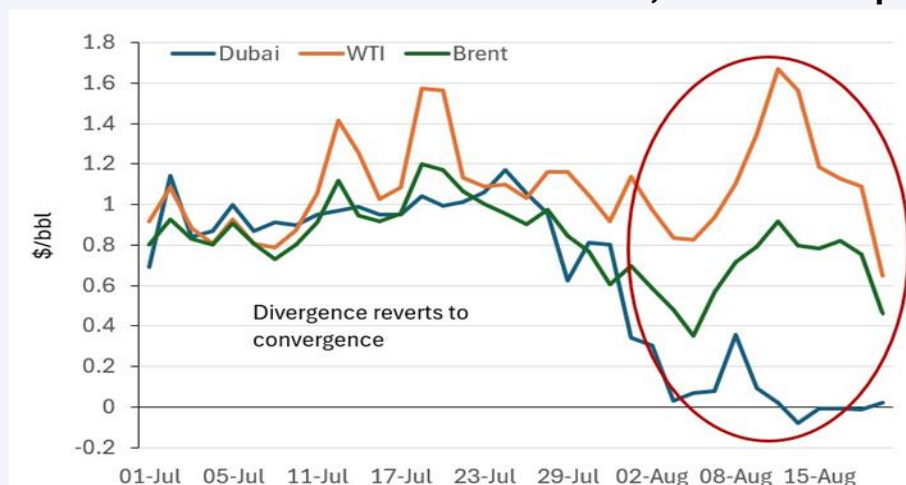




Asia Edition (09:30 BST)

20-August-2024, Volume 1, Issue 55 (Asia)

### West falls, East holds up



It was the night of the long knives for the oil markets, everything sold off. On a flat price basis, heating oil fell to April lows, gasoil fell to March lows, gasoline the weakest since February. The Brent month 1 321 crack has fallen to its lowest level since November 2021. WTI and Brent both shed about 2.5% since the close of Asia. In structures, the picture was just as dire. Front spreads in Brent came in by almost 30c, WTI spreads dumped 44c. Dubai, which has been flat since 8 August also remained clinging on to only 2c of backwardation after a marginal strengthening, with thanks to Vitol. Vitol and Gunvor were back buying lots of partials. Vitol seems to be setting the floor in Dubai, locking in physical premia at 79c. Brent and WTI now look set to fall in line. Yesterday we discussed the divergence between spreads across grades. Markets move remarkably fast, and the convergence now seems to have begun.

The one bright spot has been Sing 0.5, which has seen its strongest pricing since March. Exports to China surged nearly 56% in the week ending August 14, reaching 99,970 metric tons, while shipments to Bangladesh increased by 22% to approximately 36,730 metric tons during the same period, according to Singapore export data. Inventories have been squeezed to say the least. Nevertheless, many analysts were confused: one said, "There's no rhyme or reason to it." Onyx COT data had previously highlighted that Sing 0.5 cracks were in a prime position for a strong move to the upside. We saw that today.

Some point to the erosion of geopolitical risk premia. Indeed, Blinken indicates positive progress in Israel-Hamas peace talks, that Israel has accepted a "bridging proposal" although Hamas wasn't even present at the talks. But haven't we been here before, was there any risk premia to begin with, is this just technical fluff coming off in the wash? Let us know, with the emails overleaf.

| Physical and Futures |          | 20-Aug-24 | 1-Day Change | 7-Day Change |
|----------------------|----------|-----------|--------------|--------------|
| Brent Oct (fut)      | (\$/bbl) | 76.590    | -2.570       | -5.250       |
| WTI Oct (fut)        | (\$/bbl) | 72.590    | -2.400       | -5.370       |
| Dubai Oct (phys)     | (\$/bbl) | 75.680    | -2.130       | -4.310       |
| Crude Swaps Sep      |          |           |              |              |
| Brent                | (\$/bbl) | 76.110    | -2.270       | -4.800       |
| DFL                  | (\$/bbl) | 0.340     | -0.350       | -0.450       |
| WTI                  | (\$/bbl) | 72.410    | -2.340       | -5.230       |
| Dubai                | (\$/bbl) | 75.660    | -2.170       | -4.310       |
| Tenor                |          | Oct-24    | Nov-24       | Dec-24       |
| Crude Futures        |          |           |              |              |
| Brent (fut)          | (\$/bbl) | 76.590    | 76.130       | 75.755       |
| WTI (fut)            | (\$/bbl) | 72.590    | 71.990       | 71.535       |



