

# Scott Sheffield

President and CEO, Pioneer Natural Resources

**PIONEER**  
NATURAL RESOURCES

# Proration Hearing

Texas Railroad Commission

April 8, 2020



# Proration Summary

## Proration Advocates

- Prevents waste
- Proration is part of a larger global solution to the COVID-19 demand destruction
- Provides pricing support to protect our industry - jobs and development infrastructure - from a major collapse
- Preserves Texas production gains, limiting steep declines and likelihood of a reversion to U.S. importing 60% of its oil
- Maintains diversity of operators in Texas' greatest asset, the Permian Basin
- Protects small and medium-sized producers from being treated unfairly due to market access

## Proration Opposition

- Preserves the “free market”
  - ✗ *Response: There has not been a free market for decades; both demand and supply of the oil market are currently driven by government actions*
  - ✗ *Response: Unlikely that OPEC+ will restrain production if it perceives U.S. is not contributing*
- Favors survival-of-the-fittest
  - ✗ *Response: Bankruptcies and job losses will negatively impact the industry for decades*
  - ✗ *Response: Texas Independents account for ~90% of Texas production growth over the past five years; diversity supports growth*
- No government intervention
  - ✗ *Response: Government actions (OPEC+, Russia, Covid-19 pandemic response) all play a role in the current price*
  - ✗ *Response: Extraordinary conditions demand limited actions that are tailored to ease the impact of the current crisis*
- OPEC will expect future participation
  - ✗ *Response: COVID-19 pandemic is singular circumstance requiring unprecedented global action*
  - ✗ *Response: States always retain freedom of action*

# › Pioneer Proration Position

## Pioneer Natural Resources

- ⤵ Operating in Texas since 1962
- ⤵ Second largest oil producer in Texas
- ⤵ Over 2,300 Texas employees
- ⤵ Investment grade credit
- ⤵ Fully hedged for 2020
- ⤵ Significant firm transport to Gulf Coast; exported ~95% of oil production in Q4 2019
- ⤵ Major investor in ProPetro, largest pressure pumper in the Permian Basin

## Scott Sheffield, CEO

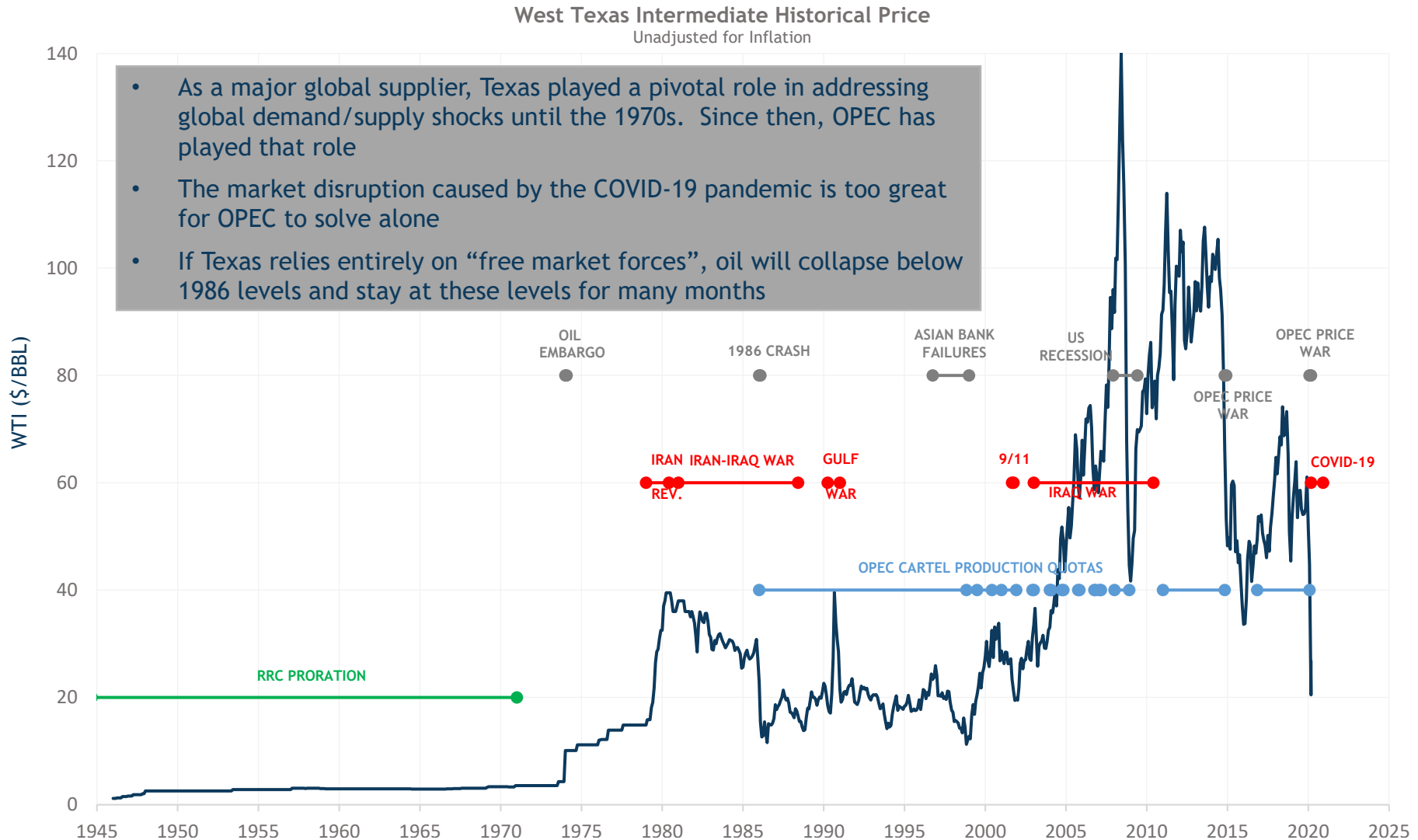
- ⤵ Longest serving public company CEO having led Pioneer for over 35 years
- ⤵ Navigated through five significant industry cycles
- ⤵ Led industry group to eliminate oil export ban
- ⤵ Leading efforts in Texas to reduce flaring
- ⤵ Suddenness, severity and extent of demand collapse is similar to 1986

## Texas RRC

- ⤵ Responsible for ~40% of U.S. oil production
- ⤵ Obligated to manage Texas resource to prevent waste
- ⤵ Immediate action is necessary to preserve price stability, industry viability and U.S. energy independence
- ⤵ Global stakes are high, failure to act is not an option
- ⤵ RRC leadership is essential component of U.S. and global response

*“The oil industry has never faced a collapse in demand of the magnitude inflicted by this disease, and is ill-equipped to cope. While production remains rampant, storage tanks could be filled within weeks, forcing a disorderly and damaging shutdown of production.”*  
- Financial Times

# OPEC Influence on Oil Market



# Energy Industry Update

## Unprecedented Declines

- ⤵ Global demand reduced 20% since this time last year
- ⤵ World oil supply expected to exceed demand by 1.8 billion barrels in 1H 2020
- ⤵ U.S. rig count has dropped 146 rigs in one month
- ⤵ U.S. storage is expected to be full in May
- ⤵ Midland cash spot sales lowest since 1998
- ⤵ Upstream capital reductions for 2020 projected to be >50% of plan

## Balance Sheet Impacts

- ⤵ Investment grade (IG) borrowing costs have increased 700 basis points
- ⤵ 6 MMBBLS/D in the U.S. comes from non-IG entities
- ⤵ >40 public E&P bonds are trading less than 30% of par
- ⤵ 2021 Net Debt-to-EBITDA for most public E&Ps at 4X - 6X
- ⤵ ~400 bankruptcies and ~\$175B of potential debt defaults if prices remain near \$20 through 2021
- ⤵ XOP and OSX indices down >65% YTD

## Industry and Texas Impacts

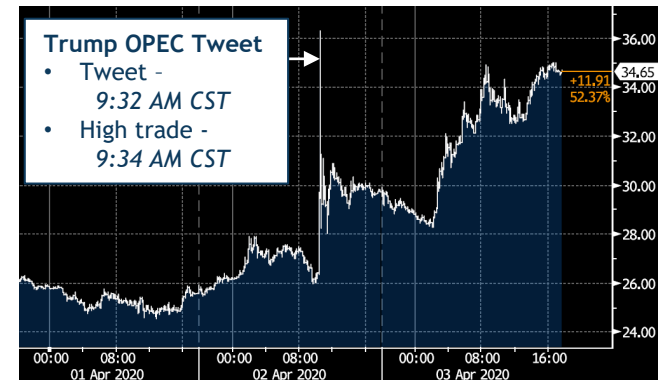
- ⤵ U.S. E&P and Services industries annually pay \$40+B to employees
- ⤵ In 2019, industry employed 428,000 Texans (40% of total U.S.)
  - Industry employees earned double that of other private sector employees
  - Industry generated \$14B in Texas tax revenue and \$2B in state royalties in 2019
- ⤵ Texas represents 5% of global oil market, could decline by nearly half by 2021 without higher prices

*Extreme rebalancing of the market, will result in significant changes in country-specific production levels, permanently impacting U.S. energy security and Texas energy industry*

# Global Call for Supply Reduction

- ③ Oil experienced the worst quarter ever with 66% price drop in Q1
- ③ In the two days following President Trump's April 2 announcement of a possible 10 MMBBL/D joint cut by Saudi Arabia and Russia:

- XOP
  - Increased 12%
- Brent prices
  - Increased as much as 47% same day, closing up 21%
  - Additional 14% increase next day, closing at \$34.11



- ③ Since that time, Saudi Arabia and Russia have made it clear that other countries would need to share in the cut
  - Everyone has a part to play given the massive supply overhang
  - An OPEC cut of 30% is an “unlikely burden for OPEC to take on alone”
  - Texas has an opportunity to contribute, helping to ensure prices do not return to the levels seen prior to April 2nd

*On April 6<sup>th</sup>, “U.S. crude futures fell more than 10% after a meeting between OPEC and its allies, initially scheduled for Monday, was delayed”*

# Call for Proration

- ③ At current prices, Texas current production levels are causing waste
  - Producing in excess of reasonable demand (down 20% worldwide over several months)
  - Producing in excess of storage facility capacity (projected as of May)
- ③ Legal precedent exists for proration to allocate production among producers on a reasonable basis to prevent waste
  - Ensures an orderly and equitable reduction in production
  - Supports higher price realizations instead of complete collapse
  - Limits layoffs, preserves balance sheets and supports critical oil service infrastructure while providing time for producers to adapt
  - Enables a quicker development response, supporting oil growth when prices recover
- ③ Options for a temporary Proration Order
  - Target 1 MMBBL/D from Q4 2019 or Q1 2020 baseline
    - Fixed - Fixed percentage reduction for all operators (e.g. 20%)
    - Graduated - Progressive percentage reduction according to production levels
  - Temporary Proration Term: May 1st - September 30<sup>th</sup>
    - One-month extensions, if needed, thereafter

*Supports global initiative to reduce supply during unprecedented demand loss*



# Matt Gallagher

President and CEO of Parsley Energy, Inc.



