



Three Big Questions for Oil Markets, Policy and Geopolitics

Robert McNally | President, Rapidan Energy Group

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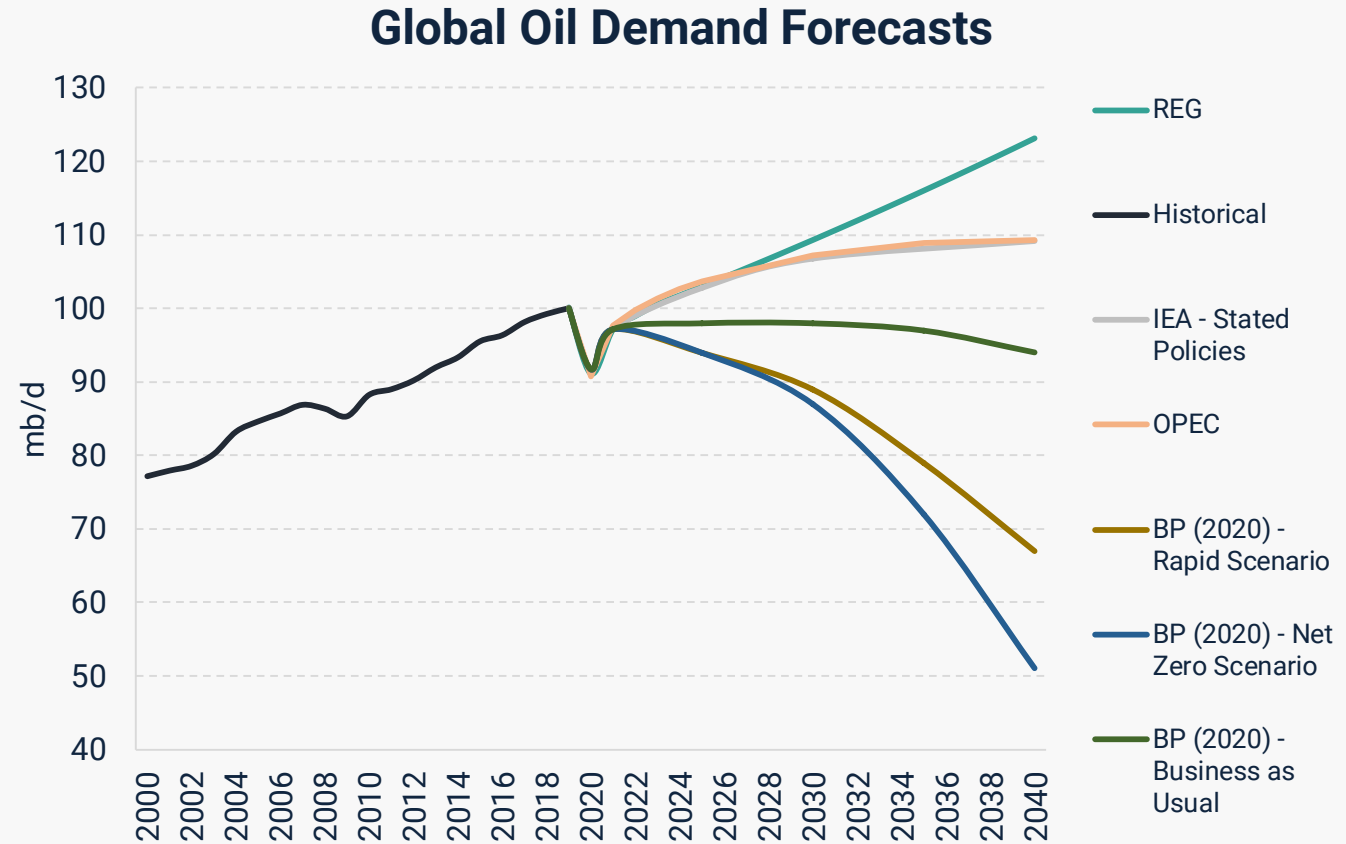
November 20, 2020

- 1. Policy-Driven “Peak Demand” Consensus – Realistic or Wishful Assumptions?**
- 2. Geopolitical Disruption Risk – Out of the Woods?**
- 3. Swing Producers – Do We Have Them or Need Them?**

Policy-Driven Peak Oil Demand – Realistic or Wishful Assumptions?

