

# The Officials

## The Benchmark Publication

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### Brent holds onto 70s... for now



33.1%

▼ 0.9%



Harris

66.9%

▲ 0.8%



Trump

A double dump just after 15:00 BST sent Brent flat price well below \$71. Or was it a double tap? On the back of the head of course. Netanyahu could hold talks with ministers about an orderly end to the war in Lebanon. We'd be delighted to see a diplomatic resolution but remain cautiously optimistic; we've seen many headlines speculating about peace talks in the past year. Strong resistance around \$71 held firm despite the headline. But, should that break, we could see a rapid recalibration towards the 60s. There's a trapdoor. It's only a matter of time before there's too much weight on it and we fall through. Brent closed at \$71.02/bbl. The 60s are calling... The window saw BP offering Midland at \$1.80 over Dated. Eni showed up too, offering Ekofisk at Dated +\$1.75, and Mercuria came in to bid for Forties at Dated +\$0.45. Totsa took a break from its incessant bidding in Dubai, to offer a Brent at \$0.70 over Dated. Diffs are coming back up to around 33c. Brent futures front spreads are 45c, so things are finally starting to make sense again in the North Sea... for now.

US data today was disjointed. We had the weakest Job openings since 2021 at 7.44 million for September, below expectations of 7.99 million. But job quits were also the lowest since 2015 (excluding the pandemic) at only 3.07 million. CB consumer confidence printed an 11% m/m gain in October, the strongest increase since 2021. Disentangling contradictory US data is becoming more challenging. NFPs and GDP this week may offer some clarity.

Whatever poor macros show, you can always rely on the Saudis to be the optimists in the room. The Aramco CEO expects average demand of 104.5 mb/d this year, and global demand as high as 106 mb/d for Q4. Nobody is smoking anything here, what is happening is that room is smoky and nobody can do the maths properly. 🤖 He also expects 1.5 mb/d of demand growth in 2025. That's lower than OPEC's October MOMR, which forecast 1.64 mb/d growth for next year. Are the cracks between OPEC members showing? Even 1.5 mb/d growth sounds excessive. Amin Nassar went on to say at the FII conference in Riyadh that the oil market is "balanced" today. So, how does returning 1 mb/d of crude to markets in December help? Won't it just tip that balance towards oversupply? At some point it is empty words and one needs to focus on what the price is telling us. And prices are cratering.

### Summary

#### Physical and Futures

|                        |          | 29-Oct-24     | 1-Day Change  | 7-Day Change  |
|------------------------|----------|---------------|---------------|---------------|
| Brent Dec (fut)        | (\$/bbl) | 71.020        | -0.950        | -4.920        |
| WTI Dec (fut)          | (\$/bbl) | 67.030        | -0.760        | -4.740        |
| Dubai Dec (phys)       | (\$/bbl) | 70.120        | -1.460        | -5.420        |
| <b>OBI Continuous</b>  | (\$/bbl) | <b>71.020</b> | <b>-0.950</b> | <b>-4.920</b> |
| <b>Crude Swaps Oct</b> |          |               |               |               |
| Brent                  | (\$/bbl) | 70.500        | -1.020        | -5.030        |
| DFL                    | (\$/bbl) | 0.490         | +0.140        | +0.330        |
| WTI                    | (\$/bbl) | 66.890        | -0.810        | -4.730        |
| Dubai                  | (\$/bbl) | 69.510        | -0.870        | -4.750        |

#### Tenor

|                      |          | Dec-24 | Jan-25 | Feb-25 |
|----------------------|----------|--------|--------|--------|
| <b>Crude Futures</b> |          |        |        |        |
| Brent (fut)          | (\$/bbl) | 71.020 | 70.570 | 70.220 |
| WTI (fut)            | (\$/bbl) | 67.030 | 66.620 | 66.290 |

Contact us:  
theofficials@onyxcapitaladvisory.com  
Tel: +44 203 981 2790



## In detail

After the anticlimactic air strikes by Israel on Iran on the weekend, rumours Israeli ministers would meet to discuss potential contacts for ceasefire talks in Lebanon eviscerated the scraps of geopolitical premium in the price. Brent closed at \$71.02/bbl, \$0.95/bbl down on the day. So, it clung on to the \$71 handle by the skin of its teeth but looks very fragile. WTI also dropped, down \$0.76/bbl to \$67.03/bbl.

