. This must be the silly season for forecasts. 🎡 The 2025 projection was also revised down, from \$85.71/bbl to \$84.09/bbl. Inventory draws are forecast at 900 kb/d in Q3 this year and the draw is expected to exceed 1 mb/d in Q1 2025. Most shockingly - if you follow global macros - the report expects prices will exceed \$80/bbl this month! What world are they living in? Frankly, we can't see any great indications oil demand will pick up this year, as abysmal macro data meets pessimistic market sentiment. This year has already seen prices bolstered by meaty geopolitical risk premiums, which might well fizzle out by next year, so it seems unlikely next year's prices will be comparable to this year's, no matter what the EIA projects.

These forecasts remain elevated high above other institutes' projections. The Association is pinning its hopes for a revival in prices on inventory draws and the efficacy of OPEC production cuts... let's see if the cuts are realised, or if members stuff their fingers in their ears and keep pumping – as they have done before. Any hopes of a Chinese revival in H2 that will see demand boom again look as unlikely as Beijing recognising Tibet's independence.

Other forecasters have also been cutting expectations: UBS now expects \$80/bbl for Brent; Macquarie has cut its forecast to the same level; Fitch also pegs its average crude prices for 2024 at \$80/bbl. Where the EIA hopes to find this additional \$2.80 is anyone's guess. Even EIA projections on crude production don't match with its price forecasts: it sees global production rising by 2.42 mb/d from 2024 to 2025, while expecting global consumption to rise by 1.52 mb/d in the same period. Someone make it make sense!

The IEA monthly report in September showed a similar discrepancy between production and consumption forecasts, projecting global non-OPEC supply to rise by 1.5 mb/d in 2025 y/y, while also forecasting global demand to rise by 950 kb/d in 2025 y/y. It doesn't take a mathematical genius to work out that, according to basic supply and demand principles, this will likely cause prices to decline. OPEC would have to cut extremely aggressively to counter these global tendencies. You've just got to ask what on earth the EIA is on about with its outlandish projections. We're beginning to get fed up with the constantly wildly flailing projections provided by forecasters and crystal ball prophets. To go back to our mantra: nobody knows. But we are proposing to create the MSF, otherwise known as the Ministry of Silly Forecasts. Seats are available, please apply, competition is stiff.

Today BP announced its planned divestment from US onshore wind energy. The assets were apparently misaligned with their plans for growth. BP are sticking to what they do best, especially as turbulence mounts in the sector. Numerous offshore wind companies have either been fully blown away from projects, or have attempted to renegotiate contract terms, due to higher-than-expected costs. Interest rates and raw materials remain expensive, while disruption to supply chain infrastructure is just a few of many difficulties wind generation faces.

BP's wind assets have a total net generation of 1.3 gigawatts, but BP has clearly found the light and indicated its preference for the solar generation following their acquisition of the remaining 50% stake in Lightsource bp in November. BP has also announced a hiring freeze and paused new offshore wind developments. After investors expressed their discontent with BP's headfirst dive into the renewable sector, the major has started back peddling, placing a greater emphasis on oil and gas once again.

