

IICEC Energy Market Newsletter

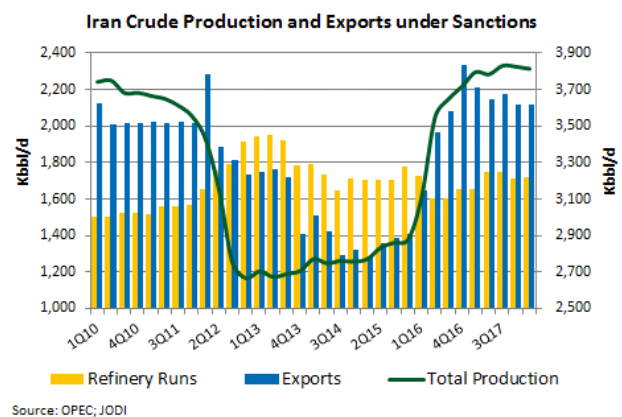
18 June, 2018

FEATURE STORY - Followup on the US Pullout from JCPOAL: On May 8, the Trump administration announced that the US would withdraw from the Iranian nuclear deal, formally known as the Joint Comprehensive Plan of Action (JCPOA). As a result, in collaboration between the US State Department and the US Treasury, the sanctions regime that was in place preceding the agreement have now begun to “snap back”, with two separate timelines of 90 and 180 days for governments and countries to start complying with the renewed restrictive measures. Many of the sanctions that had the greatest impact on oil markets will only be known after 180 days.ⁱ

Other parties to the deal, the P5+1, composed of central European powers, China and Russia, all exhibited vocal opposition to such a move. While the JCPOA remains in-tact, with Iran continuing to comply with its provisions, the US pulling out has made its survival largely dependent upon the EU parties and its efforts to mitigate the practical impact of renewed US sanctions.ⁱⁱ The EU even went so far as to announce potential counter measures to US sanctionsⁱⁱⁱ, although this could place EU companies in a difficult position of being in violation of EU laws should they choose to sever economic relations with Iran. This has caused doubt in the market over the effectiveness of such policies.^{iv}

European companies that had decided to re-enter the Iranian market or increase the flows of crude imports from the country following the implementation of the JCPOA are now taking concrete moves to hedge the risk posed by US sanctions. Companies participating both in the oil sector as well as other major industries, such as autos and airlines, are initiating a winding down of operations or seeking protection from other governments. Peugeot announced it is

pulling out of Iran^v, while Total, which signed a contract for South Pars Phase 11 alongside China National Petroleum Corporation (CNPC), has indicated it will request help from the EU in shielding sanctions. The Supreme Leader of Iran, Khamenei, is placing greater pressure on European governments and companies^{vi}, recently stating that Total has just two months to receive protection before it revokes the stake in the major natural gas project.^{vii}



From a short-term oil market perspective, the true measure for the effectiveness of US sanctions will be the degree to which the major importers diversify away from Iranian crude. With the opposition seen thus far from EU governments, the total ban on Iranian crude imports that was imposed in July 2012 is quite unlikely, although European refiners are beginning to seek alternative sources for similar crudes.^{viii}

Japan and South Korea are the other two allies that can be expected to comply materially with US sanctions, although these two countries are so import-dependent that volumes from Iran will continue as they did from 2012-2015, although they will seek US waivers on these diminished volumes.^{ix}

The two critical importers that could decide the eventual physical impact of the sanctions on global oil markets are much less certain in terms of compliance, India and China. As India has already seen political repercussions materialize due to the high oil price, and state-run refiners experience a fall-off in available heavy supply as a result of the collapse in Venezuelan output, Delhi has officially stated it will try to maintain crude flows from Iran.^x