Consensus assumes policy-driven EV uptake and efficient cars will slash oil demand growth by at least in half

- History and conventional modeling indicates global oil demand grows by about half as fast as real GDP
- In a 3% GDP world, oil demand would grow by about 1.5% or roughly 1.5 mb/d in a 100 mb/d market
- Current quasi-base case IEA and OPEC show demand much more slowly. From 2019-2030:
 - IEA – 0.6 mb/d
 - OPEC – 0.7 mb/d
- These unusually low forecasts arise from assumed policy-driven EV uptake and rapid fuel efficiency gains in ICE vehicles
- Moreover, alternative agency scenarios emphasize faster policy-driven peak and collapse in oil demand

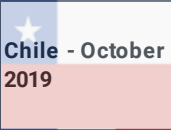
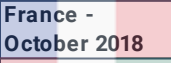






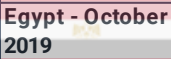



Source: IEA, EIA, OPEC, BP, Exxon, Bloomberg, Rapidan Energy Group
N.B.: BP did not provide forecasts for 2020 and 2021. For display purposes we assumed a similar decline and recovery in 2020 and 2021 to IEA and OPEC.

Underappreciated Transition Headwinds

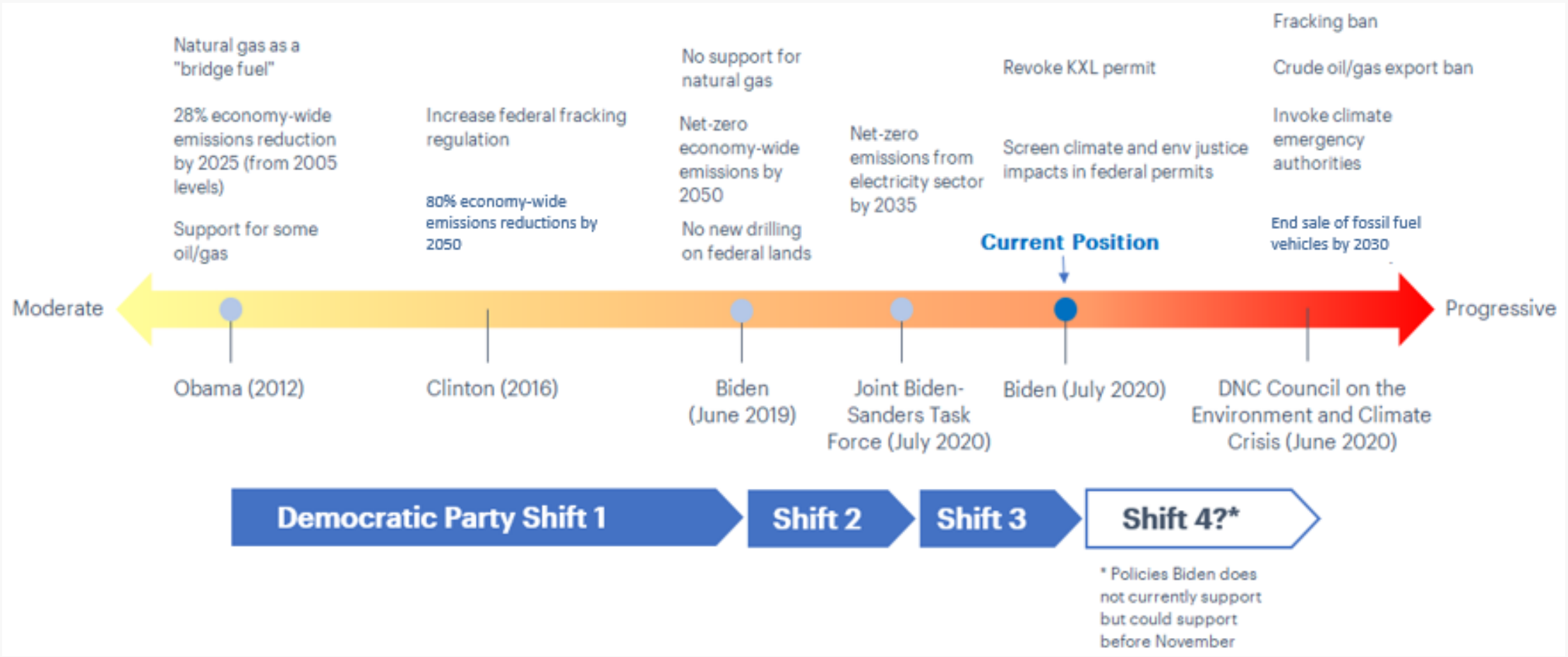
Consumer preferences, cash-strapped budgets, and distracted governments