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| <b>Front Month Outrights</b> |          |                |                  |                     |                     |
|------------------------------|----------|----------------|------------------|---------------------|---------------------|
| <b>October Swaps</b>         |          |                | <b>16-Sep-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>                 |          |                |                  |                     |                     |
| Brent                        | (\$/bbl) | <b>71.940</b>  |                  | +0.200              | +1.210              |
| WTI                          | (\$/bbl) | <b>68.540</b>  |                  | +0.270              | +1.500              |
| Dubai                        | (\$/bbl) | <b>71.550</b>  |                  | +0.190              | +1.410              |
| <b>Distillates</b>           |          |                |                  |                     |                     |
| Gasoil 0.1 NWE               | (\$/mt)  | <b>641.550</b> |                  | -6.580              | -7.000              |
| NWE Jet                      | (\$/mt)  | <b>683.730</b> |                  | -7.570              | -10.070             |
| Singapore 10ppm              | (\$/bbl) | <b>82.650</b>  |                  | -0.780              | -0.850              |
| Sing Kero                    | (\$/bbl) | <b>82.730</b>  |                  | -0.500              | -0.670              |
| <b>Gasoline</b>              |          |                |                  |                     |                     |
| RBOB                         | (c/gal)  | <b>194.010</b> |                  | +1.990              | +5.790              |
| EBOB                         | (\$/mt)  | <b>657.950</b> |                  | +1.160              | +16.590             |
| Singapore 92                 | (\$/bbl) | <b>76.790</b>  |                  | +0.700              | +1.600              |
| Singapore 95                 | (\$/bbl) | <b>80.490</b>  |                  | +1.010              | +1.890              |
| <b>Naphtha</b>               |          |                |                  |                     |                     |
| US C5 ENT                    | (c/gal)  | <b>146.090</b> |                  | +1.080              | +5.950              |
| NWE Naphtha                  | (\$/mt)  | <b>628.160</b> |                  | +4.180              | +27.140             |
| MOPJ Naphtha                 | (\$/mt)  | <b>647.660</b> |                  | +4.180              | +26.390             |
| <b>Fuel Oil</b>              |          |                |                  |                     |                     |
| 3.5% barges                  | (\$/mt)  | <b>387.860</b> |                  | +3.560              | +20.200             |
| Singapore 380                | (\$/mt)  | <b>398.360</b> |                  | +1.810              | +14.630             |
| Singapore 180                | (\$/mt)  | <b>409.110</b> |                  | +1.870              | +15.700             |
| 0.5% barges                  | (\$/mt)  | <b>479.170</b> |                  | +0.250              | +8.440              |
| Singapore 0.5%               | (\$/mt)  | <b>526.160</b> |                  | -1.020              | -0.380              |
| <b>NGLs</b>                  |          |                |                  |                     |                     |
| US Propane LST               | (c/gal)  | <b>68.243</b>  |                  | -0.641              | +0.202              |
| NWE Propane                  | (\$/mt)  | <b>569.130</b> |                  | +6.790              | +23.590             |
| Saudi Propane CP             | (\$/mt)  | <b>608.130</b> |                  | +7.290              | +6.090              |
| Asian Propane FEI            | (\$/mt)  | <b>639.130</b> |                  | +4.290              | +2.140              |
| US Butane ENT                | (c/gal)  | <b>97.760</b>  |                  | +2.640              | +5.460              |
| Saudi Butane CP              | (\$/mt)  | <b>617.130</b> |                  | +9.840              | +14.220             |