The four state refiners announced in April that they planned on raising the numbers of cargoes sourced from Iran over the next fiscal year, as Tehran attempts to proffer better terms for its crude.^{xi} Even after the sanctions were announced, one of the largest Indian refiners, Bharat Petroleum Corp. Ltd. (BPCL), maintained that its imports from Iran would rise this year.^{xii} The biggest private Indian refiner, Reliance, has greater exposure to the US, said it would cease buying oil from Iran, similar to their actions in response to sanctions in 2009 and 2010.^{xiii} One of the greatest obstacles for India to sustain the levels of crude imports from Iran last time was the ability to circumnavigate US financial sanctions and the lack of access to US dollar transactions, a mechanism it is attempting to establish currently.^{xiv}

China, meanwhile, had little regard for US sanctions during their last iteration, and are expected to do much the same this time around. Tehran is quite conscious of the fact that Chinese crude demand has been growing more quickly than its imports from Iran, indicating an ability not only to maintain but boost volumes from Iran.^{xv}

Power, Renewables & Efficiency

Global Market Trends

Indian Official Medium-Term Targets for Renewables Portion of Energy Mix Continue to Grow: In India, wind, solar, and wind-solar hybrid installations continue to change the country's energy mix. Pursuant to the Paris Agreement, the nation looks to install 175 GW of renewable power generation by 2022, and

thus receive 40% of its total electricity from renewables by 2030. The Indian government's goal for offshore wind farms is to utilize India's 7,600km of coastline in order to generate 5 GW by 2022.^{xvi} Such benchmarks for solar are more ambitious. Already the world's third largest solar producer, India has already met its goals of 20 GW by 2022; now, the country's target is 100GW of solar generation in the next four years.^{xvii} On May 14, the Minister of Renewable Energy commissioned two small projects for wind-solar hybrid installations, with wind turbines and solar panels on the same land, noting the advantage of steady electricity generation, one of the key hurdles in the expansion of renewables projects.

Labor markets will follow suit. In a May report, the International Labor Organization (ILO) predicted that renewable energy markets will support 300,000 workers by 2022, up from 154,000 in 2009, and no small feat in a country in which 80% of the labor force works in an "informal" sector.^{xviii}

The impact on the Indian economy could be even greater should these targets continue to increase, as they were again recently by 28% from an already ambitious goal for 2022.^{xix}

Generation/Fuel Sources

UAE Announces another Delay in Commissioning of First Nuclear Reactor: Construction for the Barakah Unit 1 nuclear power plant, the result of a 2009 joint venture between South Korea's Korea Electric Power Corporation (KEPCO) and the UAE's Nawah Energy Company, has been completed. The \$24.4 billion nuclear reactor will be the first such commercial power plant in the Arab world.^{xx} Delays, however, continue to postpone the handover of operations.

In April, the UAE's top energy regulator stated that more safety tests would be needed. Adequately training for Barakah's approximately 1,800 staff has wrought additional delays, likely postponing the handover until 2019.^{xxi} These delays come amidst the UAE's broader search

for partners to build its fledgling nuclear industry, including a regulatory infrastructure. In May, the UAE's nuclear regulator Federal Authority for Nuclear Regulation (FANR) signed a five-year memorandum of understanding with its Chinese counterpart, the Nuclear Safety Administration (NNSA), to exchange technical information and to provide training opportunities for its new regulatory workforce.

This deal is one of 19 international agreements that the UAE has in place to build its fledgling nuclear sector.^{xxii} Such deals between China and the UAE, as well as delays at the Barakah facility, however, have not deterred South Korea's energy firms from deepening its partnerships with not only the UAE, but Saudi Arabia as well. In October 2016 Nawah's parent company, the Emirates Nuclear Energy Corporation, signed three more joint venture agreements for APR-1400 reactors, all to be completed by 2021, and all of which will be located in the Dhafrah region of Abu Dhabi.^{xxiii} South Korea is also planning to tender a bid for two 1400MW nuclear projects in Saudi Arabia. Over the next 25 years the Saudis plan to build at least 16 nuclear power plants, with a collective price of \$80 billion.^{xxiv}