## In detail

Brent, WTI and Dubai blasted through key support levels yesterday all shedding over 2 bucks since Monday's close. Oct Brent Futures closed the window at \$76.59/bbl shedding \$2.57/bbl. Oct WTI Futures also shed \$2.40/bbl to close the window at \$72.59/bbl. Dubai physical for October also fell over two bucks to \$75.68/bbl, but Vitol kept a lid on further weakening in Dubai physical premium, which remained supported at 79c. Physical Dubai's premium over September swaps was also supported at 2c of backwardation, a marginal strengthening relative to yesterday, really. The poor demand signals are taking their toll on oil markets.

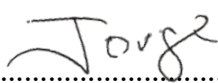
China's glowing green. Or at least it will be if the radiation from its 10 newly approved nuclear reactors starts leaking. These are primarily 'Hualong One' reactors intended to reduce the country's reliance on fossil fuels and mitigate its emissions. Investment bank Citic Securities noted that the rapid 10-reactor-per-year approval rate is likely to be continued throughout the next three to five years – maybe a good headline for the ragged Chinese construction industry at last? Of these 10 reactors, 6 are assigned to CGN Power Co, 3 to China National Nuclear Corp, and they've thrown the scraps to State Power Investment Corp, which only gets one.

They're really ramping up from the Five-Year Plan set out from 2016 which set out to build 6-8 new reactors per year. There were 26 Chinese reactors under construction as of the start of the year, so China is going bonkers for its nuclear sector. Those 26 reactors are expected to produce 30GW of energy and Bloomberg NEF projects that China will blaze past France and the US on the league table of top nuclear energy producers by 2030.

Apparently, China hasn't fully abandoned the goopy black stuff after all, it's seemingly looking to diversify supply chains. China is importing more crude oil from Malaysia, reaching 1.47 mb/d. Given that Petronas assesses that Malaysia produces around 500 kb/d, we have to wonder where on earth all that extra could come from... Well, do we all know how it works, Venezuela, Iran any other undesirables? How they could export almost three times their production volume to a single destination is really beyond us. Unless of course, they've been passing on cargoes from sanctioned origins like Iran or Venezuela as a means of circumventing the Western sanctions, but that would be very naughty and we're sure everyone plays by the rules 😏

Unlike new BFFs China and Malaysia, the India-Russia-Ukraine dynamic is less Romeo and Juliet, more uncomfortable love triangle with one clearly less valued member who's desperately trying to be the favourite. India's trade relations with Russia are much more significant and valuable to the country than its relations with Ukraine. With the latter, India had a \$3.3 billion bilateral trade value, according to the country's own foreign ministry, and the Observatory of Economic Complexity measured that India exported \$743 million to Ukraine in 2022. Crucially, in 1H 2024, India exported \$67.3 million of refined oil products to the Ukrainians. To be fair, they've done the best they can to repay this with their own oil... vegetable oil, products of which made up \$291.5 million of Ukraine's exports to the second most populous country in the first half of this year.


Modi certainly seems to be trying to string both his BFFs, or perhaps even love interests, along and play the field by pitting them against one another rather than committing to a reciprocal relationship with either one. He even keeps telling them to sort out their differences between themselves, promoting peace and love to resolve imperialism and cruise missiles. He knows that Putin can't afford to lose his number 2 destination for crude oil exports and that Zelensky needs all the help he can get, so he's squeezing both for all they're worth. Tanmaya Lal, secretary of the Indian foreign ministry, denies the love triangle dynamic, asserting that these are "independent, broad ties." Maybe Modi will give Zelensky a hearty hug, definitely not a cuddle, or maybe treat him somewhat aloof to keep him keen.

