S&P Global
Platts

2018 REVIEW AND 2019 OUTLOOK

PLATTS ANALYTICS SPECIAL FEATURE

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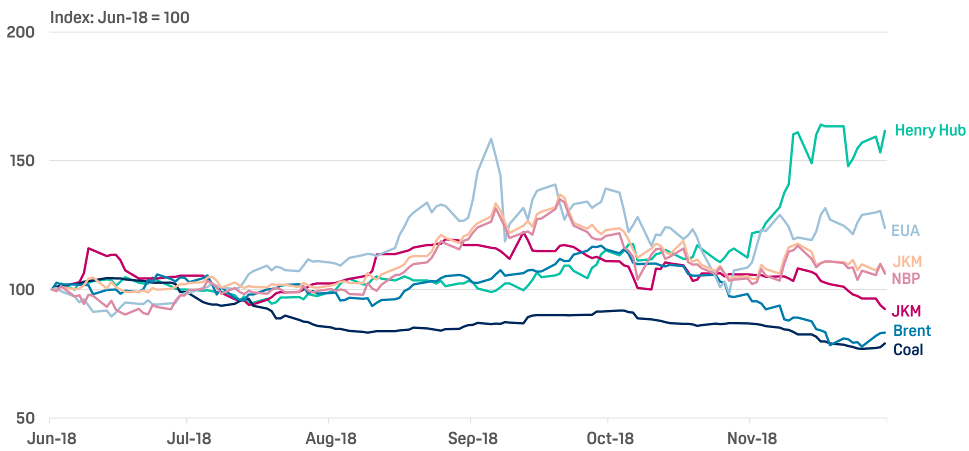
EXECUTIVE SUMMARY

2018 Review

Global energy demand remained robust over 2018, as the global economy continued to grow at about trend rates with industrial activity growing in almost all economies, fuller employment resulting in greater consumer purchasing power, and infrastructure spending (particularly in US and China) boosting demand. Lower oil prices in 2017 and early 2018 helped to stimulate healthy demand growth. 2018 marked the first year where annual global oil demand surpassed the 100 MMB/D mark, rising by over 1.6 MMB/D from 2017 levels to reach 101.2 MMB/D. While China remained one of the key drivers of global oil demand growth coming in at just under 0.5 MMB/D in 2018, its demand growth slowed from over 0.7 MMB/D in 2017. Demand growth in the US accelerated to 0.6 MMB/D from 0.3 MMB/D in 2017, surprisingly claiming the top spot for oil demand growth.

Commodities Index, June 2018 – Dec 2018



Source: S&P Global Platts

LNG markets further came of age in 2018 with Platts JKM increasing in liquidity along with strong demand from China as it increasingly pushed its industrial and residential sectors to cleaner burning gas rather than coal. With rising oil prices, Platts JKM rose to oil parity pricing during peak demand in the winter months (helped by cold weather this year), and fell to coal parity pricing in Europe during the shoulder months as LNG needed to compete with coal in the power sector. JKM prices peaked in the summer at over $12/MMBtu further supported by an unexpected increase in unplanned shutdowns or delay in start-up of liquefaction capacity (including US, Nigeria, Malaysia, and Australia).

Early in the year, the “Beast from the East” cold snap in Europe sent local gas demand skyrocketing, with system reliability in some markets saved only by unusually strong wind output and a modest rebound in coal-fired generation. During the summer, European gas prices again surged as the strong demand from Asia diverted cargos and incentivized reloads out of Europe, tightening supply and incentivizing increased utility coal demand. This in turn helped support European carbon prices, which were already on the upswing given the upcoming supply cuts related to the Market Stability Reserve implementation in 2019. In the US, natural gas prices at Henry Hub stayed flat lined below $3/MMBtu for the majority of the year as strong production significantly supported by associated gas from Permian oil production growth offset significant increases from LNG export growth and demand from utilities as a result of increased coal generation retirements. Despite this, global thermal coal market enjoyed multi-year bullish cycle on demand strength driven by Europe and China resulting in a resurgence in coal exports.

