# The **Officials**

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#### Gas struggles along the bumpy flat price road US Consumer Gasoline Index (Google Searches)



What a rollercoaster of a day. Flat price is swinging about like an autumn leaf in a stormy day, up and down it goes with a logic of its own as bulls and bears battle for dominance. Lows and highs since Asia opened range from \$69.06 to \$71.04/bbl. Bearish macros versus bullish micros make the price swing around. The grinding macros don't change in hours but sometimes traders have group epiphanies. APPEC is great for that, as the trader collective buzzes about like a bunch of borgs infecting each other with the latest group think virus. Overall, the mood is bearish. But then the uninfected ones counterattack. Clearly one reason is the market fell so hard that 'we are at levels which are dangerous to short again.' Fair. But the uninfected longs noted end user flat price buying. It goes as follows: End users with a flat price exposure to oil, call them airlines who haven't seen prices this low in years, come in and lock in uber margins with forward hedges. Nice! The jet airline buying goes to banks who then lay off the risk in the crude market and prices get tickled up in the process. 'We are seeing airlines we have not seen for years in the market,' said a hedger.

The other group nipping about are shipping companies with fuel oil exposure. They buy forward paper and improve their tiny margins and then again crude goes too. 'It's all happening at the wings, not in the main body,' said a trader. Other buyers are in the wings looking for contango. 'Our margins have been poor this year, and we need more volatility or contango or both to make our money,' mused a big trader. For all you know those elements are coming. Life is sweet to consumers, but to producers, aargh. There is concern that by keeping prices high, producers subsidize the exploration and production of competing low-priced oil. 'There is lots of oil coming in, the consumer is spoiled for choice. Take PADD 5 in the US', a trader added, 'it was a sort of island detached from the market, but Canada opened TMX and there's a lot of choice from South America.' Those folks felt Saudi Arabia would need to recognize it's painting itself into a corner and would eventually open the taps. Another quipped, 'the Emiratis really don't want to play ball, they want to produce more.'

Meanwhile, bull and bear like maul and disembowel each other, we'd say. As an aside, we were told gasoline stocks at one of the refining companies in Vietnam was at the brim. And that run cuts were coming as the company faced low product prices and a high price crude oil inventory. We were very confused because we expected Vietnam to be one of the bright spots in Southeast Asia. Have they been infected by the Chinese malaise? In the price front it almost feels that there was no summer driving season. Using Google searches for key terms, we built an index tracking gasoline-based travel in the US, and it doesn't look good, folks. This summer was way below last year. Read more in details.

| Summary              |          |           |              |              |
|----------------------|----------|-----------|--------------|--------------|
| Physical and Futures |          | 11-Sep-24 | 1-Day Change | 7-Day Change |
| Brent Nov (fut)      | (\$/bbl) | 69.610    | +0.100       | -3.650       |
| WTI Nov (fut)        | (\$/bbl) | 65.650    | +0.250       | -3.460       |
| Dubai Nov (phys)     | (\$/bbl) | 70.040    | +0.040       | -3.370       |
| OBI Continuous       | (\$/bbl) | 69.610    | +0.100       | -3.650       |
| Crude Swaps Oct      |          |           |              |              |
| Brent                | (\$/bbl) | 69.140    | +0.070       | -3.640       |
| DFL                  | (\$/bbl) | 0.210     | +0.160       | +0.200       |
| WTI                  | (\$/bbl) | 65.500    | +0.250       | -3.460       |
| Dubai                | (\$/bbl) | 68.640    | +0.080       | -3.330       |
| Tenor                |          | Nov-24    | Dec-24       | Jan-25       |
| Crude Futures        |          |           |              |              |
| Brent (fut)          | (\$/bbl) | 69.610    | 69.150       | 68.820       |
| WTI (fut)            | (\$/bbl) | 65.650    | 65.110       | 64.800       |



#### In detail

Markets ran up and down and on a 24 hour pretty much got nowhere. Nov Brent and WTI both retraced ever so slightly, by 10c and 25c respectively versus the previous day. Brent finished the day at \$69.61/bbl, and even broke through the \$70/bbl level after Europe's close. WTI closed at an aesthetically pleasing \$65.65/bbl. Brent also retained backwardation in the prompt spread, at 46c, up by 2c on yesterday.

