

Geopolitics of Energy

Treading Dangerous Waters

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RBC Capital Markets, LLC

Helima Croft (Global Head of Commodity Strategy) helima.croft@rbccm.com

Christopher Louney (Commodity Strategist) christopher.louney@rbccm.com

Megan Schippmann (Associate Strategist) megan.schippmann@rbccm.com

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All values in U.S. dollars unless otherwise noted.

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RBC Capital Markets

OPEC Watch List

Where does each OPEC producer stand amid the “Spectrum of Pain”?

- We continue to contend that given 2018’s tightening oil market, any geopolitically driven supply disruptions would have an outsized impact versus recent years when the market was awash in crude. This necessitates classifying the risks and stacking up potential outages.

Country	Oil production (mb/d)		Geopolitical risk		Comment
	2017 avg	Last month	Past year	This year	
Saudi Arabia	9.97	10.65	6	7	Ambitious economic reforms; confrontational foreign policy
Iraq	4.44	4.56	9	8	Security, economic and political challenges still persist
Iran	3.79	3.74	6	9	Economic gains are imperiled by sanctions snapback
UAE	2.91	2.96	2	2	Best in class in OPEC but high foreign policy expenditures
Kuwait	2.71	2.77	3	3	Financially flush but the population does not want austerity
Venezuela	1.94	1.31	10	10	With few economic options left, oil production is plummeting
Nigeria	1.71	1.72	10	8	The oil region remains restive and 2019 elections pose a key risk
Angola	1.66	1.40	6	6	Angola continues to face strong economic headwinds
Algeria	1.04	1.06	8	7	Algeria is seeking to boost investment but faces challenges
Libya	0.83	0.66	9	8	The country remains at risk for an unfavorable reversal of fortune
Qatar	0.61	0.62	2	6	Qatar has proven more resilient than expected, blockade still bites
Ecuador	0.53	0.52	5	5	Courting new investment but lies in the middle of our risk spectrum
Gabon	0.20	0.18	6	6	Low production amid increased political turmoil
Scale:			High -> Low	High -> Low	

US Foreign Policy: The Trump Administration, 'REXIT', and Bolton

The Trump Administration has cemented a hawkish shift in foreign policy

- For Iran, the US officially withdrew from the JCPOA. Some extraterritorial sanctions snapped back in early August, and another round will do so in November. With an apparent goal of taking more Iranian oil out of the market than the Obama administration, the White House has looked to Saudi Arabia to help fill the supply gap and prevent a price spike.
- Meanwhile, for Venezuela, US measures to isolate Maduro's government with sanctions and potentially promote leadership change there have exacerbated an already steep and ongoing decline for the country. We note, however, that Robert Mugabe's 30-year tenure in Zimbabwe serves as a cautionary tale for those who contend that economic collapse and severe social misery produce timely regime change.

Mike Pompeo (Sec. of State) and John Bolton (National Security Advisor)

- Moving CIA Director Mike Pompeo to the top diplomat spot will continue to have important implications for US policy toward Iran (Tillerson had advocated for remaining in the JCPOA as long as Iran was viewed as compliant) and Venezuela.
- The appointment of John Bolton as National Security Advisor also represents a critical factor for oil given his long-held views on key producers. It cements a hawkish shift in the Trump administration's foreign policy.
- The re-imposition of sanctions on Iran paired with more confrontational foreign policy will seriously test the assumption that US shale can solve any global supply disruption, and we highlight potential losses below, especially given the continued decline faced by Venezuela.

John Bolton as National Security Advisor and Mike Pompeo as Secretary of State present a hawkish foreign policy establishment