- China halved EV subsidies last year, triggering a decline in sales
- Biden administration's ability to drive higher EV adoption by funding charging stations, extending purchase subsidies, and tightening fuel economy rules is limited
- Only Europe is forcefully implementing ICE car bans
- Major protests have forced cancellation of transition policies like fuel taxes and subsidy cuts, including France

Decarbonization Protest Tracker			
	2019 Oil Demand (kb/d)	Protest Description	Policy Change Reversed?
OECD			
 Chile - October 2019	371	Chilean students lead massive protests against 4% increase in subway fares, which the government said was necessary to cope with rising oil prices and currency weakness. Protests caused the government to relocate COP25 from Santiago to Madrid, Spain.	Yes. Economic reforms and constitutional referendum.
 France - October 2018	1,721	"Yellow Vest" protests erupt over carbon taxes on fuel.	Yes. Reversal of fuel price increases.
 Mexico - January 2017	1,911	Protests break out after the government's decision to deregulate gasoline prices caused pump prices to rise 20%. Protests hit at a time when the peso's value was plummeting and inflation was rising. After the increases gasoline was \$2.85/gallon.	Yes. Election of AMLO and reversal of deregulated gasoline prices.
Non-OECD			
 Nigeria - September 2020	504	Protests break out following the government's decision to reduce fuel subsidies, sparking a ~33% increase in gasoline prices.	Ongoing
 India - June 2020	5,114	Nationwide protests over a ~17% increase in the excise tax on diesel and gasoline prices.	Ongoing
 Haiti - March 2020	22	Protestors demand the resignation of Haiti's president and prime minister after gasoline prices nearly double to ~\$5/gallon in 2020.	No
 Iran - November 2019	1,985	Fuel subsidy cuts spark widespread demonstrations and violent backlash by security forces. The government estimates ~200 people were killed.	No
 Ecuador - October 2019	273	Protests began after President Lenin Moreno announced plans to end government subsidies on gasoline, diesel, and natural gas. The cuts were required by an IMF loan arrangement to tackle the country's fiscal deficit.	Yes. Cancellation of fuel subsidy changes.
 Egypt - October 2019	725	Widespread protests due to IMF-backed austerity programs which included fuel subsidy reductions and devaluation of the local currency.	Yes. Reversal of fuel price increases.
 Sudan - April 2019	134	Peaceful protests caused by price hikes on fuel and basic goods contributed to a widespread movement that toppled the 30-year dictator Omar al-Bashir.	No change, but protests contributed to overthrow of Bashir regime.