## Long Tenor Swaps

|                    |          | Balmo   | Oct-24  | Nov-24  | Dec-24  | Jan-25  | Q4-24   | Q1-25   |
|--------------------|----------|---------|---------|---------|---------|---------|---------|---------|
| <b>Crude</b>       |          |         |         |         |         |         |         |         |
| Brent              | (\$/bbl) | 72.490  | 71.940  | 71.540  | 71.330  | 71.220  | 71.603  | 71.140  |
| WTI                | (\$/bbl) | 69.210  | 68.540  | 67.930  | 67.530  | 67.290  | 68.000  | 67.143  |
| Dubai              | (\$/bbl) | 72.900  | 71.550  | 70.900  | 70.480  | 70.220  | 70.977  | 70.107  |
| <b>Distillates</b> |          |         |         |         |         |         |         |         |
| Gasoil 0.1 NWE     | (\$/mt)  | 642.250 | 641.550 | 640.920 | 641.830 | 643.230 | 641.433 | 644.180 |
| NWE Jet            | (\$/mt)  | 682.250 | 683.730 | 685.670 | 688.580 | 691.980 | 685.993 | 692.983 |
| Singapore 10ppm    | (\$/bbl) | 82.350  | 82.650  | 82.790  | 82.950  | 83.240  | 82.797  | 83.493  |
| Sing Kero          | (\$/bbl) | 82.630  | 82.730  | 82.830  | 82.990  | 83.190  | 82.850  | 83.343  |
| <b>Gasoline</b>    |          |         |         |         |         |         |         |         |
| RBOB               | (c/gal)  | 196.870 | 194.010 | 191.510 | 190.480 | 190.920 | 192.000 | 197.840 |
| EBOB               | (\$/mt)  | 680.950 | 657.950 | 644.950 | 636.200 | 636.700 | 646.367 | 641.367 |
| Singapore 92       | (\$/bbl) | 76.900  | 76.790  | 76.270  | 76.140  | 76.210  | 76.400  | 76.387  |
| Singapore 95       | (\$/bbl) | 80.550  | 80.490  | 79.670  | 79.290  | 79.710  | 79.817  | 79.953  |
| <b>Naphtha</b>     |          |         |         |         |         |         |         |         |
| US C5 ENT          | (c/gal)  | 145.090 | 146.090 | 145.840 | 145.590 | 146.090 | 145.840 | 145.090 |
| NWE Naphtha        | (\$/mt)  | 632.660 | 628.160 | 621.410 | 615.660 | 611.910 | 621.743 | 607.410 |
| MOP-Japan Naphtha  | (\$/mt)  | 651.660 | 647.660 | 641.660 | 635.660 | 630.660 | 641.660 | 625.410 |
| <b>Fuel Oil</b>    |          |         |         |         |         |         |         |         |
| 3.5% barges        | (\$/mt)  | 396.110 | 387.860 | 380.110 | 376.610 | 376.360 | 381.527 | 378.193 |
| Singapore 380      | (\$/mt)  | 412.610 | 398.360 | 390.110 | 387.610 | 387.110 | 392.027 | 388.400 |
| Singapore 180      | (\$/mt)  | 419.110 | 409.110 | 401.110 | 399.110 | 399.360 | 403.110 | 401.067 |
| 0.5% barges        | (\$/mt)  | 486.670 | 479.170 | 471.420 | 467.170 | 464.920 | 472.587 | 463.587 |
| Singapore 0.5%     | (\$/mt)  | 542.160 | 526.160 | 517.410 | 512.160 | 507.660 | 518.577 | 504.410 |
| <b>NGLs</b>        |          |         |         |         |         |         |         |         |
| US Propane LST     | (c/gal)  | 63.993  | 68.243  | 69.993  | 70.993  | 71.493  | 69.743  | 70.786  |
| NWE Propane        | (\$/mt)  | 572.130 | 569.130 | 560.130 | 552.630 | 546.130 | 560.630 | 532.130 |
| Saudi Propane CP   | (\$/mt)  | 608.130 | 608.130 | 606.630 | 607.130 | 604.130 | 607.297 | 593.297 |
| Asian Propane FEI  | (\$/mt)  | 642.630 | 639.130 | 635.380 | 631.130 | 623.130 | 635.213 | 606.130 |
| US Butane ENT      | (c/gal)  | 97.260  | 97.760  | 97.260  | 96.760  | 96.260  | 97.260  | 93.133  |
| Saudi Butane CP    | (\$/mt)  | 617.130 | 617.130 | 612.630 | 613.130 | 609.630 | 614.297 | 595.463 |



