THE QAMAR NEWSLETTER

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A panorama of Hong Kong's skyline at night. Cover story on Trump's apparent trade war with China by Robin Mills.

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Qamar Energy is a leading consultancy based in Dubai, which expedites understanding the energy dynamics of the Middle East and North Africa.

The QAMAR NEWSLETTER is a monthly publication that provides critical appraisal and focussed assessments of the month's energy developments across the MENA region.

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QAMAR ENERGY

TRUMP'S TARGETING OF BILATERAL PETROLEUM DEFICIT IS NONSENSICAL

Robin Mills • *A version of this article appeared in The National, June 27, '18* • **COVER STORY**

Trade wars are contests in masochism.

The US Trump administration struck the opening blows but China has already identified energy as a key pain point. Oil, gas, coal and solar power are all set to take some bruises.

In January, the US put a levy of 30 per cent on all imported solar cells, and at the end of May, it imposed tariffs on steel and aluminium from the EU, Mexico and Canada. A compromise was announced in May over US demands that China reduce its $375 billion annual trade surplus with the US by $200bon. China's growing economy was in any case set to take more energy and agricultural produce from America.

Yet after talks predictably broke down, on June 15 the White House unveiled tariffs on $50bn of Chinese imports, including 25 per cent on solar panels. Beijing has announced it will respond with tariffs on many American goods, including 25 per cent on oil, propane, petrochemicals and coal, on July 6. Natural gas in its liquefied form, LNG, is not yet on the list.

The Middle Kingdom has very swiftly become the largest importer of US petroleum, a forecast 450 000 barrels per day in July, worth some $12bn over the course of a year, as producers seek outlets from a continent flooded with crude. As it converts polluting coal-burning heaters and industry, it is buying more liquefied natural gas (LNG) from the US, with a potential $20bn to $30bn of yearly sales. Sales of ethanol, made from corn and used as a petrol substitute or additive, could add another $5bn to $7bn. And its coal purchases from the US doubled last year to almost 6 million tonnes, worth some $500 million.

The ceiling on further imports is not set by Chinese trade policy or even its economy, but simply the limitations on US production and export capacity, with pipelines from the inland Permian Basin of West Texas already full to capacity, and new LNG export plants yet to be completed.

The shale revolution has had a positive impact on the American economy, but not changed its overall trade position. The US' petroleum trade deficit is now barely a tenth of its peak level of 2008, but the deficit on all trade is unchanged. Dollars that were used to buy foreign oil are now used for other products, just as economic theory would predict. And focusing on a bilateral deficit, even with a country as important as China, is yet more nonsensical.

The modern Republican Party appears to welcome Soviet-style policies of managed trade, and is more concerned about selling coal and soya beans than building a high-tech economy. Such a mercantilist agenda of "energy dominance" is an intolerable threat to powerful independent nations.

The US, which had quotas on imports of oil from 1959 until 1973 for spurious national security reasons, blocked China National Offshore Oil Company's attempt to buy independent oil firm Unocal in 2005, and banned exports of its own oil for 40 years until 2016, has a poor record on free trade in energy. A serial imposer of energy-related sanctions on countries such as the Soviet Union, Iran, Iraq, Libya and Sudan, it has recently targeted three leading oil and gas exporters, Russia, Venezuela and (again) Iran.

As their exports are hampered, the US might have expected to take markets for its LNG in Europe and oil in Asia. China, Japan and South Korea have always been concerned about over-reliance on the Middle East; Europe, over Russian gas.

Chinese tariffs will make US energy imports uncompetitive. To some extent, American oil and LNG exports will simply be redistributed, with consumers paying the cost. Iran, offering discounts to beat sanctions, will be a key alternative for China. But trade barriers in such a dominant consumer will depress prices for US crude overall, inhibiting its breakneck growth.

The world LNG market is becoming more flexible, but newly-conceived American LNG terminals, many of them betting on China, will not get financing without backing from customers. If China does extend tariffs to LNG, that will retard its take-up in China in general; it will use less gas, and what it does consume will come more from domestic production and pipelines from Russia and Central Asia.

Retaliation to anti-trade measures, a sad economic necessity, is also intelligent politics. Most of the leading US oil-producing states – Texas, North Dakota, Alaska, Oklahoma, Wyoming – trend Republican, as do the leading coal-mining states, Wyoming (again), West Virginia and Kentucky. Last week, state-owned China Energy put on hold plans to invest $84bn in West Virginia, one of the poorest states. An Alaskan delegation looking to Chinese firms to invest in LNG came back from Shanghai empty-handed last month.

The impact of a trade war goes far beyond the sectors initially targeted. A 10 per cent drop in China's exports would reduce its GDP by 0.3 per cent, but Asia's by 1.1 per cent. Beyond short-term disruptions and loss of access to markets, the bigger danger to the energy sector comes from economic damage.

Energy-exporting countries can enjoy a short-term gain as US oil and gas companies' charge is stalled, but are threatened by a slump in demand. The rest of the world needs to deepen its own economic and energy integration, and not allow proportionate defences to swell into generalised trade wars. And with free market advocates unheeded, it seems increasingly likely that only real economic pain can open the eyes of the new American protectionists.

OPEC'S NEW GAME AS RIVALRIES SURFACE OVER OIL PRODUCTION

Robin Mills • *A version of this article appeared in The National, June 18, '18*

The FIFA World Cup, intended to showcase friendly competition between nations, is of course a hotbed of intense rivalries.

Russian President Vladimir Putin and Saudi Arabia's Crown Prince Mohammed bin Salman oversaw proceedings in Thursday's opening game. Meanwhile, by a stroke of luck, Iran enjoyed late success on Friday. The US, which along with Canada and Mexico won the bid to host the event in 2026, is not on the field but comments from the sidelines. All this makes it much like OPEC.

The Saudi Arabian oil team's problem today is too much winning. The market has tightened significantly as the eventual result of their policy of production restraint. They have been assisted by continuing strong worldwide demand and by the collapse in Venezuela, then by the prospect of lost exports from Iran as the US moves to re-impose sanctions.

Prices hovering around $80 per barrel conjure the spectre of demand destruction, and diplomatic pressure from US President Donald Trump's anti-Opec tweets and from other major customers such as India. After strongly supporting the US decision to leave the nuclear deal with Iran, Riyadh is now looking to prevent the oil price getting out of control.

After he and Mr Putin assembled an all-stars team of Saudi Arabia, the UAE, Russia, Iran, Iraq, Venezuela, Oman and other leading producers, Prince Mohammed spoke of a "10 to 20 year agreement" for oil market management. It remains to be seen whether production restraint is the right way to play for the long-term, but with threats from surging US production and the rise of electric vehicles, some kind of far-sighted strategy is needed.

Few of the "OPEC+" group can raise production significantly – only Saudi Arabia, the UAE, Kuwait, Russia and, given a deal with the Kurdish region on pipeline access, Iraq. Iran feels cheated; having agreed to some production restraint after it emerged from the Obama-era penalties, it now faces losing market share to its rivals again. Exports were down sharply in early June, as South Korean, Turkish and European buyers cut shipments, perhaps in anticipation of sanctions.

Both Tehran and Caracas, also under (milder) American sanctions, object to Opec policy being made in response to US demands, and reducing prices at their expense. Venezuela, historically hopeless at football, is not doing much better at oil production. Its output may dip below 1 million barrels per day shortly, a humiliating fall for Latin America's once-titan. Libyan oil production is threatened again by fighting at its ports.