Natural Gas

Prices/Fundamentals

Asian Spot LNG Prices Hit Multi-month High as Demand Continues to Outstrip Supply: Spot LNG prices in Asia have risen to their highest levels since February, when an earthquake knocked out supply from PNG LNG, and a four-year seasonal high due to a combination of robust demand in the Pacific Basin, as well as constrained near-term supply as LNG projects prepare for maintenance in August.^{xxv}

Upstream/Supply

After its first offshore auction last year, exploration kicks off in Lebanon: After several delays in executing a successful bid round, which concluded in October 2017^{xxvi},

Lebanon has seen the commencement of the first exploration activity on its offshore blocks. The approval by the Lebanese government of the development plan submitted could see drilling commence by next year. A trio of operators – Total (France), Eni (Italy), and Novatek (Russia) – has formed a consortium that finalized rights to a pair of blocks, Blocks 4 and 9, in February 2018.^{xxvii}

Progress on Block 9 in particular could be more challenged due to an ongoing dispute between Lebanon and Israel over their respective maritime border. This disagreement has caused sufficient trepidation on the part of E&P firms that development of blocks near the overlap of acreage claimed by both sides will only commence once a solution has been concluded. Recent statements from Israel and the US officials that are brokering the current negotiation process indicate that progress may be in the offing this year, with the potential to establish a foundation for a resolution, if not a final deal itself.^{xxviii}

Nevertheless, the Lebanese government is pressing on with plans for another bid round, although exact dates have yet to be announced. Such a round would ensure that activity will only pick up into 2019, barring further delays that would most likely come from a collapse in talks with the Israelis or heightened geopolitical risk that causes Total or Eni to delay any exploration or appraisal work.^{xxix}

Midstream/LNG Transit

Southern Gas Corridor Flows Reach Turkey from Azerbaijan as Progress on TurkStream Continues in Tandem:

A major milestone in connecting Caspian gas supply with European demand centers was reached in late May, as the first phase of the Southern Gas Corridor (SGC) pipeline project was commissioned.^{xxx} The pipeline will transit prospective gas volumes from the unassociated Shah Deniz field offshore Azerbaijan. This output connects from the South Caucasus Pipeline to the Trans-Anatolian Natural Gas

Pipeline (TANAP) in Turkey before net export supply reaches the Trans-Adriatic Pipeline network into Europe. President Erdogan hailed the first volumes of Azeri gas to reach Turkey.^{xxxix}

Although global markets see the SGC from the perspective of European demand finding alternative gas supplies to Russia, this Azeri natural gas could become the cheapest available in the Turkish market.^{xxxix} Such competitive advantages as cheap gas feedstock for electricity generation and petrochemical production will boost the economic benefits of producing and transiting natural gas to a European market that will deliver long-term demand growth.^{xxxix}

Such developments for the SGC, and the potential for cheaper gas supplies entering the Turkish market, could be driving accelerated progress in its competitor European-bound gas pipeline project in Turkey, the Gazprom-operated TurkStream. A protocol was reached between Gazprom, Ankara, and Botas regarding the permitting and construction of the onshore portion of the pipeline, which is set to stream next year.^{xxxix} It is as yet unclear whether Gazprom offered greater discounts for its gas to clear the administrative hurdle. Another impending obstacle for TurkStream was finalizing the entry point into Europe, with Bulgaria wavering as to its status. Bulgaria also confirmed recently that it would indeed be the entry point for a pipeline spur of the TurkStream project.^{xxxix} The offshore section of the pipeline had only just been completed at the end of April, according to Gazprom, leaving progress on the land portion essential if delays were to be avoided.^{xxxix}

Imports/Demand/Downstream

Strong Demand from Major Asian Markets Could Grow Further, Supporting LNG Prices:

China has dominated the discussion of unexpected strength in LNG demand over the past year. In 2017, LNG demand rose by over 40% in China, lifting the market size to that of Europe, which itself grew by 20%.^{xxxix} While

organically growing demand is driving much of these trends in Europe, falling local gas supply, particularly in the UK and the Netherlands^{xxxix}, are also compounding a growing need for LNG to compensate for lost volumes.^{xxxix}

Chinese demand has nevertheless provided the main pillar for global LNG demand growth since 2017 began. Such breakneck consumption is still holding up spot LNG prices in the Asian market, along with robust demand from another primary Asian demand center, South Korea.^{xi} One of the main underlying factors that has precipitated such an unexpected jump in LNG imports into China is the strict implementation of an anti-smog policy that has seen coal plants shuttered in favor of cleaner-burning natural gas.^{xii} Preference for LNG instead of diesel in long-haul trucking could also provide another boost to Chinese LNG demand. Such a shift in demand for natural gas caused several regional shortages, which spiked LNG prices throughout the Pacific Basin, as gas volumes simply became relatively scarce.^{xiii}

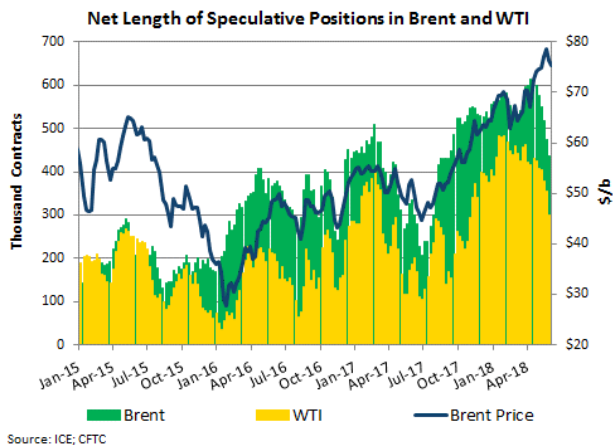
The elevated price outlook for gas in the Asian market is providing a tailwind for investment in LNG liquefaction capacity in the two largest growing sources of LNG exports, the US and Australia. Projects in the US could be the biggest beneficiary of a higher base in Chinese demand, which has already seen a jump in investment flows for export facilities along the US Gulf Coast in particular.^{xliii}

Oil Market

As OPEC Meeting Approaches, the Path Forward for Supply Deal Increasingly Uncertain:

Following a steady rise to \$80/b for Brent, combined with a tight differential with its counterpart benchmark, WTI, oil prices have experienced headwinds as investors seek to recoup profits from their long exposure and the narrative surrounding near-term supply is not dominated by disruptions. Since, rising oil production from the US – specifically in the Permian – has served to pressure the differential and cause concerns that high prices will bring greater supply than expected. As such, hedge funds and other managed money

began to exit the record net long positions as uncertainty increases.^{xliv}



The initial stalling of prices was due to profit-taking by the holders of oil futures contracts, however an announcement from key oil producers that they may step in sooner than planned to replace some of the barrels lost from other suppliers, namely collapsing output from Venezuela and the prospect for lower Iranian production as renewed sanctions begin to bite, only accelerated the down trend for prices^{xlv}, which dipped below \$74/b in early June before rebounding slightly.^{xlvi}