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# Market Demand Hearing

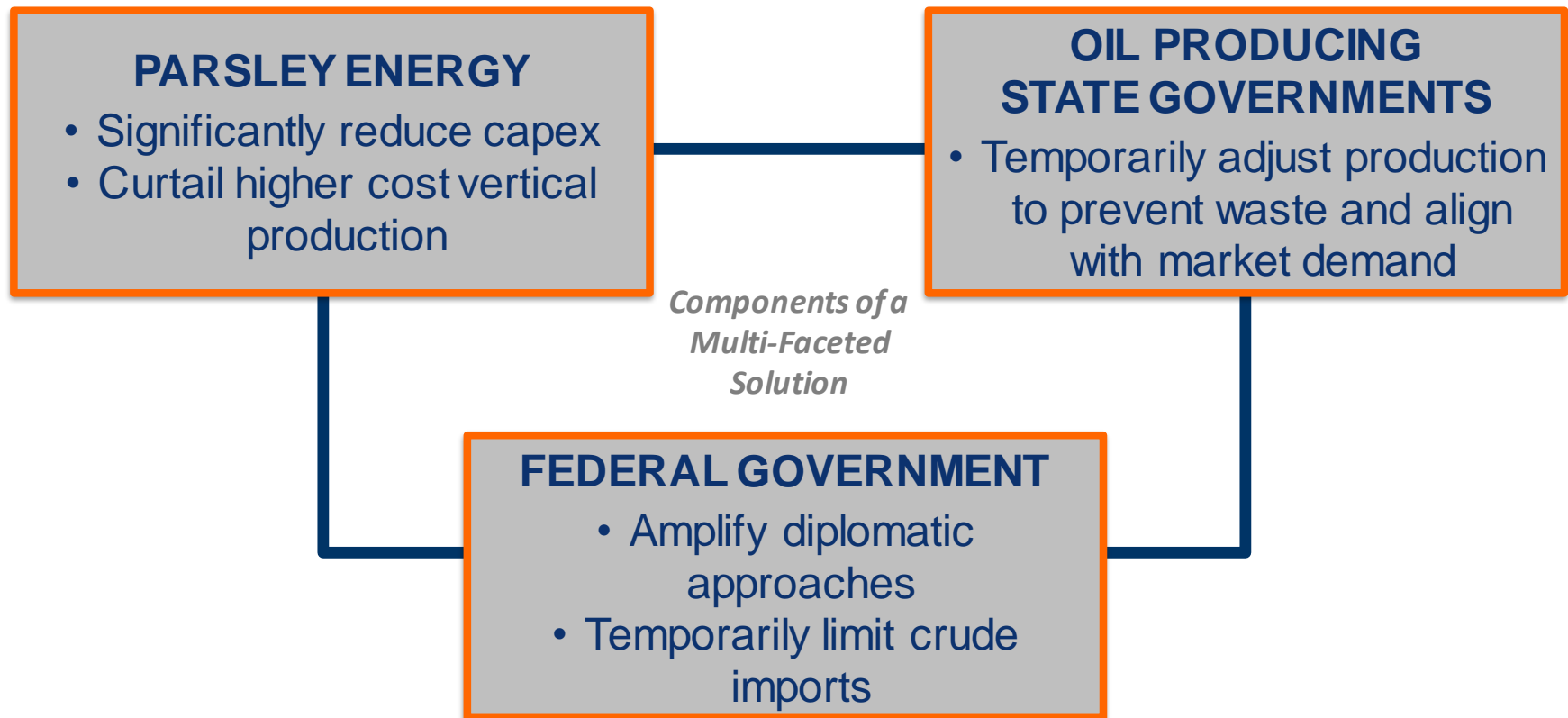
Texas Railroad  
Commission

**April 14, 2020**

[PARSLEYENERGY.COM](http://PARSLEYENERGY.COM)

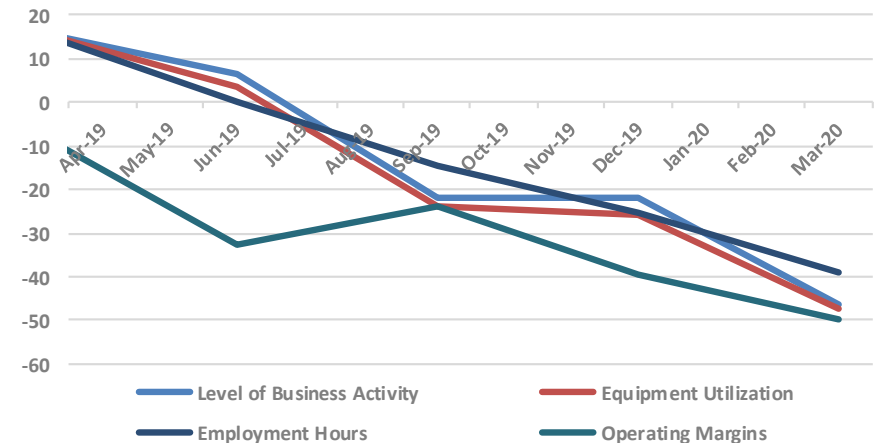


A Texas production cut in line with market demand decline is a critical component of a larger effort; not in a vacuum, but as part of a symphony of solutions

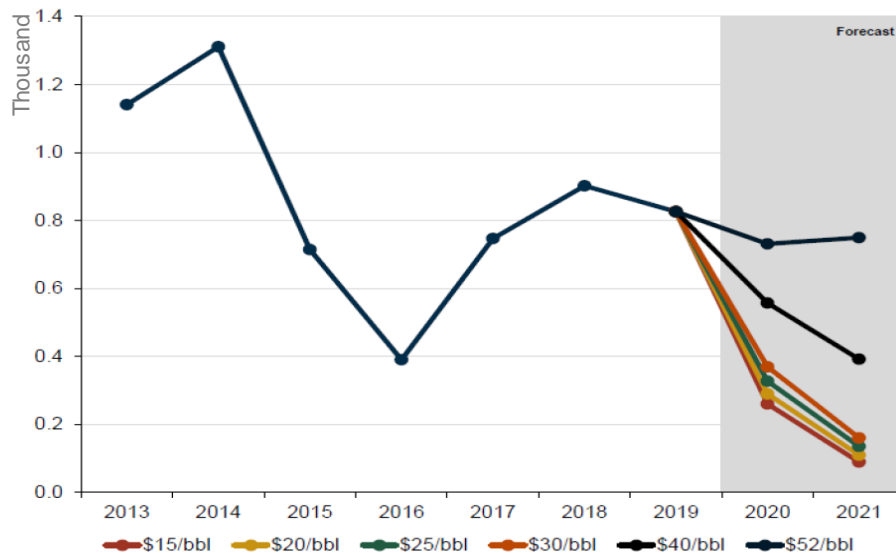


- ▶ As activity cuts continue, services firms will bear the brunt in the near-term of commodity price decline caused by COVID-19 demand destruction
- ▶ Rystad Energy estimates services firms are "set to cut 100,000 jobs tied to oil activity in Texas this year" as a result of oil price crash

## Dallas Fed: O&G Support Services Firms Index



## US Land: HZ rig count by oil price



Sources: Rystad and Dallas Fed

## O&G Support Services Reporting Decreases Q/Q

**Equipment Utilization:**

↓ 60.4%

**Employment Hours:**

↓ 46.3%

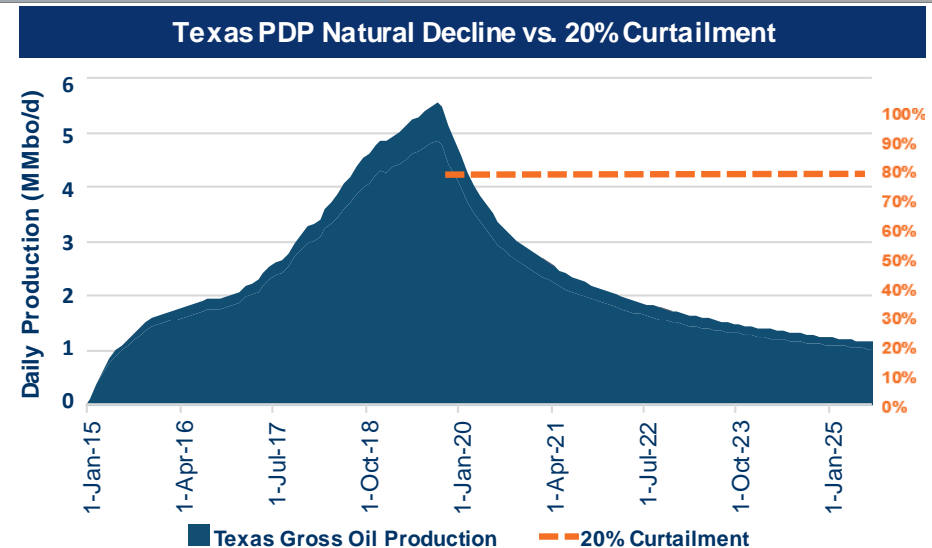
**Level of Business Activity:**

↓ 61.1%

**Operating Margins:**

↓ 53.8%

- ▶ COVID-19 has caused 20%+ decrease in oil demand in the near-term
- ▶ Global producers need to collectively reduce production by a similar amount to keep balances from reaching physical limits
- ▶ Texas production “curtailment” is likely to happen regardless, but there are two paths to get there:



## Texas Railroad Commission Options

### Path 1 – No Action by RRC

- ▶ Requires 5+ months for Texas production to naturally decline 20%
- ▶ US production will exceed maximum storage capacity
- ▶ Sharp decline in oil prices caused by an acute imbalance of local supply & demand
- ▶ 5+ months of completely idled completion activity
  - Bankrupts >50% of service sector
  - Leads to higher cost of capital or zero access to capital to remaining service providers
- ▶ US would be fundamentally less competitive vs. subsidized sovereign producers