In the short term, there is not much Iran, Venezuela, Libya or other declining producers such as Qatar, Angola or Algeria can do if the stronger members go it alone on raising production. Sanctions on Iran might prove ineffective, political change in Venezuela might restore its output, or global recession may hit demand.

Russia is in the most interesting position. Moscow wants to retain its alignment with Iran, forged by cooperation in their Syrian brutality, and it does not want to seem to play to Mr Trump's whistle. Yet ideas that it would resell sanctioned Iranian crude at higher prices do not make much sense and China, not Russia, will be the biggest investor in Iranian oil-fields.

The Kremlin also wishes to sustain its influence with OPEC, particularly in the Arabian Gulf, which it has developed through the "Vienna deal". Its oil companies have been champing at the bit to raise production again, particularly the largest, Rosneft, controlled by Igor Sechin, Mr Putin's sidekick. And there is some concern over rising domestic fuel prices during the summer harvesting season.

Saudi Arabia and Russia could quietly boost production to a degree. The Saudi summer, bringing higher domestic demand, is upon us. After over-complying with production cuts for a while, they could employ a period of moderate under-compliance. That might help keep the market from boiling over until the next scheduled meeting in November, or perhaps an extraordinary meeting in September or October. By then, the initial impact of the Iran sanctions would be clearer.

Saudi production was up 86,000 bpd in May, although it normally rises in summer anyway to meet domestic power generation. Russia's output at the start of June was 11.1 million bpd, slightly above its 10.98 million bpd target.

Saudi energy minister Khalid Al Falih has said an OPEC deal to boost production is "inevitable", while his Russian counterpart Alexander Novak has proposed easing the targeted cuts to 1.5 million barrels per day in June, allowing 300,000 bpd to come back on the market. Further increases could then be phased in during the rest of the year.

The Saudi-Russia axis would rather OPEC reached a formal position acknowledging the need for more oil to back up a commitment to stable prices. To win acceptance from other members, they could concede to a smaller boost in output, preferable to a breakaway move.

This will work for now, but by November, they need to agree to the game's new rules.

RUSSIA'S GROWING INFLUENCE CALLS FOR A CAREFUL APPROACH

Robin Mills • *A version of this article appeared in The National, June 11, '18*

Russia's return to the G7 (or G8) group of leading developed nations was suggested by Donald Trump, via tweet, on Friday. Excluded over its annexation of Crimea, Moscow's return to this grouping looks unlikely. But with last week's signature of a strategic cooperation agreement with the UAE, Russia has upped its game in the Arabian Gulf.

As Dorel Iosif and I contend in a new report, Russia's relations in the Middle East are more opportunistic and tactical as it navigates a contradictory archipelago of contending states and interests. Its position in Asia is more consistent and strategic but, ultimately, more perilous for it.

Alongside its military and diplomatic heft, energy is one of the northern giant's strongest tools as it is the world's largest gas exporter and one of the top three oil producers. It uses its oil, gas and nuclear power to advance both in the Middle East and in East Asia, even as these two regions increasingly interlock in a complicated triangle.

Russia has proved adept at playing all sides. It backs Bashar Al Assad's genocidal regime in Syria, supports Iran against US sanctions, expands gas sales to Turkey, engages with strongmen in Egypt and Libya, advances money to the Kurdistan region of Iraq in support of an independence bid, and invites investment from Saudi Arabia and the UAE on the one side, and Qatar on the other.

The Russian accord with the UAE, signed on June 1, aims at stability in the global oil and gas market, alongside defence cooperation and joint projects. It came shortly after Mubadala's May 24 joint venture to develop Siberian fields with Gazprom Neft. Western sanctions have left Russia keen to find capital for domestic energy developments from China, India and the Middle East.

Russian influence in the region and worldwide has been enhanced by its cooperation with Opec, essential to allow the expanded group to cut production and boost oil prices without fear of losing too much market share.

Rosatom has also laid down a regional marker by finishing Iran's first civil nuclear power plant, at Bushehr, signing initial deals for reactor construction with Saudi Arabia, Egypt and Jordan, and constructing a nuclear power plant at Akkuyu in Turkey, due for completion in 2023. Russia thus gives regional countries an alternative to the US, whose aid comes with many strings attached.

In these ventures, Russian companies have often been driven by commercial considerations. Its political moves have been opportunistic, advancing forward into a vacuum left by US reluctance and confusion and the unreadiness, so far, of China to take a leading role. The Kremlin does not intend to confront the US head-on. The contradictions of dealing with every Middle East power simultaneously make Moscow influential and impossible to ignore, but leave it without natural regional allies. There is always the suspicion that a chip in the Middle East might be traded for some more important Russian interest in Europe or the Far East.

In East Asia, by contrast, elements of a Russian grand strategy are more apparent. Its East Siberia Pacific Ocean pipeline has made it a direct competitor with Middle East exporters for the Chinese and other oil markets. Its planned Power of Siberia pipeline, although very expensive, enables it to tap into the suddenly flowering Chinese gas market and present an implicit, though not very plausible, threat to shift supplies away from Europe.

Liquefied natural gas plants in Yamal, using the newly-melting Arctic sea route to Asia, and the Far Eastern island of Sakhalin give other export options. Détente on the Korean peninsula might even allow a gas pipeline through the North to South Korea. The authoritarian, state capitalist models of Beijing and Moscow also align.

Yet Russia's Far Eastern federal district, two-thirds the area of China, has a population of only 6.3 million. Siberia in general is rich in oil, gas, hydropower, timber and minerals, but there is always a sense of vulnerability to its heavily-populated neighbour. From Moscow's vantage point, development and repopulation of this remote area is vital but unaffordable.

China's Belt and Road Initiative, with strong energy-focused elements including pipelines, maritime transit and electricity connections, also competes in traditional Russian areas of influence in the oil-rich states of Central Asia. China, not Russia, is the key trade partner for Iran and will be even more so as the renewed US sanctions bite.

For Middle East states, Russia's importance has grown greatly over the past decade. Its geographic, diplomatic and military reach make it useful, its lack of firm alliances and principles make it flexible, and its energy resources lead naturally to both cooperation and competition. But its partners need, too, to be acutely aware of Moscow's weaknesses and contradictions.

SHIPPING INDUSTRY IS GEARING TO ADOPT CLEANER FUELS BY 2020

Robin Mills • *A version of this article appeared in The National, June 04, '18*

Great changes in energy markets do not always have to flow from great causes. In the case of marine fuel, what seems to outsiders like an apparently modest change to an arcane regulation is going to make waves not just for shipping, but the wider oil business. Other consumers and industries are set for a big New Year's surprise on 1st January 2020.

This is the date when the International Maritime Organisation's new ruling, advanced in October 2016, on the sulphur content of marine fuel comes into force, limiting it to no more than 0.5 percent – today the maximum is 3.5 percent. Large vessels burn 5 million barrels per day of the 8 million barrels of fuel oil that refineries churn out, the heavy, dirty, low-value residue. Now they will have to look elsewhere.

This move is intended to protect the environment in shipping lanes, since burning this fuel creates sulphur oxides, responsible for acid rain. Pollution from ships has been estimated to cause 130,000 premature deaths from respiratory illnesses worldwide each year, and is particularly bad along the Arabian Gulf, Red Sea, India, Java and East Asia. By contrast, the North Sea and the coasts of North America already apply stricter rules.