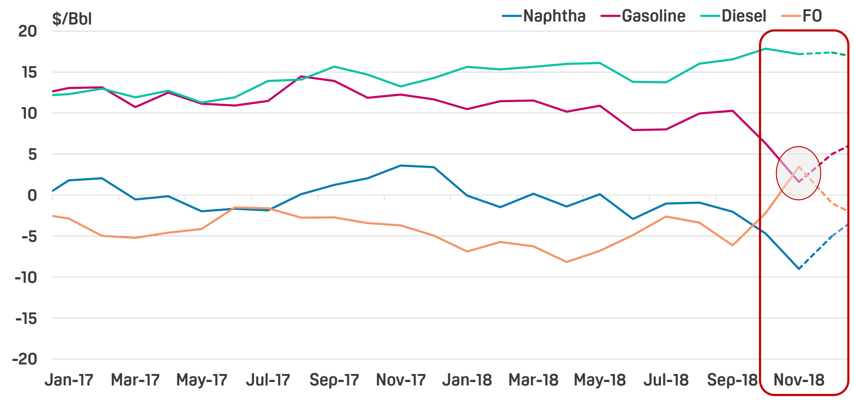
However, an increase in renewables and slowdown in Chinese energy and electricity demand has seen coal consumption growth slow and stockpiles surge to multi-year highs, allowing the government to ban imports of thermal coal over the final two months of the year. Along with milder weather, LNG demand has softened considerably, seeing Platts JKM fall to just above $7/MMBtu which along with a tighter market resulting in higher freight rates closed the arb to Asia diverting LNG cargoes to Europe which quickly rebalanced their low stock levels thus moderating European Gas prices despite strong demand. On the other hand cold weather in North America has resulted in strong demand and extremely low stocks breathing life into Henry Hub which has shot above $4/MMBtu and seen support for domestic US coal prices again.

If LNG, natural gas, coal and power have not had enough volatility, oil has been on its own roller coaster. After a steady rise in oil prices, driven by healthy demand and moderated supply from OPEC+, the end of September heralded fears of tight supply, lack of spare capacity, and concern around geopolitical tensions not least from renewed sanctions on Iran and catastrophically falling supply from Venezuela. Traders talked of Brent hitting $100/Bbl by the end of the year and the speculators did their best to help this. No more than a month later had oil prices collapsed 30% and were testing levels below $60/Bbl. The fall was triggered by concern around global economic growth on the back of increased tensions and tariffs between the US and China, and following a much softer stance by the US Administration on Iranian exports providing waivers to eight countries (adding 200 MBD to our forecasted exports of 1.1 MMBD). At the same time US production surprised to the upside despite significant infrastructure constraints in the Permian limiting production growth which resulting in an upwards revision of 300 MBD to our outlook and a year one year growth of 2 MMBD from US shale.

With the prolific growth in tight oil and shale gas, global NGLs have also grown by over 700 MB/D, which in the US have overwhelmed pipeline take away capacity and fractionators. Along with over 500 MB/D of new ethane crackers this drove up the ethane frac-spread squeezing US cracker margins while at the same time lower LPG and naphtha prices provided support to European and Asian cracking margins. In addition, China's ban on imported waste plastic created significant demand for virgin petrochemical products.

The increasing API of refinery feed with the growth in US shale oil and decline in heavier barrels such as Venezuela and Iran has resulted in an oversupply of lightends and a tighter supply of heavy fuel oil components. After a year of strong margins supported by strong distillates and gasoline margins, cracks especially in Singapore went topsy-turvy with fuel oil cracks pricing above gasoline cracks resulting in hydro-skimming margins amazingly competing with cracking margins. Furthermore, a strong Indian sugar harvest has seen prices collapse resulting in Brazilian producers favoring ethanol (whose production rose 6% in 2018) over sugar and increasing demand into gasoline to new record highs.

Singapore Product vs. Dubai



As the year draws to a close, OPEC+ have reasserted production quotas of around 1.2 MMB/D which should help to tighten the market although uncertainties still remain around other interventionist policies such as China's ban on coal imports, the ongoing trade (tariff) negotiations which could create distortions amongst many commodities (for example, US soybean market dropped 20% in the three weeks after a 25% counter-tariff was imposed), or supportive policies on renewables, recycling, biofuels or electric vehicles.