Jorge Montepeque: 

Managing Director for Benchmarking  
jmontepeque@onyxcapitalgroup.com

Harinder Sandhu: 

Quantitative Research Analyst  
hsandhu@onyxcapitaladvisory.com

Will Cunliffe: 

Research Analyst  
wcunliffe@onyxcapitaladvisory.com



| <b>Front Month Outrights</b> |          |  |                  |                     |                     |
|------------------------------|----------|--|------------------|---------------------|---------------------|
| <b>September Swaps</b>       |          |  | <b>20-Aug-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>                 |          |  |                  |                     |                     |
| Brent                        | (\$/bbl) |  | <b>76.110</b>    | -2.270              | -4.800              |
| WTI                          | (\$/bbl) |  | <b>72.410</b>    | -2.340              | -5.230              |
| Dubai                        | (\$/bbl) |  | <b>75.660</b>    | -2.170              | -4.310              |
| <b>Distillates</b>           |          |  |                  |                     |                     |
| Gasoil 0.1 NWE               | (\$/mt)  |  | <b>689.760</b>   | -22.850             | -52.790             |
| NWE Jet                      | (\$/mt)  |  | <b>731.760</b>   | -22.350             | -55.790             |
| Singapore 10ppm              | (\$/bbl) |  | <b>89.700</b>    | -2.900              | -6.380              |
| Sing Kero                    | (\$/bbl) |  | <b>89.120</b>    | -2.730              | -6.030              |
| <b>Gasoline</b>              |          |  |                  |                     |                     |
| RBOB                         | (c/gal)  |  | <b>206.540</b>   | -6.530              | -18.040             |
| EBOB                         | (\$/mt)  |  | <b>735.510</b>   | -23.580             | -64.900             |
| Singapore 92                 | (\$/bbl) |  | <b>82.300</b>    | -2.330              | -5.500              |
| Singapore 95                 | (\$/bbl) |  | <b>86.300</b>    | -2.330              | -5.610              |
| <b>Naphtha</b>               |          |  |                  |                     |                     |
| US C5 ENT                    | (c/gal)  |  | <b>146.640</b>   | -2.670              | -7.090              |
| NWE Naphtha                  | (\$/mt)  |  | <b>633.860</b>   | -9.880              | -28.660             |
| MOPJ Naphtha                 | (\$/mt)  |  | <b>653.860</b>   | -9.630              | -27.160             |
| <b>Fuel Oil</b>              |          |  |                  |                     |                     |
| 3.5% barges                  | (\$/mt)  |  | <b>424.940</b>   | -12.770             | -23.940             |
| Singapore 380                | (\$/mt)  |  | <b>429.690</b>   | -12.020             | -29.190             |
| Singapore 180                | (\$/mt)  |  | <b>437.410</b>   | -12.300             | -29.220             |
| 0.5% barges                  | (\$/mt)  |  | <b>513.460</b>   | -10.610             | -25.590             |
| Singapore 0.5%               | (\$/mt)  |  | <b>562.170</b>   | -7.620              | -21.010             |
| <b>NGLs</b>                  |          |  |                  |                     |                     |
| US Propane LST               | (c/gal)  |  | <b>77.049</b>    | +0.318              | -1.451              |
| NWE Propane                  | (\$/mt)  |  | <b>560.470</b>   | -7.800              | -17.010             |
| Saudi Propane CP             | (\$/mt)  |  | <b>590.470</b>   | -3.300              | -9.010              |
| Asian Propane FEI            | (\$/mt)  |  | <b>626.010</b>   | -7.760              | -14.970             |
| US Butane ENT                | (c/gal)  |  | <b>98.820</b>    | -0.410              | +3.930              |
| Saudi Butane CP              | (\$/mt)  |  | <b>579.970</b>   | -3.300              | -9.560              |