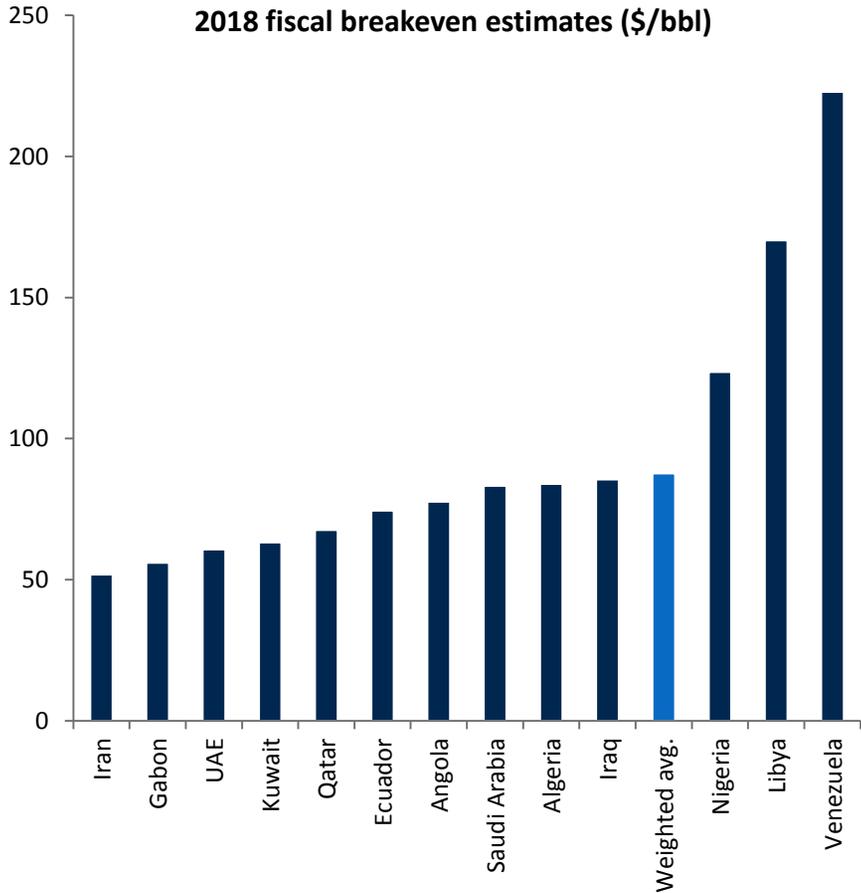


Country	Additional volumes at risk	Drivers
Iran	Goal to take off more than Obama admin's 1.2 mb/d in 2019	With the US out of the Iranian nuclear deal (Joint Comprehensive Plan of Action) and extraterritorial sanctions snapping back, barrels are ready to roll
Venezuela	Losses likely to reach ~1 mb/d	Economic decline, inflation, debt servicing, existing production declines, infrastructure, worker absenteeism, sanctions risk, general instability
Libya	Reasonable risk of 250-300 kb/d, episodically 450-850 kb/d	Political fault lines, security challenges, multiple governments, armed militants, terror threats, elections, infrastructure risks, institutional challenges
Nigeria	Reasonable risk of ~250 kb/d episodically	Militants in the Niger Delta are once again threatening disruptions, crude theft and pipeline vandalism is increasing, raising the specter of more sophisticated attacks
Iraq	Reasonably 120 kb/d, tensions in the South could materially raise volumes	Protests and tensions in the South, the relationship between Baghdad and Erbil, disagreements over issues pertinent to oil production and transport, and election fallout

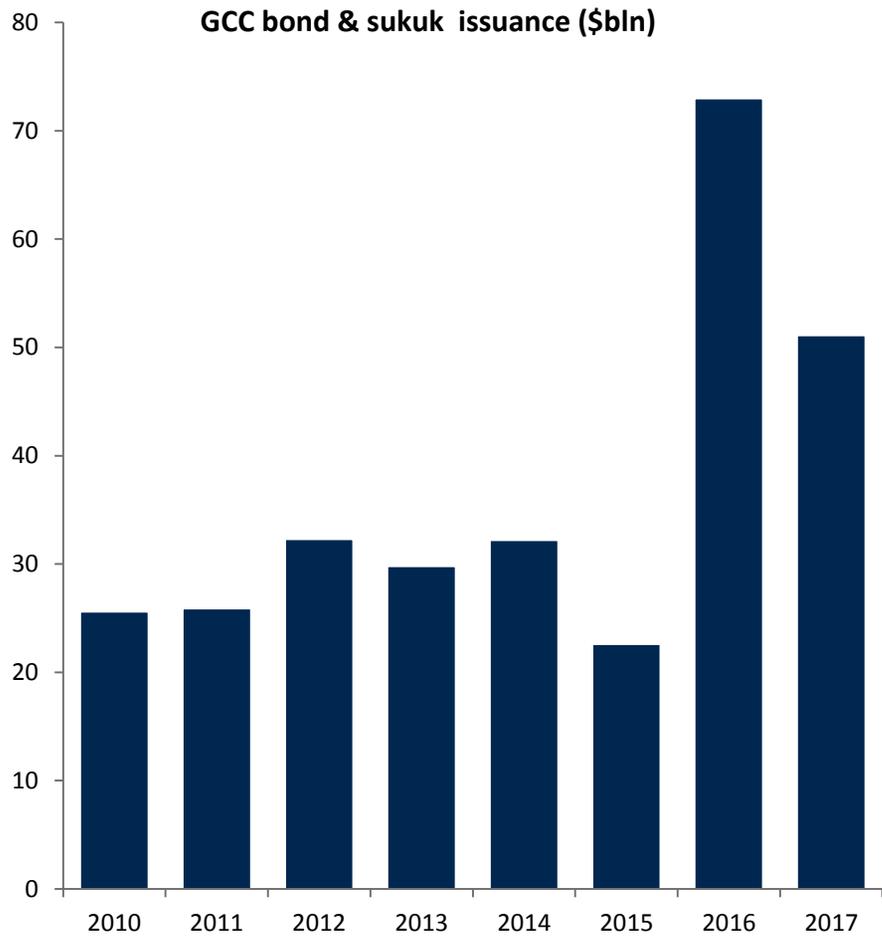
If stacked together concurrently, the losses could be staggering.

OPEC: Reality Bites

Current price levels are still challenging for OPEC



Many grappled with low oil prices through debt issuance



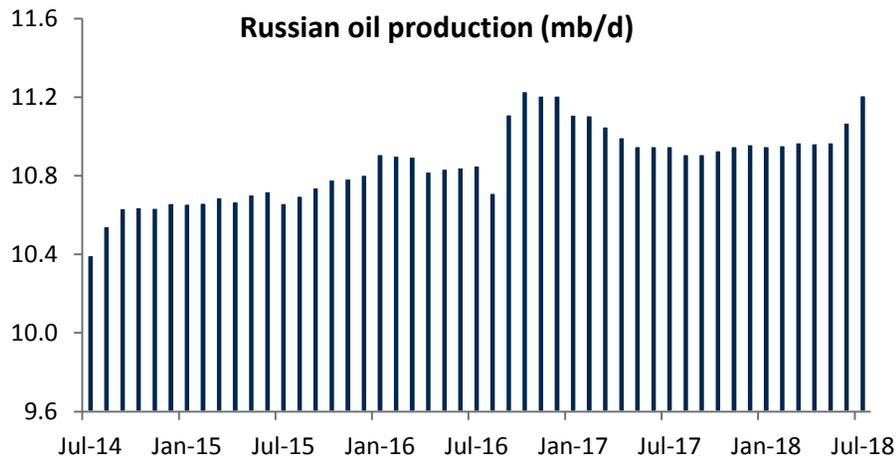
Source: IMF, SWFI, News and government sources, Bloomberg, MEES, RBC Capital Markets

OPEC and Russia: Table for Two

Go it alone?

- After the somewhat ambiguous outcome of the last meeting, Saudi Arabia and Russia have reasserted control of the narrative and added barrels to the market.
- This seems to prove that they are willing to fully embrace their role as co-regulators of the oil market and have little problem overriding the opinions of the rest of the sovereign producers.
- On multiple occasions, the Saudi oil minister Khalid al Falih took to the stage to decisively signal the Kingdom's determination to put additional barrels on the market and a willingness to go it alone if necessary.
- As the Trump-supported move to add barrels to the market progresses, the Vienna alliance appears increasingly strained in our view.

