

## IICEC Energy Market Newsletter

26 May, 2017

### *OPEC Meeting Fails to Rally Prices*

Brent crude traded above \$54/b for the first time in a month this week as oil prices gained momentum ahead of OPEC's meeting on May 25. This 5.5% increase was the best since December, propelled by recent statements by Saudi Arabia and Russia that they support extending the production cuts until March 2018.

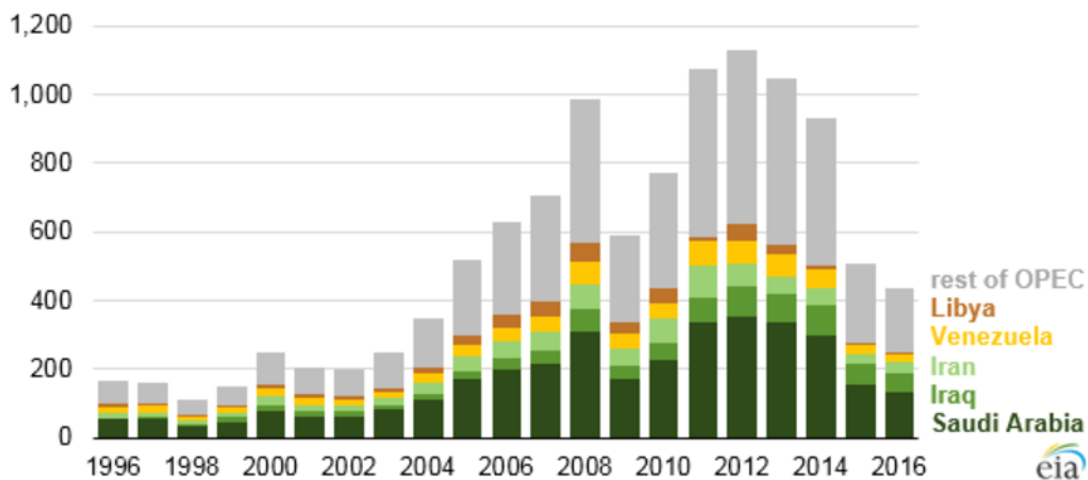
Following the announcement from OPEC that cuts would continue through March 2018, prices fell sharply to \$51.46/b on 25 May, and were trending downward the following morning. Despite OPEC and Russia, agreeing to cut production by a combined 1.8 million barrels per day (mb/d), traders expected larger cuts in order to sustain the recent declines in global oil inventories. OPEC is responsible for 1.2 mb/d of the cuts. Compliance for OPEC countries has averaged near 96%, while Russia has lagged behind at 60%.

Through the first three months of 2017, OPEC net oil export revenues increased, according to the International Energy Agency (IEA), compared to the previous quarter due to increased prices outweighing the lost barrels. OPEC's net oil export revenues were down significantly in recent years, mostly due to the fall in oil prices.<sup>i</sup> According to the U.S. Energy Information Administration (EIA), OPEC revenues were roughly \$433 billion in 2016, the lowest since 2004 (Figure 1).

With OPEC's commitment to keep production near 32 mb/d until March 2018, the International Energy Agency (IEA) estimates that global stocks will decline by 0.7 mb/d in 2Q17. The oil market was nearly balanced in 1Q17 as OECD crude stocks grew by 0.3 mb/d while stocks fell by 0.2 mb/d elsewhere.

Much depends on whether we will see significant production growth in the United States, Nigeria and Libya (Nigeria and Libya are OPEC countries but are excluded from the supply cuts).

**Figure 1. OPEC Net Oil Export Revenues (billion dollars, nominal)**



It is worth noting that the main beneficiaries of the OPEC/non-OPEC cuts, first announced in November, are U.S. oil producers. U.S. crude oil production has increased by more than 600 kb/d since the cuts were announced and have been largely responsible for a relatively modest price response to the cuts. U.S. producers are competitive at recent oil prices due to continuing gains in production efficiency and high returns from Permian Basin sweet spots (*IIEC Energy Market Newsletter*, 15 May, 2017, p. 3). The same cannot be said for OPEC exporters despite the low production costs that some enjoy. Export revenues are not balancing national budgets. The shortfall is becoming critical for countries like Venezuela, Libya and Nigeria that face considerable social and political instability.

OPEC crude output increased by 65 kb/d in April to 31.78 mb/d, led by higher production from Nigeria and Saudi Arabia. OPEC compliance has averaged near 96% since January, which appears to have reduced global stocks. However, some producers, including Saudi Arabia and Iraq, were able to sustain exports by drawing on crude in storage.