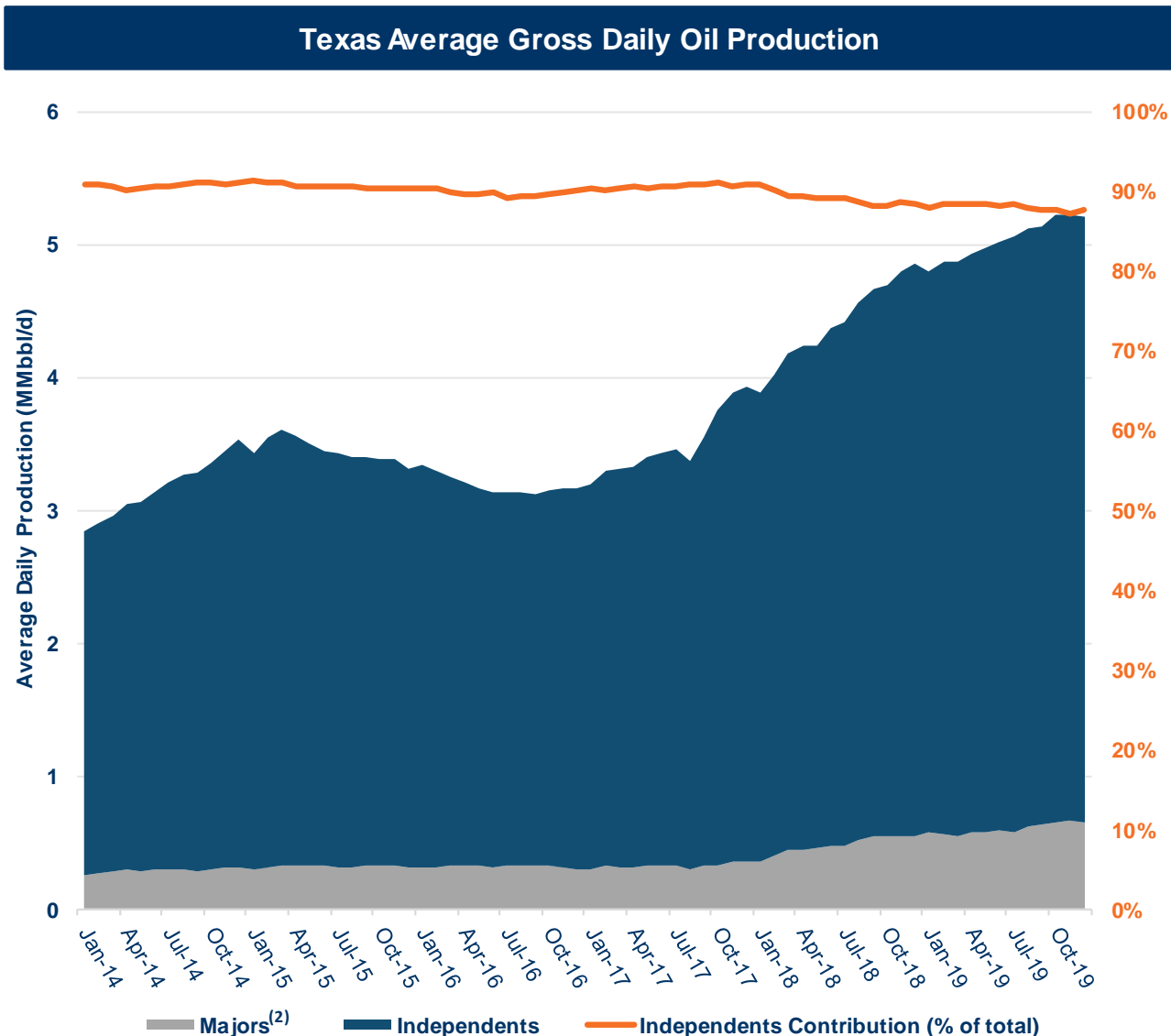
### Path 2 – RRC Approved Proration

- ▶ Combination of curtailments and natural declines are employed to accelerate 20% decline
- ▶ Mitigates likelihood of breaching local physical storage limits
- ▶ Stabilizes near-term oil prices
- ▶ If oil stabilizes, likely that some level of service activity is utilized over next 5 months and will accelerate the timeframe to base levels of activity
  - “Flattens the Curve” smoothing impact to service providers allowing greater chance to weather the storm
- ▶ Stable oil price yields stable financial markets

# Texas Independents Can Help Texas Lead the Way



- ▶ Texas RRC is responsible for more than 40% of US production
- ▶ Texas is dominated by independents, developing and operating more than 85% of Texas production
- ▶ Independents have led the way in the Shale Revolution and will be bearing more of the cut on an absolute volume basis
  - Shouldering the brunt earlier will help stabilize activity longer term.
  - Proration is the only effective way to coordinate 2,848<sup>(1)</sup> Texas producers
- ▶ Prorating now ensures everyone plays a part given the massive demand overhang due to COVID-19
- ▶ As the largest oil producing state, Texas--and the Commission--have a unique opportunity to lead a multi-state effort and help preserve the Texas Miracle



(1) Number of producers that reported production volumes to the RRC in January of 2020; (2) Majors include XOM, CVX, RDS, BP, and COP

# Todd Staples

Texas Oil & Gas Association (TXOGA)

# Texas Railroad Commission Meeting

April 14, 2020

Todd Staples

President, Texas Oil & Gas Association

## → **Waste is Not Occurring**

*The market is responding to reduce production and avoid waste.*

## → **Curtailment is Not Haphazard**

*The market is responding, and individual operators can manage best.*

## → **Government Action Will be Discriminatory**

*The government shouldn't pick winners and losers.*

## → **State and Federal Policy We All Can Agree On**

*Regulatory and fiscal policy will assist operators better than artificial restrictions.*



# Dean Foreman

API

# API Testimony

**RE: Docket # OG-20-00003167**

**Motion for Commission-called hearing on the verified complaints of Pioneer Natural Resources U.S.A. Inc. and Parsley Energy Inc. to determine reasonable market demand for oil in the state of Texas**

**R. Dean Foreman, Ph.D.  
Chief Economist**

April 14, 2020

## Key points: API opposes the proposal offered in the complaint at issue in today's hearing



- » Global oil supply and demand are uncertain, but an attribution of changes in the global oil supply/demand balance suggests demand is likely to have roughly **five times** the impact of supply

Our analysis of data that will be included in the API Monthly Statistical Report for March 2020:

- **Demand perspective.** U.S. total petroleum demand of 19.4 mb/d decreased by **0.9** million barrels per day (mb/d) (4.6%) from February and **0.8** mb/d (4.0%) compared with March 2019
    - That is, timely survey data of 90% of industry suggest demand decreased by less than many third-parties suggest and showed lower gasoline and jet fuel deliveries, but more diesel (freight transportation)
  - **Supply responded.** Crude oil production of 12.9 mb/d: first monthly decrease in March since 2010, before the U.S. energy revolution, and refineries had the lowest throughput and capacity utilization rates in 5 years or more
  - **Trade backslid.** Net petroleum trade returned U.S. to petroleum net importer; exports fell by more than imports
- » **Texas proration would mainly affect the most efficient and economic oil production;** disproportionately harm producers in the Midland and Eagle Ford; and, need to understand potential impact on long-term oil well productivity
  - » **Texas proration appears unlikely to improve market conditions** – and could become a precarious and slippery slope, as we have seen in Alberta's efforts to curtail production
  - » **The United States needs Texas to be prepared to ramp back up quickly when COVID-19 subsides**
    - Best pathway for Commission would be targeted policy solutions that backstop the industry, rather than impair its most productive contributors
    - Send OPEC+ the message that U.S. production led by Texas can and will endure

# Jim Burkhard

IHS Markit

# Light-speed oil surplus: Emergency conditions for the oil industry

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14 April 2020

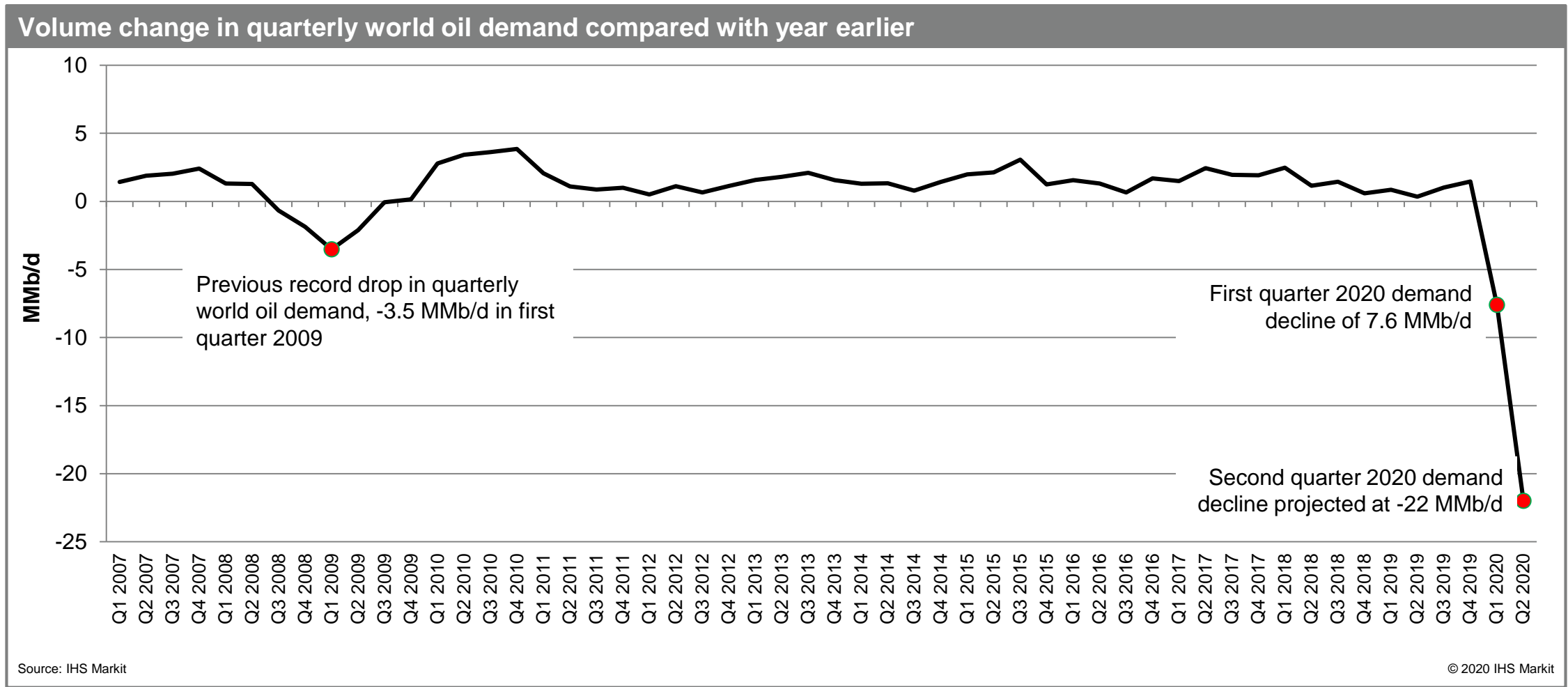
**Jim Burkhard**, Vice President, [jim.burkhard@ihsmarkit.com](mailto:jim.burkhard@ihsmarkit.com)