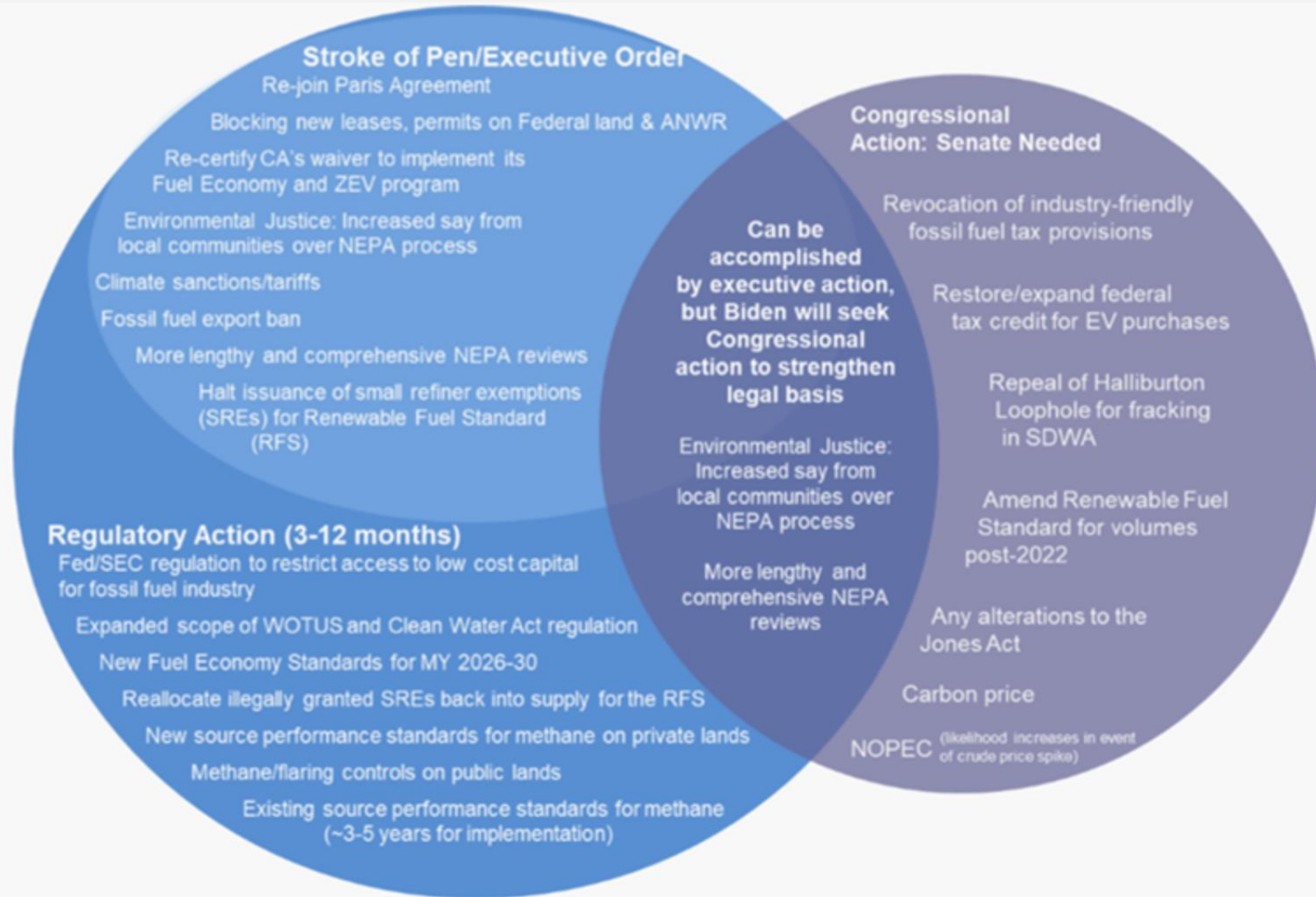
Sharp Shift Against Oil & Gas on the US Political Left

“People used to call it a bridge fuel, including myself. But I think you have to get off the bridge.”
 - John Podesta, Biden Campaign advisor and lead Democratic strategist, on natural gas (Axios, September 3, 2020)