Canada's Trans Mountain said it will shut the 240 kb/d Puget Sound Pipeline for a week in mid-November for planned maintenance. This will disrupt the export of crude to the US West Coast and out into the world, primarily China. While much of the crude passing through the TMX pipeline has been travelling to Asia, lighter grades have also been picked up by the US. According to the EIA's latest report, US imports from Canada climbed to just over 152 kb/d in July, an all-time high. That's 19% higher than last July. US imports from Canada has grown y/y every month so far this year. The Canadians are sending thicker fluids south than maple syrup.

Even further south, there's bad news for Petrobras. Its Q3 Brazilian crude and NGL output fell 8.2% y/y, down to 2.13 mb/d. Total sales of oil products were also down, 2.7% lower y/y. The IEA and other forecasting agencies expect Brazil to be a key driver of global crude production, alongside Guyana and the US, so this looks like an unexpected hurdle on the road. And crude producers aren't the only ones with cashflow problems.

Lufthansa published its quarterly results, showing its own cashflow problems. The airline reported an 8% decline in profits from Q3 2023. Although a poor result, it's nowhere near as bad as the first 9 months of 2024 overall, which showed a 48% reduction in profits y/y. Air travel demand, however, seems robust. The number of flights operated by Lufthansa rose by 3% and total passengers rose 6% y/y in Q3. The NWE jet crack has recovered from its September lows of under \$15/bbl to around \$18/bbl today.

Europe doesn't look set for a recovery anytime soon. A quick update on Germany's stalled auto industry: Audi will close its Brussels production plant due to weak performance and high logistical costs. The factory only produces one model, an electric SUV and sales are paltry. Consumer demand is just not there. One key indicator for the health of consumer demand is cardboard production. As many consumer goods are packed in cardboard boxes, German cardboard production almost 25% lower than it was in 2021 makes consumer demand look rough. This is not just important for the broader macro narrative, it's a key indicator for freight and therefore diesel demand. European diesel cracks remain very weak at around \$15.33/bbl, nearly halved from where it was a year ago.

For all of us number nerds, we have a very exciting week of US economic data! We start with the Q3 GDP advance estimate tomorrow and Non-Farm Payrolls on Friday. Buckle your seat belts, folks! The US yield curve has continued upwards with a bear steepener this month, despite the outsized easing from the Fed, but what is driving this? Inflation? Growth expectations? Debt serviceability? Many are pointing to the so-called "Trump hedge" - sell treasuries and buy gold. But interestingly, inflation-linked fixed income instruments like 5 year breakevens barely moved this month, despite rising nominal yields. The true driver has been rising real yields, implying improving US growth expectations. Markets are positioning for stronger aggregate output despite the growing probability of a Trump presidency and the tariffs that could ensue. But for now, the growth outlook in the world's largest oil consumer seems intact.

With the advanced estimate of Q3 GDP rolling off the press tomorrow and, Friday's crucial job report, markets are waiting with bated breath. Market consensus is 3% for Q3 GDP, and 123k jobs added in October for NFPs, seeing the unemployment rate unchanged at 4.1%. The upside potential is big here. Retail sales, payrolls and PMIs all printed hotter recently. Just today we got the first m/m fall in wholesale inventories since March, perhaps indicating that the demand outlook is brightening. The Redbook index, tracking y/y same-store sales growth increased 5.6% in the week ending 26 October. The US economy looks more resilient than many thought. So don't rule out a stronger job report and GDP. And keep your gold position on!