While sentiment has at times been in the driving seat during parts of 2018, it has been a good year for following the fundamentals despite the interconnectivity between commodities making this all the more challenging. Overall, we feel proud that we have been able to keep on top of the market and privileged to keep sharing our insights with you, our customers.

2019 Outlook

The energy outlook for 2019 begins with the macroeconomic environment, which is expected to transition from above-trend GDP growth of 3.69% to slightly below trend growth of 3.39%. China and India's contribution to global economic growth in 2018 was 32% and 15%, respectively, but will increase slightly to 34% and 17% in 2019. Even so, growth is expected to slow in China from 6.5% in 2018 to 6.1% in 2019, while India slows from 7.4% to 7.15%. OECD growth slows from 2.26% in 2018 to 1.82% in 2019. Potential disruptions to global economic growth from emerging markets witnessed in 2018 (Argentina, Brazil, Turkey) were successfully contained, and while risks remain in other emerging markets, they are not expected to materially alter the growth trajectory outlined. Central banks will continued to remove their accommodative monetary stance, although recent signals from the US Federal Reserve indicate that the trajectory will be measured. The European Central Bank will cease asset purchases at year-end 2018, but will not raise interest rates until later in 2019, while the Bank of Japan retains its asset purchase program and accommodative monetary stance. Rising interest rates will slow the deployment of renewables as up front capital costs represent a greater proportion of total costs than other forms of electricity generation, although cost reductions will mitigate this impact.

The slowdown in the macro environment will slow demand growth across all energy markets, with global oil demand growth projected to slow further to just above the long-term average. Particularly for commodities where costs of production are low or are associated volumes, such as North American NGLs and natural gas, demand growth remains assured. However, US midstream infrastructure, particularly for NGLs, will continue to play catch up over 2019, struggling to transport and fractionate the all the NGL supply expected to come to market. Fractionation and pipeline constraints will result in opportunistic ethane rejection to free up capacity for higher value LPG and natural gasoline. US LPG exports are rapidly approaching capacity constraints, particularly along the US Gulf Coast. Looking to 2019, the US needs the planned expansion along the USGC along with an increase in exports from Marcus Hook once Mariner East 2 starts up. Any delays in these projects, or prolonged outages at existing facilities will place downward pressure on Mont Belvieu LPG prices in order to clear the market, widening spreads between cavern product and LPG stranded at the dock. Stranded US LPG barrels will need to price themselves to compete against ethane in US crackers and against naphtha in Asia and Europe. There is potential for LPG feedstock to be maximized globally this summer, along with high run rates at Chinese PDH plants, resulting in a potential oversupply of polymer-grade propylene (PGP), in contrast to refinery-grade propylene (RGP), which likely be tight due to shifting refinery yields leading into IMO 2020. This scenario will result in lower refinery grade purification margins or "RGP splitter margins" which would eventually rebalance the polymer grade market. In the meantime, the potential exists for a high degree of volatility in the global propylene markets over the next 12-18 months.

Demand growth in LNG is forecasted to slow as well, with additional nuclear restarts in Japan deflating consumption in the world's largest market for the fuel, while prices are not expected to fall far enough to stimulate coal-to-gas switching in markets with LNG exposure outside of Europe. With a slower energy (and electricity) demand growth profile, coal demand growth will struggle. In the US and Europe, weaker electricity demand growth and further penetration of renewables offers a greater impetus to accelerate coal-fired capacity retirements. In markets such as China and India, slower electricity demand growth will directly lower coal consumption as coal is often on the margin in these markets. However, with weaker policy support for solar additions in China, tariffs on solar panel imports in the US and India, and near saturation of renewables in some areas, the global installation rate of PV could hold flat or possibly even decline in 2019.

The slowdown in energy demand growth will require commensurate adjustments on the supply side. In oil markets, this adjustment will be smaller due to the tightening on Iranian crude oil exports. Growth in US shale will slow, although this will be more a function of infrastructure constraints than restraint. This will once again be most noticeable in the Permian, where infrastructure constraints will result in a slow build-up in DUCs through 2019, but higher prices and relief in takeaway capacity constraints in 4Q may lead to a surge in completion and production activity, just ahead of the IMO specification change. Saudi Arabia is expected to manage supply to meet customer demands through the year, and OPEC+ cuts in the first half of the year are expected to address the oversupply situation from the end of 2018. However, as oil markets tighten in 2H19, we expect OPEC production to creep higher accordingly.