US Oil & Gas Sector Faces Extensive *Executive Action* Policy Risk

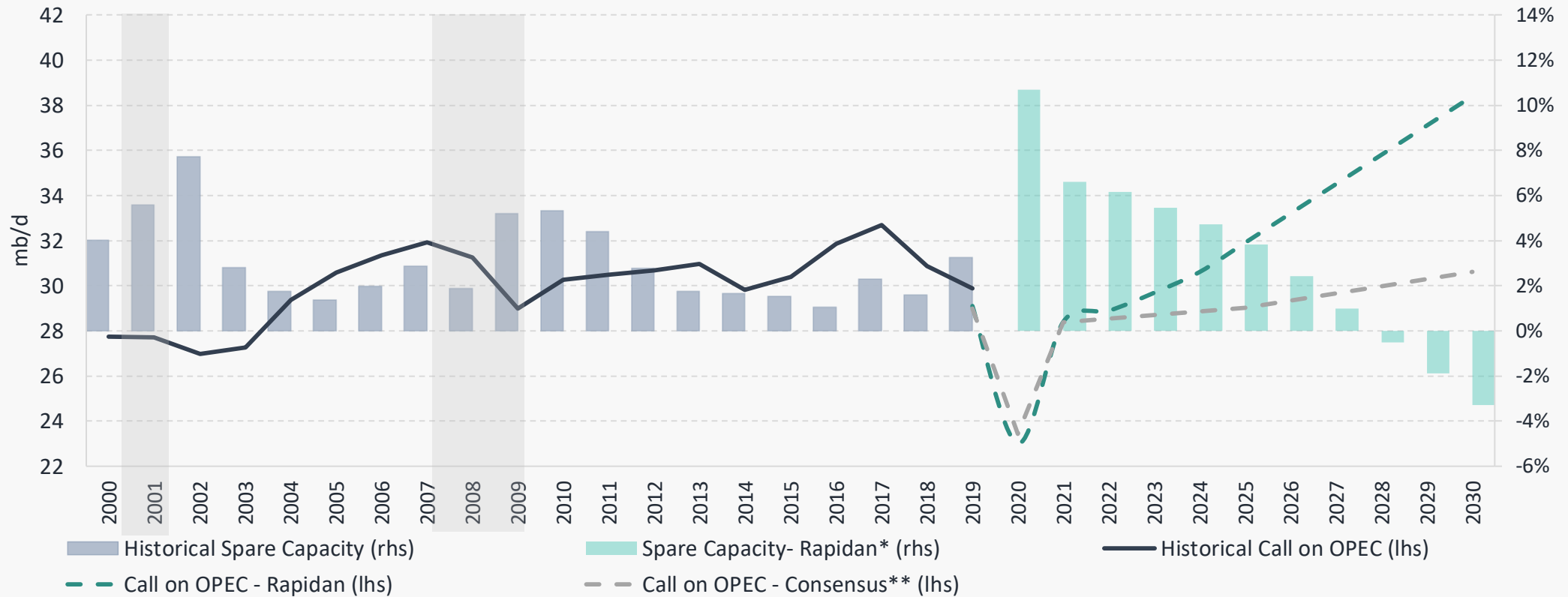
Even if Republicans hold the Senate



Boom to Follow Bust As Markets Tighten Later This Decade

Peak Demand or No