Jorge Montepeque:

Managing Director for  
Benchmarking

[jmontepeque@onyxcapitalgroup.com](mailto:jmontepeque@onyxcapitalgroup.com)

Will Cunliffe:

Research Analyst

[wcunliffe@onyxcapitaladvisory.com](mailto:wcunliffe@onyxcapitaladvisory.com)

Ed Hayden-Briffett:

Research Analyst

[ehayden-briffett@onyxcapitaladvisory.com](mailto:ehayden-briffett@onyxcapitaladvisory.com)

Contact us:

[theofficials@onyxcapitaladvisory.com](mailto:theofficials@onyxcapitaladvisory.com)

Tel: +44 203 981 2790



| <b>Front Month Outrights</b> |          |  |                  |                     |                     |
|------------------------------|----------|--|------------------|---------------------|---------------------|
| <b>November Swaps</b>        |          |  | <b>29-Oct-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>                 |          |  |                  |                     |                     |
| Brent                        | (\$/bbl) |  | <b>70.500</b>    | -1.020              | -5.030              |
| WTI                          | (\$/bbl) |  | <b>66.890</b>    | -0.810              | -4.730              |
| Dubai                        | (\$/bbl) |  | <b>69.510</b>    | -0.870              | -4.750              |
| <b>Distillates</b>           |          |  |                  |                     |                     |
| Gasoil 0.1 NWE               | (\$/mt)  |  | <b>637.080</b>   | -7.590              | -36.500             |
| NWE Jet                      | (\$/mt)  |  | <b>695.830</b>   | -11.340             | -24.170             |
| Singapore 10ppm              | (\$/bbl) |  | <b>83.970</b>    | -0.780              | -3.610              |
| Sing Kero                    | (\$/bbl) |  | <b>85.270</b>    | -1.530              | -2.710              |
| <b>Gasoline</b>              |          |  |                  |                     |                     |
| RBOB                         | (c/gal)  |  | <b>190.990</b>   | -2.760              | -12.350             |
| EBOB                         | (\$/mt)  |  | <b>645.630</b>   | -8.430              | -49.860             |
| Singapore 92                 | (\$/bbl) |  | <b>74.760</b>    | -0.460              | -5.480              |
| Singapore 95                 | (\$/bbl) |  | <b>79.610</b>    | -0.460              | -5.630              |
| <b>Naphtha</b>               |          |  |                  |                     |                     |
| US C5 ENT                    | (c/gal)  |  | <b>143.550</b>   | -1.960              | -7.550              |
| NWE Naphtha                  | (\$/mt)  |  | <b>618.820</b>   | -7.030              | -28.300             |
| MOPJ Naphtha                 | (\$/mt)  |  | <b>638.050</b>   | -7.800              | -31.570             |
| <b>Fuel Oil</b>              |          |  |                  |                     |                     |
| 3.5% barges                  | (\$/mt)  |  | <b>429.890</b>   | -3.940              | -28.520             |
| Singapore 380                | (\$/mt)  |  | <b>430.890</b>   | -2.940              | -19.520             |
| Singapore 180                | (\$/mt)  |  | <b>445.390</b>   | -2.190              | -19.200             |
| 0.5% barges                  | (\$/mt)  |  | <b>480.060</b>   | -3.940              | -37.340             |
| Singapore 0.5%               | (\$/mt)  |  | <b>538.350</b>   | +1.650              | -30.420             |
| <b>NGLs</b>                  |          |  |                  |                     |                     |
| US Propane LST               | (c/gal)  |  | <b>78.159</b>    | +1.139              | +3.194              |
| NWE Propane                  | (\$/mt)  |  | <b>574.710</b>   | -1.560              | -12.650             |
| Saudi Propane CP             | (\$/mt)  |  | <b>618.210</b>   | +0.440              | -8.400              |
| Asian Propane FEI            | (\$/mt)  |  | <b>630.710</b>   | -5.560              | -22.900             |
| US Butane ENT                | (c/gal)  |  | <b>108.540</b>   | +0.020              | +2.570              |
| Saudi Butane CP              | (\$/mt)  |  | <b>615.210</b>   | +2.440              | -5.400              |