Russia has been an active participant in the OPEC/non-OPEC deal



Source: Bloomberg, IEA, company and government sources, OPEC, RBC Capital Markets

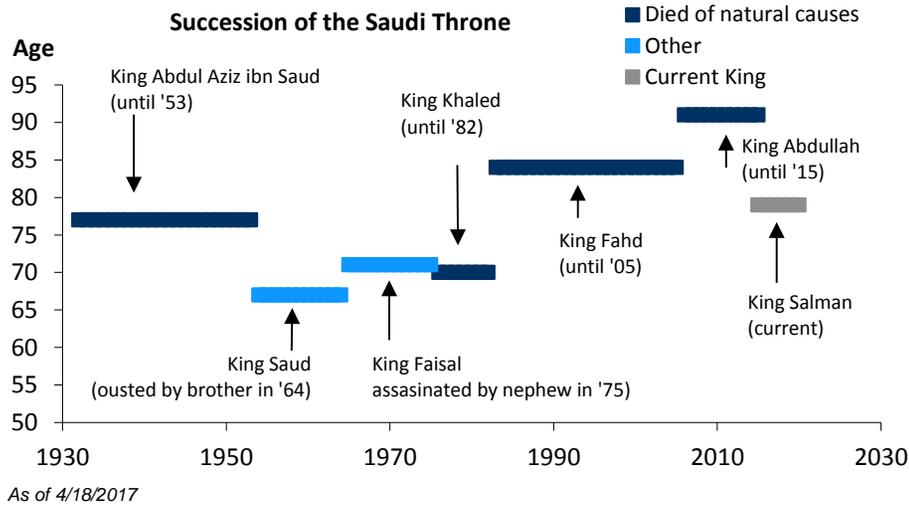
A willingness to act



Photos from OPEC meetings

Saudi Arabia: Crown Prince Mohammad bin Salman Continues His Quest to Remake the Kingdom

Since the death of King Abdullah, much has changed in Saudi Arabia



Proposed reforms are ambitious but not necessarily unprecedented



There has been an unprecedented consolidation of power under MBS

Mohammad bin Salman (top)
Crown Prince

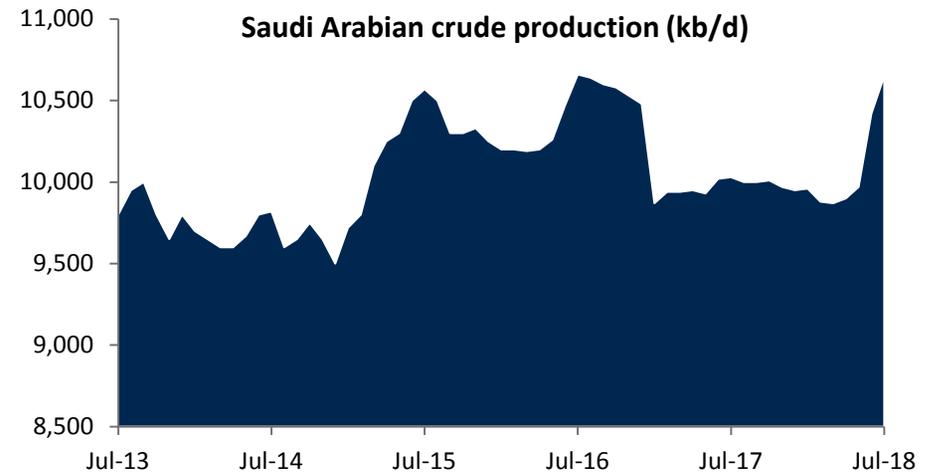


Khalid Al-Falih (right)
Minister of Energy, Industry and Mineral Resources

King Salman (left)
King of Saudi Arabia

Muhammad bin Nayef (bottom)
Former Crown Prince (until June 2017)

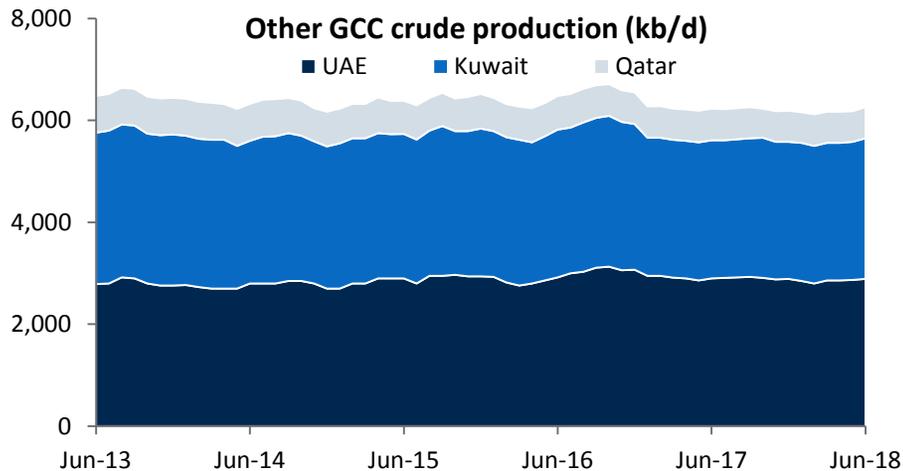
Saudi Arabian crude production



Source: Wikimedia Commons (pictures), Bloomberg, country and government sources, RBC Capital Markets

Rest of GCC: Mostly Well Positioned

GCC crude production has fallen since the deal came into effect



Diplomatic relations at the start of the GCC-Qatar crisis (Al Jazeera)



Note: Some countries not pictured; *Libya's House of Representatives government; ** Yemen's President Abd-Rabbu Mansour Hadi's government