Cowboy shippers may not follow the regulations immediately – enforcement and penalties are unclear. But leading shipping and cruise lines and major ports will comply. They have four choices. They can use fuel oil processed to reduce its sulphur content, but this will be expensive and in scarce supply. They can burn marine diesel, which also has lower sulphur but is costly.

They can fit scrubbers, essentially devices which wash the exhaust with seawater to turn the sulphur oxides into harmless calcium sulphate. But scrubbers are expensive, some $3-$5 million each, and shipyards cannot fit enough of them for the 2020 deadline.

Or they can convert ships to burn liquefied natural gas, a clean fuel. But converting an existing ship to use LNG is expensive, and the required tanks reduce the vessel's cargo capacity. LNG is not available at all ports, though the major ones such as Rotterdam, Singapore and Shanghai are installing LNG bunkering facilities. Fujairah, the world's second-largest bunkering port, is still without LNG however.

The shipping industry has struggled with years of low charter rates, and no shipowner wants to spend money unnecessarily. Refineries have also been slow to add additional capacity for de-sulphurising fuel oil or producing marine diesel.

Shipowners and oil storage operators will start changing over to the new fuels a few months before the start of 2020, to avoid being left with non-compliant stocks. Marine fuel suppliers are already testing the new low-sulphur grades to ensure they are compatible and usable in engines. The few far-sighted shipowners who have scrubbers or LNG engines will do very well. The new Middle East refineries, particularly in Saudi Arabia, built to maximise diesel output, will also enjoy strong profitability.

Other shippers will face much higher fuel bills, which will drive up the cost of sea transport. The competition for diesel will also hit truckers, operators of farm and construction machinery, and drivers of diesel cars. Even airlines will suffer as refineries aim to produce more diesel instead of the similar jet kerosene. Crude oil prices will rise as refiners have to run more to meet demand for all fuels. These industries may not have been closely reading the IMO rules so far, but they need to be prepared for price spikes and possible disruption in supply chains.

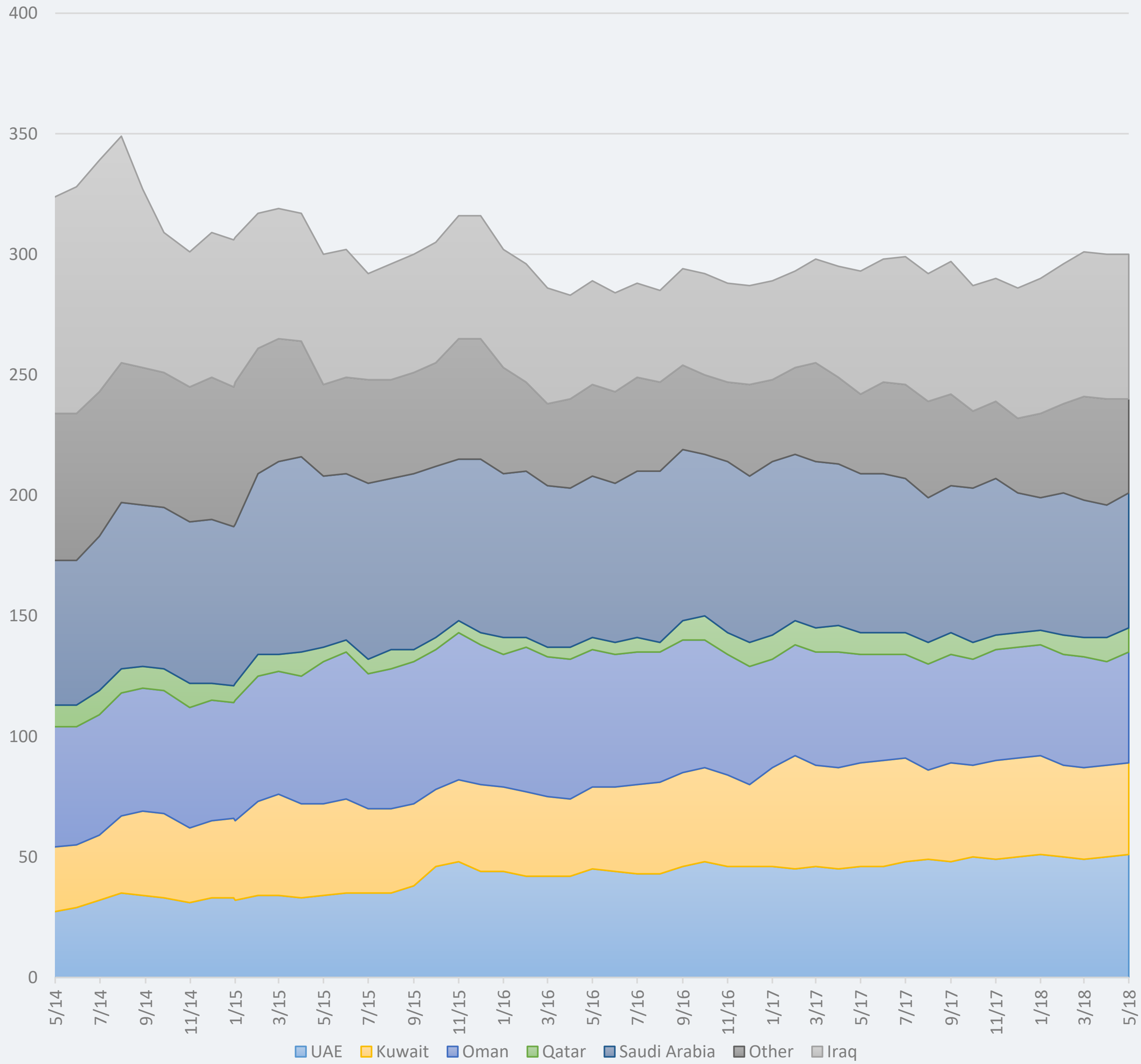
Assuming the IMO sticks to its guns, there is very little any of the participants can do now – there is no more time or capacity to change vessels or refinery units before the deadline. But the industry will adjust, and probably prove itself more flexible and creative than some observers believe. A wide price differential between high- and low-sulphur fuel oils and diesel will encourage new investments in scrubbers and complex refineries.

Producers and suppliers of LNG, such as Shell, have for a few years been trying to encourage the use of their fuel for ships, but with only limited take-up – about 200 vessels in service or on order, out of a global merchant fleet of 52,000.

Now LNG will get a big boost both from the 2020 rules and from the next IMO move, expected in 2023, to reduce carbon dioxide. Ships produce 3 percent of the world emissions of this greenhouse gas. Scrubbers and low-sulphur oils are no help here, but LNG cuts carbon dioxide by about 28 per cent. The 0.5 per cent sulphur standard will also be tightened in future, probably to 0.1 per cent. In the longer term, ships will move to even cleaner modes, which could include batteries for short journeys (such as ferries and supply boats) and hydrogen for longer ones.

Eventually this regulation will drive the biggest change in marine propulsion since the changeover from coal to oil started in the 1910s. It will make the shipping business cleaner and more sustainable, and after a temporary but perhaps painful spike, the extra costs will be absorbed. But for a year or two, shippers, passengers, cargo and customers alike have to be prepared for some choppy waters.