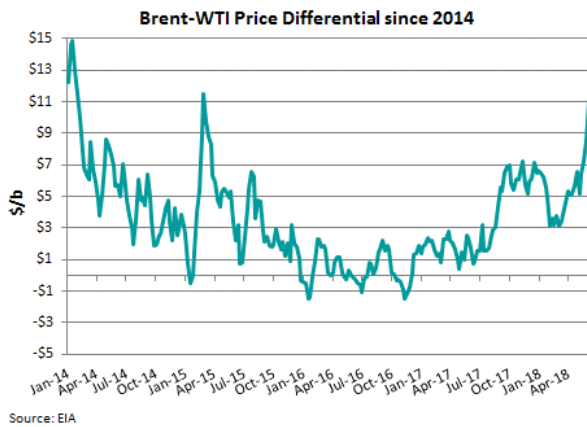
It is this opaque context in which the OPEC and non-OPEC producers must decide how to proceed with the supply deal that has been in effect since January 2017, a collaborative effort that has been led by Saudi Arabia and Russia. While discussion of the path forward for the agreement has pulled oil prices down over the past weeks, there is still no certainty surrounding the size of any prospective increase in output. Saudi Arabia continues to favor a tight enough market to deliver prices above \$70/b^{xlvii} – in order to come close to balance for its fiscal budget and current account – Russia has made recurring statements indicating a preference for greater output and market share that could see prices fall back to \$60/b.^{xlviii} The next meeting between the Russian Energy Minister, Alexander Novak, and his Saudi counterpart, Khaled al-Falih, is scheduled to occur around the start of the World Cup this week, which Russia is hosting and the opening match of the tournament pits

the two major oil exporters against each other.^{xlix}

Tensions are growing over such an increase in OPEC/Russian supply, especially as the US has formally approached Saudi and other producers to push output higher by as much as 1 Mbbbl/d. Reports have emerged that the US sought future support from Saudi before withdrawing from the Iran nuclear deal, as political pressure over gasoline prices had already consolidated with summer peak driving season just beginning in the US.^l Iran castigated such a move, declaring it against the founding principles in the OPEC Charter, opposition that has since been joined by fellow members Iraq and Venezuela.^{li} Nevertheless, OPEC data for May already show that Saudi increased supply by 160 Kbbbl/d in May relative to April, setting up the potential for a tumultuous meeting in Vienna on June 22.^{lii}

Prices/Fundamentals

WTI-Brent spread at its widest in years, yet near term upside to US crude exports remains limited: A primary driver of the recent downturn in oil prices is the rapidly growing production coming from the US. This has weighed more heavily on the US benchmark (WTI), which has served to widen the price differential with the global benchmark, Brent, to over \$10/b for the first time since 2014.^{liii} Much of these incremental barrels have emanated from the Permian play, which is now increasingly squeezed for offtake capacity. Lack of pipeline availability has dragged the regional price, WTI-Midland, such that producers are now considering rail and trucking as a means for volumes to transit through to export points in Houston and Corpus Christi.^{liiv}



These bottlenecks have created a significant disconnect between the paper and physical markets for oil. Theoretically, or on paper, such a widespread between WTI and Brent should yield a rush of US crude exports to the major importing markets in Asia and elsewhere. Nevertheless, the inability of the physical reality of insufficient connections between West Texas and the Gulf Coast disallows such a flood of US crude into the global market.^{lv} This points to a sustained – and potentially widening – the differential that will remain until the midstream challenges are resolved.^{lvi}

Upstream/Supply

Azerbaijan Signs Several Deals for Offshore Oil Fields with Major Operators to Boost Crude Supply: After CPC crude export volumes hit record levels due to growing output from the Kashagan field in Kazakhstan, Azerbaijan is seeking similar upside to its previously declining base of oil supply. Several assets offshore Azerbaijan could lead such a renewal in the oil sector.^{lvii} As such, state-run oil company, Socar, have signed deals with international operators that could see a pick-up in exploration and appraisal of a number of offshore blocks.

Socar has in fact signed two separate major agreements with Equinor – formerly Statoil – and BP over the assets that could drive such a rebound. The deal with Equinor involves the undeveloped Karabakh field and other acreage^{lviii}, which has led Equinor to commit to the drilling of a well before the close of 2018.^{lix} BP, which signed a deal with Socar last month

over its bulwark Azeri Chirag Gunashli (ACG) cluster of oil reservoirs, floating the possibility for an additional platform at the project. BP has also announced at least two wells to be drilled in Azerbaijan over 2019, a sign that activity is again picking up for Azeri oil production just as gas development – and its flow to Europe – will become the overwhelming focus in the near-term.^{lx}