Donald Trump's presidential debate inflation broadside attack against Harris might have missed the mark given today's low inflation data print. Inflation slowed for the fifth consecutive month. Headline CPI printed at 2.5%, down from 2.9% the month before, largely driven by declining energy costs, 4% down against the 1.1% y/y rise in July. It looks like energy will do it again the next time around. Despite the headline series easing on a y/y basis, after stripping out the volatile energy and food components, there's a less sweet aftertaste: core inflation ticked up m/m from 0.2% in July to 0.3% in August. Importantly shelter remained a key driver of inflationary pressure, still above its pre-covid 2019 level and rose by 0.5% in August, against a 0.4% rise in July. However, as weaker leading housing market indicators pass through, this should alleviate inflationary pressure in this important basket item.

Of course, the Fed targets headline PCE inflation not CPI. Using the historical relationship between the two inflation measures, we estimate today's CPI outturn implies a headline PCE inflation rate of 2.3% for August. With shelter likely to begin easing in coming months, the Fed will continue to focus on labour market slack as the deciding factor in the pace of monetary easing. Inflation, with limited second-round effects on the horizon, is no longer a key worry. 50 bps anyone?

The CPI data showed the energy sector the driving factor in the inflation drop, most notably thanks to gasoline and heating oil. The former fell by a massive 10.3% y/y in August, and the latter by 12.1% y/y. A short while after the release of CPI, we got the EIA data, which showed crude inventories up 833kbbls. The EIA also printed the second consecutive week of gasoline inventory builds, up 2.3mbbls in the week ending 6 September, following an 850kbbl build the week prior. It's almost as if there is no gasoline demand... RBOB cracks shed 25c in the 10 minutes after the EIA release.

Gasoline prices at the pump are down markedly on a year ago. According to the American Automotive Association, pump prices averaged \$3.832/gal this time last year, currently they average \$3.253/gal. And gasoline cracks have suffered the consequence of this weak demand. Front month RBOB cracks are almost \$9.30/bbl cheaper compared to the same day last year, at \$7.50/bbl. Margins are in a tough spot. Expect run cuts. Worse yet, prices are low and demand is soft. What's going on? A large American refinery reported high stocks and a refinery in the US Northeast only made 7c margin in the previous reporting season and this means they are losing money this quarter. "What summer driving season?" we wonder. We have consistently seen weakness in gasoline over and above what many have suggested. Performance of RBOB on a cracks basis has deteriorated since March this year.

Our in-house US Consumer Gasoline Index tracks the frequency of google searches across a range of key terms to track mobility of consumers in the US, in gasoline-burning vehicles. The frequency at each point in time of search terms is aggregated, employing a PCA index, weighted by their cross correlation with other search terms. The index highlights a very lacklustre summer driving season in the US this year. On a y/y basis the measure is 0.4 points below the same time week year and has been consistently lower in 2024 against the year prior, particularly during driving season. Of course there are limitations to google searches. For example, routine travel will be less well captured, but since this is unlikely to fluctuate, and comprises a smaller percentage of total travel since people are working from home more, Google searches should still capture variation in consumer mobility fairly well. The record driving season that many were hoping for has disappointed. This year is the year of data disappointment.