## Long Tenor Swaps

|                    |          | Balmo   | Sep-24  | Oct-24  | Nov-24  | Dec-24  | Q4-24   | Q1-25   |
|--------------------|----------|---------|---------|---------|---------|---------|---------|---------|
| <b>Crude</b>       |          |         |         |         |         |         |         |         |
| Brent              | (\$/bbl) | 76.530  | 76.110  | 75.740  | 75.410  | 75.110  | 75.420  | 74.653  |
| WTI                | (\$/bbl) | 72.660  | 72.410  | 71.850  | 71.420  | 71.050  | 71.440  | 70.447  |
| Dubai              | (\$/bbl) | 75.660  | 75.660  | 74.890  | 74.450  | 74.120  | 74.487  | 73.737  |
| <b>Distillates</b> |          |         |         |         |         |         |         |         |
| Gasoil 0.1 NWE     | (\$/mt)  | 687.750 | 689.760 | 690.830 | 689.580 | 689.310 | 689.907 | 689.367 |
| NWE Jet            | (\$/mt)  | 726.250 | 731.760 | 735.830 | 737.080 | 739.310 | 737.407 | 742.457 |
| Singapore 10ppm    | (\$/bbl) | 89.520  | 89.700  | 89.850  | 89.800  | 89.740  | 89.797  | 90.027  |
| Sing Kero          | (\$/bbl) | 88.870  | 89.120  | 89.180  | 89.280  | 89.400  | 89.287  | 89.597  |
| <b>Gasoline</b>    |          |         |         |         |         |         |         |         |
| RBOB               | (c/gal)  | 223.370 | 206.540 | 202.670 | 199.940 | 198.970 | 200.527 | 206.793 |
| EBOB               | (\$/mt)  | 740.510 | 735.510 | 697.760 | 681.010 | 671.010 | 683.260 | 673.927 |
| Singapore 92       | (\$/bbl) | 82.500  | 82.300  | 81.610  | 80.940  | 80.570  | 81.040  | 80.510  |
| Singapore 95       | (\$/bbl) | 86.600  | 86.300  | 85.310  | 84.440  | 84.070  | 84.607  | 84.077  |
| <b>Naphtha</b>     |          |         |         |         |         |         |         |         |
| US C5 ENT          | (c/gal)  | 145.640 | 146.640 | 147.260 | 147.140 | 147.020 | 147.140 | 146.937 |
| NWE Naphtha        | (\$/mt)  | 639.110 | 633.860 | 629.610 | 624.110 | 619.110 | 624.277 | 611.527 |
| MOP-Japan Naphtha  | (\$/mt)  | 657.360 | 653.860 | 648.360 | 642.610 | 637.610 | 642.860 | 627.777 |
| <b>Fuel Oil</b>    |          |         |         |         |         |         |         |         |
| 3.5% barges        | (\$/mt)  | 437.190 | 424.940 | 413.940 | 406.940 | 402.940 | 407.940 | 400.390 |
| Singapore 380      | (\$/mt)  | 433.690 | 429.690 | 422.040 | 416.040 | 412.290 | 416.790 | 408.623 |
| Singapore 180      | (\$/mt)  | 440.910 | 437.410 | 431.110 | 425.860 | 422.610 | 426.527 | 420.360 |
| 0.5% barges        | (\$/mt)  | 518.460 | 513.460 | 506.210 | 500.210 | 495.210 | 500.543 | 489.293 |
| Singapore 0.5%     | (\$/mt)  | 569.170 | 562.170 | 552.170 | 544.670 | 538.420 | 545.087 | 530.253 |
| <b>NGLs</b>        |          |         |         |         |         |         |         |         |
| US Propane LST     | (c/gal)  | 76.669  | 77.049  | 78.169  | 78.549  | 78.549  | 78.422  | 76.722  |
| NWE Propane        | (\$/mt)  | 579.470 | 560.470 | 550.470 | 546.470 | 542.970 | 546.637 | 523.803 |
| Saudi Propane CP   | (\$/mt)  | 590.470 | 590.470 | 588.970 | 592.470 | 596.470 | 592.637 | 581.137 |
| Asian Propane FEI  | (\$/mt)  | 628.510 | 626.010 | 627.010 | 629.010 | 627.010 | 627.677 | 603.343 |
| US Butane ENT      | (c/gal)  | 98.820  | 98.820  | 99.070  | 98.950  | 98.570  | 98.863  | 94.907  |
| Saudi Butane CP    | (\$/mt)  | 579.970 | 579.970 | 581.470 | 586.970 | 592.970 | 587.137 | 579.137 |