## Long Tenor Swaps

|                    |          | Balmo   | Nov-24  | Dec-24  | Jan-25  | Feb-25  | Q1-25   | Q2-25   |
|--------------------|----------|---------|---------|---------|---------|---------|---------|---------|
| <b>Crude</b>       |          |         |         |         |         |         |         |         |
| Brent              | (\$/bbl) | 70.830  | 70.500  | 70.160  | 69.970  | 69.860  | 69.877  | 69.673  |
| WTI                | (\$/bbl) | 67.000  | 66.890  | 66.490  | 66.170  | 65.990  | 66.010  | 65.667  |
| Dubai              | (\$/bbl) | 70.310  | 69.510  | 69.340  | 68.890  | 68.730  | 68.753  | 68.490  |
| <b>Distillates</b> |          |         |         |         |         |         |         |         |
| Gasoil 0.1 NWE     | (\$/mt)  | 636.250 | 637.080 | 637.960 | 639.340 | 640.310 | 639.967 | 640.283 |
| NWE Jet            | (\$/mt)  | 695.250 | 695.830 | 694.960 | 692.590 | 693.560 | 693.217 | 693.200 |
| Singapore 10ppm    | (\$/bbl) | 84.600  | 83.970  | 83.350  | 83.080  | 83.180  | 83.150  | 83.540  |
| Sing Kero          | (\$/bbl) | 86.220  | 85.270  | 84.440  | 83.740  | 83.470  | 83.460  | 83.187  |
| <b>Gasoline</b>    |          |         |         |         |         |         |         |         |
| RBOB               | (c/gal)  | 194.110 | 190.990 | 189.120 | 189.690 | 191.550 | 196.830 | 208.103 |
| EBOB               | (\$/mt)  | 653.460 | 645.630 | 632.380 | 630.710 | 633.210 | 634.127 | 675.543 |
| Singapore 92       | (\$/bbl) | 75.240  | 74.760  | 74.940  | 75.020  | 75.230  | 75.240  | 75.193  |
| Singapore 95       | (\$/bbl) | 78.890  | 79.610  | 79.070  | 78.840  | 79.000  | 79.053  | 78.967  |
| <b>Naphtha</b>     |          |         |         |         |         |         |         |         |
| US C5 ENT          | (c/gal)  | 143.800 | 143.550 | 143.240 | 143.990 | 143.610 | 143.320 | 138.753 |
| NWE Naphtha        | (\$/mt)  | 625.070 | 618.820 | 610.820 | 604.550 | 598.820 | 598.807 | 583.890 |
| MOP-Japan Naphtha  | (\$/mt)  | 642.050 | 638.050 | 631.800 | 625.300 | 618.800 | 618.967 | 602.557 |
| <b>Fuel Oil</b>    |          |         |         |         |         |         |         |         |
| 3.5% barges        | (\$/mt)  | 453.090 | 429.890 | 404.140 | 394.390 | 389.140 | 390.473 | 385.040 |
| Singapore 380      | (\$/mt)  | 438.890 | 430.890 | 412.840 | 402.640 | 397.590 | 398.940 | 393.690 |
| Singapore 180      | (\$/mt)  | 452.590 | 445.390 | 424.340 | 413.640 | 408.390 | 409.957 | 405.307 |
| 0.5% barges        | (\$/mt)  | 489.750 | 480.060 | 473.310 | 468.810 | 465.250 | 465.540 | 458.373 |
| Singapore 0.5%     | (\$/mt)  | 546.410 | 538.350 | 524.410 | 515.660 | 510.160 | 510.660 | 499.410 |
| <b>NGLs</b>        |          |         |         |         |         |         |         |         |
| US Propane LST     | (c/gal)  | 67.659  | 78.159  | 78.659  | 79.034  | 78.409  | 77.748  | 72.117  |
| NWE Propane        | (\$/mt)  | 583.710 | 574.710 | 563.210 | 548.710 | 534.210 | 531.573 | 479.907 |
| Saudi Propane CP   | (\$/mt)  | 618.210 | 618.210 | 610.300 | 603.210 | 595.800 | 592.770 | 532.877 |
| Asian Propane FEI  | (\$/mt)  | 633.300 | 630.710 | 627.300 | 619.710 | 606.710 | 603.407 | 550.210 |
| US Butane ENT      | (c/gal)  | 112.540 | 108.540 | 105.420 | 103.320 | 100.800 | 99.557  | 88.543  |
| Saudi Butane CP    | (\$/mt)  | 615.210 | 615.210 | 606.300 | 602.710 | 594.800 | 591.073 | 535.270 |