Call on OPEC & Global Spare Capacity as a % of Global Production

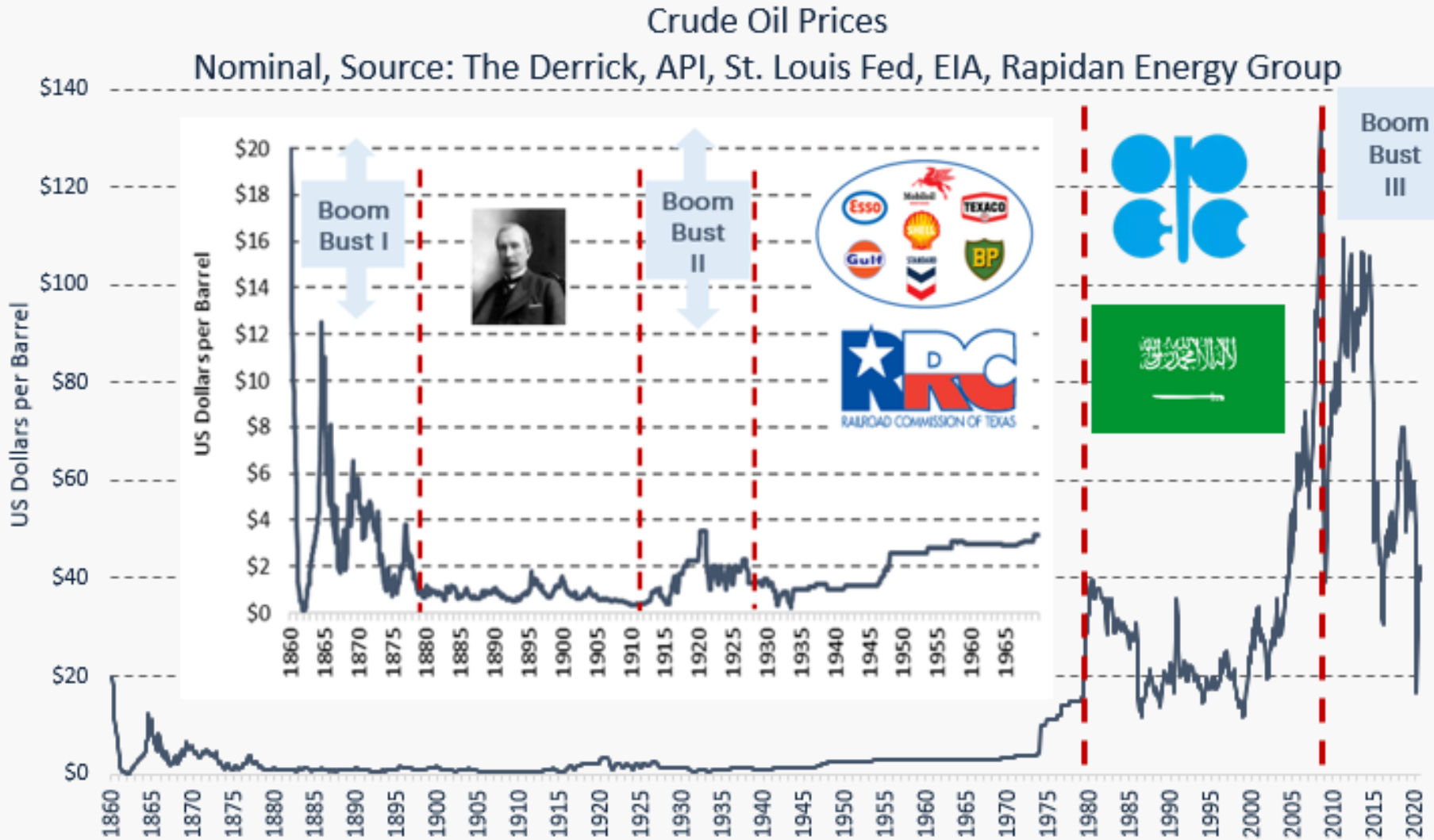


*Assumes OPEC produces at the Call on OPEC level and all additional capacity is maintained as spare.