Most of the GCC is well positioned to weather low prices

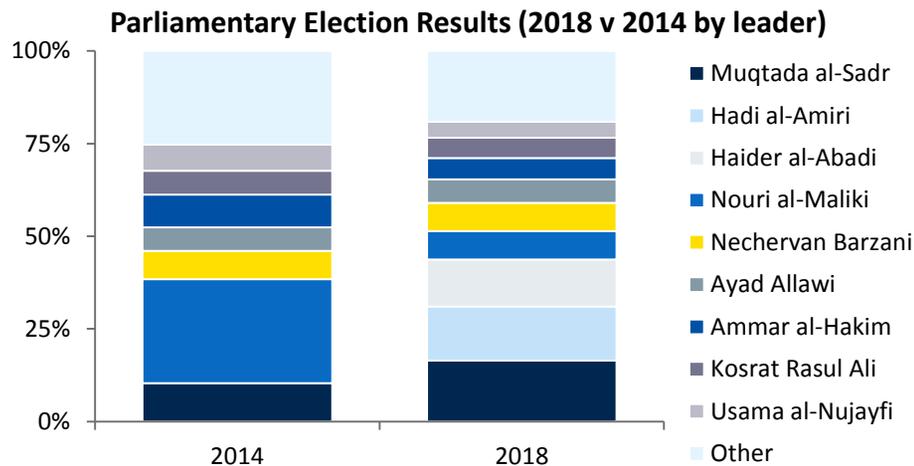
- United Arab Emirates**
 - The Emirati oil minister, Suhail Mazroui, has repeatedly stated that he would like use his OPEC presidency to craft a charter arrangement to ensure further cooperation among the Vienna alliance producers.
 - UAE was one of the countries best positioned to ride out the low oil price storm given its small population, flush sovereign wealth funds, more diversified economy, and having adopted adjustment measures.
- Kuwait**
 - Few citizens, an ample sovereign wealth fund, and adopting some adjustment measures.
- Qatar**
 - One of the wealthiest nations in the world on a per-capita basis and proving mostly resilient in its blockade situation.
 - We also note that Qatar is more of an LNG exporter than it is a crude exporter; in fact, it is the smallest in this group in terms of oil exports.
- The group as a whole would obviously face increased borrowing costs if oil were to fall back to its lows and influence their credit ratings.
- Saudi Arabia and most of the rest of the GCC are pleased with the policies of the Trump administration, particularly with the tougher line and sanctions on Iran and the downgraded emphasis on democracy and human rights.

Iraq: Post-Election Uncertainty

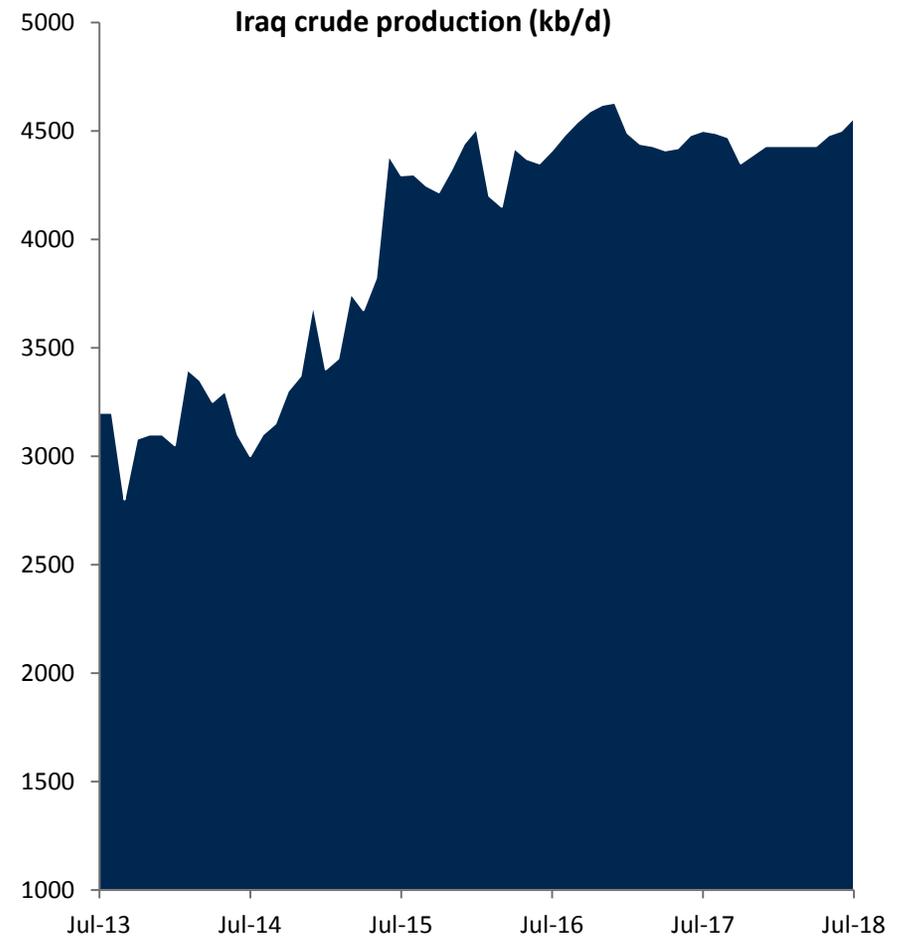
A time of political change is occurring

- Iraq's oil producing region has been roiled by a wave of protests over the summer (beginning in Basra) and they have potential to put significant volumes at risk if the unrest escalates.
- The protests have been fueled by a profound sense of grievance over the failure of the central government to provide jobs and essential services, including electricity and clean water to the region that generates the wealth for the country. Prime Minister Abadi visited the region and pledged additional development assistance, but it is hard to say whether this will turn the tide.
- At the same time, the country is experiencing a shakeup of the political landscape since Shiite cleric Muqtada al Sadr's political bloc won a surprise victory in May's parliamentary election. He has repositioned himself, but questions remain.