| <b>Front Month Spreads</b> |          |                  |                     |                     |
|----------------------------|----------|------------------|---------------------|---------------------|
| <b>Sep/Oct</b>             |          | <b>20-Aug-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>               |          |                  |                     |                     |
| Brent                      | (\$/bbl) | 0.370            | -0.160              | -0.280              |
| WTI                        | (\$/bbl) | 0.560            | -0.180              | -0.460              |
| Dubai                      | (\$/bbl) | 0.770            | -0.030              | +0.010              |
| <b>Distillates</b>         |          |                  |                     |                     |
| Gasoil 0.1 NWE             | (\$/mt)  | -1.070           | -0.450              | -2.210              |
| NWE Jet                    | (\$/mt)  | -4.070           | -0.450              | -2.710              |
| Singapore 10ppm            | (\$/bbl) | -0.150           | -0.100              | -0.120              |
| Sing Kero                  | (\$/bbl) | -0.060           | -0.030              | +0.090              |
| <b>Gasoline</b>            |          |                  |                     |                     |
| RBOB                       | (c/gal)  | 3.870            | -0.370              | -2.190              |
| EBOB                       | (\$/mt)  | 37.750           | -1.500              | -7.500              |
| Singapore 92               | (\$/bbl) | 0.690            | +0.020              | +0.100              |
| Singapore 95               | (\$/bbl) | 0.990            | +0.220              | +0.350              |
| <b>Naphtha</b>             |          |                  |                     |                     |
| US C5 ENT                  | (c/gal)  | -0.620           | -0.120              | +0.000              |
| NWE Naphtha                | (\$/mt)  | 4.250            | +0.500              | -1.250              |
| MOP-Japan Naphtha          | (\$/mt)  | 5.500            | +0.250              | -0.500              |
| <b>Fuel Oil</b>            |          |                  |                     |                     |
| 3.5% barges                | (\$/mt)  | 11.000           | +0.250              | +2.250              |
| Singapore 380              | (\$/mt)  | 7.650            | -0.100              | -1.200              |
| Singapore 180              | (\$/mt)  | 6.300            | +0.050              | -1.050              |
| 0.5% barges                | (\$/mt)  | 7.250            | +0.500              | +0.750              |
| Singapore 0.5%             | (\$/mt)  | 10.000           | +1.500              | +2.750              |
| <b>NGLs</b>                |          |                  |                     |                     |
| US Propane LST             | (c/gal)  | -1.120           | +0.000              | +0.130              |
| NWE Propane                | (\$/mt)  | 10.000           | -1.000              | +1.500              |
| Saudi Propane CP           | (\$/mt)  | 1.500            | +1.500              | +3.500              |
| Asian Propane FEI          | (\$/mt)  | -1.000           | +0.000              | -1.000              |
| US Butane ENT              | (c/gal)  | -0.250           | -0.250              | +0.870              |
| Saudi Butane CP            | (\$/mt)  | -1.500           | +0.500              | +0.000              |