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| Front Month Outri | abto     |           |              |              |
|-------------------|----------|-----------|--------------|--------------|
| Front Month Outri | gnis     |           |              |              |
| October Swaps     |          | 11-Sep-24 | 1-Day Change | 7-Day Change |
| Crude             |          |           |              |              |
| Brent             | (\$/bbl) | 69.140    | +0.070       | -3.640       |
| WTI               | (\$/bbl) | 65.500    | +0.250       | -3.460       |
| Dubai             | (\$/bbl) | 68.640    | +0.080       | -3.330       |
| Distillates       |          |           |              |              |
| Gasoil 0.1 NWE    | (\$/mt)  | 631.730   | -3.900       | -36.230      |
| NWE Jet           | (\$/mt)  | 674.230   | -5.400       | -39.230      |
| Singapore 10ppm   | (\$/bbl) | 81.270    | -0.360       | -4.700       |
| Sing Kero         | (\$/bbl) | 81.120    | -0.420       | -4.580       |
| Gasoline          |          |           |              |              |
| RBOB              | (c/gal)  | 184.760   | -0.100       | -9.150       |
| EBOB              | (\$/mt)  | 634.020   | +3.360       | -20.220      |
| Singapore 92      | (\$/bbl) | 74.060    | +0.460       | -2.970       |
| Singapore 95      | (\$/bbl) | 77.470    | +0.470       | -2.960       |
| Naphtha           |          |           |              |              |
| US C5 ENT         | (c/gal)  | 137.290   | +0.570       | -7.740       |
| NWE Naphtha       | (\$/mt)  | 591.140   | +4.270       | -28.570      |
| MOPJ Naphtha      | (\$/mt)  | 612.550   | +4.840       | -28.250      |
| Fuel Oil          |          |           |              |              |
| 3.5% barges       | (\$/mt)  | 367.600   | +5.970       | -12.320      |
| Singapore 380     | (\$/mt)  | 384.450   | +9.500       | -2.220       |
| Singapore 180     | (\$/mt)  | 395.450   | +9.750       | +0.530       |
| 0.5% barges       | (\$/mt)  | 463.680   | +3.240       | -29.910      |
| Singapore 0.5%    | (\$/mt)  | 512.890   | +0.950       | -36.640      |
| NGLs              |          |           |              |              |
| US Propane LST    | (c/gal)  | 68.056    | +3.574       | -6.471       |
| NWE Propane       | (\$/mt)  | 534.120   | +4.670       | -21.710      |
| Saudi Propane CP  | (\$/mt)  | 593.620   | -0.920       | -7.260       |
| Asian Propane FEI | (\$/mt)  | 617.670   | +1.130       | -22.710      |
| US Butane ENT     | (c/gal)  | 92.070    | +3.190       | -7.970       |
| Saudi Butane CP   | (\$/mt)  | 596.670   | -0.830       | +5.790       |