Head of research, Crude oil markets, Energy & mobility

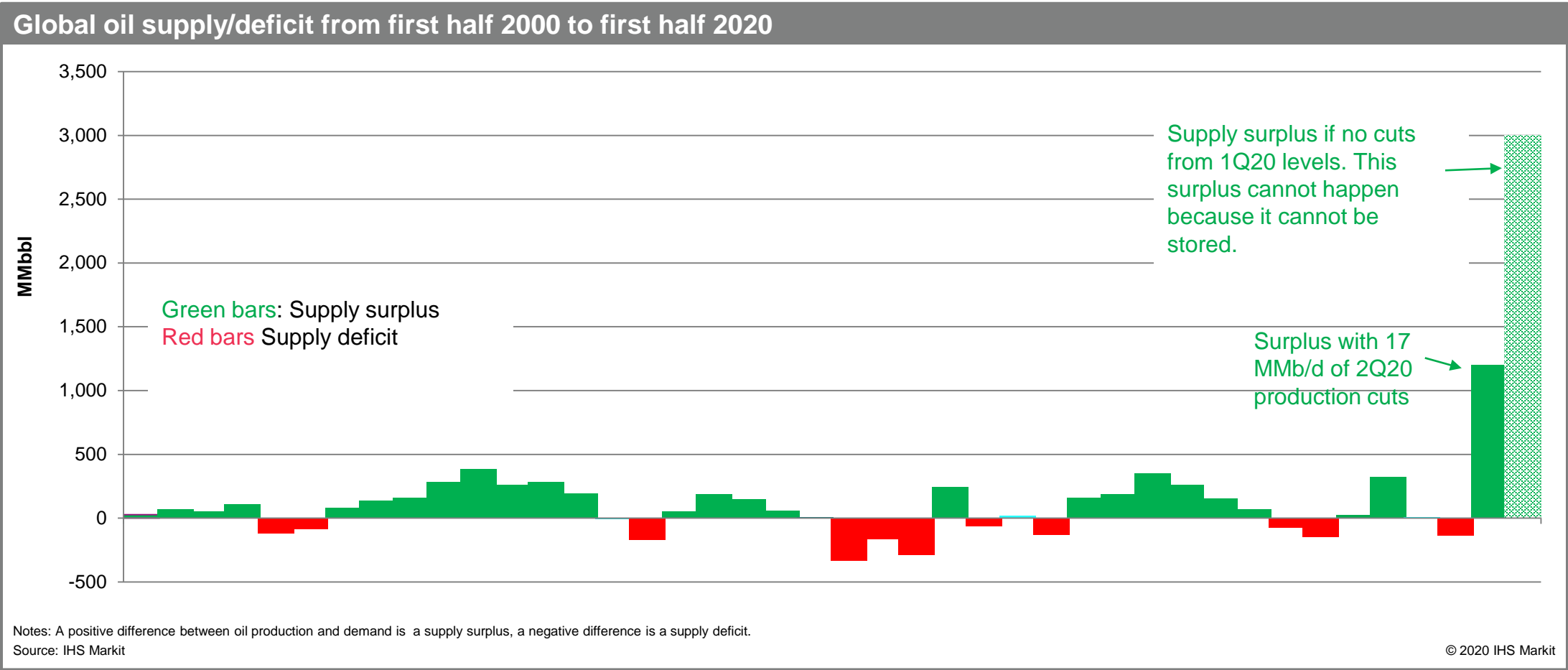
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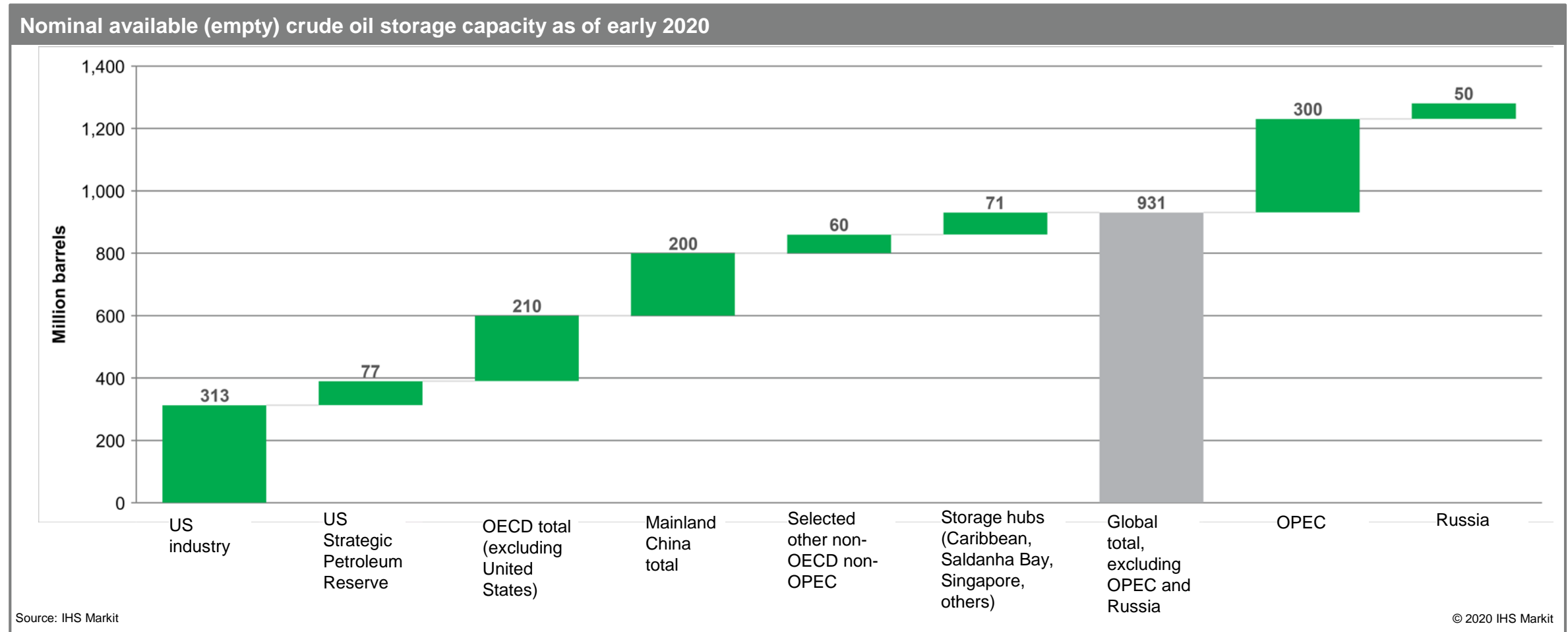
# Covid-19 has led to an instant collapse in world oil demand



# The collapse in demand is fueling the world's largest ever global oil supply surplus



**A logistical tool—oil storage—becomes a prized commodity. In early 2020 nominal available crude oil storage capacity was 1.6 billion barrels globally, but the maximum practical capacity was 1.2 billion barrels. The surplus in first half 2020 cannot exceed storage capacity.**





## Implications of international efforts to cut oil production

1. **The international deal to cut production brokered by President Trump is a major milestone in oil market history because for the first time ever, the United States, Russia, and Saudi Arabia—the world's 3 largest oil producers—are cooperating to boost oil prices from low levels.**
2. **The covid-19 pandemic is why demand is collapsing.** This deal will not provide a remedy for covid-19 or conjure up demand growth. A massive second quarter oil supply surplus is still materializing.
3. **Global oil production this quarter will fall by a large amount, but the deal is an attempt to manage cuts in a more orderly fashion.** The deal also signals that governments may be willing to keep production lower than it would be otherwise in second half 2020 and in 2021.
4. **Among the participants in the international deal to cut production, there is a shared view that oil prices below \$30 are too low—and that \$10 is way too low— but there is no shared understanding of what the price of oil should be.** A collective interest about the downside drove this agreement, but views will diverge at higher oil price levels.