| <b>Front Month Spreads</b> |          |                  |                     |                     |
|----------------------------|----------|------------------|---------------------|---------------------|
| <b>Nov/Dec</b>             |          | <b>29-Oct-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>               |          |                  |                     |                     |
| Brent                      | (\$/bbl) | 0.340            | -0.010              | -0.090              |
| WTI                        | (\$/bbl) | 0.400            | +0.010              | -0.050              |
| Dubai                      | (\$/bbl) | 0.170            | -0.010              | -0.170              |
| <b>Distillates</b>         |          |                  |                     |                     |
| Gasoil 0.1 NWE             | (\$/mt)  | -0.880           | -0.030              | -0.810              |
| NWE Jet                    | (\$/mt)  | 0.870            | -0.780              | +3.770              |
| Singapore 10ppm            | (\$/bbl) | 0.620            | +0.040              | +0.240              |
| Sing Kero                  | (\$/bbl) | 0.830            | -0.500              | +0.480              |
| <b>Gasoline</b>            |          |                  |                     |                     |
| RBOB                       | (c/gal)  | 1.870            | -0.270              | -0.010              |
| EBOB                       | (\$/mt)  | 13.250           | -0.500              | -7.000              |
| Singapore 92               | (\$/bbl) | -0.180           | +0.190              | -0.360              |
| Singapore 95               | (\$/bbl) | 0.540            | +0.210              | -0.290              |
| <b>Naphtha</b>             |          |                  |                     |                     |
| US C5 ENT                  | (c/gal)  | 0.310            | -0.070              | +0.310              |
| NWE Naphtha                | (\$/mt)  | 8.000            | +1.250              | +3.500              |
| MOP-Japan Naphtha          | (\$/mt)  | 6.250            | +0.750              | +1.000              |
| <b>Fuel Oil</b>            |          |                  |                     |                     |
| 3.5% barges                | (\$/mt)  | 25.750           | +1.000              | +0.750              |
| Singapore 380              | (\$/mt)  | 18.050           | +1.300              | +6.300              |
| Singapore 180              | (\$/mt)  | 21.050           | +1.800              | +5.300              |
| 0.5% barges                | (\$/mt)  | 6.750            | -0.250              | -3.750              |
| Singapore 0.5%             | (\$/mt)  | 13.940           | +2.940              | +1.690              |
| <b>NGLs</b>                |          |                  |                     |                     |
| US Propane LST             | (c/gal)  | -0.500           | +0.250              | +1.000              |
| NWE Propane                | (\$/mt)  | 11.500           | -0.500              | +1.500              |
| Saudi Propane CP           | (\$/mt)  | 7.910            | +3.910              | +4.910              |
| Asian Propane FEI          | (\$/mt)  | 3.410            | -0.590              | -0.840              |
| US Butane ENT              | (c/gal)  | 3.120            | +0.370              | +1.500              |
| Saudi Butane CP            | (\$/mt)  | 8.910            | +5.910              | +2.910              |