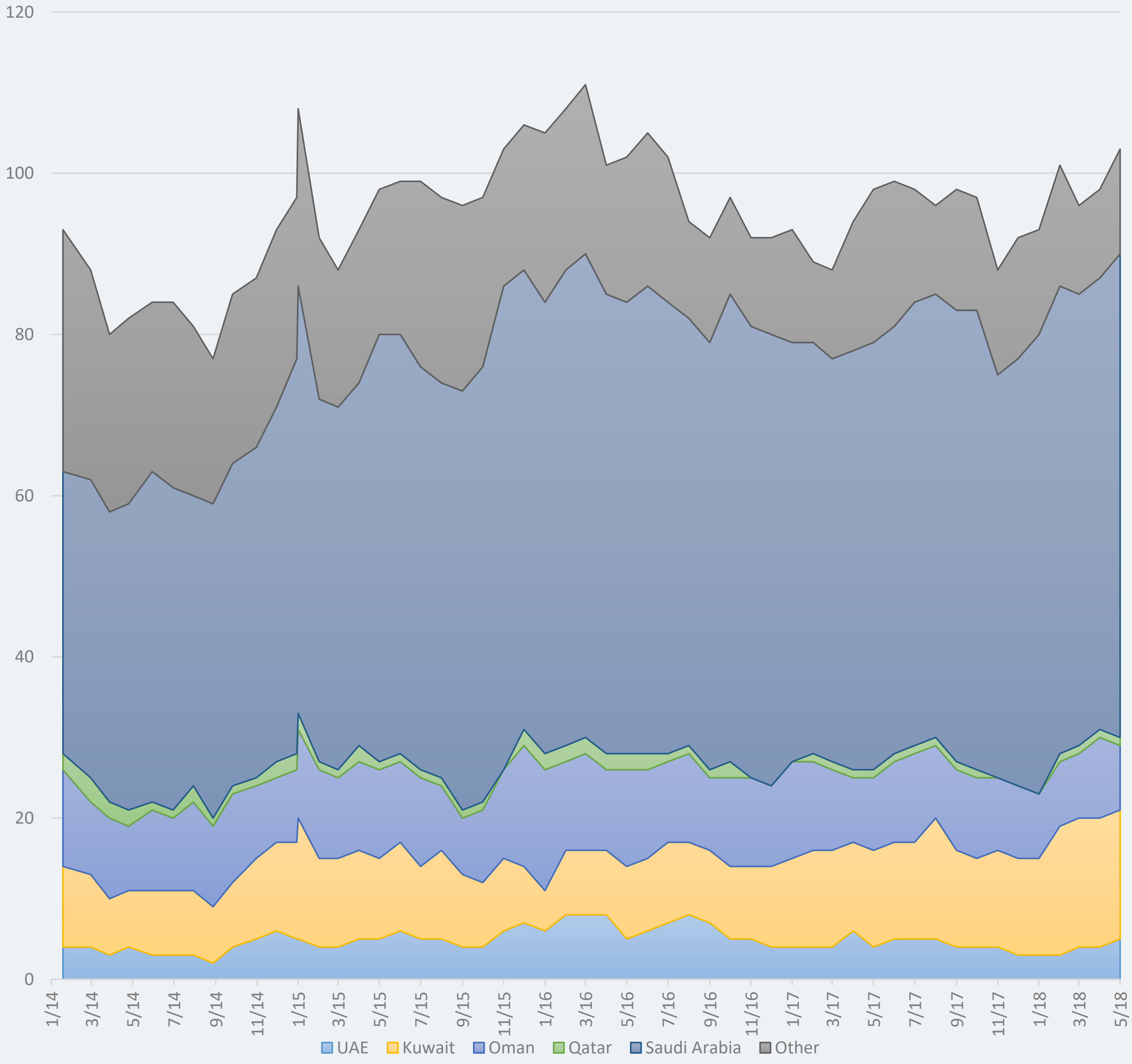
RIG COUNT SNAPSHOT: OIL



- The Middle East's oil rig count in May saw no difference m-o-m, excluding Iran. Iran's rig count is not included in Baker Hughes; however, OPEC reports total (oil and gas) rig count in Iran has remained steady at 61 throughout 2017, till March 2018. Iran's production has consistently averaged ~3.82 Mbpd since March.
- The GCC's rig count gained by +5 in May; drilling has stayed steady at near-record levels since January.
- Iraq stayed steady in May at 60 rigs as operations picked up at Bai Hassan in Kirkuk. The field is currently producing 35 kbpd. In the south, West Qurna-1's production also increased by 40 kbpd to reach 499 kbpd.
  Kuwait's rig count fell back to its October 2017 levels (38) once again, after having stayed steady at 41 since November 2017.
- Saudi Arabia gained by +1 in May, and overall production for May witnessed a rise of ~86 kbpd. On June 28 ARAMCO and US-based National Oilwell Varco (NOV) signed a JV to establish an on-shore rig equipment manufacturing facility in Ras al Khair.
- The Middle East's oil rig count averaged 293 in 2017, and has averaged 316 the last four years. The region's count has however stayed consistently under 300 over the last 24 months. A boost in production is likely to lead to a substantial rise in rig count in Saudi Arabia, the UAE and Kuwait over the next few months.