| <b>Front Month Spreads</b> |          |           |              |              |
|----------------------------|----------|-----------|--------------|--------------|
| Oct/Nov                    |          | 16-Sep-24 | 1-Day Change | 7-Day Change |
| <b>Crude</b>               |          |           |              |              |
| Brent                      | (\$/bbl) | 0.400     | -0.020       | +0.110       |
| WTI                        | (\$/bbl) | 0.610     | +0.010       | +0.130       |
| Dubai                      | (\$/bbl) | 0.650     | -0.010       | +0.080       |
| <b>Distillates</b>         |          |           |              |              |
| Gasoil 0.1 NWE             | (\$/mt)  | 0.630     | -0.750       | -0.670       |
| NWE Jet                    | (\$/mt)  | -1.940    | -0.910       | -1.570       |
| Singapore 10ppm            | (\$/bbl) | -0.140    | -0.070       | +0.020       |
| Sing Kero                  | (\$/bbl) | -0.100    | -0.030       | +0.030       |
| <b>Gasoline</b>            |          |           |              |              |
| RBOB                       | (c/gal)  | 2.500     | +0.220       | +0.570       |
| EBOB                       | (\$/mt)  | 13.000    | -1.500       | +2.000       |
| Singapore 92               | (\$/bbl) | 0.520     | +0.170       | +0.220       |
| Singapore 95               | (\$/bbl) | 0.820     | +0.270       | +0.320       |
| <b>Naphtha</b>             |          |           |              |              |
| US C5 ENT                  | (c/gal)  | 0.250     | +0.000       | +0.130       |
| NWE Naphtha                | (\$/mt)  | 6.750     | +0.000       | +1.750       |
| MOP-Japan Naphtha          | (\$/mt)  | 6.000     | +0.000       | +1.750       |
| <b>Fuel Oil</b>            |          |           |              |              |
| 3.5% barges                | (\$/mt)  | 7.750     | +1.500       | +4.500       |
| Singapore 380              | (\$/mt)  | 8.250     | +0.750       | +0.740       |
| Singapore 180              | (\$/mt)  | 8.000     | +0.750       | +1.490       |
| 0.5% barges                | (\$/mt)  | 7.750     | +0.000       | +1.000       |
| Singapore 0.5%             | (\$/mt)  | 8.750     | -0.250       | -3.750       |
| <b>NGLs</b>                |          |           |              |              |
| US Propane LST             | (c/gal)  | -1.750    | -0.130       | -0.250       |
| NWE Propane                | (\$/mt)  | 9.000     | +0.500       | +4.000       |
| Saudi Propane CP           | (\$/mt)  | 1.500     | +0.500       | +0.000       |
| Asian Propane FEI          | (\$/mt)  | 3.750     | +0.250       | -1.250       |
| US Butane ENT              | (c/gal)  | 0.500     | +0.120       | +0.250       |
| Saudi Butane CP            | (\$/mt)  | 4.500     | +1.500       | +2.500       |