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# Tom Sanzillo

Institute for Energy Economics and Financial Analysis



**Institute for Energy Economics  
and Financial Analysis**  
IEEFA.org

**Tom Sanzillo**  
**Director of Finance**

# Bob McNally

Rapidan Energy Group



**RAPIDAN**  
ENERGY GROUP

# State of the Global Oil Market

Bob McNally

Founder and President, Rapidan Energy Group

Briefing to the Texas Railroad Commission

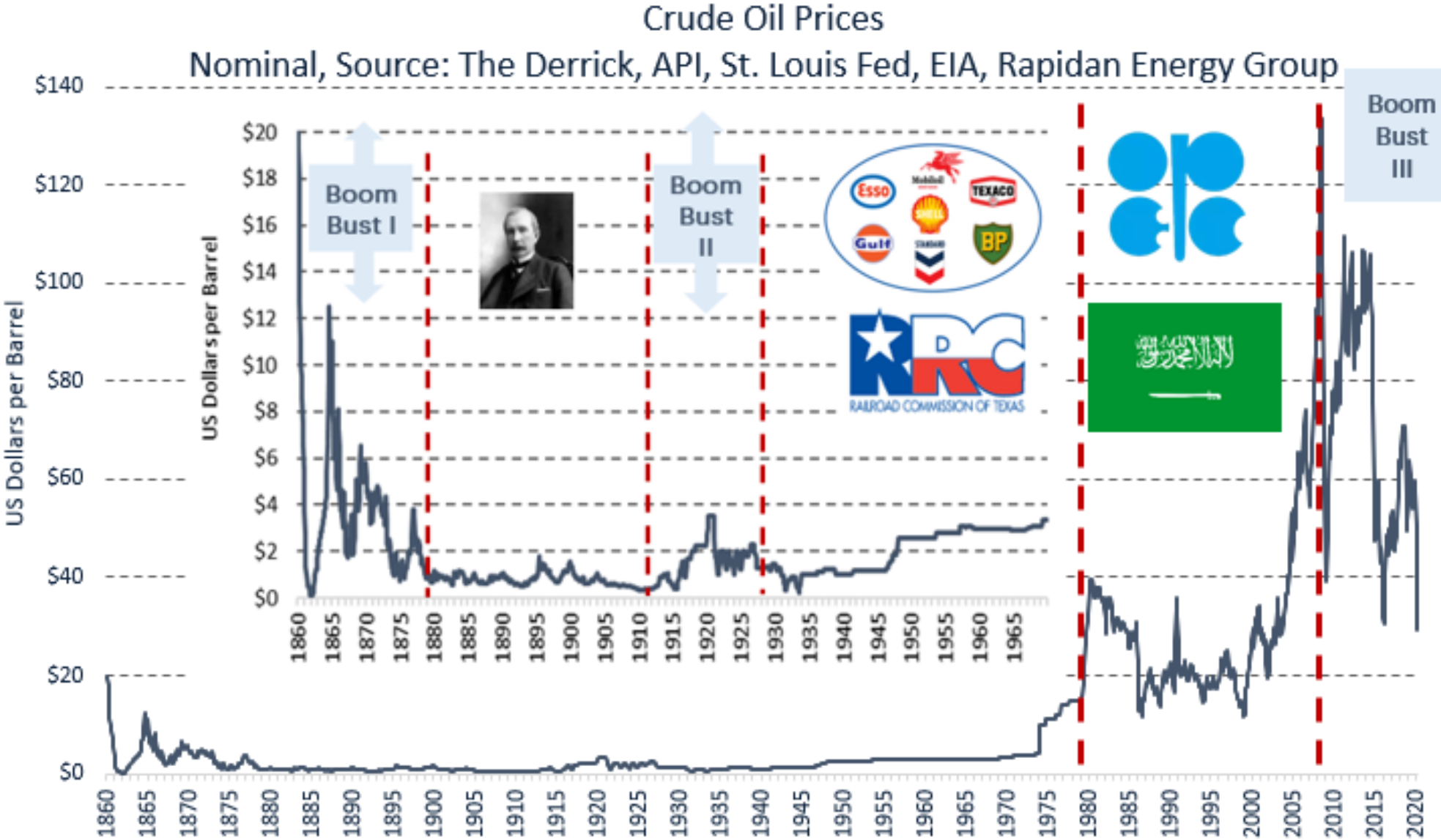
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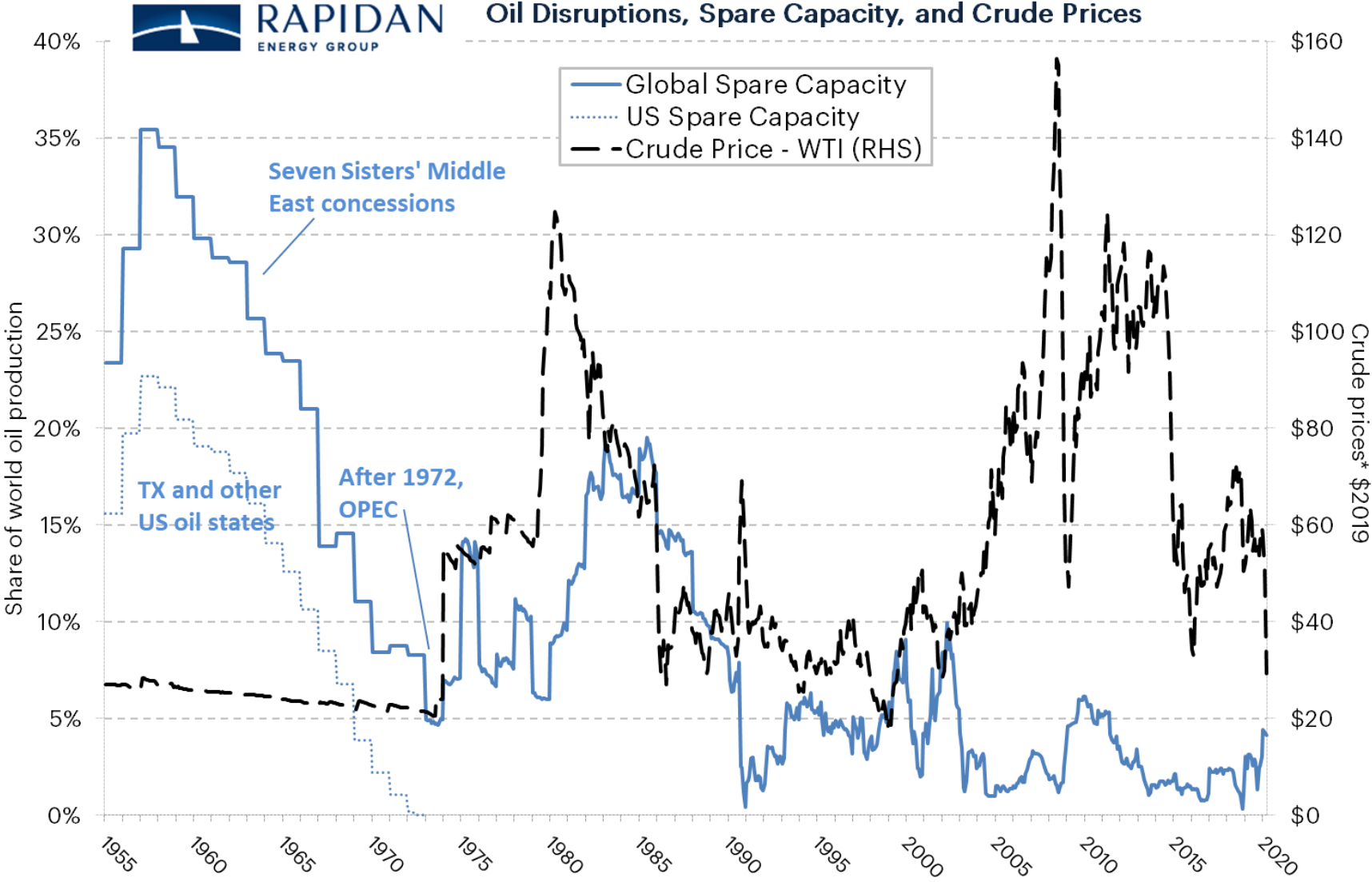
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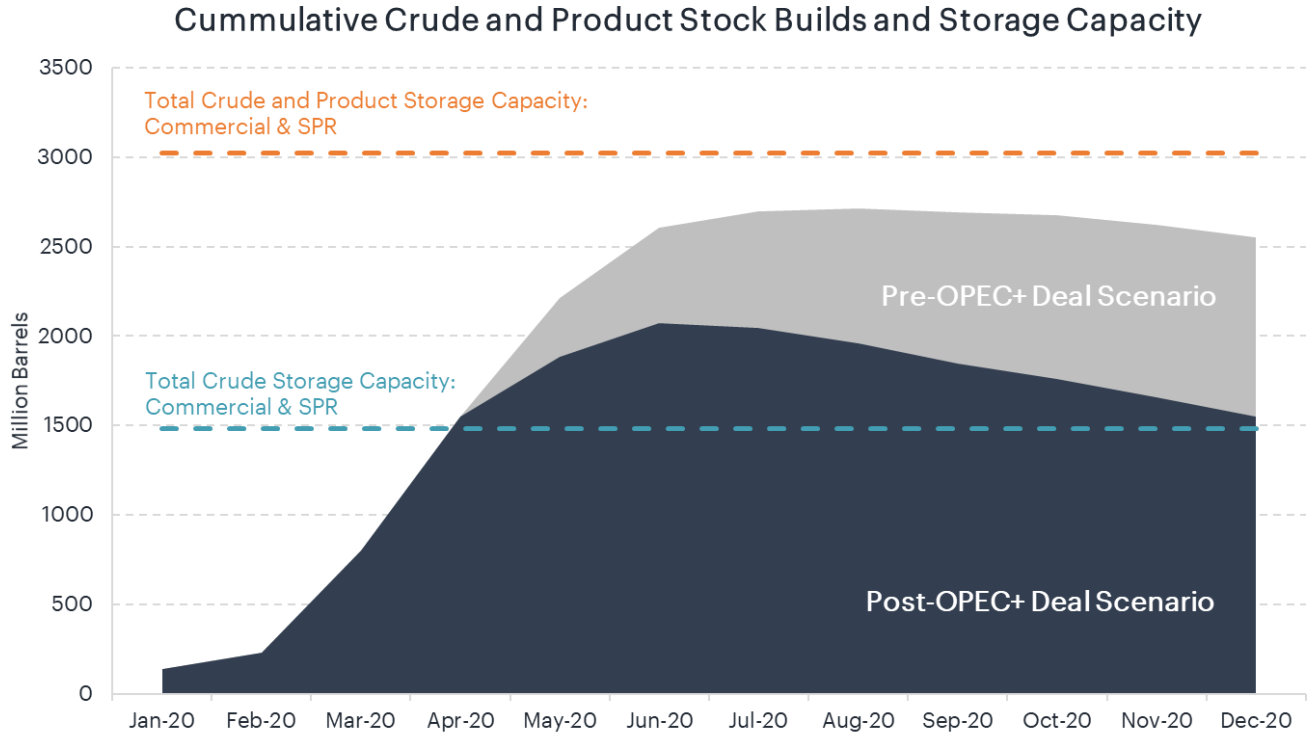
WASHINGTON, DC



Oil Is Prone To Boom-Bust Price Cycles: No Swing Producer, No Peace







Source: Rapidan Energy Group

**Table 1:** Global onshore oil storage capacity and utilization

		Commercial		Strategic		
	(mb)	Crude	Products	Crude	Products	Total
Total capacity	OECD	1,593	2,883	1,354	376	6,206
	Non-OECD	1,883	1,700	1,540	--	5,123
	<b>Total</b>	<b>3,476</b>	<b>4,583</b>	<b>2,894</b>	<b>376</b>	<b>11,329</b>
Available capacity	OECD	511	1,036	135	59	1,740
	Non-OECD	518	445	319	--	1,282
	<b>Total</b>	<b>1,029</b>	<b>1,481</b>	<b>453</b>	<b>59</b>	<b>3,022</b>
Current utilization	OECD	68%	64%	90%	84%	72%
	Non-OECD	72%	74%	79%	--	75%
	<b>Total</b>	<b>70%</b>	<b>68%</b>	<b>84%</b>	<b>84%</b>	<b>73%</b>

Sources: EIA, IEA, JODI, Rapidan Energy Group

## A Roughly 10 Mb/d OPEC+ Cut in May and June Reduces 2Q20 Surplus By Only ~30%

- April demand collapses by 22 mb/d globally including:
  - ~40% y/y drop in the US
  - ~30% y/y drop in OECD Europe
- Global inventories soar by ~26 mb/d (~770 mb) in April before OPEC+ agreement goes into effect.
- Demand growth on a quarterly basis does not turn positive until next year.
- OPEC+'s record agreement does not prevent massive 2Q20 oversupply, but accelerates a 2H20 cleanup:
  - Global demand falls only ~2.3 mb/d y/y in 2H20, which OPEC+ cuts more than offset.
  - Global stocks begin drawing in July, but only return to April's inflated levels by end-year.