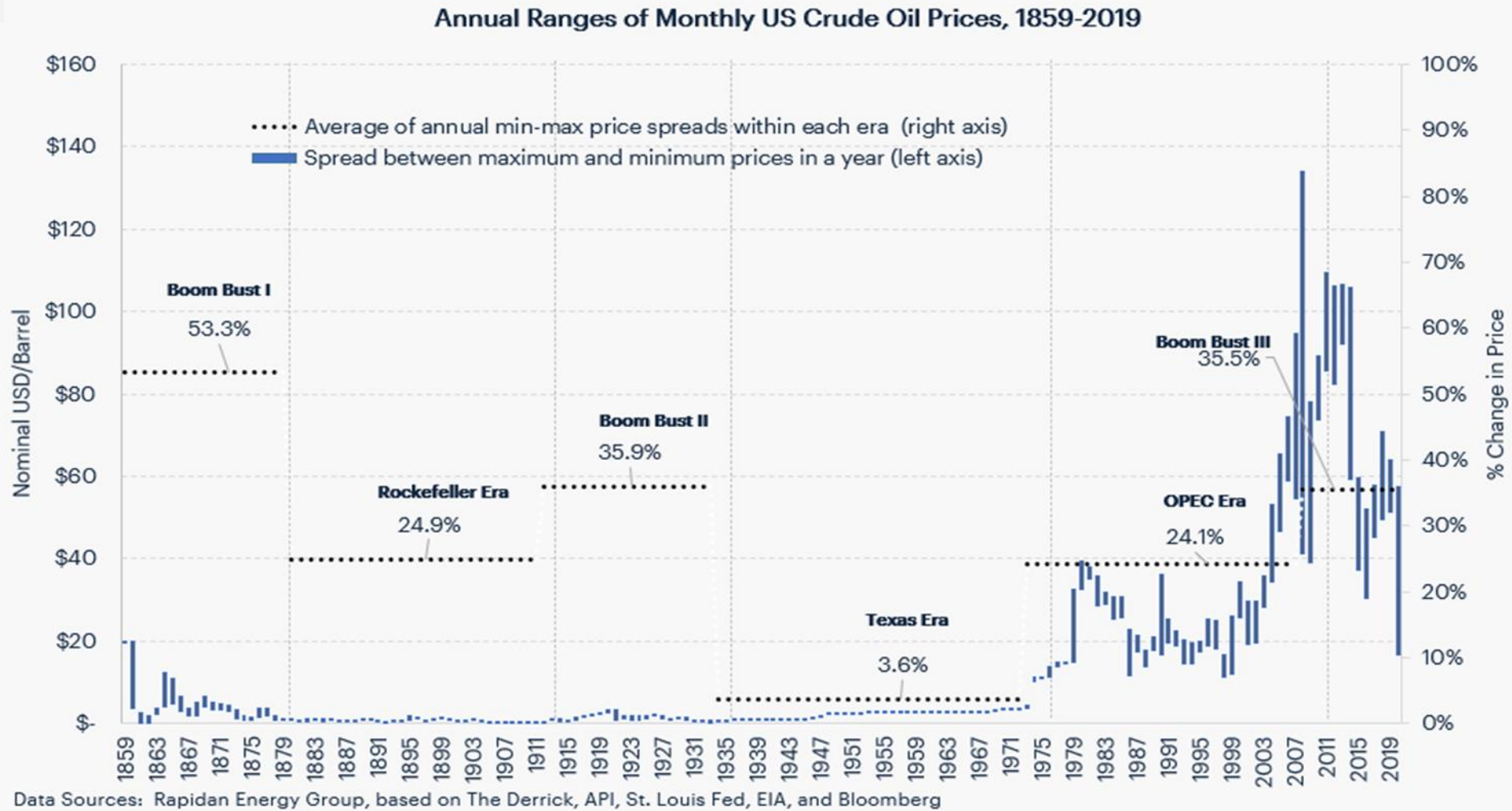
**IEA- Stated Policies

“No OPEC, No Peace”