| <b>Front Month Cracks and Diffs</b>                  |                  |                     |                     |
|--|------------------|---------------------|---------------------|
| <b>November</b>                                      | <b>29-Oct-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>   |                  |                     |                     |
| Brent/Dubai (\$/bbl)                                 | 1.020            | -0.120              | -0.240              |
| WTI/Brent (\$/bbl)                                   | -3.630           | +0.200              | +0.280              |
| <b>Distillates</b>                                   |                  |                     |                     |
| Gasoil 0.1 NWE crack (\$/bbl)                        | 14.970           | -0.050              | +0.100              |
| NWE Jet crack (\$/bbl)                               | 17.760           | -0.470              | +1.980              |
| NWE Jet Diff (\$/mt)                                 | 58.750           | -3.750              | +12.750             |
| Gasoil E/W (\$/bbl)                                  | -11.500          | +1.750              | +9.500              |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)           | 1.300            | -0.750              | +0.900              |
| <b>Gasoline</b>                                      |                  |                     |                     |
| TA Arb (RBOB vs EBOB) (c/gal)                        | 6.500            | -0.300              | +1.950              |
| EBOB crack (\$/bbl)                                  | 6.980            | -0.060              | -0.970              |
| Singapore 92 crack (\$/bbl)                          | 4.230            | +0.490              | -0.470              |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)              | -2.750           | +0.550              | +0.500              |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)           | 26.840           | -1.710              | -21.490             |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)              | -15.550          | +2.930              | -14.330             |
| <b>Naphtha</b>                                       |                  |                     |                     |
| US C5 ENT vs WTI Crack                               | -6.580           | -0.010              | +1.600              |
| NWE Naphtha Crack (\$/bbl)                           | -1.000           | +0.200              | +1.830              |
| MOPJ Naphtha Crack (\$/bbl)                          | 1.190            | +0.190              | +1.490              |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)                    | 19.500           | -0.500              | -3.000              |
| <b>Fuel Oil</b>                                      |                  |                     |                     |
| 3.5% barges crack (\$/bbl)                           | -2.800           | +0.400              | +0.550              |
| Singapore 380 crack (\$/bbl)                         | -2.640           | +0.560              | +1.970              |
| Singapore 180 crack (\$/bbl)                         | -0.360           | +0.680              | +2.010              |
| Visco (180-380) (\$/mt)                              | 14.500           | +0.750              | +0.250              |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)                | 1.000            | +1.000              | +9.000              |
| 0.5% barges crack (\$/bbl)                           | 5.100            | +0.400              | -0.850              |
| Singapore 0.5% crack (\$/bbl)                        | 14.250           | +1.250              | +0.200              |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)         | 58.100           | +5.400              | +6.660              |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)    | 50.170           | +0.000              | -8.880              |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)                 | 107.270          | +4.400              | -11.220             |
| 0.5% barges/gasoil (\$/mt)                           | -156.690         | +4.110              | -0.510              |
| Sing 0.5% vs Sing 10ppm (\$/mt)                      | -87.250          | +7.570              | -3.530              |
| <b>NGLs</b>  |                  |                     |                     |
| US Propane LST vs NWE Propane (\$/mt)                | -167.500         | +7.500              | +29.250             |
| US Propane LST vs Asian Propane FEI (\$/mt)          | -223.540         | +11.460             | +39.460             |
| Asian Propane FEI vs NWE Propane (\$/mt)             | 56.000           | -4.000              | -10.250             |
| Asian Propane FEI vs Saudi Propane CP (\$/mt)        | 12.500           | -6.000              | -14.500             |
| European Pronap (NWE Propane vs NWE Naphtha) (\$/mt) | -43.840          | +5.690              | +15.780             |
| Asian Pronap (FEI vs MOPJ) (\$/mt)                   | -19.840          | +8.280              | +23.030             |