Pipelines/Truck/Rail

Delays and Confusion still Hangover Proposed Iraq-Iran Oil Swaps: It was reported on 3 June that the oil swap agreement brokered between Iraq and Iran, one that has seen several false starts, had finally begun.^{lxi} The deal is meant as a marginal export outlet for crude volumes from the northern Iraq that have been shut in following the retaking of formerly federal oil facilities in the Kirkuk oil field. The swap deal was to see 30-60 Kbb/d of Kirkuk crude make it to an Iranian refinery, where it could be processed into a valuable product and returned to the local market in and around Iraqi Kurdistan. When finalized in December 2017, it was to last a full year.^{lxii}

However, after several days, the Iraqi Minister of Oil claimed that such flows had still not begun, while Iranian authorities made differing statements as to the initiation of the swap agreement.^{lxiii} This is not the first time that such an agreement has failed to deliver physical barrels, with another abortive start to the deal having passed in April.^{lxiv} The true solution would be a concluded resolution to resume flows through Turkey to the port of Ceyhan via the KRG export pipeline that is currently running at less than half capacity. Such a development is not expected until a new government has been chosen following parliamentary elections on May 12, which were marred in claims of voter irregularities and fraud.

Prospects to Become Established Oil Producer Brightens for Kenya as Operator Chooses Contractor for Pipeline: In a pilot plan, Kenya began exporting 2 Kbb/d of oil in

the first week of June, a noteworthy milestone as the country's prospects continue to brighten for becoming a significant oil producer. The phased plan calls for production to ramp up to 400 Kbb/d by December; by 2021, exports from Kenya's Lokichar basin will reach full capacity.^{lxv} A consortium of regionally-focused operators Africa Oil and Tullow Oil, joined by French Major, Total, are leading the \$2.9 billion upstream project, and the pilot began after the Kenyan government brokered a revenue sharing deal in May between the national and county governments.^{lxvi}

The East African nation discovered an estimated 750 Mbbl of oil reserves in 2012, joining Uganda, Tanzania, Mozambique, and South Sudan as local nations that have recently made large hydrocarbons discoveries.^{lxvii} Challenges, however, remain for Kenya, one of which will be the successful implementation of a \$1.1 billion pipeline needed to transport the crude to the Indian Ocean coast. Tullow Oil hired Wood to design the pipeline. A final investment decision is expected in 2019.

Imports/Refining/Product Demand

Saudi Seeks to Expand its Petrochemical Portfolio as Aramco Implements Long-Term Strategy: Over the last year, Saudi Arabian state-run Aramco, and Saudi private companies like Saudi Arabia Basic Industries Corp (SABIC), have signed a dizzying number of investment deals to expand Saudi Arabia's global downstream capacities, especially in petrochemicals. In early April, Saudi Aramco announced major deals with France's Total, worth \$9 billion, and with a consortium of Indian refiners, collectively worth \$44 billion. The deal with Total would supplement France's existing 440 Kbb/d Jubail Satorp refinery, adding an additional petrochemical complex with a mixed-feed steam cracker with a capacity of 1.5 million tons per year of ethylene.^{lxviii}

The \$44 billion deal with the Indian refiners consortium, however, would create one of the world's largest refineries on India's West Coast, combining the new petrochemical facilities with a 1.2 Mbbl/d crude refinery, for a total capacity

of 18 Mt/y.^{lxix} The complex would give Aramco a foothold to meet fast-growing Asian demand, and help Saudi Arabia compete with Iraq as the largest supplier for the Indian domestic market. The news comes after the consummation of a similar petrochemical deal between Aramco and Malaysia's state-run Petroliaam Nasional Bhd (Petronas); that facility is 87% complete and will start in 2019. The UAE's ADNOC is also considering a joint venture with Aramco in Asia.^{lxx}