| <b>Front Month Cracks and Diffs</b>                  |                  |                     |                     |
|--|------------------|---------------------|---------------------|
| <b>September</b>                                     | <b>20-Aug-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>   |                  |                     |                     |
| Brent/Dubai (\$/bbl)                                 | 0.440            | -0.110              | -0.500              |
| WTI/Brent (\$/bbl)                                   | -3.700           | -0.080              | -0.440              |
| <b>Distillates</b>                                   |                  |                     |                     |
| Gasoil 0.1 NWE crack (\$/bbl)                        | 16.500           | -0.800              | -2.290              |
| NWE Jet crack (\$/bbl)                               | 16.770           | -0.580              | -2.290              |
| NWE Jet Diff (\$/mt)                                 | 42.000           | +0.500              | -3.000              |
| Gasoil E/W (\$/bbl)                                  | -21.500          | +1.250              | +5.250              |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)           | -0.580           | +0.170              | +0.350              |
| <b>Gasoline</b>                                      |                  |                     |                     |
| TA Arb (RBOB vs EBOB) (c/gal)                        | -3.700           | +0.200              | +0.500              |
| EBOB crack (\$/mt)                                   | 12.180           | -0.580              | -3.010              |
| Singapore 92 crack (\$/bbl)                          | 6.190            | -0.070              | -0.700              |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)              | -6.000           | +0.500              | +2.300              |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)           | 101.730          | -13.710             | -36.060             |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)              | 31.710           | -9.860              | -18.470             |
| <b>Naphtha</b>                                       |                  |                     |                     |
| US C5 ENT vs WTI Crack                               | -10.830          | +1.220              | +2.230              |
| NWE Naphtha Crack (\$/bbl)                           | -4.900           | +1.150              | +1.550              |
| MOPJ Naphtha Crack (\$/bbl)                          | -2.650           | +1.180              | +1.720              |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)                    | 20.000           | +0.250              | +1.500              |
| <b>Fuel Oil</b>                                      |                  |                     |                     |
| 3.5% barges crack (\$/bbl)                           | -9.200           | +0.250              | +1.000              |
| Singapore 380 crack (\$/bbl)                         | -8.450           | +0.370              | +0.170              |
| Singapore 180 crack (\$/bbl)                         | -7.250           | +0.310              | +0.150              |
| Visco (180-380) (\$/mt)                              | 7.650            | -0.350              | -0.100              |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)                | 4.750            | +0.750              | -5.250              |
| 0.5% barges crack (\$/bbl)                           | 4.730            | +0.580              | +0.730              |
| Singapore 0.5% crack (\$/bbl)                        | 12.400           | +1.050              | +1.450              |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)         | 48.700           | +2.980              | +4.570              |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)    | 88.460           | +2.100              | -1.710              |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)                 | 132.410          | +4.330              | +8.110              |
| 0.5% barges/gasoil (\$/mt)                           | -176.490         | +12.050             | +26.880             |
| Sing 0.5% vs Sing 10ppm (\$/mt)                      | -106.290         | +13.790             | +26.200             |
| <b>NGLs</b>  |                  |                     |                     |
| US Propane LST vs NWE Propane (\$/mt)                | -159.000         | +9.500              | +9.500              |
| US Propane LST vs Asian Propane FEI (\$/mt)          | -224.500         | +9.500              | +7.550              |
| Asian Propane FEI vs NWE Propane (\$/mt)             | 65.500           | +0.000              | +2.000              |
| Asian Propane FEI vs Saudi Propane CP (\$/mt)        | 35.500           | -4.500              | -6.000              |
| European Pronap (NWE Propane vs NWE Naphtha) (\$/mt) | -73.350          | +2.120              | +11.770             |
| Asian Pronap (FEI vs MOPJ) (\$/mt)                   | -63.350          | +6.370              | +18.270             |