U.S. drilling activity continues to grow, up by 16 rigs this week. U.S. weekly crude production reached 9.32 mb/d on May 19, up slightly from the previous week's 9.30 mb/d. U.S. inventories fell by 4.4 mb during the week ending May 19, marking the seventh straight week of declines.

### **Natural Gas & LNG** (see *Technical Appendix for more data*)

U.K. spot prices fell sharply this week after news of multiple LNG cargoes planned for delivery to the region, furthering concerns of an oversupply. These include the first cargo of U.S. LNG to Europe, expected to land in Rotterdam on 7 June.

Asian LNG spot prices for July delivery were around \$5.50/mBtu last week, with traders citing sharply divergent views on pricing.<sup>ii</sup> Recent statements that South Korea plans to mothball up to ten aging coal-fired power plants in the next few months will likely push up prices going forward.

Despite recent U.S.-Chinese talks assuring Chinese traders access to U.S. LNG, low Asian LNG prices will not motivate any U.S. LNG cargos to China. With low LNG prices, transport costs are a much more critical factor influencing world LNG trade patterns.

Pipeline gas exports from Russia to Turkey increased by 26% in January-March 2017 compared to 2016 and by 14.6% compared to the same period last year.

### **Economics**

**Asia:** Economies of Japan and China are strengthening, while India experiences additional reforms. Japan's economy grew for a fifth consecutive quarter at the start of 2017, the longest stretch of growth in more than a decade.<sup>iii</sup> GDP increased by 2.2% in the three months through March, according to the government, while the rate of growth during 1Q17 was faster than the previous quarter and stronger than expected. Exports have been lifting output, as the global economic recovery, combined with a weaker yen, makes Japanese goods more affordable abroad.

Economic activity in China picked up pace in early 2017 due mostly to increased construction, and projections for 2Q2017 are also healthy from the country's top economic planning agency<sup>iv</sup>. GDP increased 6.9% year-on-year during the first quarter, up slightly from 2016's average, and is expected to be around 6.8% for next quarter, according to the State Information Center. The construction industry's heavy use of steel and investment in electronics factories are cited as drivers of the projections. In India, while the economy is growing at over 7% per year, ambitious new reforms in tax, banking, housing, and many other sectors have driven India-based stocks and led to healthy private investment.<sup>v</sup>

**Europe:** The Eurozone economy experienced a growth rate of 0.5% for 1Q17.<sup>vi</sup> Of the majority of countries with data available, only Greece experienced a decline. Germany grew by 0.6%, while France grew by 0.3%. In Germany, growth was driven by higher investment in construction, machinery and equipment, robust household

spending as well as strong exports. The Euro area increased its trade surplus with the rest of the world in March. Meanwhile, the European Commission has since raised its 2017 growth outlook to 1.7%.

**Turkey:** The Prime Minister said recently that Turkey aims to reach a \$2 trillion GDP and per capita income of \$25,000 by 2023, the 100th anniversary of the establishment of the Republic. GDP grew 2.9% last year to around \$800 billion, according to one estimate.<sup>vii</sup> Meanwhile, the European Union recently revised upward its forecast for the Turkish economy from 2.8% to 3% for 2017, and from 3.2% to 3.3% for 2018.<sup>viii</sup> The EU finds that reduced domestic uncertainty and depreciation of the lira in terms of foreign trade balance will be key contributors to the economic growth.

**United States:** The Commerce Department reduced first quarter growth to its lowest level in three years. 1Q17's growth of 0.7% is significantly lower than the 4% growth promised by President Trump during his campaign.<sup>ix</sup> Reduction in consumer spending, especially on large purchases such as automobiles, was the primary driver behind the slowdown. It is interesting to note that GDP growth was 2.5% during the last quarter of the Obama Administration. Other indicators, such as business investment, were stronger during 1Q17, though they were offset by the lower retail sales and lower inventories. The job market has proved resilient, however, with the unemployment rate falling to 4.5% in March, the lowest in nearly a decade.

### Geopolitics & Supply

**OPEC:** The producer group increased output by 65 kb/d in April to 31.78 mb/d, according to IEA. OPEC's compliance to its 1.2 mb/d supply cut averaged 96% for the first four months of 2017. Total OPEC production in April was down 535 kb/d from last April. While some market observers hoped for both continued cuts as well as deeper cuts following OPEC's May 25 meeting, the producer group only continued to sustain production cuts at current levels through March 2018.