SABIC and Aramco's subsidiaries have followed suit. In November of 2017, SABIC and Aramco signed a preliminary deal for a 20\$ billion petrochemical complex in Saudi Arabia, a project that would represent the largest crude to chemicals refinery in the world, and the country's first. The deal would create an estimated 30,000 jobs and add 1.5% to Saudi Arabia's GDP.^{lxxi} In May, SABIC and ExxonMobil created a joint venture for a 1.8 million ton ethane cracker in San Patricio County, Tex.^{lxxii} Aramco is still in ongoing negotiations with Russian petrochemical group Sibur to build a facility to produce synthetic rubber.^{lxxiii}

This flurry of joint ventures and ongoing negotiations come as Saudi Arabia is attempting to diversify its economy from an over-reliance on oil exports, and thus expand its downstream capacities, and regional presence, in fast-growing Asian markets, such as India, China, and Malaysia.

Political-Economy

Macroeconomy

With prices returning to levels seen in 2014, economic and political reverberations begin to emerge: After years of relatively low – albeit volatile – oil prices, the tightening of global supply dynamics and a coinciding jump in geopolitical risk served to push prices from a low of ~\$45/b in late June 2017 to breach \$80/b in May. Such a precipitous rise in oil prices, even if driven more by robust organic economic expansion lifting demand growth, will inevitably have an impact on consumers, commercial

activity, and eventually could develop into a source of political discontent and potential instability. While refined product demand has indeed proved strong for the past few years, much of the recent price run-up has been born of supply side dynamics, which could complicate the continuation of strong economic growth seen in recent years, particularly for those nations that import much of their crude oil or petroleum products, as well as add complexity to the decisions made by central banks regarding monetary policy.^{lxxiv}

The US economy has been a source of particularly pronounced growth in consumer spending, especially as wages also edge up alongside unemployment near historical lows, although the first quarter did see increases slow somewhat. With economists and analysts expecting an acceleration in US GDP growth in the second quarter to 3.0% from 2.3% for the first three months. Rising gasoline prices eroding general levels of discretionary spending and boosting costs of doing business are a primary threat to the sustainability of the encouraging economic data.^{lxxv}

Central bankers are also keeping a wary eye on rising oil prices just as a general expectation that a tightening of monetary policy was already underway. While the U.S. Federal Reserve has asserted that rising oil prices will only lead to temporarily elevated inflation, maintaining that three hikes in interest rates remain the target for the year, pressure may be growing to raise rates four times in 2018.^{lxxvi} Strong factory orders and another jobs report for May that delivered above expectations both in job creation and wage growth adds to the arguments for the prospect of an overheating economy that might require a more hawkish approach to monetary policy.^{lxxvii} In Europe, the European Central Bank (ECB) could be compelled to hasten plans for an exit from its own extraordinarily loose program of monetary easing due to the rise in oil prices over the past three quarters.^{lxxviii}

The political implications of higher petroleum prices have already elicited strong reactions,

especially in emerging markets where the rise in the US dollar at the same time as rising oil prices has served to lift prices rapidly. Two large nations that have seen the first major reverberations from economic pressures brought by higher oil prices: Brazil and India.

In Brazil, a general strike by truckers that lasted longer than a week due to laws previously passed that attempted to remove major subsidies of diesel and other transport fuels to align domestic prices with imports. After bringing the largest economy in Latin America to a stand-still, the government capitulated, reinstating certain subsidies at great cost to the national oil company (NOC), Petrobras.^{lxxix} The episode has cut the share price of Petrobras by nearly 25% and prompted the resignation of its CEO last week.^{lxxx}

India also instituted substantial subsidy reform during the oil price downturn, while also adding certain taxes to fuels as the crude price fell over 2015 and 2016. However, the prompt rise in prices for diesel and gasoline has provoked protests similar to those seen in Brazil. Without any official subsidization of the retail sector, the only lever Delhi has to contain inflation in fuels is to instruct the state-run refining firms to place a cap on or to reduce prices, at great loss to the refiners. Elections at the state-level have already seen such price freezes, with others expected later in 2018, while the Modi government and his BJP party prepare for a national election next year, making them especially sensitive to political opposition.^{lxxxi}