Source: Baker Hughes

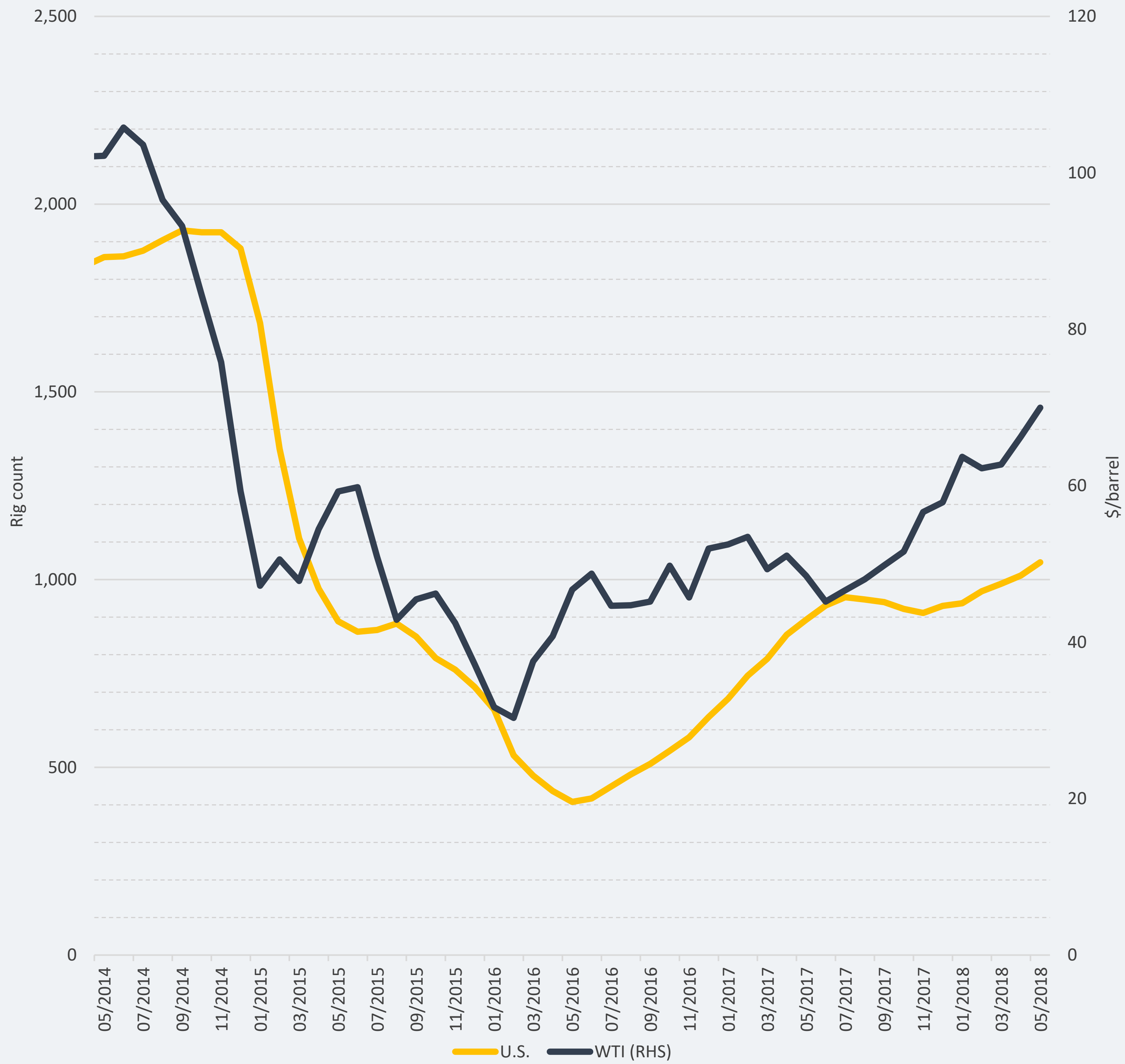
RIG COUNT SNAPSHOT: **GAS**



- The Middle East's gas rig count averaged 94 in 2017. Its highest level reached was in January 2014 at 123 gas rigs. The region's gas rig count increased by +5 over the last two months and crossed 100 for the first time since August 2016.
- Oman's rig count fell by -2 to average 8 once again, even after Petroleum Development Oman announced a significant gas with estimated recoverable reserves of more than 4 Tcf and 112 MMbbl condensate in March in the north of its concession area.
- The UAE witnessed a rise of +1 in its rig count from April; the country has earmarked $109 B for downstream assets and sour gas development, indicating a future increase in rig counts.
- Kuwait gained by +4 in gas rigs from January, after having stayed steady since November 2017 with 12 gas rigs, beating its previous year-high count of 15 in August 2017. The Kuwait Oil Company plans to increase Jurassic gas production from 170 MMcf/d to 520 MMcf/d in 2018.
- Saudi Arabia saw a gain of +4 in May due to higher production from Wasit, and plans to increase production from Midyan, Fadhil, and Turaif. The Kingdom also reached a deal with Halliburton on May 27 to boost its shale gas production plans.

Source: Baker Hughes

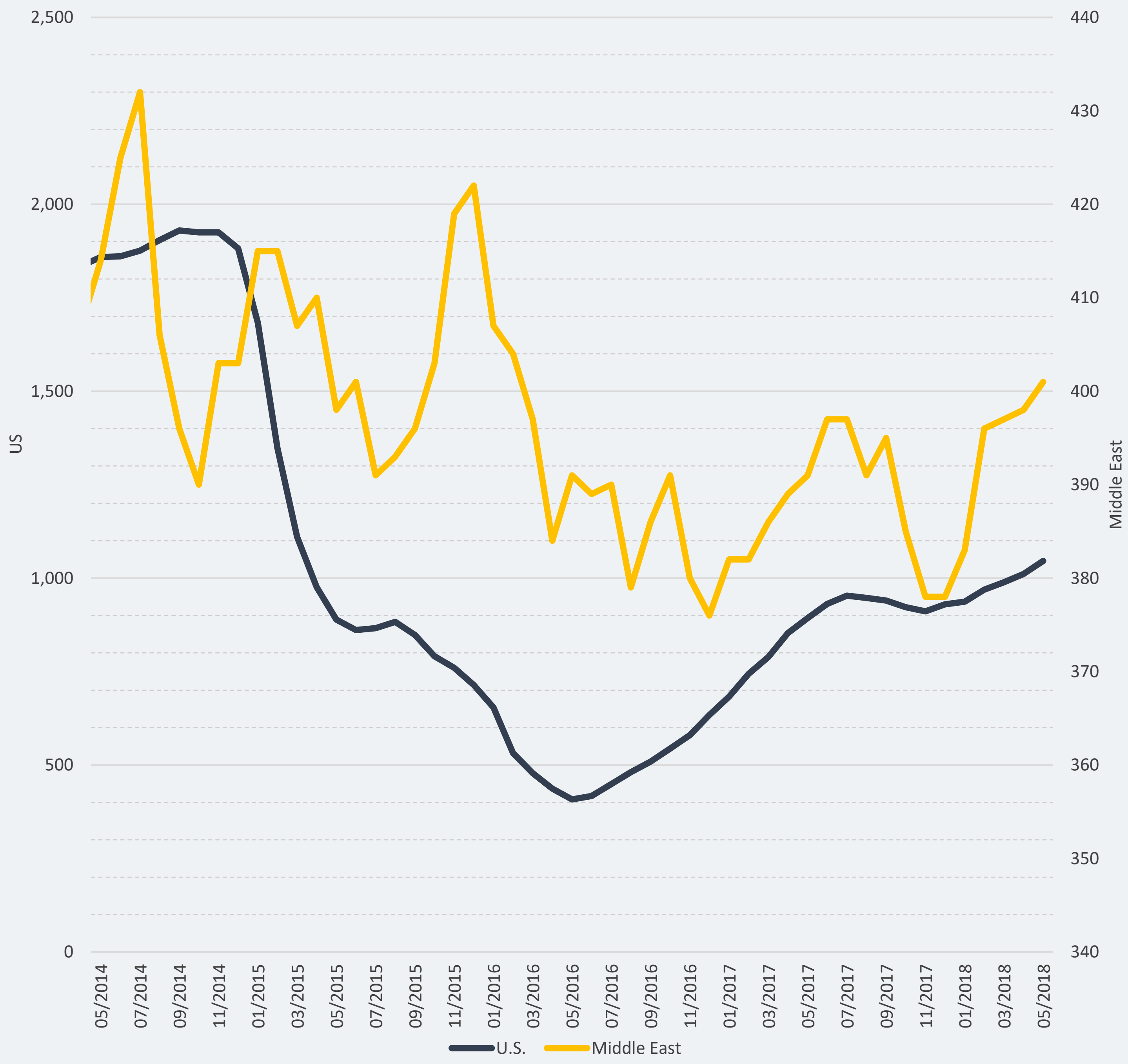
RIGS VERSUS OIL PRICES: US RIGS & WTI



- US rig count jumped by ~11% in May y-o-y, a rise of 107 rigs. The US has overtaken Saudi Arabia in production, averaging ~10.7 Mbpd in May, about ~720 kbpd higher than the kingdom's output for the same month.
- Total US rig count has been in decline since August of last year due to producers trimming spending plans citing softer oil prices; however, at 1046 for May, an increase of +35 from April, the country has made a rapid recovery, passing 2017's high of 953 rigs and nearing 2015's >1000 levels.