**Non-OPEC:** Output declined by around 250 kb/d in April, mostly due to reduced output from Canada, the result of a fire at an oil upgrader. U.S. crude production continues to increase and drilling activity grows, a sign that production is likely continue to increase in the future.

**Iran:** Production in April fell 40 kb/d to 3.75 mb/d, which remains 50 kb/d higher than promised under the coordinated OPEC agreement. Public statements from the oil ministry in recent days suggest that Iran plans to significantly boost crude production capacity.<sup>x</sup> For now, Iran appears to remain committed to extending the production cuts to March.

**Iraq:** Oil production fell slightly by 20 kb/d in April to 4.41 mb/d. So far this year, Iraqi compliance with its coordinated cut is around 56%. Meanwhile, oil export data for the last two months show that Iraq's exports have not fallen commensurate with its production as Iraq has drawn on crude in storage for the difference.<sup>xi</sup> Iraq became the largest OPEC supplier to India last month, surpassing Saudi Arabia, as the Asian importer purchased significant volumes of the discounted Basra Heavy crude.

**Libya:** Crude production averaged 700 kb/d at the end of April, and has since reached 814 kb/d in May.<sup>xii</sup> The last time output reached these levels was October 2014. Libya pumped as much as 1.4 mb/d prior to its political uprising in 2011. While the domestic political and security situations remain tenuous, Libya's crude production revival may undermine OPEC's strategy to reduce global supplies. Libya has remained exempt from the OPEC cuts and will continue to be exempt through March 2018.

**Nigeria:** Oil production increased by 90 kb/d in April, after maintenance was completed at the 225 kb/d offshore Bonga field.<sup>xiii</sup> Nigeria is also exempt from the OPEC coordinated production quotas.

**Russia:** Oil production fell by 55 kb/d in April to 11.36 mb/d, though Russia remains roughly 70 kb/d short of its 300 kb/d reduction target, despite statements from Russian officials. Russia's Oil Minister made a public statement

last week with his Saudi counterpart on their joint commitment to stabilizing the oil market and extending the coordinated cuts through March. Much of Russia's oil upstream market is controlled by public companies, which limits the government's control of production.

**Saudi Arabia:** Oil production increased slightly to 9.98 mb/d in April, though output remains below the 10.06 mb/d target for the fourth straight month. The Kingdom's compliance has averaged 128% in 2017, according to IEA. While in Saudi Arabia, President Trump and the U.S. delegation made public statements regarding: the threat from Iran, religious tolerance, defense and defense contracts, as well as American investment in the region, including millions of dollars in support of the Kingdom's Vision 2030 plan to modernize and diversify the country's economy.

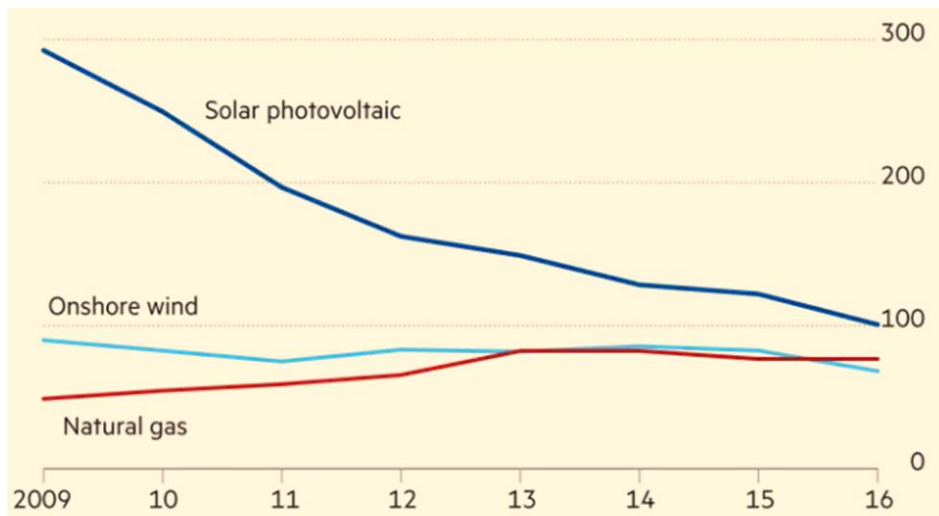
**Venezuela:** Crude production was 2.02 mb/d in April, more than 300 kb/d below the same time last year, partly due to political and economic turmoil as Venezuela remains teetering on the edge of social collapse. Clashes between demonstrators and authorities have led to dozens of deaths, while food shortages and looting remains and some citizens depart for neighboring countries.<sup>xiv</sup> Venezuela's foreign reserves stand at roughly \$8 billion, according to central bank data. A further \$3.5 billion in bond payments will be owed by the end of the year.