Muqtada al Sadr's bloc won the most additional seats in the 2018 election



Iraq has maintained production in the face of troubles

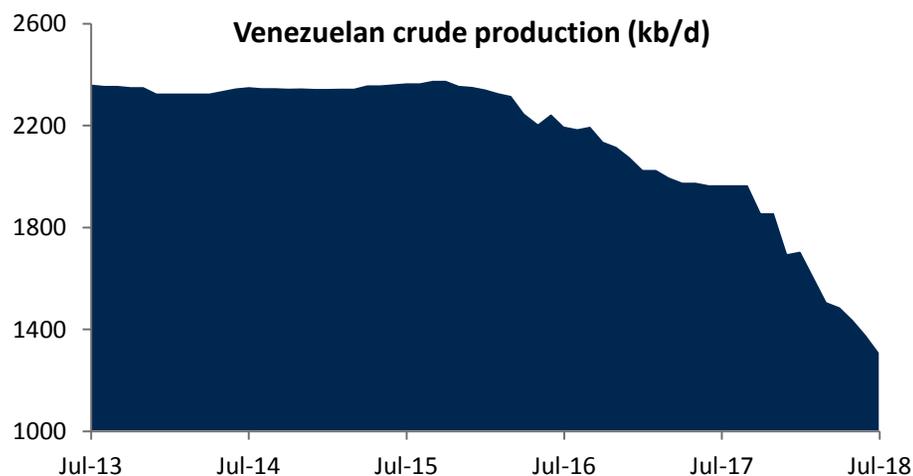


Venezuela: One Direction

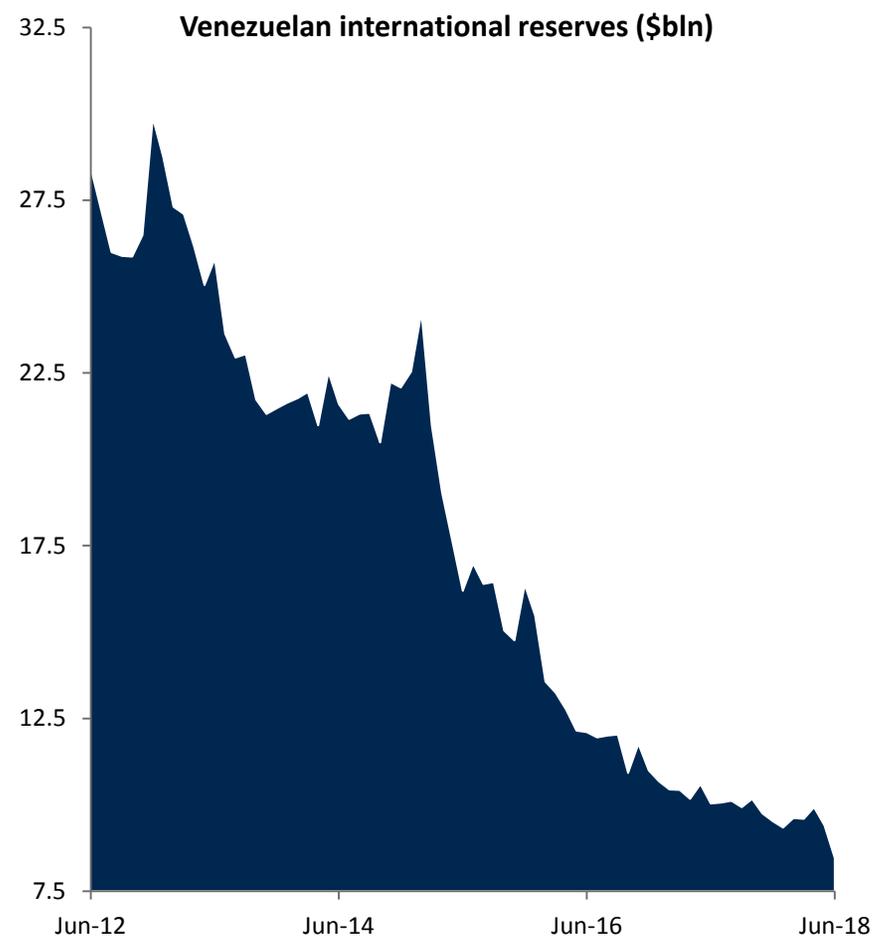
Venezuela is past the brink and faces a severe economic and social crisis

- The recent drone attack on Maduro serves as yet another reminder of the chaos engulfing the most distressed petro-state. Recent arrests have prompted some to believe that Maduro may be ousted by a military coup. Even in that case, though, any economic recovery and return of oil production would likely be very protracted given the depths of the crisis. Zimbabwe serves as a cautionary tale for those expecting timely regime change.
- US sanctions have pushed the country further toward a full-blown debt crisis, and oil production has fallen to a multi-decade low (barring the 2002–03 strike). The government has struggled to maintain critical energy infrastructure, pay the necessary parties (i.e., workers) on a regular basis, etc., and with creditors now moving to seize energy assets and PDVSA becoming the military's piggy bank, losses will likely approach 1 mb/d y/y.