| <b>Front Month Cracks and Diffs</b>                  |                  |                     |                     |
|--|------------------|---------------------|---------------------|
| <b>October</b>                                       | <b>16-Sep-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>   |                  |                     |                     |
| Brent/Dubai (\$/bbl)                                 | 0.390            | +0.010              | -0.200              |
| WTI/Brent (\$/bbl)                                   | -3.410           | +0.060              | +0.300              |
| <b>Distillates</b>                                   |                  |                     |                     |
| Gasoil 0.1 NWE crack (\$/bbl)                        | 14.150           | -1.040              | -2.120              |
| NWE Jet crack (\$/bbl)                               | 14.850           | -1.050              | -2.410              |
| NWE Jet Diff (\$/mt)                                 | 42.500           | -0.500              | -2.500              |
| Gasoil E/W (\$/bbl)                                  | -25.500          | +1.000              | +1.250              |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)           | 0.080            | +0.260              | +0.180              |
| <b>Gasoline</b>                                      |                  |                     |                     |
| TA Arb (RBOB vs EBOB) (c/gal)                        | 5.950            | +1.650              | +1.050              |
| EBOB crack (\$/bbl)                                  | 7.100            | -0.030              | +0.840              |
| Singapore 92 crack (\$/bbl)                          | 4.890            | +0.520              | +0.430              |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)              | -2.200           | +0.570              | -0.400              |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)           | 30.010           | -2.870              | -10.300             |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)              | -7.930           | +1.750              | -12.990             |
| <b>Naphtha</b>                                       |                  |                     |                     |
| US C5 ENT vs WTI Crack                               | -7.150           | +0.170              | +1.010              |
| NWE Naphtha Crack (\$/bbl)                           | -1.330           | +0.270              | +1.870              |
| MOPJ Naphtha Crack (\$/bbl)                          | 0.860            | +0.270              | +1.780              |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)                    | 19.500           | +0.000              | -0.750              |
| <b>Fuel Oil</b>                                      |                  |                     |                     |
| 3.5% barges crack (\$/bbl)                           | -10.830          | +0.370              | +2.000              |
| Singapore 380 crack (\$/bbl)                         | -9.180           | +0.090              | +1.130              |
| Singapore 180 crack (\$/bbl)                         | -7.480           | +0.100              | +1.300              |
| Visco (180-380) (\$/mt)                              | 10.750           | +0.000              | +1.000              |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)                | 10.500           | -1.750              | -5.500              |
| 0.5% barges crack (\$/bbl)                           | 3.550            | -0.150              | +0.150              |
| Singapore 0.5% crack (\$/bbl)                        | 10.950           | -0.350              | -1.250              |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)         | 46.990           | -1.270              | -8.890              |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)    | 91.310           | -3.300              | -11.750             |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)                 | 127.800          | -2.820              | -15.140             |
| 0.5% barges/gasoil (\$/mt)                           | -162.000         | +7.130              | +15.390             |
| Sing 0.5% vs Sing 10ppm (\$/mt)                      | -89.600          | +4.770              | +5.190              |
| <b>NGLs</b>  |                  |                     |                     |
| US Propane LST vs NWE Propane (\$/mt)                | -213.500         | -10.000             | -22.500             |
| US Propane LST vs Asian Propane FEI (\$/mt)          | -283.590         | -7.590              | -1.090              |
| Asian Propane FEI vs NWE Propane (\$/mt)             | 70.000           | -2.500              | -21.500             |
| Asian Propane FEI vs Saudi Propane CP (\$/mt)        | 31.000           | -3.000              | -4.000              |
| European Pronap (NWE Propane vs NWE Naphtha) (\$/mt) | -59.290          | +2.660              | -3.810              |
| Asian Pronap (FEI vs MOPJ) (\$/mt)                   | -39.790          | +3.160              | -20.560             |