| <b>Long Tenor Cracks / Diffs</b>              |          |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|
|   | Balmo    | Nov-24   | Dec-24   | Jan-25   | Feb-25   | Q1-25    | Q2-25    |
| <b>Crude</b>                                  |          |          |          |          |          |          |          |
| Brent/Dubai (\$/bbl)                          | 0.550    | 1.020    | 0.840    | 1.070    | 1.140    | 1.120    | 1.187    |
| WTI/Brent (\$/bbl)                            | -3.840   | -3.630   | -3.690   | -3.790   | -3.870   | -3.863   | -4.000   |
| <b>Distillates</b>                            |          |          |          |          |          |          |          |
| Gasoil 0.1 NWE crack (\$/bbl)                 | 14.52    | 14.97    | 15.43    | 15.81    | 16.05    | 16.00    | 16.26    |
| NWE Jet crack (\$/bbl)                        | 17.35    | 17.76    | 17.99    | 17.87    | 18.12    | 18.06    | 18.29    |
| NWE Jet Diff (\$/mt)                          | 59.00    | 58.75    | 57.00    | 53.25    | 53.25    | 53.25    | 53.00    |
| Gasoil E/W (\$/bbl)                           | -6.10    | -11.50   | -17.18   | -20.18   | -20.55   | -20.41   | -17.82   |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)    | 1.62     | 1.30     | 1.09     | 0.66     | 0.28     | 0.31     | -0.32    |
| <b>Gasoline</b>                               |          |          |          |          |          |          |          |
| TA Arb (RBOB vs EBOB) (c/gal)                 | 7.310    | 6.500    | 8.390    | 9.390    | 10.520   | 15.553   | 15.000   |
| EBOB crack (\$/bbl)                           | 7.610    | 6.980    | 5.740    | 5.740    | 6.130    | 6.243    | 11.423   |
| Singapore 92 crack (\$/bbl)                   | 4.400    | 4.230    | 4.750    | 5.040    | 5.370    | 5.363    | 5.513    |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)       | -3.210   | -2.750   | -0.980   | -0.700   | -0.790   | -0.890   | -5.913   |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)    | 28.590   | 26.840   | 21.590   | 26.090   | 34.590   | 35.340   | 91.673   |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)       | -15.380  | -15.550  | -7.800   | -0.470   | 7.780    | 7.697    | 23.757   |
| <b>Naphtha</b>                                |          |          |          |          |          |          |          |
| US C5 ENT vs WTI Crack                        | -6.590   | -6.580   | -6.340   | -5.720   | -5.700   | -5.840   | -7.397   |
| NWE Naphtha Crack (\$/bbl)                    | -0.630   | -1.000   | -1.560   | -2.030   | -2.610   | -2.597   | -4.070   |
| MOPJ Naphtha Crack (\$/bbl)                   | 1.310    | 1.190    | 0.830    | 0.300    | -0.330   | -0.320   | -1.970   |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)             | 17.250   | 19.500   | 21.250   | 20.750   | 20.250   | 20.250   | 18.667   |
| <b>Fuel Oil</b>                               |          |          |          |          |          |          |          |
| 3.5% bgs crack (\$/bbl)                       | 0.490    | -2.800   | -6.520   | -7.850   | -8.580   | -8.373   | -9.037   |
| Singapore 380 crack (\$/bbl)                  | -1.710   | -2.640   | -5.180   | -6.550   | -7.280   | -7.063   | -7.683   |
| Singapore 180 crack (\$/bbl)                  | 0.410    | -0.360   | -3.370   | -4.820   | -5.550   | -5.317   | -5.833   |
| Visco (180-380) (\$/mt)                       | 13.500   | 14.500   | 11.500   | 11.000   | 11.000   | 11.083   | 11.750   |
| HSFO E/W (380 vs 3.5% bgs) (\$/mt)            | -14.000  | 1.000    | 8.500    | 8.250    | 8.250    | 8.333    | 8.583    |
| 0.5% bgs crack (\$/bbl)                       | 6.270    | 5.100    | 4.380    | 3.870    | 3.380    | 3.437    | 2.517    |
| Singapore 0.5% crack (\$/bbl)                 | 15.220   | 14.250   | 12.420   | 11.250   | 10.490   | 10.557   | 8.983    |
| VLSFO E/W (Sing 0.5% vs 0.5% bgs) (\$/mt)     | 56.850   | 58.100   | 51.100   | 46.850   | 45.100   | 45.183   | 41.100   |
| European Hi5 (0.5% bgs vs 3.5% bgs) (\$/mt)   | 36.670   | 50.170   | 69.170   | 74.420   | 75.920   | 75.003   | 73.337   |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)          | 107.520  | 107.270  | 111.770  | 113.020  | 112.770  | 111.853  | 105.853  |
| 0.5% bgs/gasoil (\$/mt)                       | -146.250 | -156.690 | -164.310 | -170.290 | -174.990 | -174.287 | -181.783 |
| Sing 0.5% vs Sing 10ppm (\$/mt)               | -83.560  | -87.250  | -96.310  | -103.570 | -108.990 | -108.790 | -122.723 |
| <b>NGLs</b>                                   |          |          |          |          |          |          |          |
| US Propane LST vs NWE Propane (\$/mt)         | -231.2   | -167.5   | -153.39  | -136.94  | -125.7   | -126.503 | -104.143 |
| US Propane LST vs Asian Propane FEI (\$/mt)   | -280.75  | -223.54  | -217.44  | -207.98  | -198.24  | -198.377 | -174.517 |
| Asian Propane FEI vs NWE Propane (\$/mt)      | 49.5     | 56       | 64       | 71       | 72.5     | 71.833   | 70.333   |
| Asian Propane FEI vs Saudi Propane CP (\$/mt) | 15       | 12.5     | 17       | 16.5     | 11       | 10.667   | 17.333   |
| European Pronap (\$/mt)                       | -41.14   | -43.84   | -47.39   | -55.89   | -64.34   | -67.19   | -103.983 |
| Asian Pronap (FEI vs MOPJ) (\$/mt)            | -23.93   | -19.84   | -21.55   | -22.05   | -23.09   | -26.23   | -69.563  |