Source: Baker Hughes, EIA

RIG COUNT: US & MIDDLE EAST



- The US witnessed a fall in its offshore count for the first time since 2017, when its rig count fell by -5 owing mainly to Hurricane Harvey and other natural disasters. After making steady recovery, the country's count fell by -2 in May, y-o-y.
- Total Middle East rig count stayed steady in May (a +3 rise from April), as OPEC members continue to maintain relatively positive compliance rates; for example, UAE has been averaging compliance of ~112% in Q1 2018, and Saudi Arabia ~123%.
- The region's rig count has averaged 392 for the last two years.

Source: Baker Hughes, EIA

FUEL PRICES & SUBSIDY REFORMS

JUNE 2018

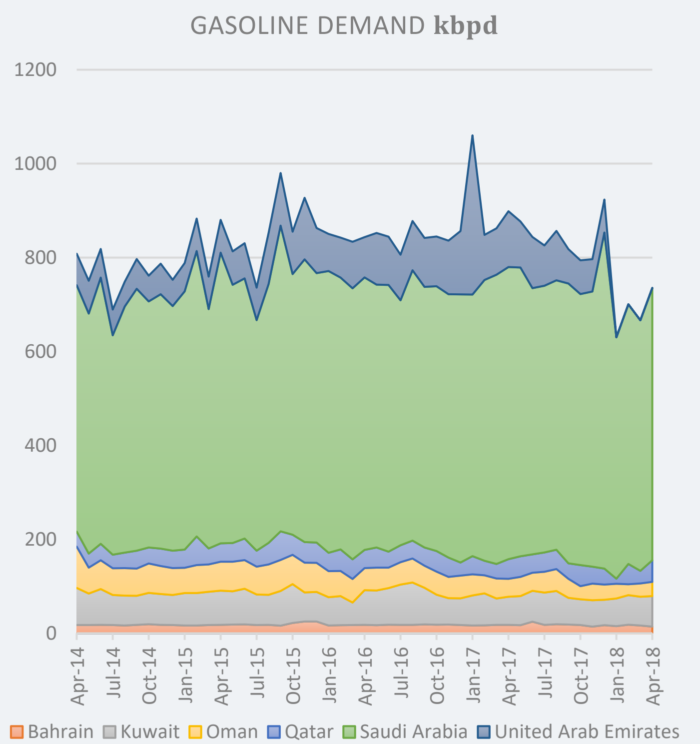
- The UAE was the first GCC country to remove fuel subsidies in August 2015; gasoline prices rose by ~5.8% combined in June from May. Fuel prices were announced to be revised upwards on April 30 in line with increasing world prices.
- In Qatar, diesel prices for May increased by ~9.9%, the highest ever since Qatar started pegging its fuel prices to the international market. In Saudi Arabia, gasoline prices have increased by 126% since 2018, and diesel by 14%.
- Meanwhile in Kuwait, the Parliament's Financial and Economic committee has approved the cancellation of the decision enforced in September 2016 to raise fuel prices to 'reduce financial burdens on citizens'. Similarly in Bahrain the Council of Representatives urged the government to rethink its fuel price hike just a day after it was approved, finding the change 'too sudden', but on May 27, the High Administrative Appeals Court dismissed the complaint, allowing the Ministry of Oil & Gas to raise fuel prices from September 2018.
- In Oman, the prices of Gasoline 91, 95, and diesel for May rose by ~3.42%, 2.80%, and ~3% respectively from April's fuel prices; while demand for M-95 and diesel declined, after having gained ~21% and ~22% in April.

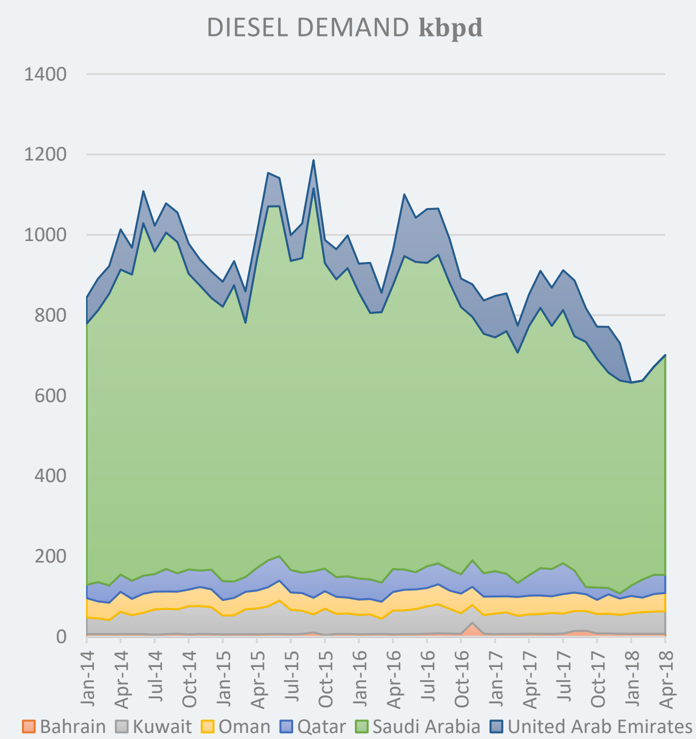
The following table represents the prices of gasoline 95 and diesel ($/litre) for June 2018 in the GCC countries.

GCC Country	PAST US $ PER LITRE		CURRENT US $ PER LITRE	
	Gasoline 95	Diesel	Gasoline 95	Diesel
Saudi Arabia	0.16	0.07	0.54	0.13
UAE	0.46	0.63	0.68	0.74
Qatar	0.27	0.27	0.58	0.56
Bahrain	0.27	0.42	0.53	0.42
Kuwait	0.21	0.36	0.35	0.38
Oman	0.46	0.39	0.59	0.65
US - PRE TAX	0.52	0.57	0.65*	0.71

Source: EIA, Qamar Energy

**US Gasoline 95 values are calculated for Premium Grade.*





***Note:** UAE figures for 2018 are not available.*

Source: EIA, JODI, Qamar Energy

ARABIA MONITOR ENERGY:

A Collaboration Between Arabia Monitor & Qamar Energy

ARABIA MONITOR ENERGY

Oil and gas tensions in the Middle East continue to influence the volatility of the world's energy markets. The Arabia Monitor Energy, a novel collaborative effort by Qamar Energy and Arabia Monitor, combines macroeconomics, geopolitics and energy intelligence to explain what the region's energy geo-economics mean for business.

WHAT SETS IT APART?

1. INSIDE OPEC

Focussed assessment of the month's OPEC developments, policy advancements and strategies.

2. NOC & IOC ANALYSES

Examination of factors affecting NOC and IOC policies, and their impact on regional diversification schemes.

3. SPOTLIGHT THIS MONTH

Targeted reading of the geopolitical, macroeconomic and energy landscape of a MENA country utilising our specialised energy intel.

4. SCENARIOS TO WATCH

Detailed forecast of global oil developments and their impact on the risks and opportunities for MENA's oil production.

5. STRATEGIC IMPLICATIONS

Concise summary of major oil trends and their effect on investment strategies under bearish, bullish, and wobble scenarios.

6. OUTLOOK FOR THE YEAR

Cohesive outlook of the oil production, gas production, renewable energy projects, and geopolitics of key MENA countries.

WHO BENEFITS?

ENERGY TRADERS

- What factors will contribute to oil and gas price fluctuations?
- What is the outlook for oil and gas pricing?
- What is the outlook for OPEC's production and export strategy?
- How are NOCs adapting their oil marketing strategies?