## Long Tenor Cracks / Diffs

|   | Balmo    | Sep-24   | Oct-24   | Nov-24   | Dec-24   | Q4-24    | Q1-25    |
|---|----------|----------|----------|----------|----------|----------|----------|
| <b>Crude</b>                                  |          |          |          |          |          |          |          |
| Brent/Dubai (\$/bbl)                          | 0.870    | 0.440    | 0.850    | 0.960    | 0.990    | 0.933    | 0.917    |
| WTI/Brent (\$/bbl)                            | -3.890   | -3.700   | -3.900   | -3.990   | -4.070   | -3.987   | -4.210   |
| <b>Distillates</b>                            |          |          |          |          |          |          |          |
| Gasoil 0.1 NWE crack (\$/bbl)                 | 15.78    | 16.50    | 17.01    | 17.12    | 17.39    | 17.17    | 17.88    |
| NWE Jet crack (\$/bbl)                        | 15.62    | 16.77    | 17.64    | 18.13    | 18.71    | 18.16    | 19.56    |
| NWE Jet Diff (\$/mt)                          | 38.50    | 42.00    | 45.00    | 47.50    | 50.00    | 47.50    | 53.00    |
| Gasoil E/W (\$/bbl)                           | -20.83   | -21.50   | -21.54   | -20.55   | -20.72   | -20.94   | -18.75   |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)    | -0.65    | -0.58    | -0.67    | -0.52    | -0.34    | -0.51    | -0.43    |
| <b>Gasoline</b>                               |          |          |          |          |          |          |          |
| TA Arb (RBOB vs EBOB) (c/gal)                 | 11.710   | -3.700   | 3.230    | 5.300    | 7.180    | 5.237    | 14.177   |
| EBOB crack (\$/mt)                            | 12.340   | 12.180   | 8.010    | 6.330    | 5.430    | 6.590    | 6.240    |
| Singapore 92 crack (\$/bbl)                   | 5.950    | 6.190    | 5.850    | 5.510    | 5.440    | 5.600    | 5.840    |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)       | -6.400   | -6.000   | -2.160   | -0.820   | 0.010    | -0.990   | -0.400   |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)    | 101.480  | 101.730  | 68.230   | 56.980   | 51.980   | 59.063   | 62.480   |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)       | 29.880   | 31.710   | 31.460   | 31.630   | 33.550   | 32.213   | 42.887   |
| <b>Naphtha</b>                                |          |          |          |          |          |          |          |
| US C5 ENT vs WTI Crack                        | -11.500  | -10.830  | -10.010  | -9.640   | -9.320   | -9.657   | -8.757   |
| NWE Naphtha Crack (\$/bbl)                    | -4.750   | -4.900   | -5.020   | -5.310   | -5.570   | -5.300   | -5.960   |
| MOPJ Naphtha Crack (\$/bbl)                   | -2.700   | -2.650   | -2.910   | -3.230   | -3.490   | -3.210   | -4.133   |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)             | 18.250   | 20.000   | 18.750   | 18.500   | 18.500   | 18.583   | 16.250   |
| <b>Fuel Oil</b>                               |          |          |          |          |          |          |          |
| 3.5% bgs crack (\$/bbl)                       | -7.710   | -9.200   | -10.570  | -11.350  | -11.680  | -11.200  | -11.620  |
| Singapore 380 crack (\$/bbl)                  | -8.260   | -8.450   | -9.300   | -9.910   | -10.200  | -9.803   | -10.323  |
| Singapore 180 crack (\$/bbl)                  | -7.140   | -7.250   | -7.880   | -8.380   | -8.590   | -8.283   | -8.483   |
| Visco (180-380) (\$/mt)                       | 7.150    | 7.650    | 9.000    | 9.750    | 10.250   | 9.667    | 11.667   |
| HSFO E/W (380 vs 3.5% bgs) (\$/mt)            | -3.500   | 4.750    | 8.100    | 9.100    | 9.350    | 8.850    | 8.233    |
| 0.5% bgs crack (\$/bbl)                       | 5.080    | 4.730    | 3.950    | 3.330    | 2.850    | 3.377    | 2.370    |
| Singapore 0.5% crack (\$/bbl)                 | 13.060   | 12.400   | 11.180   | 10.330   | 9.650    | 10.387   | 8.820    |
| VLSFO E/W (Sing 0.5% vs 0.5% bgs) (\$/mt)     | 50.700   | 48.700   | 45.950   | 44.450   | 43.200   | 44.533   | 40.950   |
| European Hi5 (0.5% bgs vs 3.5% bgs) (\$/mt)   | 81.210   | 88.460   | 92.210   | 93.210   | 92.210   | 92.543   | 88.843   |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)          | 135.410  | 132.410  | 130.060  | 128.560  | 126.060  | 128.227  | 121.560  |
| 0.5% bgs/gasoil (\$/mt)                       | -169.480 | -176.490 | -184.810 | -189.560 | -194.130 | -189.500 | -200.323 |
| Sing 0.5% vs Sing 10ppm (\$/mt)               | -97.950  | -106.290 | -117.410 | -124.470 | -130.340 | -124.073 | -140.597 |
| <b>NGLs</b>                                   |          |          |          |          |          |          |          |
| US Propane LST vs NWE Propane (\$/mt)         | -179.98  | -159     | -143.16  | -137.18  | -133.68  | -138.007 | -124.037 |
| US Propane LST vs Asian Propane FEI (\$/mt)   | -228.98  | -224.5   | -219.66  | -219.68  | -217.68  | -219.007 | -203.537 |
| Asian Propane FEI vs NWE Propane (\$/mt)      | 49       | 65.5     | 76.5     | 82.5     | 84       | 81       | 79.5     |
| Asian Propane FEI vs Saudi Propane CP (\$/mt) | 38       | 35.5     | 38       | 36.5     | 30.5     | 35       | 22.167   |
| European Pronap (\$/mt)                       | -59.6    | -73.35   | -79.1    | -77.6    | -76.1    | -77.6    | -87.683  |
| Asian Pronap (FEI vs MOPJ) (\$/mt)            | -66.85   | -63.35   | -59.35   | -50.1    | -41.1    | -50.183  | -46.6    |