## Renewables

**Global:** According to a recent report by the Financial Times, entitled "The Big Green Bang: How renewable energy became unstoppable", global renewable power generation capacity rose by 9% last year — a fourfold increase from the start of this century — buoyed by the growth of newer sources such as solar power that shot up by more than 30%.<sup>xv</sup> Falling costs of renewables have remained primary drivers for their improved integration (Figure 2). For the second year in a row, renewable energy accounted for more than half the new power generation capacity added worldwide.

**India:** According to the Global Wind Energy Council (GWEC)'s Global Wind Report 2016, India set a national record last year with 3.6 gigawatts (GW) of new wind installations.<sup>xvi</sup> The Asian consumer is now fourth in terms of overall capacity behind China, the United States, and Germany. From a regional perspective, Asia was the world's largest growth market for wind capacity additions for the eighth year in a row. India plans to add at least 6 GW of new wind every year for the next five years, already on track to meet this goal for 2017. India is, in part, driven by the Paris Climate agreement, establishing goals across the energy sector, including decoupling economic growth from energy consumption.<sup>xvii</sup>

Figure 2. Levelized cost of electricity (\$ million per Megawatt)





**Switzerland:** Voters supported the government's Energy Strategy 2050 plan to invest in renewable energy and ban new nuclear power plants.<sup>xviii</sup> New energy production projects will focus on solar, wind, biomass and geothermal sources in order to reduce the use of fossil fuels and other foreign energy sources. Solar and wind account for less than 5% of total energy production, compared with 60% and 35% for hydro and nuclear, respectively. The plan will unfold between 2018 and 2035 and will be funded by taxpayers, as well as from a reduction of current subsidies for fossil fuels. The

country's five existing power plants will remain operational as long as safety standards are met.

**United States:** The State of California generated nearly 70% of its energy from non-hydro renewable energy sources last month, according to the system operator there.<sup>xix</sup> The previous daily record of renewables generation was 56.7% in March. So far in 2017, renewable energy, combined with hydroelectric generation, has contributed to significant decreases in gas-fired generation.

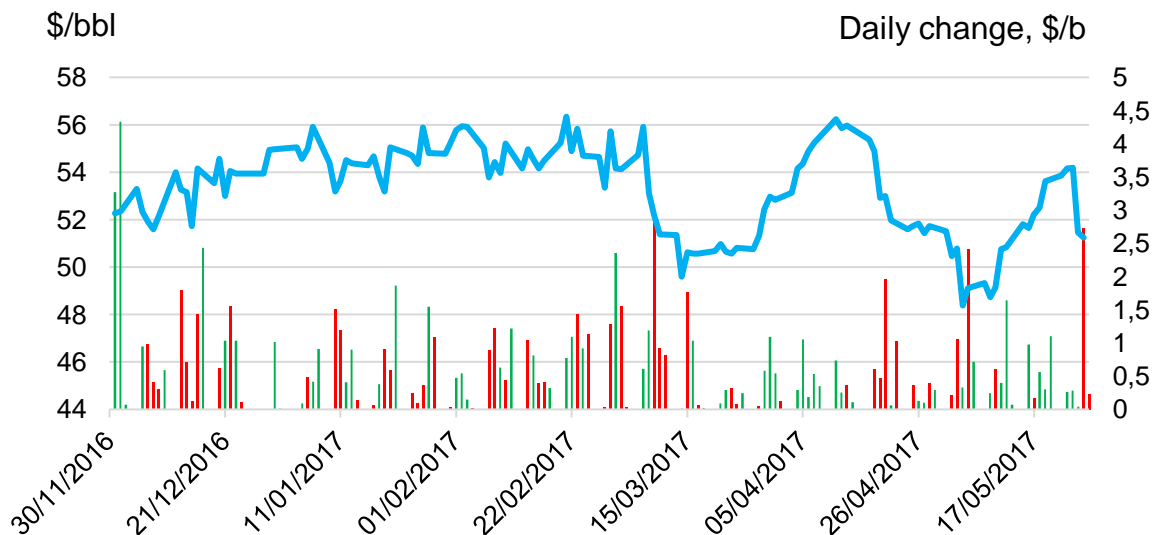
## IICEC Energy Market Newsletter Technical Appendix