| Long Tenor S      | Swaps                   |         |         |         |         |         |         |         |
|-------------------|-------------------------|---------|---------|---------|---------|---------|---------|---------|
|                   |                         | Balmo   | Oct-24  | Nov-24  | Dec-24  | Jan-25  | Q4-24   | Q1-25   |
| C d               |                         | Daliio  | 001-24  | NOV-24  | Dec-24  | Jan-25  | Q4-24   | Q1-23   |
| Crude             | / <del>^</del> /1.1.7.\ |         |         |         |         |         |         |         |
| Brent             | (\$/bbl)                | 69.580  | 69.140  | 68.820  | 68.650  | 68.580  | 68.870  | 68.540  |
| WTI               | (\$/bbl)                | 66.070  | 65.500  | 65.030  | 64.750  | 64.570  | 65.093  | 64.477  |
| Dubai             | (\$/bbl)                | 69.990  | 68.640  | 68.070  | 67.740  | 67.570  | 68.150  | 67.510  |
| Distillates       |                         |         |         |         |         |         |         |         |
| Gasoil 0.1 NWE    | (\$/mt)                 | 631.980 | 631.730 | 630.500 | 630.770 | 631.800 | 631.000 | 632.290 |
| NWE Jet           | (\$/mt)                 | 672.480 | 674.230 | 675.500 | 677.770 | 680.800 | 675.833 | 681.290 |
| Singapore 10ppm   | (\$/bbl)                | 80.830  | 81.270  | 81.430  | 81.630  | 81.850  | 81.443  | 82.030  |
| Sing Kero         | (\$/bbl)                | 81.070  | 81.120  | 81.320  | 81.570  | 81.790  | 81.337  | 81.917  |
| Gasoline          |                         |         |         |         |         |         |         |         |
| RBOB              | (c/gal)                 | 187.150 | 184.760 | 182.660 | 181.810 | 182.670 | 183.077 | 189.937 |
| EBOB              | (\$/mt)                 | 654.020 | 634.020 | 620.270 | 611.520 | 612.770 | 621.937 | 617.603 |
| Singapore 92      | (\$/bbl)                | 74.460  | 74.060  | 73.500  | 73.400  | 73.570  | 73.653  | 73.850  |
| Singapore 95      | (\$/bbl)                | 78.120  | 77.470  | 76.710  | 76.460  | 77.080  | 76.880  | 77.427  |
| Naphtha           |                         |         |         |         |         |         |         |         |
| US C5 ENT         | (c/gal)                 | 136.790 | 137.290 | 137.170 | 137.050 | 137.550 | 137.170 | 136.717 |
| NWE Naphtha       | (\$/mt)                 | 593.640 | 591.140 | 586.390 | 581.890 | 579.140 | 586.473 | 575.307 |
| MOP-Japan Naphtha | (\$/mt)                 | 616.550 | 612.550 | 608.050 | 603.550 | 599.050 | 608.050 | 594.467 |
| Fuel Oil          | , , ,                   |         |         |         |         |         |         |         |
| 3.5% barges       | (\$/mt)                 | 375.850 | 367.600 | 362.480 | 359.850 | 359.850 | 363.310 | 362.310 |
| Singapore 380     | (\$/mt)                 | 398.950 | 384.450 | 375.950 | 372.950 | 372.450 | 377.783 | 374.033 |
| Singapore 180     | (\$/mt)                 | 404.200 | 395.450 | 387.200 | 384.700 | 384.950 | 389.117 | 386.950 |
| 0.5% barges       | (\$/mt)                 | 472.180 | 463.680 | 455.680 | 451.680 | 449.180 | 457.013 | 447.680 |
| Singapore 0.5%    | (\$/mt)                 | 533.390 | 512.890 | 502.140 | 496.140 | 491.390 | 503.723 | 488.473 |
| NGLs              |                         |         |         |         |         |         |         |         |
| US Propane LST    | (c/gal)                 | 63.547  | 68.056  | 69.436  | 70.056  | 70.297  | 69.183  | 69.250  |
| NWE Propane       | (\$/mt)                 | 537.120 | 534.120 | 529.120 | 524.120 | 519.120 | 529.120 | 505.453 |
| Saudi Propane CP  | (\$/mt)                 | 593.620 | 593.620 | 591.120 | 589.620 | 586.120 | 591.453 | 573.787 |
| Asian Propane FEI | (\$/mt)                 | 622.620 | 617.670 | 613.670 | 610.120 | 602.120 | 613.820 | 585.953 |
| US Butane ENT     | (c/gal)                 | 91.190  | 92.070  | 91.820  | 91.440  | 91.190  | 91.777  | 88.443  |
| Saudi Butane CP   | (\$/mt)                 | 596.670 | 596.670 | 593.170 | 593.170 | 589.670 | 594.337 | 575.503 |