INVESTMENT AND RISK ANALYSIS

- What are the operational risks and investment opportunities in MENA?
- How do economics, politics, government policy changes, production and export bottlenecks contribute to risk mitigation?

UPSTREAM FIRMS

- What are the chief economic, political and fiscal regime factors driving/limiting upstream investment decisions and progress?
- What are the oil supply outlooks for the countries by project?

DOWNSTREAM FIRMS

- What are the demand challenges, patterns, and trends for oil and oil products?

NATIONAL OIL COMPANIES

- What are future oil and gas pricing trends?
- What developments will intensify or weaken demand?
- What are IOCs' incentives and drawbacks in operating in the country?

ALTERNATIVE / RENEWABLE ENERGY ORGANISATIONS

- What are the challenges to renewable energy targets?
- What is the progress of major renewable energy projects?
- Are there opportunities for more entrants?

THE DELIVERABLES

8 MONTHLIES

- Oil Price Scorecard
- Headline Developments
- Spotlight this Month
- Scenarios to Watch
- Projects in the News
- Macro Dashboard for Oil Exporters/Importers
- Outlook for the year

4 QUARTERLIES

- MENA Map as per Political Grouping
- Map of New Licensing Rounds
- Political & Regional Security Issues
- Oil & Gas Prices Outlook
- Global Barriers to Oil & Gas Production
- Deep Dive into OPEC & NOPEC
- MENA Energy Investments
- MENA Energy Fiscal System
- MENA Energy Upstream Bidding map
- MENA Economic Outlook
- Probability Scorecard for Bearish & Bullish Oil Supply/Demand
- Investor Implication Scenarios (Under 3 Oil Price Dynamics)

For Further Information, Contact Us On:

info@qamarenergy.com or
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OIL & ENERGY TRADERS
INTERNATIONAL OIL COMPANIES
NATIONAL OIL COMPANIES
UPSTREAM FIRMS
DOWNSTREAM FIRMS

WHY US?

ECONOMICAL OVERHEADS
NO HIDDEN COSTS
INHOUSE PROCUREMENT
PAYMENTS LINKED TO RESULTS
SPECIALISED MODELS
EXECUTION ACROSS FULL STREAM

OUR SERVICES

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OPEC WATCH

AVERAGE CRUDE PRODUCTION FOR MAY 2018

31.87 Mbpd

+ 35.0 kbpd

From April 2018

Non-OPEC Oil Supply

59.65 Mbpd

+ 230 kbpd

from April '18

Non-OPEC Crude Output

United States

FSU

Canada

LATEST ORGANISATIONAL CHANGES

- At the 174th Ordinary OPEC meeting on June 22 in Vienna, OPEC members decided to maintain 100% compliance, down from 162% for May, which equals a 750 kbpd increase in production. Non-OPEC members can increase production by 250 kbpd.
- The agreement is slated to stay in force till the 175th Ordinary OPEC meeting in December.
- Congo joined OPEC on June 22 in line with its ambition of becoming sub-Saharan Africa's 3rd largest producer with a 350 kbpd target for this year.

OPEC & Non-OPEC COMPLIANCE

- OPEC compliance stayed above 160% for the third month running, due to higher compliance from the UAE and large cuts in production from Venezuela due to its political crisis.
- Angola is currently leading in OPEC compliance (second to Venezuela) with 290% compliance for May, but this is mainly due to lack of investments, even as Total reached an FID for developing Zinia 2 in Block 17.
- Non-OPEC compliance fell to a record low 54% for the first time in over a year, mostly due to a production ramp-up from Russia, whose compliance was 87% in April.
- After Russia, among the FSU countries, Kazakhstan is expected to lead output growth in 2018. OPEC and IEA forecast the country's production to increase 80 kbpd in 2018. Oman's compliance for April fell to 91% after having maintained 100% compliance since January, as it tries to maintain its 1 Mbpd production target (967 kbpd in April).

OPEC PRODUCTION

- While exempt from the original OPEC deal, Nigeria and Libya received production quotas to cap output from their 2017 high of 2.8 Mbpd combined: Libya at 1 Mbpd, and Nigeria at 1.8 Mbpd.
- Libya's output fell marginally by 2.5% in May, however ongoing militia clashes between the PFG and LNA have slashed June output by over 400 kbpd. Nigeria's production stayed just below its 1.8 Mbpd cap (~1.711 Mbpd).
- Iraq's production witnessed a rise of 28 kbpd in May, and reached 4.45 Mbpd mainly due to increased output at West Qurna-1 and restart of operations at Bai Hassan in North Iraq.
- Saudi Arabia's production gained by ~86 kbpd as it sees to cool off prices as sanctions threaten Iranian exports.
- Algeria's production grew by 39 kbpd in April, bringing its compliance down to 116% from March's record levels of 220%. The country's production is in overall decline since 2007 due to geological complexities at its maturing fields.

NEXT OPEC MEETING: 03.12.2018

175th (Ordinary) OPEC Meeting in Vienna, Austria

KEY MENA ENERGY SCORECARD

MAY 2018

QATAR CRISIS

Riyadh announced it plans to construct a 60 km ocean channel through its land border with Qatar to accommodate a nuclear waste dump and military base, signalling continuing discord between both countries; Qatar Petroleum is the majority owner of the Golden Pass LNG terminal in Texas, with ExxonMobil and ConocoPhillips holding smaller stakes, and expects an FID by end-2018; Qatar may also invest in Exxon's Mozambique venture to jointly market LNG and signed an agreement with the US major on June 03 to acquire a 30% stake in two of Exxon's affiliates in Argentina, marking its entry in Latin America; Qatar is seeking proposals for the development of a 1.6 Mtpa Petrochemicals Complex at Ras Laffan Industrial City, which will include the region's largest ethane cracker.

FEDERAL IRAQ DEVELOPMENTS

The Ministry of Oil will conduct another bid round after the formation of a new federal government to auction the 5 blocks left unawarded in Bid Round-5; Eni lifted production at Zubair by 40 kbpd to reach 475 kbpd and plans to increase production by ~60% to 700 kbpd by 2022, the biggest planned gain among all Iraqi oil fields; Exxon increased production at West Qurna-1 by 40 kbpd and crossed its 500 kbpd target for 2018; production has started at Iraq's first commercial gas field Siba and will output 50 Mscf/d in three months, up to 100 Mscf/d by end-2018; Subba oilfield may be shut down next month due to continuing technical problems at the field and high levels of hydrogen sulphide in its crude; Exxon officially existed the CSSP on June 02.

MENA ENERGY PRICE REFORM

UAE will gradually scrap subsidies on electricity and gas sold to power generators to reflect 'real' prices by 2030; On May 27 the Bahrain High Administrative Appeals Court dismissed the Council of Ministers' complaint to rethink a fuel prices hike, allowing the Ministry of Oil & Gas to raise fuel prices from September 2018; On June 16 Egypt announced increases in fuel as a part of its $12 B IMF loan; M92 and M95 gasoline saw a hike of ~36% and 16.2% and electricity and water prices rose by 26% and 5% respectively. Saudi Arabia introduced the Citizen's Account Program, a cash handout scheme for low-income Saudi citizens impacted by rising fuel prices, electricity tariffs, and VAT.