### 1. Oil Market

#### Oil Supply and Prices:

- **OPEC crude output increased by 65 kb/d in April to 31.78 mb/d, according to the IEA.** Higher production from Nigeria (exempt from the production quotas) and Saudi Arabia drove the overall increases. Production rebounded in Nigeria after maintenance completed at an offshore oil field. U.S. drilling activity continues to grow, up by 16 rigs this week, and up by 497 rigs from the same time last year.<sup>xx</sup>

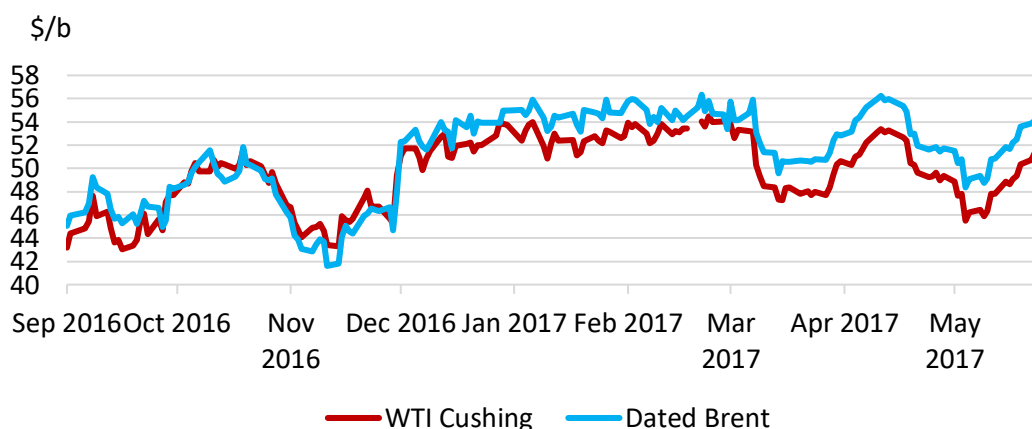
**Figure 3. Brent Crude Oil Price since OPEC Announced Cut**



- **The Brent-WTI spread peaked for May last week at \$3.28. During April 2017, the Brent-WTI spread averaged \$2.69, up from March's average of \$2.51.** The spread has expanded on expectations of a reduction in global crude oil supply due to continued OPEC cuts. A steady U.S. output, however, should keep WTI at a discount to Brent,

even with continued cuts from OPEC. It is interesting to note that last December, Barclays forecasted the Brent-WTI spread to average around \$2/b during 1Q17.

**Figure 4. Benchmark Crude Prices**

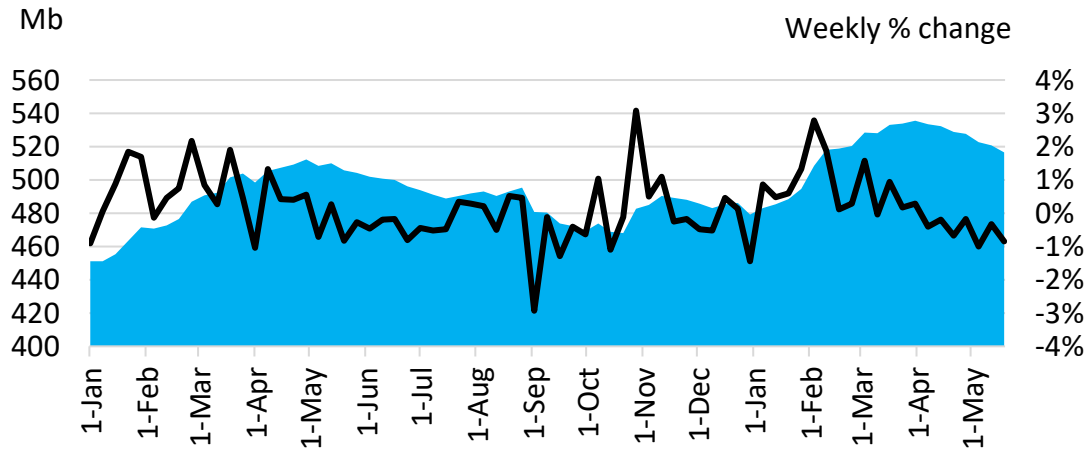


- **U.S. weekly crude production continues to grow, reaching 9.32 mb/d as of May 19, up slightly from the previous week's 9.301 mb/d, according to EIA.** U.S. oil production began to grow in the fourth quarter of 2016 after declining over the first three quarters of last year. Average production for 2016 (8.9 mb/d) was below 2015 (9.4 mb/d), though still 1.3 mb/d higher than the average for 2011-2015.