Rapidan Energy Group's Oil Balance	2019				2020				Average		Y/Y Growth	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	2019	2020	2019	2020
<b>Consumption (mb/d)</b>												
OECD	47.6	46.9	48.1	47.7	43.9	36.8	46.3	46.7	47.6	43.4	-0.3	-4.2
United States	20.3	20.3	20.7	20.6	18.6	15.1	19.6	20.2	20.5	18.4	0.0	-2.1
Japan	4.1	3.4	3.4	3.8	3.8	3.1	3.4	3.5	3.7	3.5	-0.1	-0.2
Canada	2.5	2.4	2.6	2.5	2.3	2.0	2.5	2.5	2.5	2.3	0.1	-0.2
Mexico	1.9	1.9	1.9	1.9	1.9	1.6	1.9	1.9	1.9	1.8	0.0	-0.1
Other OECD	18.9	18.8	19.4	19.0	17.3	15.0	18.9	18.6	19.0	17.4	-0.2	-1.6
Non-OECD	51.5	52.3	52.6	53.2	48.5	46.0	51.3	52.6	52.4	49.6	1.1	-2.8
China	13.0	13.6	13.6	13.7	11.3	11.9	13.2	13.7	13.5	12.5	0.5	-1.0
India	5.1	5.1	4.8	5.0	4.8	3.7	4.6	5.0	5.0	4.5	0.1	-0.5
Brazil	3.0	3.0	3.2	3.2	3.0	2.7	3.1	3.1	3.1	3.0	0.1	-0.1
Russia	3.4	3.5	3.7	3.6	3.3	3.2	3.6	3.5	3.6	3.4	0.1	-0.2
Other Non-OECD	26.9	27.1	27.4	27.7	26.1	24.6	26.8	27.3	27.2	26.2	0.3	-1.1
<b>Total World Consumption</b>	<b>99.2</b>	<b>99.2</b>	<b>100.6</b>	<b>100.9</b>	<b>92.4</b>	<b>82.8</b>	<b>97.6</b>	<b>99.3</b>	<b>100.0</b>	<b>93.0</b>	<b>0.8</b>	<b>-7.0</b>
<b>Supply (mb/d)</b>												
OECD	31.0	31.3	31.4	32.7	32.9	31.1	30.5	30.6	31.6	31.3	1.6	-0.3
U.S. Total Liquids	18.8	19.3	19.4	20.2	20.1	19.2	18.8	18.8	19.4	19.2	1.5	-0.2
Crude	11.8	12.1	12.2	12.8	12.7	12.4	11.8	11.6	12.2	12.1	1.2	-0.1
Lower 48	9.5	9.7	10.0	10.4	10.3	10.0	9.5	9.2	9.9	9.7	1.1	-0.1
GOM	1.8	1.9	1.8	1.9	2.0	2.0	1.9	1.9	1.9	1.9	0.1	0.0
Alaska	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.0	0.0
NGLs	4.7	4.8	4.8	5.0	4.9	4.8	4.8	4.8	4.8	4.8	0.4	0.0
Other US Liquids	2.4	2.4	2.4	2.4	2.5	1.9	2.2	2.4	2.4	2.3	-0.2	-0.1
Mexico	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.0	-0.1	0.0
Canada	5.6	5.6	5.6	5.8	5.9	5.1	5.0	5.0	5.7	5.2	0.2	-0.4
Other OECD	4.6	4.4	4.4	4.8	4.9	4.9	4.7	4.8	4.5	4.8	0.1	0.3
Non-OECD	33.0	33.2	33.8	33.7	33.2	32.1	31.7	31.1	33.4	32.0	0.5	-1.4
Brazil	2.9	3.4	4.0	3.9	3.4	3.7	4.1	3.7	3.6	3.7	0.2	0.2
China	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.3	4.3	4.3	0.1	0.0
Russia	11.7	11.5	11.6	11.6	11.6	10.3	9.9	10.0	11.6	10.5	0.1	-1.1
Other Non-OECD	14.1	14.0	13.9	13.9	13.8	13.8	13.4	13.2	14.0	13.6	0.1	-0.4
<b>Non-OPEC Supply</b>	<b>64.0</b>	<b>64.5</b>	<b>65.3</b>	<b>66.4</b>	<b>66.1</b>	<b>63.2</b>	<b>62.2</b>	<b>61.7</b>	<b>65.0</b>	<b>63.3</b>	<b>2.1</b>	<b>-1.7</b>
<b>OPEC</b>	<b>36.2</b>	<b>35.6</b>	<b>35.0</b>	<b>35.3</b>	<b>34.1</b>	<b>32.5</b>	<b>32.5</b>	<b>32.5</b>	<b>35.5</b>	<b>32.9</b>	<b>-1.9</b>	<b>-2.6</b>
Crude Oil Portion	30.7	30.1	29.5	29.8	28.6	27.0	27.0	27.0	30.0	27.4	-1.8	-2.6
Other Liquids	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	0.0	0.0
<b>Total World Supply</b>	<b>100.2</b>	<b>100.1</b>	<b>100.2</b>	<b>101.8</b>	<b>100.2</b>	<b>95.7</b>	<b>94.8</b>	<b>94.2</b>	<b>100.6</b>	<b>96.2</b>	<b>0.2</b>	<b>-4.3</b>
<b>Implied Surplus</b>	<b>1.0</b>	<b>0.9</b>	<b>-0.4</b>	<b>0.9</b>	<b>7.8</b>	<b>13.0</b>	<b>-2.8</b>	<b>-5.1</b>	<b>0.6</b>	<b>3.2</b>		
OECD Commercial Inventory Change	0.1	0.1	0.1	-0.5	2.8	8.1	-2.3	-3.9	-0.1	1.2		
OECD SPR, Non-OECD Commercial and SPR, Oil on water	0.9	0.8	-0.5	1.3	5.0	4.9	-0.5	-1.2	0.6	2.1		
of which: non-OECD SPR	0.5	0.5	0.3	0.5	0.9	1.2	0.5	0.5	0.5	0.8		
OECD SPR	0.1	-0.1	0.0	-0.1	-0.1	0.2	0.0	0.0	0.0	0.0		
Oil on water and other non-OECD	0.4	0.4	-0.8	0.9	4.2	3.5	-1.0	-1.7	0.2	1.2		
<b>Global Spare Production Capacity</b>	<b>1.9</b>	<b>2.4</b>	<b>2.8</b>	<b>2.6</b>	<b>4.1</b>	<b>6.9</b>	<b>7.2</b>	<b>7.2</b>	<b>2.4</b>	<b>6.4</b>		