| <b>Inter-month Crack Spreads</b>                     |                  |                     |                     |
|--|------------------|---------------------|---------------------|
| <b>Nov/Dec</b>                                       | <b>29-Oct-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>   |                  |                     |                     |
| Brent/Dubai (\$/bbl)                                 | 0.180            | +0.000              | +0.090              |
| WTI/Brent (\$/bbl)                                   | 0.060            | +0.030              | +0.040              |
| <b>Distillates</b>                                   |                  |                     |                     |
| Gasoil 0.1 NWE crack (\$/bbl)                        | -0.460           | +0.010              | -0.020              |
| NWE Jet crack (\$/bbl)                               | -0.230           | -0.100              | +0.590              |
| NWE Jet Diff (\$/mt)                                 | 1.750            | -0.750              | +4.750              |
| Gasoil E/W (\$/bbl)                                  | 5.680            | +0.480              | +2.830              |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)           | 0.210            | -0.540              | +0.240              |
| <b>Gasoline</b>                                      |                  |                     |                     |
| TA Arb (RBOB vs EBOB) (c/gal)                        | -1.890           | -0.220              | +2.030              |
| EBOB crack (\$/bbl)                                  | 1.240            | -0.050              | -0.750              |
| Singapore 92 crack (\$/bbl)                          | -0.520           | +0.210              | -0.260              |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)              | -1.770           | +0.250              | +0.480              |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)           | 5.250            | -1.750              | -10.500             |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)              | -7.750           | +0.380              | -4.000              |
| <b>Naphtha</b>                                       |                  |                     |                     |
| US C5 ENT vs WTI Crack                               | -0.240           | -0.070              | +0.230              |
| NWE Naphtha Crack (\$/bbl)                           | 0.560            | +0.100              | +0.480              |
| MOPJ Naphtha Crack (\$/bbl)                          | 0.360            | +0.090              | +0.210              |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)                    | -1.750           | -0.500              | -2.500              |
| <b>Fuel Oil</b>                                      |                  |                     |                     |
| 3.5% barges crack (\$/bbl)                           | 3.720            | +0.170              | +0.210              |
| Singapore 380 crack (\$/bbl)                         | 2.540            | +0.250              | +1.130              |
| Singapore 180 crack (\$/bbl)                         | 3.010            | +0.330              | +0.970              |
| Visco (180-380) (\$/mt)                              | 3.000            | +0.500              | -1.000              |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)                | -7.500           | +0.500              | +5.750              |
| 0.5% barges crack (\$/bbl)                           | 0.720            | -0.030              | -0.490              |
| Singapore 0.5% crack (\$/bbl)                        | 1.830            | +0.450              | +0.340              |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)         | 7.000            | +3.000              | +5.250              |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)    | -19.000          | -1.250              | -4.500              |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)                 | -4.500           | +1.250              | -5.000              |
| 0.5% barges/gasoil (\$/mt)                           | 7.620            | -0.080              | -3.010              |
| Sing 0.5% vs Sing 10ppm (\$/mt)                      | 9.060            | +2.380              | -0.350              |
| <b>NGLs</b>  |                  |                     |                     |
| US Propane LST vs NWE Propane (\$/mt)                | -14.110          | +1.800              | +3.710              |
| US Propane LST vs Asian Propane FEI (\$/mt)          | -6.100           | +1.810              | +5.970              |
| Asian Propane FEI vs NWE Propane (\$/mt)             | -8.000           | +0.000              | -2.250              |
| Asian Propane FEI vs Saudi Propane CP (\$/mt)        | -4.500           | -4.500              | -5.750              |
| European Pronap (NWE Propane vs NWE Naphtha) (\$/mt) | 3.550            | -1.700              | -1.950              |