Oil production continues to falter and losses continue to mount



The country's reserves are very low and continue to dwindle

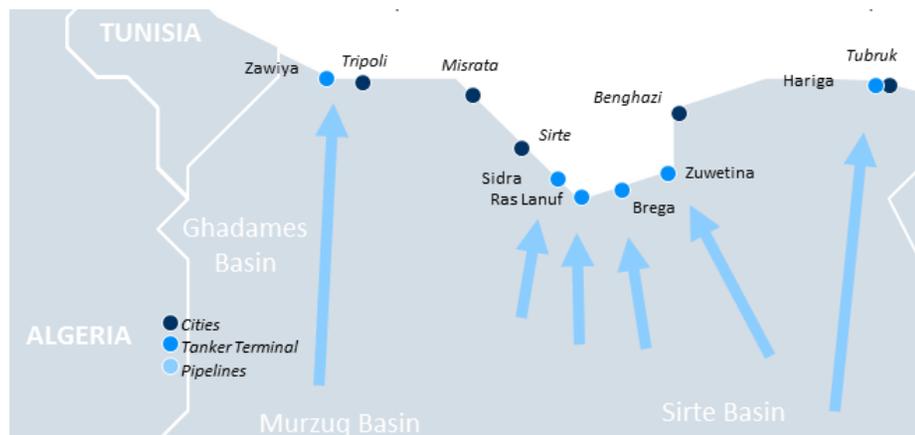


Libya: Risky Business

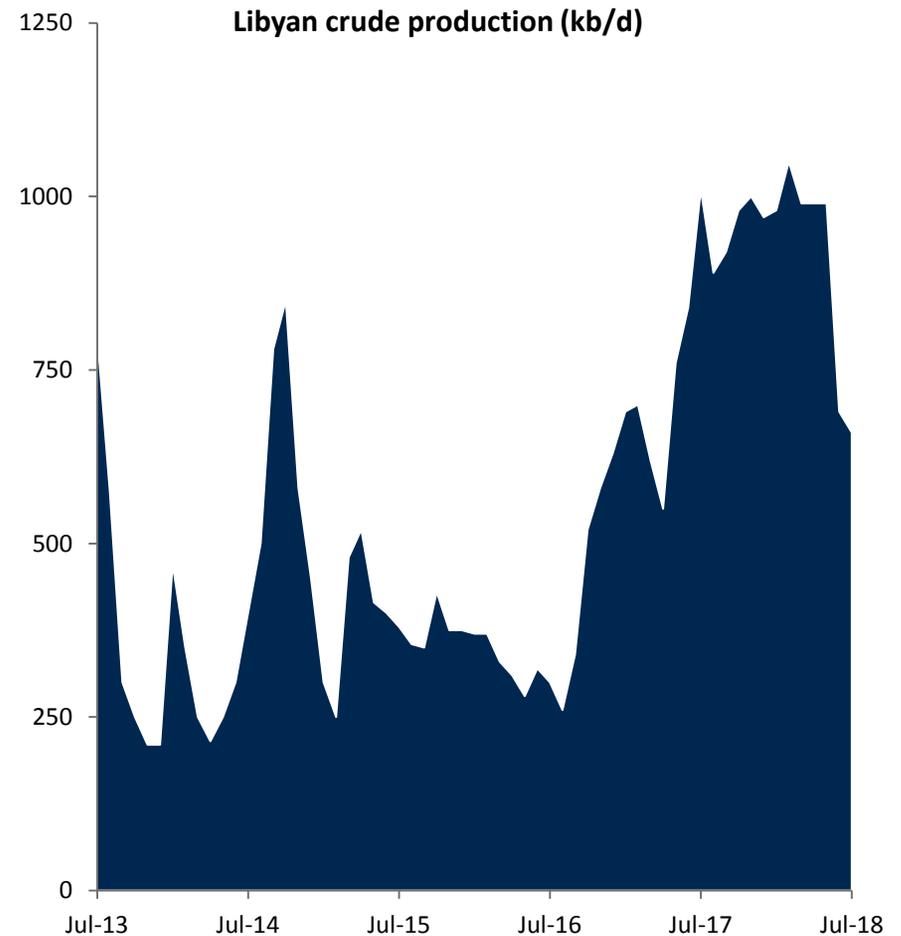
Libya has long been in a state of chaos...

- While control of the four main eastern ports may have changed hands in July, we are hesitant to believe that production could be back for good anytime soon. Libya could easily relapse again, and we think that the battle for its oil spoils is far from over.
- Libya was one of the winners from the 2017 recovery in oil prices, but output has stumbled and there remain rival governments and dozens of armed factions.
- Attacks on Libya's energy infrastructure by various armed groups (including local ISIS offshoots and militias backed by armed rivals) have increased since the start of the year. Headlines about agreements and accords have previously given rise to some expectations that Libya is poised for a sustainable reversal of fortune, but we still think it is far too soon to declare such.

Map of Libyan oil infrastructure



... and maintaining high levels of production remains a "risky business"



Nigeria: Another Chapter in a Long-Running Story

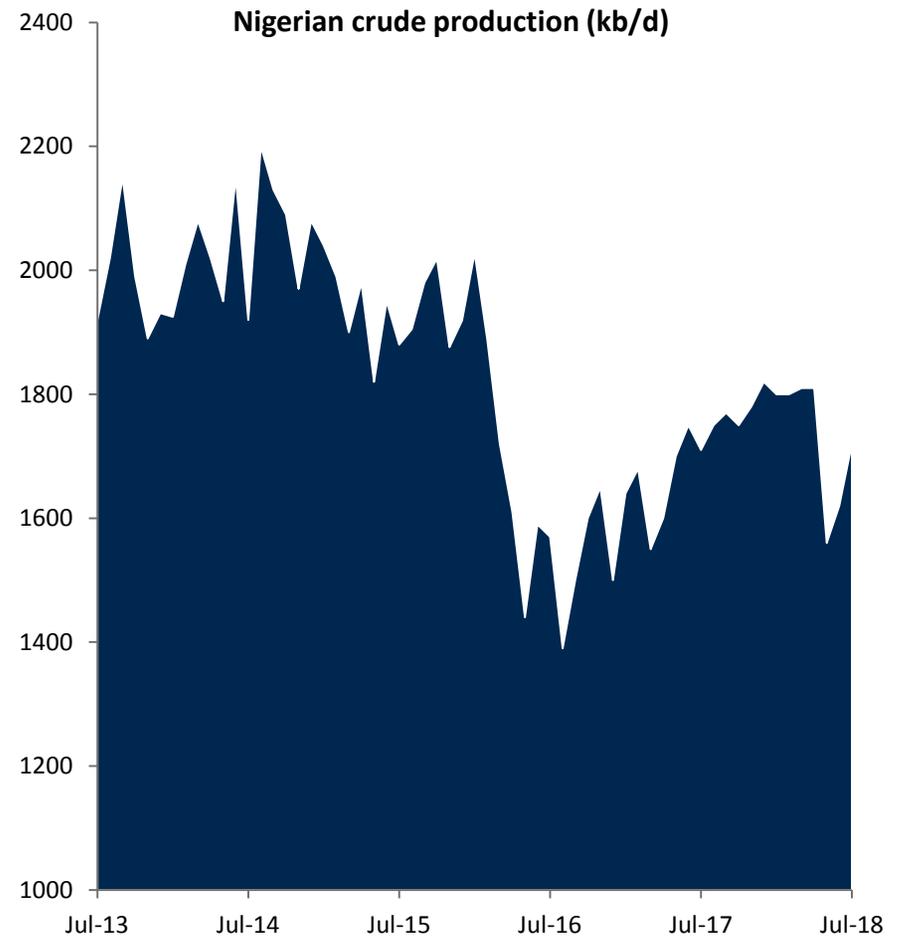
Nigeria continues to face challenges and instability for oil production...