## Long Tenor Cracks / Diffs

|   | Balmo    | Oct-24   | Nov-24   | Dec-24   | Jan-25   | Q4-24    | Q1-25    |
|---|----------|----------|----------|----------|----------|----------|----------|
| <b>Crude</b>                                  |          |          |          |          |          |          |          |
| Brent/Dubai (\$/bbl)                          | -0.410   | 0.390    | 0.650    | 0.840    | 1.000    | 0.627    | 1.033    |
| WTI/Brent (\$/bbl)                            | -3.280   | -3.410   | -3.630   | -3.780   | -3.930   | -3.607   | -3.987   |
| <b>Distillates</b>                            |          |          |          |          |          |          |          |
| Gasoil 0.1 NWE crack (\$/bbl)                 | 13.67    | 14.15    | 14.45    | 14.80    | 15.14    | 14.47    | 15.33    |
| NWE Jet crack (\$/bbl)                        | 14.11    | 14.85    | 15.46    | 16.06    | 16.65    | 15.46    | 16.83    |
| NWE Jet Diff (\$/mt)                          | 40.50    | 42.50    | 45.00    | 47.00    | 49.00    | 44.83    | 49.00    |
| Gasoil E/W (\$/bbl)                           | -28.09   | -25.50   | -23.88   | -23.63   | -22.86   | -24.34   | -21.96   |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)    | 0.28     | 0.08     | 0.04     | 0.04     | -0.05    | 0.05     | -0.15    |
| <b>Gasoline</b>                               |          |          |          |          |          |          |          |
| TA Arb (RBOB vs EBOB) (c/gal)                 | 2.260    | 5.950    | 7.160    | 8.550    | 8.920    | 7.220    | 14.483   |
| EBOB crack (\$/bbl)                           | 9.310    | 7.100    | 5.900    | 5.110    | 5.250    | 6.037    | 5.903    |
| Singapore 92 crack (\$/bbl)                   | 4.460    | 4.890    | 4.760    | 4.870    | 5.040    | 4.840    | 5.300    |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)       | -4.850   | -2.200   | -1.160   | -0.240   | -0.230   | -1.200   | -0.613   |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)    | 48.510   | 30.010   | 23.760   | 20.760   | 25.050   | 24.843   | 34.217   |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)       | -11.010  | -7.930   | -6.260   | -1.340   | 4.410    | -5.177   | 11.133   |
| <b>Naphtha</b>                                |          |          |          |          |          |          |          |
| US C5 ENT vs WTI Crack                        | -8.240   | -7.150   | -6.650   | -6.350   | -5.900   | -6.717   | -6.183   |
| NWE Naphtha Crack (\$/bbl)                    | -1.360   | -1.330   | -1.700   | -2.110   | -2.430   | -1.713   | -2.853   |
| MOPJ Naphtha Crack (\$/bbl)                   | 0.770    | 0.860    | 0.580    | 0.130    | -0.320   | 0.523    | -0.830   |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)             | 19.000   | 19.500   | 20.250   | 20.000   | 18.750   | 19.917   | 18.000   |
| <b>Fuel Oil</b>                               |          |          |          |          |          |          |          |
| 3.5% bgs crack (\$/bbl)                       | -10.070  | -10.830  | -11.660  | -11.980  | -11.910  | -11.490  | -11.543  |
| Singapore 380 crack (\$/bbl)                  | -7.470   | -9.180   | -10.090  | -10.250  | -10.220  | -9.840   | -9.937   |
| Singapore 180 crack (\$/bbl)                  | -6.450   | -7.480   | -8.350   | -8.440   | -8.290   | -8.090   | -7.940   |
| Visco (180-380) (\$/mt)                       | 6.500    | 10.750   | 11.000   | 11.500   | 12.250   | 11.083   | 12.667   |
| HSFO E/W (380 vs 3.5% bgs) (\$/mt)            | 16.500   | 10.500   | 10.000   | 11.000   | 10.750   | 10.500   | 10.207   |
| 0.5% bgs crack (\$/bbl)                       | 4.190    | 3.550    | 2.720    | 2.280    | 2.040    | 2.850    | 1.907    |
| Singapore 0.5% crack (\$/bbl)                 | 12.930   | 10.950   | 9.960    | 9.360    | 8.770    | 10.090   | 8.337    |
| VLSFO E/W (Sing 0.5% vs 0.5% bgs) (\$/mt)     | 55.490   | 46.990   | 45.990   | 44.990   | 42.740   | 45.990   | 40.823   |
| European Hi5 (0.5% bgs vs 3.5% bgs) (\$/mt)   | 90.560   | 91.310   | 91.310   | 90.560   | 88.560   | 91.060   | 85.393   |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)          | 129.550  | 127.800  | 127.300  | 124.550  | 120.550  | 126.550  | 116.010  |
| 0.5% bgs/gasoil (\$/mt)                       | -155.020 | -162.000 | -169.190 | -174.130 | -178.180 | -168.440 | -180.347 |
| Sing 0.5% vs Sing 10ppm (\$/mt)               | -71.370  | -89.600  | -99.390  | -106.210 | -112.120 | -98.400  | -117.407 |
| <b>NGLs</b>                                   |          |          |          |          |          |          |          |
| US Propane LST vs NWE Propane (\$/mt)         | -238.64  | -213.5   | -195.38  | -182.67  | -173.57  | -197.183 | -163.247 |
| US Propane LST vs Asian Propane FEI (\$/mt)   | -309.14  | -283.59  | -270.63  | -261.17  | -250.66  | -271.797 | -237.28  |
| Asian Propane FEI vs NWE Propane (\$/mt)      | 70.5     | 70       | 75.25    | 78.5     | 77       | 74.583   | 74       |
| Asian Propane FEI vs Saudi Propane CP (\$/mt) | 34.5     | 31       | 28.75    | 24       | 19       | 27.917   | 12.833   |
| European Pronap (\$/mt)                       | -60.79   | -59.29   | -61.54   | -63.29   | -66.04   | -61.373  | -75.497  |
| Asian Pronap (FEI vs MOPJ) (\$/mt)            | -43.79   | -39.79   | -35.29   | -28.79   | -26.79   | -34.623  | -32.33   |