#### Crude Storage:

- **OECD stocks increased by 16.2 mb in April, according to IEA's preliminary data.** OECD industry stocks fell for a second consecutive month in March, by 32.9 mb, to 3,025 mb. This implies a total stock increase of 24.1 mb in 1Q17 led by a large build in January. Commercial crude stocks in the OECD reached a record high in March due to higher U.S. production and lower demand from refiners.
- **Crude stocks in China increased by 100 mb in 1Q17, mostly due to heavy maintenance at independent refiners in the east.<sup>xxi</sup>** More recently, total crude inventory at the major ports of Qingdao, Longkou, Laizhou and Rizhao in Shandong rose 10% from mid-April to around 2 million mt as of May 11, the highest since April 2016.
- **U.S. commercial crude inventories fell by 4.4 mb during the week ending May 19, marking the seventh straight week of declines.** At 516.3 mb, U.S. crude oil inventories are in the upper range for this time of year, based on the five-year average. Crude imports averaged 8.3 mb/d last week, down by 296 kb/d from the previous week. For the week ending May 19, U.S. crude exports dipped by 461 kb/d from the previous week to 625 kb/d. Weekly exports peaked this year at 1.026 mb/d in mid-February.

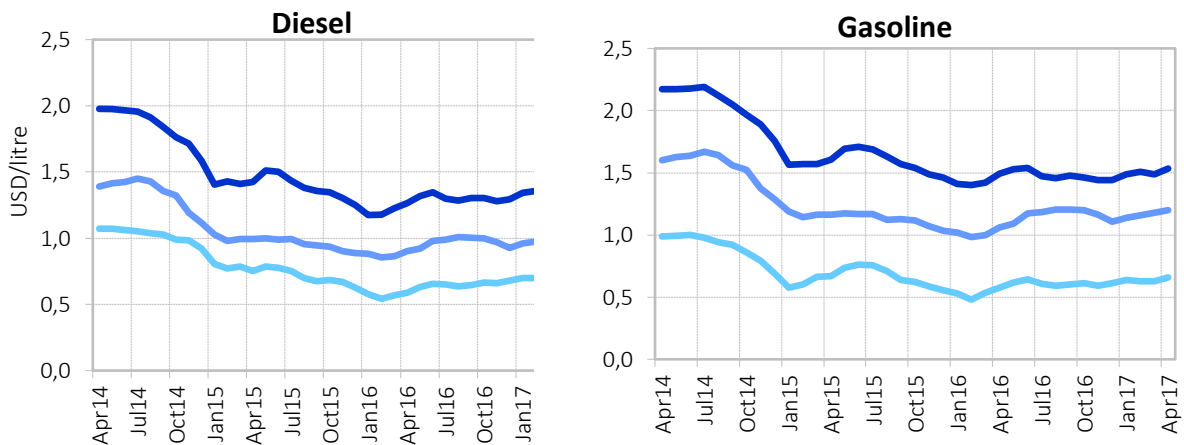
Figure 5. Weekly U.S. Crude Oil Stocks



#### Select Product Markets:

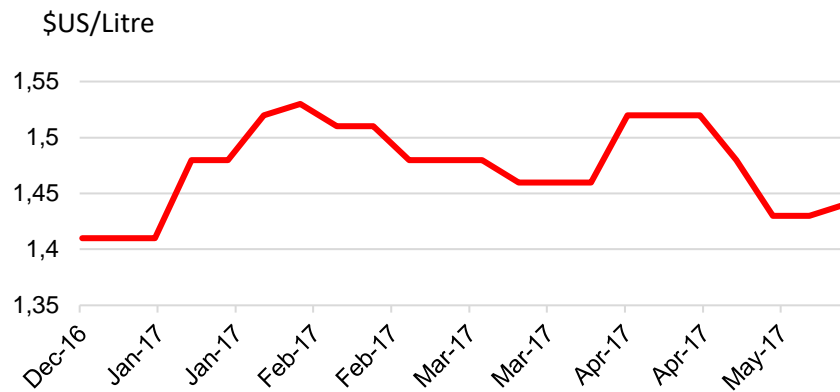
- Most product prices increased in April, reflecting improved demand throughout the OECD, according to the IEA.** Gasoline was the strongest performer last month, reflecting higher demand and tighter specifications for summer fuels, while diesel price rises were more limited. Arbitrage was open for gasoline from Europe to the U.S. East Coast, even though rising inventories in the United States made it uneconomic by the end of April. Demand for imports from West Africa was strong, as in previous months. In Asia, prices were also supported by tighter supplies. Singapore premium unleaded gasoline cargoes gained \$3.38/b to \$67.66/b.