| Front Month Sp    | reaus    |           |              |              |
|-------------------|----------|-----------|--------------|--------------|
| Oct/Nov           |          | 11-Sep-24 | 1-Day Change | 7-Day Change |
| Crude             |          |           |              |              |
| Brent             | (\$/bbl) | 0.320     | -0.010       | -0.050       |
| WTI               | (\$/bbl) | 0.470     | +0.040       | +0.000       |
| Dubai             | (\$/bbl) | 0.570     | +0.010       | +0.010       |
| Distillates       |          |           |              |              |
| Gasoil 0.1 NWE    | (\$/mt)  | 1.230     | -0.480       | -0.900       |
| NWE Jet           | (\$/mt)  | -1.270    | -0.980       | -1.400       |
| Singapore 10ppm   | (\$/bbl) | -0.160    | +0.010       | +0.020       |
| Sing Kero         | (\$/bbl) | -0.200    | -0.060       | -0.070       |
| Gasoline          |          |           |              |              |
| RBOB              | (c/gal)  | 2.100     | -0.140       | -0.250       |
| EBOB              | (\$/mt)  | 13.750    | +1.000       | +5.750       |
| Singapore 92      | (\$/bbl) | 0.560     | +0.160       | +0.360       |
| Singapore 95      | (\$/bbl) | 0.760     | +0.160       | +0.360       |
| Naphtha           |          |           |              |              |
| US C5 ENT         | (c/gal)  | 0.120     | +0.000       | -0.030       |
| NWE Naphtha       | (\$/mt)  | 4.750     | +0.000       | -0.750       |
| MOP-Japan Naphtha | (\$/mt)  | 4.500     | +0.000       | -0.750       |
| Fuel Oil          |          |           |              |              |
| 3.5% barges       | (\$/mt)  | 5.120     | +0.120       | +0.620       |
| Singapore 380     | (\$/mt)  | 8.500     | +1.000       | +5.000       |
| Singapore 180     | (\$/mt)  | 8.250     | +0.750       | +6.750       |
| 0.5% barges       | (\$/mt)  | 8.000     | +1.250       | -2.250       |
| Singapore 0.5%    | (\$/mt)  | 10.750    | +0.500       | -5.500       |
| NGLs              |          |           |              |              |
| US Propane LST    | (c/gal)  | -1.380    | +0.370       | -0.380       |
| NWE Propane       | (\$/mt)  | 5.000     | +0.500       | -1.000       |
| Saudi Propane CP  | (\$/mt)  | 2.500     | -3.500       | +3.000       |
| Asian Propane FEI | (\$/mt)  | 4.000     | +0.000       | +2.000       |
| US Butane ENT     | (c/gal)  | 0.250     | +0.250       | -0.250       |
| Saudi Butane CP   | (\$/mt)  | 3.500     | -3.000       | +8.000       |



| Front Month Cracks and Diffs   |           |              |              |
|--|-----------|--------------|--------------|
| October  | 11-Sep-24 | 1-Day Change | 7-Day Change |
| Crude  |           |              |              |
| Brent/Dubai (\$/bbl)   | 0.520     | +0.020       | -0.310       |
| WTI/Brent (\$/bbl)   | -3.670    | +0.130       | +0.160       |
| Distillates  |           |              |              |
| Gasoil 0.1 NWE crack (\$/bbl)  | 15.600    | -0.680       | -1.250       |