Global crude distillation unit (CDU) additions will far outpace expected growth in crude demand in 2019, and may reduce refining utilization rates, although 2019 refining maintenance should turn-out to be heavier than usual as refineries get ready for the IMO specification change. In particular, the Rongsheng Petrochemical Refinery in China will have a yield heavily skewed towards petrochemical feedstock. On the other hand, Jizan in Saudi Arabia and Rapid-Johor in Malaysia are expected to yield primarily distillates. The world will gain a foretaste of IMO 2020 when China's emissions control area (ECA) rules take effect on January 1, 2019. Vessels entering any port in China or entering internal waters are mandated to use bunker fuels with a sulfur content of no more than 0.5%, which is similar to the broader IMO specification change set to go into force in 2020. Pent up demand for MGO (marine gasoil) will be released in early 2019 while more LSFO demand will emerge toward the end of 2019. This will be aided by refineries running low-sulfur domestic crudes.

2019 will see a huge amount of new LNG supply added to the market (along with additional FIDs), predominately coming from new US projects and the final capacity additions in Australia. 2019 will likely be the year with the largest absolute increase in LNG supply since the Qatari mega trains in 2010. In North American gas, the momentum that steadily drove production to a new high in 2018 is expected to slow but additional gains are not forecast to materially abate until late 2019, at the earliest. While European domestic gas production still faces long term decline, new supply additions in the UK and Norway, the addition of Nord Stream 2, potentially by the end of 2019, and greater LNG supply will offset these declines. The completion of the Nord Stream 2 gas pipeline between Russia and Germany near the end of 2019 will roughly coincide with the expiration date of Gazprom's current transit arrangements with Ukraine's Naftogaz. This will give Russia more flexibility to deliver gas into Europe and provide a stronger position against Ukraine as geopolitical tensions remain high.

Pricing across the energy markets will face headwinds in 2019, with a weaker and more uncertain macroeconomic framework deflating price formation in general. This will particularly be the case for markets where prices finished 2018 at elevated levels, and well above costs, such as North American natural gas and global coal. However, if the supply side can adjust to the reality of slowing demand growth, energy prices can find support. For NGLs, the ongoing logistical constraints at the US Gulf Coast are likely to manifest as continued price volatility, particularly for ethane and LPG, over the next year despite strong global demand. This will likely lead to stranded LPG that may disconnect US propane and butane prices from the global market. For natural gas, the slowdown in US demand growth will exceed that of supply, and as a result, Henry Hub prices will weaken, although if winter temperatures prove to be colder than normal, near-term prices will need to move higher to bring on enough supply to replenish depleted storage levels. For global LNG, end-user backed LNG demand will struggle to cope with the speed and force of new supply entering the market in 2019. Non price-responsive demand in Asia will be easily met and JKM spot prices will sag over 2019.

2019 will certainly be a year of transition for crude and refined oil products as it will lead into 2020 when roughly 3 MMB/D of HSFO will need to be "destroyed" (including enhanced usage of HSFO in power generation) and a similar amount of middle distillate/low sulfur fuel oil be "created" (by refinery changes and by running more crude). The increase in refinery capacity between now and 2020 is large but that is mostly needed to cover normal demand growth. Prices for light sweet crudes will be bid up in 4Q19 as refiners look to secure preferred slates to produce more LSFO and distillates while light product cracks will surge.

One of the key lessons learned in 2018 (painfully by some), is that market sentiment can shift violently without much change in fundamentals, requiring a steady, holistic perspective. It is clear that this volatility will remain a feature across the energy markets in 2019, particularly as IMO 2020 nears. Be assured that Platts Analytics will provide a holistic, fundamental view on markets, looking at all aspects of the energy system. IMO 2020 is but one example of how the global energy system is becoming more interconnected, as the change in bunker specification will not just impact refining and seaborne shipping, but domestic road fuels, railroad rates, coal pricing, and the electric generation fuel mix. As we have done for over the past 100 years, Platts will bring clarity to the energy and commodities markets, enabling our customers to act with conviction in 2019.