| <b>Inter-month Crack Spreads</b>                     |                  |                     |                     |
|--|------------------|---------------------|---------------------|
| <b>Sep/Oct</b>                                       | <b>20-Aug-24</b> | <b>1-Day Change</b> | <b>7-Day Change</b> |
| <b>Crude</b>   |                  |                     |                     |
| Brent/Dubai (\$/bbl)                                 | -0.410           | -0.140              | -0.300              |
| WTI/Brent (\$/bbl)                                   | 0.200            | -0.020              | -0.180              |
| <b>Distillates</b>                                   |                  |                     |                     |
| Gasoil 0.1 NWE crack (\$/bbl)                        | -0.510           | +0.110              | +0.020              |
| NWE Jet crack (\$/bbl)                               | -0.870           | +0.090              | -0.020              |
| NWE Jet Diff (\$/mt)                                 | -3.000           | +0.000              | -0.500              |
| Gasoil E/W (\$/bbl)                                  | 0.040            | -0.270              | +1.200              |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)           | 0.090            | +0.070              | +0.210              |
| <b>Gasoline</b>                                      |                  |                     |                     |
| TA Arb (RBOB vs EBOB) (c/gal)                        | -6.930           | +0.050              | -0.060              |
| EBOB crack (\$/mt)                                   | 4.170            | -0.020              | -0.620              |
| Singapore 92 crack (\$/bbl)                          | 0.340            | +0.190              | +0.400              |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)              | -3.840           | +0.200              | +1.010              |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)           | 33.500           | -2.000              | -6.250              |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)              | 0.250            | -0.080              | +1.340              |
| <b>Naphtha</b>                                       |                  |                     |                     |
| US C5 ENT vs WTI Crack                               | -0.820           | +0.130              | +0.460              |
| NWE Naphtha Crack (\$/bbl)                           | 0.120            | +0.220              | +0.150              |
| MOPJ Naphtha Crack (\$/bbl)                          | 0.260            | +0.190              | +0.230              |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)                    | 1.250            | -0.250              | +0.750              |
| <b>Fuel Oil</b>                                      |                  |                     |                     |
| 3.5% barges crack (\$/bbl)                           | 1.370            | +0.200              | +0.640              |
| Singapore 380 crack (\$/bbl)                         | 0.850            | +0.150              | +0.100              |
| Singapore 180 crack (\$/bbl)                         | 0.630            | +0.170              | +0.120              |
| Visco (180-380) (\$/mt)                              | -1.350           | +0.150              | +0.150              |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)                | -3.350           | -0.350              | -3.450              |
| 0.5% barges crack (\$/bbl)                           | 0.780            | +0.250              | +0.410              |
| Singapore 0.5% crack (\$/bbl)                        | 1.220            | +0.410              | +0.730              |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)         | 2.750            | +1.000              | +2.000              |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)    | -3.750           | +0.250              | -1.500              |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)                 | 2.350            | +1.600              | +3.950              |
| 0.5% barges/gasoil (\$/mt)                           | 8.320            | +0.950              | +2.960              |
| Sing 0.5% vs Sing 10ppm (\$/mt)                      | 11.120           | +2.250              | +3.650              |
| <b>NGLs</b>  |                  |                     |                     |
| US Propane LST vs NWE Propane (\$/mt)                | -15.840          | +0.990              | -0.870              |
| US Propane LST vs Asian Propane FEI (\$/mt)          | -4.840           | -0.010              | +1.680              |
| Asian Propane FEI vs NWE Propane (\$/mt)             | -11.000          | +1.000              | -2.500              |
| Asian Propane FEI vs Saudi Propane CP (\$/mt)        | -2.500           | -1.500              | -4.500              |
| European Pronap (NWE Propane vs NWE Naphtha) (\$/mt) | 5.750            | -1.500              | +2.750              |