| NWE Jet crack (\$/bbl)   | 16.370    | -0.840       | -1.360       |
| NWE Jet Diff (\$/mt)   | 42.500    | -1.500       | -3.000       |
| Gasoil E/W (\$/bbl)  | -25.750   | +1.750       | +1.750       |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)   | -0.150    | -0.050       | +0.130       |
| Gasoline   | 0,120     |              |              |
| TA Arb (RBOB vs EBOB) (c/gal)  | 3.550     | -1.050       | -3.400       |
| EBOB crack (\$/bbl)  | 6.950     | +0.290       | +1.250       |
| Singapore 92 crack (\$/bbl)  | 4.900     | +0.330       | +0.700       |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)  | -2.050    | +0.050       | -0.550       |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)   | 42.900    | -0.780       | +8.490       |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)  | 4.370     | -1.080       | +3.410       |
| Naphtha  |           |              |              |
| US C5 ENT vs WTI Crack   | -7.840    | -0.020       | +0.240       |
| NWE Naphtha Crack (\$/bbl)   | -2.750    | +0.350       | +0.450       |
| MOPJ Naphtha Crack (\$/bb1)  | -0.330    | +0.440       | +0.510       |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)  | 21.500    | +0.750       | +0.500       |
| Fuel Oil   | 22.500    | . 0 . 7 0 0  | . 0 . 0 0    |
| 3.5% barges crack (\$/bbl)   | -11.250   | +0.840       | +1.750       |
| Singapore 380 crack (\$/bb1)   | -8.600    | +1.400       | +3.340       |
| Singapore 180 crack (\$/bb1)   | -6.860    | +1.450       | +3.780       |
| Visco (180-380) (\$/mt)  | 11.000    | +0.250       | +2.750       |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)  | 16.850    | +3.600       | +10.100      |
| 0.5% barges crack (\$/bbl)   | 3.900     | +0.450       | -1.000       |
| Singapore 0.5% crack (\$/bb1)  | 11.650    | +0.100       | -2.050       |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)   | 49.210    | -2.220       | -6.670       |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)  | 96.200    | -2.480       | -17.460      |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)   | 128.570   | -8.290       | -34.220      |
| 0.5% barges/gasoil (\$/mt)   | -167.110  | +8.160       | +7.510       |
| Sing 0.5% vs Sing 10ppm (\$/mt)  | -92.160   | +4.190       | -0.980       |
| NGLs   | 021200    | 71,130       | 3,300        |
| US Propane LST vs NWE Propane (\$/mt)  | -179.500  | +14.000      | -12.000      |
| US Propane LST vs Asian Propane FEI (\$/mt)  | -263.000  | +17.500      | -12.000      |
| Asian Propane FEI vs NWE Propane (\$/mt)   | 83.500    | -3.500       | -1.000       |
| Asian Propane FEI vs NWE Propane (\(\frac{7}{\text{mt}}\)) Asian Propane FEI vs Saudi Propane CP (\(\frac{5}{\text{mt}}\)) | 24.000    | +2.000       | -15.500      |
| European Pronap (NWE Propane vs NWE Naphtha ) (\$/mt)  | -56.840   | +0.700       | +7.250       |
| Asian Pronap (FEI vs MOPJ) (\$/mt)   | -18.840   | -5.550       | +21.250      |