- While it remains challenging to predict the exact timing of when militant groups elevate their engagement in hostilities, a government effort to crack down on criminality in the oil region would represent a likely catalyst, as do upcoming elections.
- Companies have previously declared force majeure on several hundred thousand barrels of exports following the closure of three major pipelines (Nembe Creek, Trans Forcados, and Trans Ramos) because of vandalism.
- Losses of this type could easily compound as Nigeria heads into elections in February 2019. Nigerian security services would likely find it challenging to prevent fresh attacks on underwater pipelines. Thus, such a scenario could see production plunge.

The latest instability is another chapter in a long story in the Niger Delta



... and there is still no silver bullet for sustainable production gains



Iran: Nuclear Options

Challenges exist

- Despite the deteriorating domestic conditions, Iran has shown no signs of folding, and we eye both a nuclear restart and an intensification of proxy wars in the offing.
- The Trump administration has signaled that it will force foreign energy firms to reduce their Iranian crude purchases (its apparent goal essentially is to take Iran out of the market), surpassing Obama's 1.2 mb/d by 2H 2019.
- Iran's response to the US's JCPOA withdrawal warrants close watching. The likelihood of an Iranian nuclear restart in H2 2018 is high in our view. Beyond sanctions, there are still proxy conflicts such as Yemen and Syria, which remain worrying.
- How these security stories stemming from the Iran crisis unfold will likely determine whether we are in for a super spike in oil's geopolitical risk premium or a softer landing by year-end.

Some sanctions snapped back in August, oil sanctions return in November

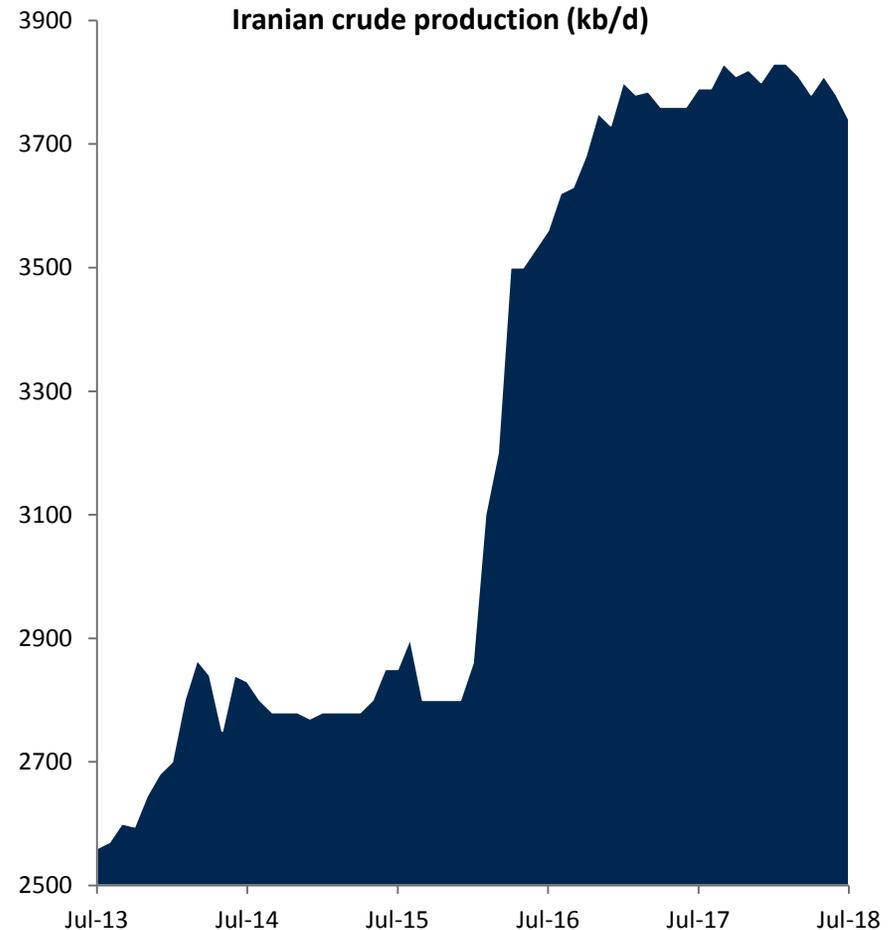
Iran Sanctions Act (ISA): Covers investment in Iran's energy sector. Requires 5 out of 12 sanctions from sanction menu.

Iran Freedom and Counter Proliferation Act (IFCA): Covers a wide range of Iranian economic sectors, human rights, etc.

Oil Export Sanctions: Seeks to reduce Iran's oil exports by sanctioning the mechanisms importers use to pay.

Country/Bloc	Top Oil Buyers from Iran and Reductions (kb/d)		
	Pre-sanctions (2011 avg.)	Sanctions (Jan. 2014)	JCPOA (Jan. 2016)
European Union	600	Negligible	near 2011
China	550	410	near 2011
Japan	325	190	near 2011
India	320	190	near 2011
South Korea	230	130	near 2011
Turkey	200	120	near 2011
South Africa	80	Negligible	unclear
Malaysia	55	Negligible	unclear
Sri Lanka	35	Negligible	unclear
Taiwan	35	10	small increase
Signapore	20	Negligible	unclear
Other	55	Negligible	small increase
Total	2.5 mb/d	1.1 mb/d	2.4 mb/d

Iranian crude production has come back, but...