Geopolitics

Venezuela Output Plummets as Operations Further Hampered by Attempted Asset Seizures:

While output from Venezuela had already reached freefall due to a variety of growing technical challenges throughout its upstream and midstream operations, losing over 300 Kbb/d in the fourth quarter of 2017 alone. Such troubles were compounded by the default on loan payments from both the government and state-run PDVSA.^{lxxxii} While the government has ceased paying any amount

owed on its sovereign bonds, either interest or principle, the prospect of having critical PDVSA assets seized abroad has driven continued – albeit often much delayed – payments on its corporate debt.^{lxxxiii} Investors are in effect stuck with these bonds, formerly issued by Caracas or PDVSA, as the Trump administration steps up its sanctions regime on Venezuela, most recently after the presidential election on May 20.^{lxxxiv}

After experiencing a brief relative stabilization of oil output early in 2018, Venezuela seems to be entering another structural leg down in supply capacity, one that could see production ultimately fall below 1 Mbb/d, just half of the 2 Mbb/d that was pumped in mid-2017. The operational morass that has caused a strategic retrenchment of PDVSA assets into Venezuelan waters, rather than using its previously expansive portfolio of assets across the Caribbean, began with a major court decision against Venezuela in a case regarding the appropriation of assets that occurred over a decade ago.^{lxxxv}

ConocoPhillips won a \$2 billion settlement against Caracas for its lack of payment for expropriated oil assets, setting in motion active efforts by the Independent oil company to claim compensation by seizing PDVSA assets.^{lxxxvi} Conoco first attempted temporary seizure on several Caribbean islands, with Curacao allowing Conoco to pursue nearly \$640 million in assets.^{lxxxvii} Curiously, PDVSA officials did not erect legal protections against prospective asset seizure before the ruling, leaving significant assets exposed unnecessarily.^{lxxxviii} Not all judiciaries have ruled in favor of Conoco, however, as a court in Aruba lifted the ability of the US firm to freeze assets.^{lxxxix}

Nevertheless, such proactive attempts to reclaim amounts owed by either the Venezuelan government or PDVSA seems to have triggered more lawsuits and a mobilization among its bondholders to do the same. A service provider, SNC-Lavalin, has sued

PDVSA in New York for \$25 million, and others appear to be preparing similar moves.^{xc} Moreover, the US and European investors are now banding together to gain leverage in their own potential asset seizure proceedings, which could simply mean further downward pressure on volumes that are coming from Venezuela, a fundamental support for prices over the past six months.^{xcii}

Ukraine Seeks to Appropriate Gazprom Assets after Winning Arbitration: The Ukrainian government, and its state-run gas firm, Naftogaz, won a landmark arbitration case against Russian producer, Gazprom earlier in 2018. The ruling awarded Naftogaz upwards of \$2.6 billion, which is a culmination of years in proceedings.^{xciii} Disagreements between the two have more than once severed natural gas supplies to major portions of eastern Europe, which has driven Gazprom to seek alternative routes into Europe for its gas volumes. There have been growing concerns in some EU countries that Gazprom would divert all gas volumes transiting Ukraine to the new pipelines from Russia to Europe if they are approved and built.

In spite of Gazprom filing for a full reversal of the ruling^{xciii}, Naftogaz is now pursuing Gazprom assets in Europe as compensation for its \$2.6 billion award.^{xciv} A Dutch court was the first to hand Kiev a victory in its quest to freeze assets, as it affirmed the right of Naftogaz to appropriate Gazprom assets in seeking to uphold the ruling.^{xcv} Currently, Naftogaz has asked a Swiss court to uphold the ruling, while Gazprom has filed for a ruling in Swiss courts as well.^{xcvi}

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