Figure 6. Select Monthly Product Prices in Europe, Japan, and North America



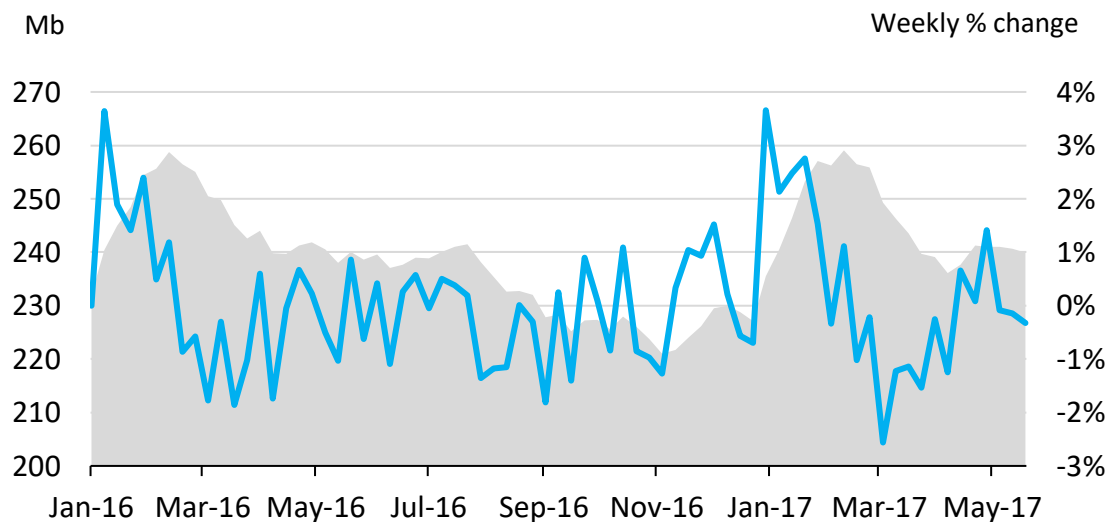
- Gasoline prices in Turkey** are shown in Figure 6, with prices falling 5% since the end of April. Since January, average gasoline prices increased by \$0.03.

Figure 7. Weekly Average Gasoline Prices in Turkey



- **For the week ending May 19, U.S. crude oil refinery inputs averaged 17.3 mb/d, up 159 kb/d from last week's average.** Gasoline production increased as a result, while refineries operated at 93.5% of their operable capacity. U.S. gasoline stocks fell by 0.8 mb last week, though they remain in the upper half of the five-year average for this time of year. The national average retail regular gasoline price increased to \$2.399 per gallon on May 22, \$0.030 higher than last week's prices and \$0.099 more than a year ago.