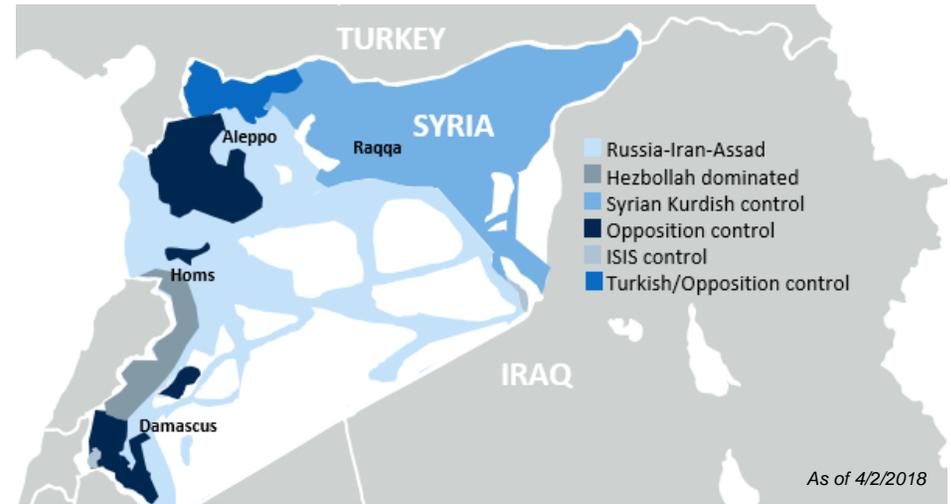


Contagion Risk in the Middle East

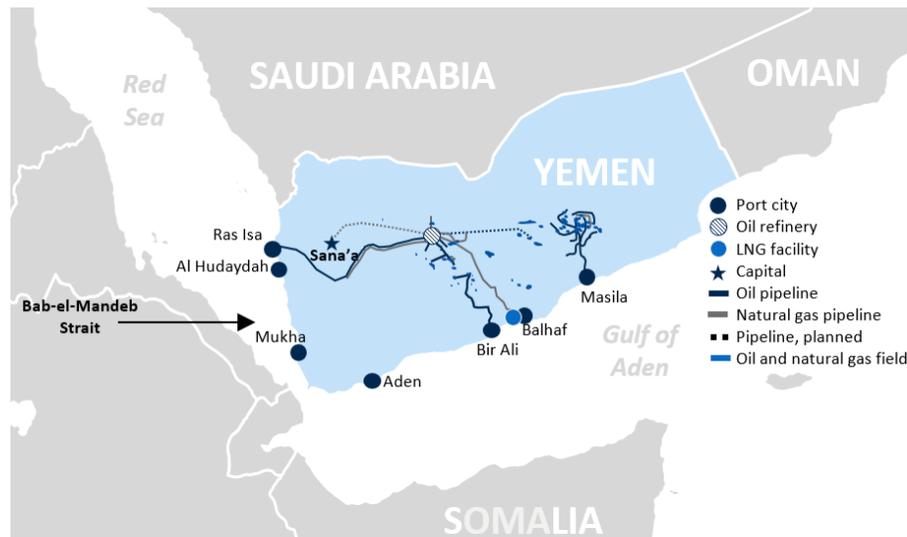
War on two fronts

- Syria and Yemen remain critical concerns. For Yemen, the battle continues and the risk remains that the war could spread further beyond the country's geographic boundaries, which could add a possible "fear premium" to oil.
- At the same time, the other proxy war raging in Yemen presents a clear risk to regional energy supplies given the brazen Houthi attacks on Saudi targets.
- The intensification of these proxy fights come in addition to the White House's move to pull out of the Iranian nuclear deal and reinstatement of sanctions on the country. Important given Iran's role in regional proxy conflicts.

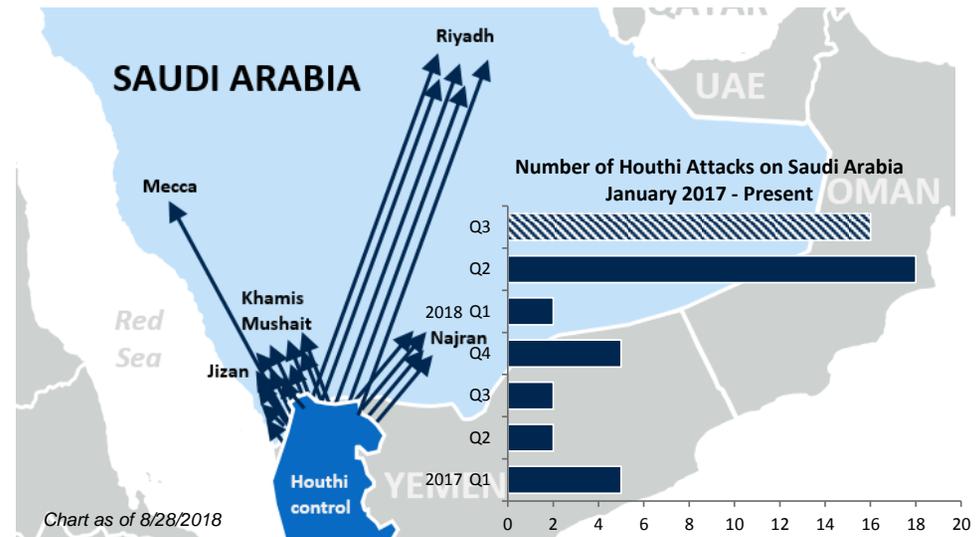
Syria control map



Yemen map with Infrastructure



Yemen represents an increasingly dangerous conflict in the region



Source: Al Jazeera, ISW, EIA, other news and government sources, RBC Capital Markets

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