| Long Tenor Cracks / Diffs                     |          |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|
| Long Tenor Oracks / Dins                      |          |          |          |          |          |          |          |
|   | Balmo    | Oct-24   | Nov-24   | Dec-24   | Jan-25   | Q4-24    | Q1-25    |
| Crude   |          |          |          |          |          |          |          |
| Brent/Dubai (\$/bbl)                          | -0.400   | 0.520    | 0.760    | 0.920    | 1.030    | 0.733    | 1.050    |
| WTI/Brent (\$/bbl)                            | -3.520   | -3.670   | -3.800   | -3.910   | -4.020   | -3.793   | -4.077   |
| Distillates                                   |          |          |          |          |          |          |          |
| Gasoil 0.1 NWE crack (\$/bbl)                 | 15.21    | 15.60    | 15.78    | 15.96    | 16.21    | 15.78    | 16.29    |
| NWE Jet crack (\$/bbl)                        | 15.72    | 16.37    | 16.87    | 17.31    | 17.80    | 16.85    | 17.88    |
| NWE Jet Diff (\$/mt)                          | 40.50    | 42.50    | 45.00    | 47.00    | 49.00    | 44.83    | 49.00    |
| Gasoil E/W (\$/bbl)                           | -29.29   | -25.75   | -23.44   | -22.80   | -22.30   | -24.00   | -21.07   |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)    | 0.24     | -0.15    | -0.11    | -0.06    | -0.06    | -0.11    | -0.11    |
| Gasoline                                      |          |          |          |          |          |          |          |
| TA Arb (RBOB vs EBOB) (c/gal)                 | 0.200    | 3.550    | 5.370    | 7.040    | 7.530    | 5.320    | 13.420   |
| EBOB crack (\$/bbl)                           | 8.920    | 6.950    | 5.630    | 4.740    | 4.970    | 5.773    | 5.587    |
| Singapore 92 crack (\$/bbl)                   | 4.860    | 4.900    | 4.670    | 4.730    | 4.980    | 4.767    | 5.293    |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)       | -4.050   | -2.050   | -0.960   | -0.010   | 0.010    | -1.007   | -0.290   |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)    | 60.400   | 42.900   | 33.900   | 29.650   | 33.650   | 35.483   | 42.317   |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)       | 3.700    | 4.370    | 4.200    | 7.870    | 13.790   | 5.480    | 20.707   |
| Naphtha                                       |          |          |          |          |          |          |          |
| US C5 ENT vs WTI Crack                        | -8.630   | -7.840   | -7.420   | -7.200   | -6.810   | -7.487   | -7.070   |
| NWE Naphtha Crack (\$/bbl)                    | -2.900   | -2.750   | -2.950   | -3.290   | -3.540   | -2.997   | -3.927   |
| MOPJ Naphtha Crack (\$/bbl)                   | -0.310   | -0.330   | -0.510   | -0.850   | -1.290   | -0.563   | -1.763   |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)             | 23.000   | 21.500   | 21.750   | 21.750   | 20.000   | 21.667   | 19.250   |
| Fuel Oil                                      |          |          |          |          |          |          |          |
| 3.5% bgs crack (\$/bbl)                       | -10.380  | -11.250  | -11.740  | -11.970  | -11.910  | -11.653  | -11.487  |
| Singapore 380 crack (\$/bbl)                  | -6.740   | -8.600   | -9.600   | -9.910   | -9.930   | -9.370   | -9.637   |
| Singapore 180 crack (\$/bbl)                  | -5.920   | -6.860   | -7.830   | -8.060   | -7.960   | -7.583   | -7.600   |
| Visco (180-380) (\$/mt)                       | 5.250    | 11.000   | 11.250   | 11.750   | 12.500   | 11.333   | 12.917   |
| HSFO E/W (380 vs 3.5% bgs) (\$/mt)            | 23.100   | 16.850   | 13.600   | 13.100   | 12.600   | 14.517   | 11.767   |
| 0.5% bgs crack (\$/bbl)                       | 4.810    | 3.900    | 2.980    | 2.510    | 2.180    | 3.130    | 1.983    |
| Singapore 0.5% crack (\$/bbl)                 | 14.450   | 11.650   | 10.290   | 9.510    | 8.820    | 10.483   | 8.407    |
| VLSFO E/W (Sing 0.5% vs 0.5% bgs) (\$/mt)     | 61.210   | 49.210   | 46.460   | 44.460   | 42.210   | 46.710   | 40.793   |
| European Hi5 (0.5% bgs vs 3.5% bgs) (\$/mt)   | 96.450   | 96.200   | 93.450   | 91.950   | 89.450   | 93.867   | 85.533   |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)          | 134.570  | 128.570  | 126.320  | 123.320  | 119.070  | 126.070  | 114.570  |
| 0.5% bgs/gasoil (\$/mt)                       | -158.880 | -167.110 | -174.210 | -178.650 | -182.430 | -173.323 | -184.200 |
| Sing 0.5% vs Sing 10ppm (\$/mt)               | -68.380  | -92.160  | -104.100 | -111.310 | -117.840 | -102.523 | -122.423 |
| NGLs  |          |          |          |          |          |          |          |
| US Propane LST vs NWE Propane (\$/mt)         | -205.95  | -179.5   | -167.31  | -159.08  | -152.78  | -168.63  | -144.567 |
| US Propane LST vs Asian Propane FEI (\$/mt)   | -291.45  | -263     | -251.81  | -245.08  | -235.78  | -253.297 | -225.067 |
| Asian Propane FEI vs NWE Propane (\$/mt)      | 85.5     | 83.5     | 84.5     | 86       | 83       | 84.667   | 80.5     |
| Asian Propane FEI vs Saudi Propane CP (\$/mt) | 29       | 24       | 22.5     | 20.5     | 16       | 22.333   | 12.167   |
| European Pronap (\$/mt)                       | -56.34   | -56.84   | -57.09   | -57.59   | -59.84   | -57.173  | -69.673  |
| Asian Pronap (FEI vs MOPJ) (\$/mt)            | -22.84   | -18.84   | -16.84   | -13.84   | -12.84   | -16.507  | -20.59   |
| ASIAN FLUNAP (FEI VS MUPU) (\$/MC)            | -22.84   | -18.84   | -10.84   | -13.84   | -12.84   | -10.507  | -20.59   |