Oil price stability depends on presence of an effective swing producer



No Swing Producer = Space Mountain Oil Price Volatility

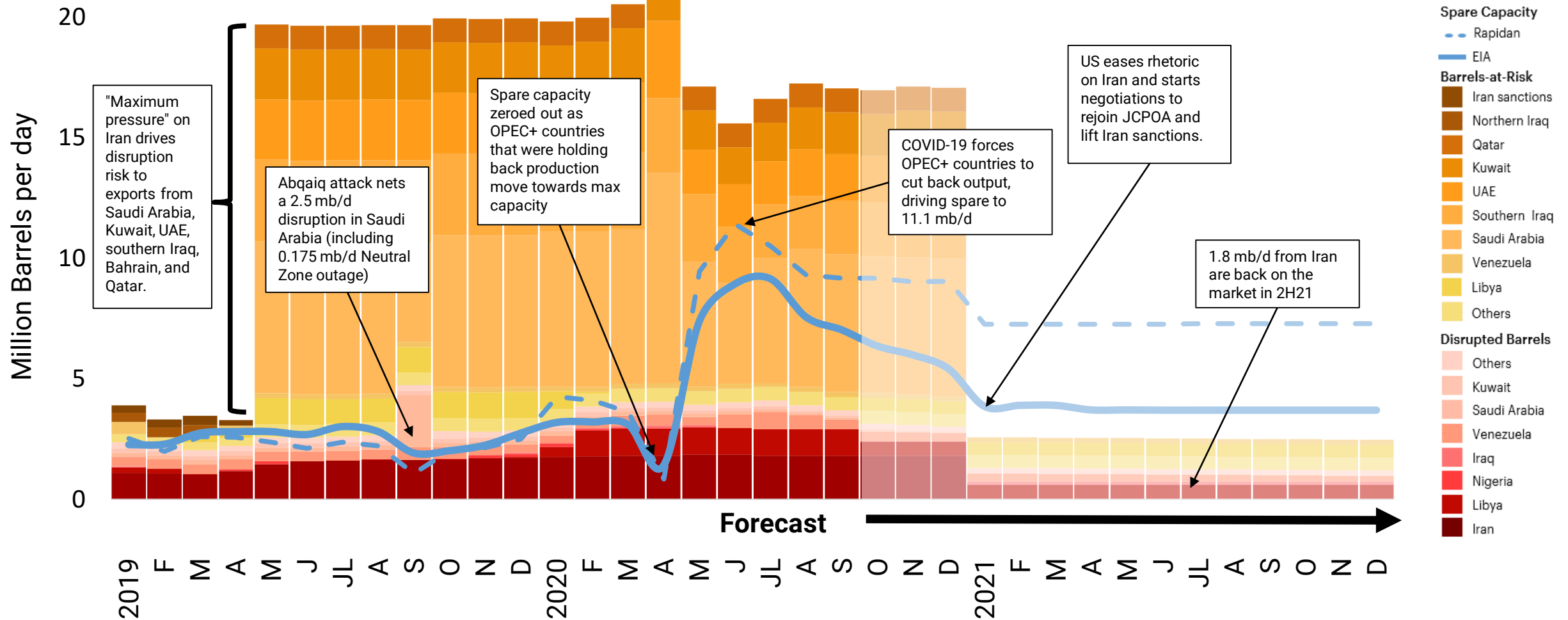


Shale Won't Swing and the Jury is Out on OPEC+

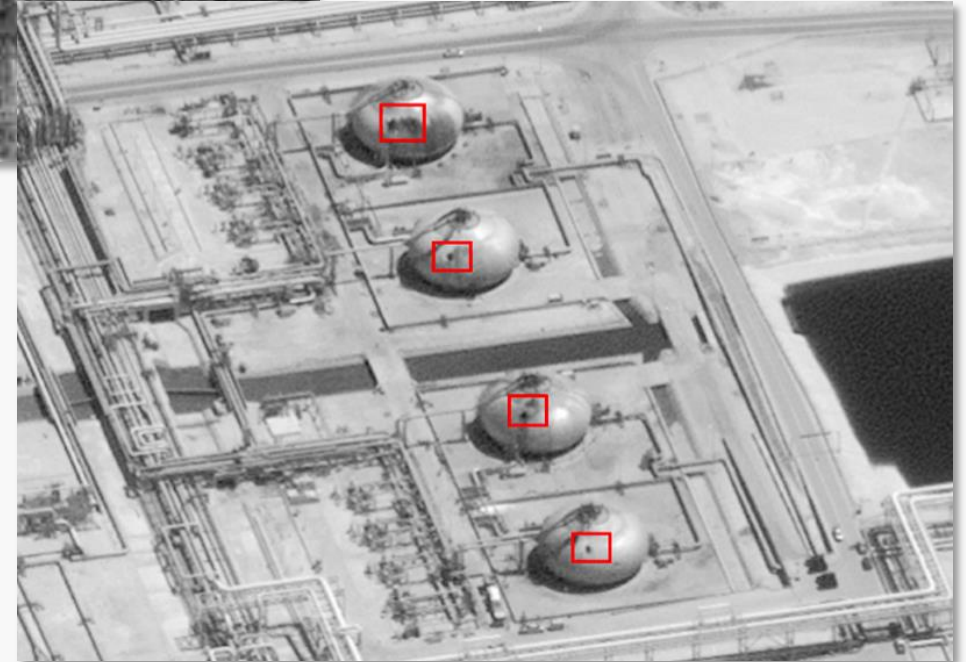
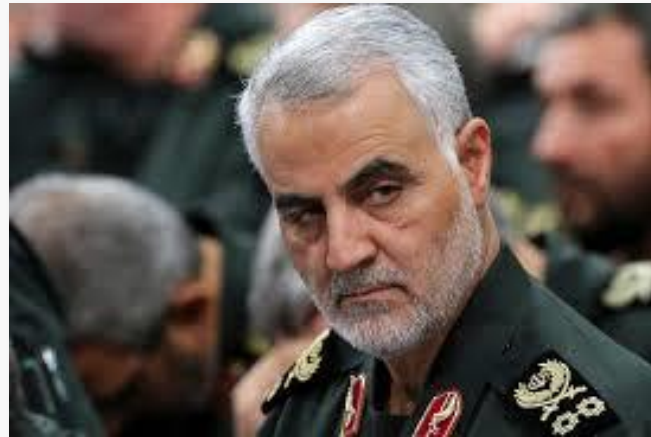
	Texas Railroad Commission & Seven Sisters	OPEC	Shale	OPEC+
Members willing to subordinate maximum production to the goal of stabilizing oil prices	YES	YES	NO	?
Members able and willing to decide and implement supply adjustments in days to weeks	YES	YES	NO	?
Legal authority to manage supply for the purpose of price stability	YES	YES	NO	YES
Willing and able to sustain supply changes long term	YES	YES	NO	?
Coherent institutional structure, decision making process	YES	YES	NO	?

Geopolitical Risk Outlook

Geopolitical risk goes down sharply in 2021 as US eases down on Iran rhetoric; spare capacity remains >7 mb/d



World Economy Remains One Bad Afternoon Away from A Disastrous Energy Disruption



Thank You!

Bob.McNally@RapidanEnergy.com