May not sum due to rounding  
Source: Rapidan Energy Group

# Revisions To Our March 28<sup>th</sup> Global Oil Balance Resulting From OPEC+ Deal

Rapidan Energy Group's Oil Balance - March 28, 2020	2019				2020				Average		Y/Y Growth	
Consumption (mb/d)	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	2019	2020	2019	2020
OECD	47.6	46.9	48.1	47.7	43.9	36.8	46.3	46.6	47.6	43.4	-0.3	-4.2
United States	20.3	20.3	20.7	20.6	18.5	15.1	19.6	20.1	20.5	18.3	0.0	-2.1
Japan	4.1	3.4	3.4	3.8	3.8	3.1	3.4	3.5	3.7	3.5	-0.1	-0.2
Canada	2.5	2.4	2.6	2.5	2.3	2.0	2.5	2.5	2.5	2.3	0.1	-0.2
Mexico	1.9	1.9	1.9	1.9	1.9	1.6	1.9	1.9	1.9	1.8	0.0	-0.1
Other OECD	18.9	18.8	19.4	19.0	17.3	15.0	18.9	18.6	19.0	17.4	-0.2	-1.6
Non-OECD	51.5	52.3	52.6	53.2	48.1	46.0	51.3	52.6	52.4	49.5	1.1	-2.9
China	13.0	13.6	13.6	13.7	11.3	11.9	13.2	13.7	13.5	12.5	0.5	-1.0
India	5.1	5.1	4.8	5.0	4.7	3.7	4.6	5.0	5.0	4.5	0.1	-0.5
Brazil	3.0	3.0	3.2	3.2	3.0	2.7	3.1	3.1	3.1	3.0	0.1	-0.1
Russia	3.4	3.5	3.7	3.6	3.3	3.2	3.6	3.5	3.6	3.4	0.1	-0.2
Other Non-OECD	26.9	27.1	27.4	27.7	25.8	24.6	26.8	27.3	27.2	26.1	0.3	-1.1
Total World Consumption	99.1	99.2	100.6	100.9	92.0	82.8	97.6	99.2	100.0	92.9	0.8	-7.1
Supply (mb/d)												
OECD	31.0	31.2	31.4	32.7	32.9	31.9	31.2	31.1	31.6	31.8	1.6	0.2
U.S. Total Liquids	18.9	19.4	19.5	20.3	20.1	20.0	19.4	19.1	19.5	19.7	1.6	0.2
Crude	11.8	12.1	12.2	12.8	12.7	12.5	12.0	11.8	12.2	12.2	1.2	0.0
Lower 48	9.5	9.7	10.0	10.3	10.3	10.0	9.6	9.3	9.9	9.8	1.1	-0.1
GOM	1.8	1.9	1.8	1.9	1.9	2.0	1.9	1.9	1.9	2.0	0.1	0.1
Alaska	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.0	0.0
NGLs	4.7	4.8	4.8	5.0	4.9	4.8	4.8	4.8	4.8	4.8	0.4	0.0
Other US Liquids	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.5	2.6	-0.1	0.1
Mexico	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	-0.1	0.0
Canada	5.6	5.6	5.6	5.8	5.9	5.1	5.0	5.0	5.7	5.2	0.2	-0.4
Other OECD	4.5	4.3	4.3	4.7	4.9	4.8	4.8	5.0	4.5	4.9	0.0	0.4
Non-OECD	33.0	33.2	33.8	33.7	33.2	33.7	33.3	32.7	33.4	33.2	0.5	-0.2
Brazil	2.9	3.4	4.0	3.9	3.4	3.8	4.1	3.7	3.6	3.8	0.2	0.2
China	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.3	4.3	0.1	0.0
Russia	11.7	11.5	11.6	11.6	11.6	11.8	11.3	11.3	11.6	11.5	0.1	-0.1
Other Non-OECD	14.1	14.0	13.9	13.9	13.9	13.8	13.6	13.4	14.0	13.7	0.1	-0.3
Non-OPEC Supply	64.0	64.5	65.2	66.4	66.1	65.6	64.5	63.8	65.0	65.0	2.1	0.0
OPEC	36.2	35.6	35.0	35.3	34.1	37.3	34.0	33.9	35.5	34.8	-1.9	-0.7
Crude Oil Portion	30.7	30.1	29.5	29.8	28.7	31.7	28.5	28.4	30.0	29.3	-1.8	-0.7
Other Liquids	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	0.0	0.0
Total World Supply	100.2	100.1	100.2	101.7	100.2	102.9	98.5	97.7	100.5	99.8	0.2	-0.7
Implied Surplus	1.0	0.9	-0.4	0.8	8.3	20.1	0.9	-1.5	0.6	6.9		
OECD Commercial Inventory Change	0.1	0.1	0.1	-0.5	3.0	13.1	0.3	-1.4	-0.1	3.7		
OECD SPR, Non-OECD Commercial and SPR, Oil on water	0.9	0.8	-0.5	1.3	5.3	7.0	0.6	-0.1	0.6	3.2		
of which: non-OECD SPR	0.5	0.5	0.3	0.5	0.9	1.2	0.5	0.5	0.5	0.8		
OECD SPR	0.1	-0.1	0.0	-0.1	-0.1	0.2	0.0	0.0	0.0	0.0		
Oil on water and other non-OECD	0.4	0.4	-0.8	0.9	4.5	5.6	0.1	-0.6	0.2	2.4		
Brent Forecast	\$64	\$68	\$62	\$62	\$52	\$17	\$20	\$30	\$64	\$30		
WTI Forecast	\$55	\$60	\$56	\$57	\$50	\$15	\$18	\$28	\$57	\$28		
Brent-WTI Spread	\$9	\$9	\$5	\$4	\$2	\$2	\$2	\$2	\$7	\$2		

May not sum due to rounding  
Source: Rapidan Energy Group

Revisions to our March 28 <sup>th</sup> Global Oil Balance	2019				2020				Average		Y/Y Growth	
Consumption (mb/d)	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	2019	2020	2019	2020
OECD	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United States	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Japan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other OECD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-OECD	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.1
China	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
India	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Non-OECD	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total World Consumption	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Supply (mb/d)												
OECD	0.0	0.0	0.0	0.0	0.0	-0.8	-0.6	-0.5	0.0	-0.5	0.0	-0.5
U.S. Total Liquids	-0.1	-0.1	-0.1	0.0	0.0	-0.8	-0.5	-0.4	-0.1	-0.4	-0.1	-0.4
Crude	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	0.0	-0.1	0.0	-0.1
Lower 48	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	-0.1	0.0	-0.1
GOM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0
Alaska	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NGLs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other US Liquids	-0.1	-0.1	-0.1	-0.1	0.0	-0.7	-0.4	-0.2	-0.1	-0.3	-0.1	-0.3
Mexico	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other OECD	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	0.1	0.0	0.1	-0.1
Non-OECD	0.0	0.0	0.0	0.0	0.0	-1.6	-1.6	-1.5	0.0	-1.2	0.0	-1.2
Brazil	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
China	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Russia	0.0	0.0	0.0	0.0	0.0	-1.5	-1.4	-1.3	0.0	-1.0	0.0	-1.0
Other Non-OECD	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.3	0.0	-0.1	0.0	-0.1
Non-OPEC Supply	0.0	0.0	0.0	0.0	0.0	-2.4	-2.3	-2.1	0.0	-1.7	0.0	-1.7
OPEC	0.0	0.0	0.0	0.0	-0.1	-4.7	-1.5	-1.4	0.0	-1.9	0.0	-1.9
Crude Oil Portion	0.0	0.0	0.0	0.0	-0.1	-4.7	-1.5	-1.4	0.0	-1.9	0.0	-1.9
Other Liquids	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total World Supply	0.0	0.0	0.0	0.0	0.0	-7.1	-3.7	-3.5	0.0	-3.6	0.0	-3.6
Implied Surplus	0.0	0.0	0.0	0.0	-0.5	-7.1	-3.8	-3.5	0.0	-3.7		
OECD Commercial Inventory Change	0.0	0.0	0.0	0.0	-0.3	-5.0	-2.6	-2.5	0.1	-2.6		
OECD SPR, Non-OECD Commercial and SPR, Oil on water	0.0	0.0	0.0	0.0	-0.1	-2.1	-1.1	-1.1	-0.1	-1.1		
of which: non-OECD SPR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
OECD SPR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Oil on water and other non-OECD	0.0	0.0	0.0	0.0	-0.1	-2.1	-1.1	-1.1	-0.1	-1.1		
Global Spare Production Capacity	0.0	0.0	0.0	0.0	0.0	6.1	2.8	2.7	0.0	2.9		

May not sum due to rounding  
Source: Rapidan Energy Group

# James Lebas

Texas Fiscal

VIA EMAIL: [RRCconference@rrc.texas.gov](mailto:RRCconference@rrc.texas.gov)

Railroad Commission of Texas  
Chairman Wayne Christian  
Commissioner Christi Craddick  
Commissioner Ryan Sitton  
1701 North Congress Avenue  
Austin, Texas 78711

**RE: DOCKET NO. OG-20-00003167; IN RE: MOTION FOR COMMISSION CALLED  
HEARING ON THE VERIFIED COMPLAINT OF PIONEER NATURAL RESOURCES  
U.S.A. INC. AND PARSLEY ENERGY INC. TO DETERMINE REASONABLE MARKET  
DEMAND FOR OIL IN THE STATE OF TEXAS**

This document is intended to accompany oral testimony before the Commission on April 14, 2020.

# **Prorationing Will Reduce Texas State Revenue**

Presented to  
**Texas Railroad Commission**

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Prepared by James LeBas  
April 8, 2020

### **About the Presenter**

James LeBas is a consultant on Texas fiscal matters. Clients include the Texas Oil & Gas Association and other Texas businesses and associations.

He served six years as the state's chief revenue estimator for Texas Comptroller Carole Keeton Rylander, and preceding that, performed fiscal analysis work for Governors Richards and Bush and for Texas Comptroller Bob Bullock.

LeBas served the state as director of financial analysis for the Texas Tax Reform Commission under Governor Perry, during which time he was also chief financial officer for the Texas Water Development Board. He received Bachelor's and Master's degrees in Data Processing and Analysis and in Finance, respectively, in 1983 and 1985.

## Prorating Will Reduce Texas State Revenue

### Summary

The Texas constitution provides for one estimator of state revenue, and that is the Texas Comptroller. This report is not intended nor would it be acceptable as a substitute for the judgment of the Texas Comptroller. The information presented herein represents a plausible revenue scenario of a reduction in oil production if mandated by the state to a level below what the free market would otherwise provide.

**A mandatory reduction, or prorating, of Texas oil that resulted in a 10% cut in production will cause a reduction in state revenue of at least \$236 million per year during which it was in place under current conditions. Assuming a linear relationship, a 20% prorating will cut state revenue by at least \$472 million.**

**A full measure of the cost to the state would be considerably larger**, as it would encompass the losses to school tax bases that the state would be required to pay for through the Foundation School Program, lost income and the resulting loss of taxable purchases by Texas employees and royalty owners, the loss of state sales tax paid on oil well purchases, the loss of revenue from the Oil Well Servicing Gross Receipts Tax, and reductions in the myriad of other taxes and fees paid by the industry.

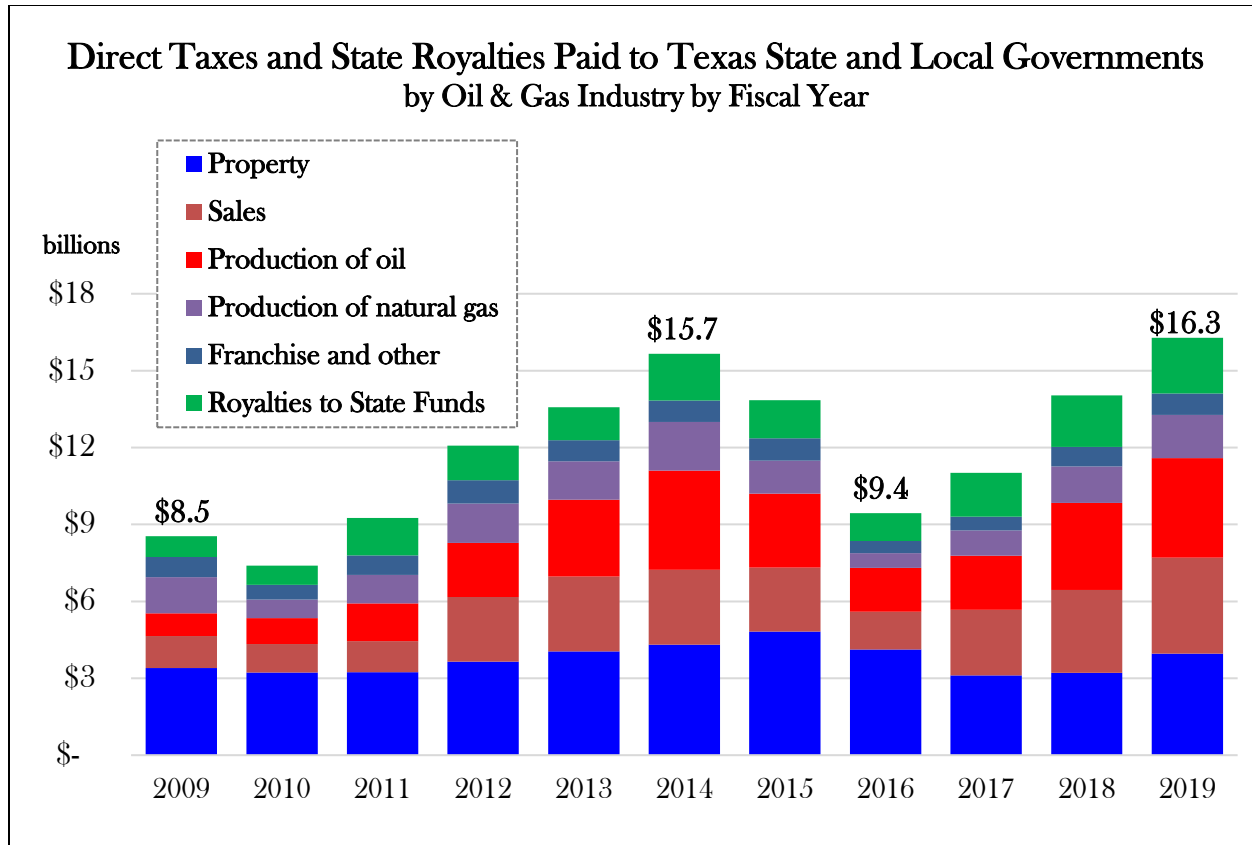
Losses would also accrue to Texas' local governments who receive sales and property taxes from industry activity.