| Inter-month Crack Spreads                             |           |              |              |
|---|-----------|--------------|--------------|
| Oct/Nov   | 11-Sep-24 | 1-Day Change | 7-Day Change |
| Crude   |           |              |              |
| Brent/Dubai (\$/bbl)                                  | -0.240    | -0.010       | -0.050       |
| WTI/Brent (\$/bbl)                                    | 0.130     | +0.010       | +0.030       |
| Distillates   |           |              |              |
| Gasoil 0.1 NWE crack (\$/bbl)                         | -0.180    | -0.060       | -0.110       |
| NWE Jet crack (\$/bbl)                                | -0.500    | -0.120       | -0.160       |
| NWE Jet Diff (\$/mt)                                  | -2.500    | -0.500       | -0.500       |
| Gasoil E/W (\$/bbl)                                   | -2.310    | +0.590       | +1.180       |
| Regrade (Sing Kero vs Sing 10ppm) (\$/bbl)            | -0.040    | -0.070       | -0.090       |
| Gasoline  |           |              |              |
| TA Arb (RBOB vs EBOB) (c/gal)                         | -1.820    | -0.420       | -1.890       |
| EBOB crack (\$/bbl)                                   | 1.320     | +0.110       | +0.730       |
| Singapore 92 crack (\$/bbl)                           | 0.230     | +0.150       | +0.400       |
| Gasoline E/W (Sing 92 vs EBOB) (\$/bbl)               | -1.090    | +0.040       | -0.330       |
| European Gasnaph (EBOB vs Naphtha) (\$/mt)            | 9.000     | +1.000       | +6.500       |
| Asian Gasnaph (Sing 92 vs MOPJ) (\$/mt)               | 0.170     | +1.340       | +3.750       |
| Naphtha   |           |              |              |
| US C5 ENT vs WTI Crack                                | -0.420    | -0.030       | -0.010       |
| NWE Naphtha Crack (\$/bbl)                            | 0.200     | +0.000       | -0.050       |
| MOPJ Naphtha Crack (\$/bbl)                           | 0.180     | +0.010       | -0.040       |
| Naphtha E/W (NWE vs MOPJ) (\$/mt)                     | -0.250    | +0.000       | +0.000       |
| Fuel Oil  |           |              |              |
| 3.5% barges crack (\$/bbl)                            | 0.490     | +0.030       | +0.150       |
| Singapore 380 crack (\$/bbl)                          | 1.000     | +0.150       | +0.820       |
| Singapore 180 crack (\$/bbl)                          | 0.970     | +0.110       | +1.110       |
| Visco (180-380) (\$/mt)                               | -0.250    | -0.250       | +1.750       |
| HSFO E/W (380 vs 3.5% barges) (\$/mt)                 | 3.250     | +0.750       | +4.250       |
| 0.5% barges crack (\$/bbl)                            | 0.920     | +0.180       | -0.320       |
| Singapore 0.5% crack (\$/bbl)                         | 1.360     | +0.070       | -0.830       |
| VLSFO E/W (Sing 0.5% vs 0.5% barges) (\$/mt)          | 2.750     | -0.750       | -3.250       |
| European Hi5 (0.5% barges vs 3.5% barges) (\$/mt)     | 2.750     | +1.000       | -3.000       |
| Asian Hi5 (Sing 0.5% vs 380) (\$/mt)                  | 2.250     | -0.500       | -10.500      |
| 0.5% barges/gasoil (\$/mt)                            | 7.100     | +1.980       | -1.020       |
| Sing 0.5% vs Sing 10ppm (\$/mt)                       | 11.940    | +0.430       | -5.660       |
| NGLs  |           |              |              |
| US Propane LST vs NWE Propane (\$/mt)                 | -12.190   | +1.430       | -0.980       |
| US Propane LST vs Asian Propane FEI (\$/mt)           | -11.190   | +1.930       | -3.980       |
| Asian Propane FEI vs NWE Propane (\$/mt)              | -1.000    | -0.500       | +3.000       |
| Asian Propane FEI vs Saudi Propane CP (\$/mt)         | 1.500     | +3.500       | -1.000       |
| European Pronap (NWE Propane vs NWE Naphtha ) (\$/mt) | 0.250     | +0.500       | -0.250       |