| <b>Inter-month Crack Spreads</b>                     |                  |                     |                     |
|--|------------------|---------------------|---------------------|
| <b>Oct/Nov</b>                                       | <b>16-Sep-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>   |                  |                     |                     |
| Brent/Dubai (\$/bbl)                                 | -0.260           | -0.020              | +0.010              |
| WTI/Brent (\$/bbl)                                   | 0.220            | +0.040              | +0.050              |
| <b>Distillates</b>                                   |                  |                     |                     |
| Gasoil 0.1 NWE crack (\$/bbl)                        | -0.300           | -0.050              | -0.180              |
| NWE Jet crack (\$/bbl)                               | -0.610           | -0.030              | -0.250              |
| NWE Jet Diff (\$/mt)                                 | -2.500           | +0.000              | -0.500              |
| Gasoil E/W (\$/bbl)                                  | -1.620           | +0.450              | +1.070              |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)           | 0.040            | +0.040              | +0.010              |
| <b>Gasoline</b>                                      |                  |                     |                     |
| TA Arb (RBOB vs EBOB) (c/gal)                        | -1.210           | +0.630              | +0.000              |
| EBOB crack (\$/bbl)                                  | 1.200            | -0.100              | +0.180              |
| Singapore 92 crack (\$/bbl)                          | 0.130            | +0.210              | +0.130              |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)              | -1.040           | +0.350              | -0.020              |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)           | 6.250            | -1.500              | +0.250              |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)              | -1.670           | +1.410              | +0.080              |
| <b>Naphtha</b>                                       |                  |                     |                     |
| US C5 ENT vs WTI Crack                               | -0.500           | +0.000              | -0.080              |
| NWE Naphtha Crack (\$/bbl)                           | 0.370            | +0.040              | +0.110              |
| MOPJ Naphtha Crack (\$/bbl)                          | 0.280            | +0.040              | +0.100              |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)                    | -0.750           | +0.000              | +0.000              |
| <b>Fuel Oil</b>                                      |                  |                     |                     |
| 3.5% barges crack (\$/bbl)                           | 0.830            | +0.280              | +0.620              |
| Singapore 380 crack (\$/bbl)                         | 0.910            | +0.160              | +0.030              |
| Singapore 180 crack (\$/bbl)                         | 0.870            | +0.160              | +0.150              |
| Visco (180-380) (\$/mt)                              | -0.250           | +0.000              | +0.750              |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)                | 0.500            | -0.750              | -3.760              |
| 0.5% barges crack (\$/bbl)                           | 0.830            | +0.040              | +0.070              |
| Singapore 0.5% crack (\$/bbl)                        | 0.990            | +0.000              | -0.680              |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)         | 1.000            | -0.250              | -4.750              |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)    | 0.000            | -1.500              | -3.500              |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)                 | 0.500            | -1.000              | -4.490              |
| 0.5% barges/gasoil (\$/mt)                           | 7.190            | +1.070              | +1.570              |
| Sing 0.5% vs Sing 10ppm (\$/mt)                      | 9.790            | +0.270              | -3.900              |
| <b>NGLs</b>  |                  |                     |                     |
| US Propane LST vs NWE Propane (\$/mt)                | -18.120          | -1.180              | -5.300              |
| US Propane LST vs Asian Propane FEI (\$/mt)          | -12.960          | -1.020              | -0.140              |
| Asian Propane FEI vs NWE Propane (\$/mt)             | -5.250           | -0.250              | -5.250              |
| Asian Propane FEI vs Saudi Propane CP (\$/mt)        | 2.250            | -0.250              | -1.250              |
| European Pronap (NWE Propane vs NWE Naphtha) (\$/mt) | 2.250            | +0.500              | +2.250              |