MENA NUCLEAR POWER

Saudi Arabia is assessing two potential sites – Umm Huwayd and Khor Duweihin – for its first nuclear power plant project near UAE and Qatari borders: tendering to start by end-2018 - delays likely due to technical plans, and commercially due to negotiating nuclear agreement with the US; Egypt and Rosatom signed contract to develop $21B Dabba nuclear plant, raising rhetoric in Israel that President Sisi is resorting to former President Gamal Nasser's Pan-Arab policy to overtake Israel's nuclear superiority; UAE's Barakah Nuclear will begin loading fuel in 2019 (delayed from May 2018), and the plant will now generate electricity only by 2020 due to delayed operational readiness.

No Change ⇔ Very Positive
Deterioration in the last month ⇩ Positive
Negative
Improvement in the last month ⇧ Very Negative

KEY MENA ENERGY SCORECARD

MAY 2018

ENERGY INFRASTRUCTURE SECURITY

On June 17 the Petroleum Facilities Guard took over Libya's Es-Sider and Ras Lanuf ports, instigating an immediate counter attack by the Libyan National Army; two oil depots at the terminals were set on fire, which will take years and extensive costs to repair causing Libya's production to fall by ~450 kb/d; On June 21, the LNA declared the Holy Invasion Operation and retook the terminals from the PFG and handed them to the Eastern NOC who does not have the authority to export Libya's oil as it is not recognised internationally. NOC will divert exports to the Brega and Zueitina terminals till Ras Lanuf is repaired.

KUWAIT DEVELOPMENTS

Kuwait Energy has decided to sell some/all of its Block-9 Iraqi assets to gain much-needed liquidity for the company's shareholders and a cash buffer to repay its debt; KOC has announced launch of operations at Al-Sabriya and the West Al Raudhatain early production facility (EPF) to produce Jurassic oil and gas to help meet domestic demand and limit imports, and is planning to launch an Integrated Drilling Services tender for 29 Jurassic wells; Kuwait is also expanding refinery capacity with a 615 kbpd facility under construction at al-Zour, with two new refinery ventures underway in Vietnam (which was said to have begun operations end-February) and Duqm (to be launched mid-2018).

IRAN DEVELOPMENTS

Trump announced the reimposition of sanctions on Iran which will come into effect by November 04; EU refiners have will continue taking in Iranian crude till July; India has said that it will continue to import crude from Iran since it "only follows sanctions by the United Nations and not by any specific country"; Iran's Azar oilfield, shared with Iraq's Badra, is planning to raise production by 35 kbpd; Italy's Carlo Maresca signed a $100 M contract with the Iran's Industrial Development and Renovation Organization (IDRO) to construct a 100 MW solar power plant and recently launched Phase-1 of a 10 MW solar power plant in Hormuzgan; Iran has agreed to take the gas produced from the ONGC Videsh-discovered Farzad-B field, which had caused tensions with India over the $11 B development cost.

ABU DHABI DEVELOPMENTS

In updates from its first competitive licensing round, ADNOC awarded OMV a 20% stake in the offshore fields of Satah Al Razboot, along with satellite fields Bin Nasher and Al Bateel, and Umm Lulu after it awarded Total a 20% interest in the Umm Shaif and Nasr concession and a 5% interest in the Lower Zakum concession on a 40-year term last month; ADNOC has appointed Japan's Inpex as the asset leader for Lower Zakum for which it won a 10% interest in February; ADNOC is setting up a new crude oil and refined products trading unit to deviate from its FOB-selling model and is expanding its downstream sector.

No Change ⇔ Very Positive
Positive
Deterioration in the last month ⇩ Negative
Improvement in the last month ⇧ Very Negative

KEY MENA ENERGY SCORECARD

MAY 2018

MENA RENEWABLE ENERGY

ACWA Power has signed a contract with Shanghai Electric for the 700MW Phase-4 of the Mohammed bin Rashid Al Maktoum Solar Park in Dubai which entered Phase-3 on May 1 and began generating 200MW of clean energy; Oman has received 28 bids for its 500 MW Ibri solar PV plant including Lightsource BP, ACWA Power, NTPC, and Marubeni Corporation; Lightsource BP is also bidding for an EPC for the 100 MW solar project of Petroleum Development Oman; Oman is also planning 6 new solar and wind projects that will deliver 2650 MW by 2024; Morocco closed bidding RFPs for MASEN's Noor Midelt Solar Hybrid Complex; Vestas, Siemens, Enercon and Ray Power prequalified for 250MW Gulf of Suez Wind Farm; ACWA Power is also in the process of putting finishing touches on the 2nd and 4th stations of the giant Noor Ouarzazate Solar Power Complex, which will become fully operational "in the coming days"; Jordan has called off its plans of constructing a 2000 MW nuclear power plant due to lack of funding and will instead focus on smaller reactors.

MEDITERRANEAN GAS COMMERCIALISATION

ENI has come up dry at its Rabat Deep 1 (RD-1) well offshore Morocco, having encountered tight, fractured carbonates at a depth of 3180m; the company agreed to develop a gas pipeline in southern Algeria, to link Eni's two producing oilfields in the Berkine basin, Lajmat Bir Roud and Menzel Lejmat, and enable a surplus of 7 Mcm/d of production; London-based SDX Energy announced a new gas deposit in Egypt's South Disouq region, which holds 89 feet of net conventional natural gas pay in the Abu Madi horizon; Production is expected to start by end-2018; Egypt will hold an international bid round for 27 concession areas by October 2018, including 16 concessions by EGAS and 11 EGPC; Turkey is planning to send a drilling ship to offshore Cyprus to deter ExxonMobil from surveying the area, after it sent warships to deter Eni from drilling in February; Tarek el-Molla has announced that the Zohr concession will produce up to 1.2 Bcf/d of gas by August 2018, up from the current 350 Mcf/d, and will reach 2.7 Bcf/d by end-2019.

No Change — Very Positive
Positive
Deterioration in the last month — Negative
Improvement in the last month — Very Negative

ABOUT US

Qamar Energy provides leading-edge strategy, commercial and economic consulting across the energy spectrum to governments, international oil companies (IOCs), national oil companies (NOCs), investors, and oil traders.

ROBIN MILLS • CEO

Robin is an expert on Middle East energy strategy and economics, described by Foreign Policy as "one of the energy world's great minds". He is the author of two books, *The Myth of the Oil Crisis* and *Capturing Carbon*, columnist on energy and environmental issues for Bloomberg and The National, and comments widely on energy issues in the media, including the Financial Times, Foreign Policy, Atlantic, CNN, BBC, Sky News and others. He is a Senior Fellow with the Iraq Energy Institute, and a non-resident fellow at the Columbia Center for Global Energy Policy. He holds a first-class degree in Geology from the University of Cambridge, and speaks five languages including Farsi and Arabic.

RECENT APPEARANCES & TALKS

Iraq Capital Club, Dubai, June 2018 • *Speech on* ***Iraq's Oil and Economic Outlook***

ADNOC Downstream Investment Forum 2018, Abu Dhabi • *Site visit to Ruwais Petrochemical Complex*

Iraq Energy Forum 2018, Baghdad • *Presentation on* ***Iraq's Solar Energy Potential***

QAMAR NEWSLETTER ARCHIVES

October 2017 • December 2017 • January 2018 • February 2018 • March 2018 • April 2018 • May 2018

Qamar Energy
HDS Business Centre, Cluster M
Jumeirah Lakes Towers
Dubai, United Arab Emirates
+971 43641232
info@qamarenergy.com
www.qamarenergy.com
@qamarenergy