Figure 8. Weekly U.S. Gasoline Stocks and % Change



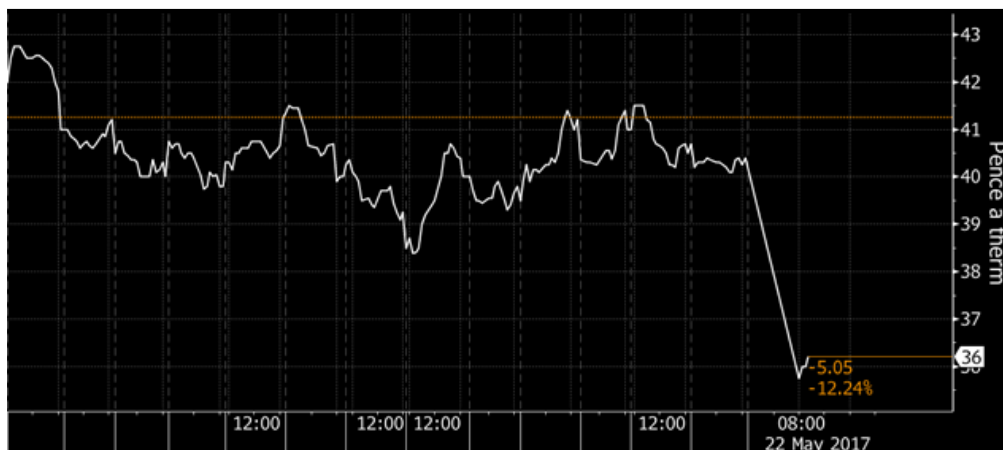


## 2. Natural Gas & LNG

### Supply and Price:

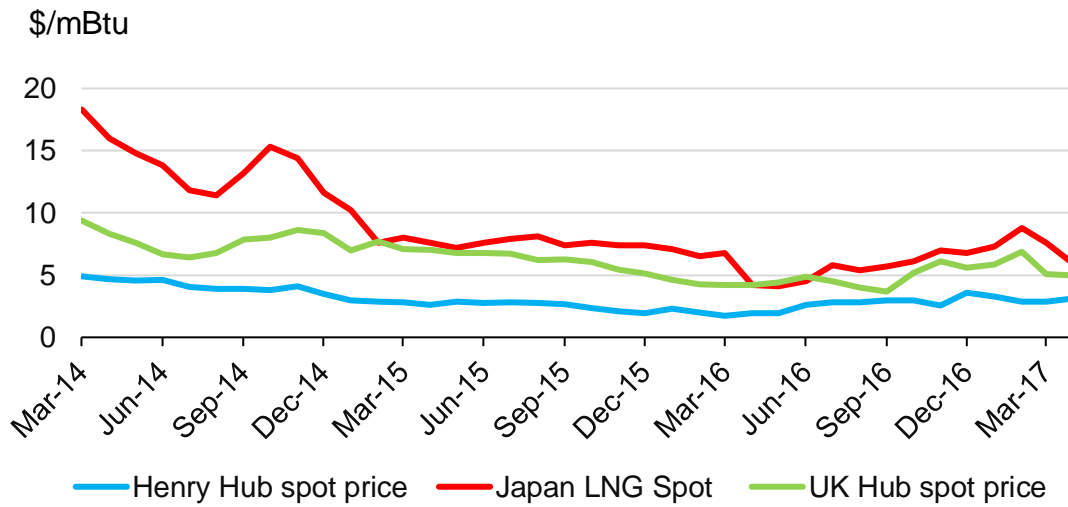
- **The first cargo of U.S. LNG to Europe shipped this week, expected to land at the Rotterdam terminal on June 7.** According to Platts, maintenance at Statoil's major LNG facility at Snøhvit created incentive for the oil major to secure a replacement shipment, and does not necessarily signify a change in the market dynamics.<sup>xxii</sup> Meanwhile, U.S.-based Cheniere Energy is expected to deliver its first LNG cargo to Poland, the first to Central Europe, in June 2017, as Poland seeks non-Russian gas suppliers.
- **Daily spot gas prices in the U.K. fell sharply this week after news broke of multiple LNG cargoes en route and planned for delivery to the region, furthering concerns of an oversupply.**<sup>xxiii</sup> U.K. NBP fell as much as 12% to \$4.63/mBtu, the lowest level since October 4. The contract is trading 25% below its five-year average for the time of year but more than 20% higher than last year's level.

Figure 9. NBP Gas Price in the United Kingdom<sup>xxiv</sup>



- **Asian LNG spot prices for July delivery were around \$5.50/mBtu last week, with traders citing sharply divergent views on pricing.**<sup>xxv</sup> However, recent statements that South Korea plans to close up to ten aging coal-fired power plants in the next few months will likely push up prices going forward.
- **U.S. spot prices increased slightly last week while U.S. east coast citygate prices increased \$1.00/mBtu, due to increased temperatures there.**<sup>xxvi</sup> The price for June delivery fell \$0.10 to \$3.192/mBtu as demand reportedly fell by 1% on average, mostly due to decreased consumption in the Industrial sector. Total gas exports to Mexico increased by 5% week-to-week, while LNG exports remained flat (with four vessels carrying a combined 13.8 Bcf) shipped from Sabine Pass in Louisiana.

Figure 10. Select Monthly Natural Gas Prices



- **Pipeline gas exports from Russia to Turkey increased by 26% in January-March 2017 compared to 2016 and by 14.6% compared to the same period last year, according to Gazprom.<sup>xxvii</sup>** Meanwhile, the two countries are pursuing the development of the Turkish Stream gas pipeline project, which would add an additional 31.4 billion cubic meters per day (bcm/d) of export capacity.

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