### Taxes Paid by the Texas Oil and Natural Gas Industry

The major forms of tax revenue imposed by Texas state and local governments tend to fall heavily on the oil and natural gas industry, owing largely to the age of the Texas tax structure. For example, the oil production ("severance") tax was first imposed in 1905, the business franchise tax in 1907, the gas utility pipeline tax in 1920, the natural gas production tax in 1936, the oil well servicing tax in 1941, and the sales tax in 1961. Property tax has been imposed in Texas even before statehood. Each new tax has been layered on top of the last, making for a thick tax sandwich through which the industry must bite to comply with law.

Because of the stacking effect of the tax sandwich and because of the successful growth of the industry in Texas over the past 120 years, state and local government in Texas have become dependent on the oil and natural gas industry to provide a substantial amount of revenue. The cyclical nature of the industry causes large fluctuations in the amount of that revenue, but in no year is it insubstantial. In state fiscal year 2019, ended August 31, 2019, the industry paid, *directly*, an all-time high in state and local taxes and state royalties of \$16.3 billion. This was 72% higher than just three years prior (2016), which in turn was 40% lower than two years before that (2014).





The oil and natural gas industry, for the purposes of this analysis, is made up of 14 NAICS sectors that comprise upstream, midstream, and downstream activities. The industry employed, directly, over 428,000 Texans during state fiscal year 2019. There are also an estimated 600,000 individual Texas royalty owners.<sup>1</sup> Of the 14 business sectors, upstream activities provided the most jobs and paid the most in taxes and state royalties. Upstream activities – mainly oil and natural gas production itself – are subject to peculiar charges that are not generally imposed on Texas businesses. The taxes on the mere production of hydrocarbons are the best example, being without counterpart across the entire Texas tax structure. Upstream oil and gas activities are also the sole source of fresh capital – in the form of royalties – to the state’s Permanent University Fund and Permanent School Fund.

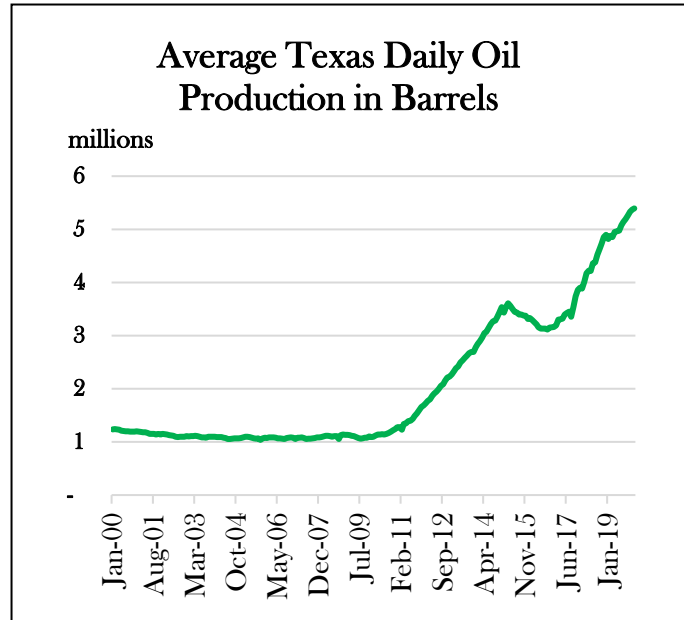
Of the numerous state revenue sources borne by the industry, severance taxes and the royalties paid on state minerals are the most directly and immediately responsive to changes in production. Other taxes, especially local property taxes imposed on producing mineral properties and sales taxes paid on purchases made for drilling and completing wells, are roughly comparable in size to the sum of severance taxes and royalties, but their response may lag, or even precede, changes in production. For that reason, this analysis focuses only on severance taxes and royalties to state funds.

<sup>1</sup> SOURCE: Texas Royalty Council.

## Texas Oil-Sourced Revenues

The ingenuity and success of Texas oil producers is now legend. Through advanced technology developed largely in Texas, producers quintupled production from 1 million barrels per day as recently as 2009 to 5 million a decade later.

However, it has not been an entirely smooth trajectory. In response to the price declines beginning June 2014, Texas oil production fell almost as steadily as it had risen. The average WTI spot price from April 2011 through June 2014 had been \$97. From March 2015 through August 2017, it was \$47. **The resulting decline in production was 14%.** Price had fallen in half, similar to what has happened in 2020. For this analysis, a 14% reduction in Texas production – and for the taxes and state royalties based thereon – is therefore assumed for this analysis to occur for the reduction in price.



Assuming this market-driven reduction in production will occur, naturally occurring reductions in state revenue will follow, based both on production and the lower price that caused it.

### Market-Driven Reductions in Selected State Oil Revenues \*

	\$ millions
Base Fiscal Year: 2019 Actual	
Oil Production Tax	\$ 3,887
Oil Royalties to State Funds	<u>\$ 1,599</u>
Total, Fiscal 2019	\$ 5,486
Annual revenue (loss) if price falls 50%:	\$ (2,743)
Additional annual (loss) if production falls 14%:	<u>\$ (384)</u>
Total Annual Market-Driven Revenue (Loss)	\$ (3,127)
<b>Remaining Annual Oil Revenues:</b>	<b>\$ 2,359</b>

\* This is an example only. It is not an official estimate of state revenue.

Taxes and royalties based on oil production are large and important in Texas but are comparatively volatile. The table above depicts a falloff scenario of \$3.2 billion driven by market forces alone. Under that circumstance, using fiscal year 2019 collections as a baseline, the state will still be receiving an estimated \$2.3 billion annually in oil revenues. It is from that level that a policy-generated reduction from prorating would be taken. If prorating reduced oil production by 10%, the loss of revenue will be 10% of \$2.3 billion, or \$236 million per year. At 20% prorating, the loss will be \$472 million per year.

### Prorating-Driven Reductions in Selected State Oil Revenues \*

	\$ millions
Annual Oil Revenues After Market-Driven Reductions	
Oil Production Tax	\$ 1,671
Oil Royalties to State Funds	\$ 688
Total	\$ 2,359
Annual revenue (loss) due if prorating reduces production 10%:	\$ 236
Annual revenue (loss) due if prorating reduces production 20%:	\$ 472

\* This is an example only. It is not an official estimate of state revenue.

### Texas in a World Oil Market

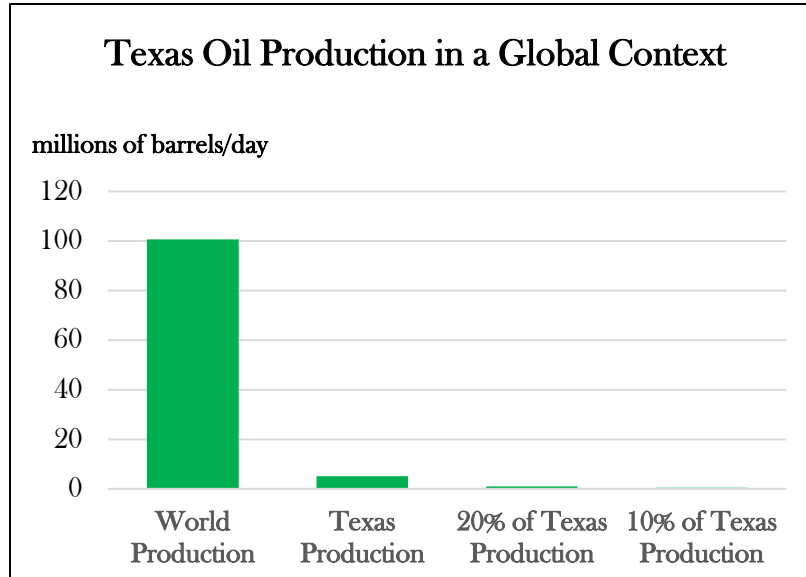
The calculations above are based on assumptions of Texas not necessarily as we like to think of it, but as it probably is. The calculations are simple and so is the logic.

Texas is a large oil producer, but not so large that it commands monopoly pricing power. A monopoly provider of any highly demanded product for which there were no ready and competitive substitute, be it petroleum or platinum, would be in a strong position to name its price to the world. Perhaps not even a monopoly would be required – controlling 40% of world supply might be enough to influence the price. That is roughly the share of production provided by OPEC members. And yet even at that percentage of “control,” the price of oil has descended to very low levels. Agreements to limit production regularly fail to deliver, and the beneficiaries have been those producers who remained outside of the agreements.

Texas As We Like to Think of It



Texas' share of world production is not 40%, but 5%. In the graphic below, Texas' oil production is shown in its comparative scale to the global market in which it competes. Prorating at 20% would remove 1% of oil from world production. Prorating at 10% would remove 0.5% of oil from world production.

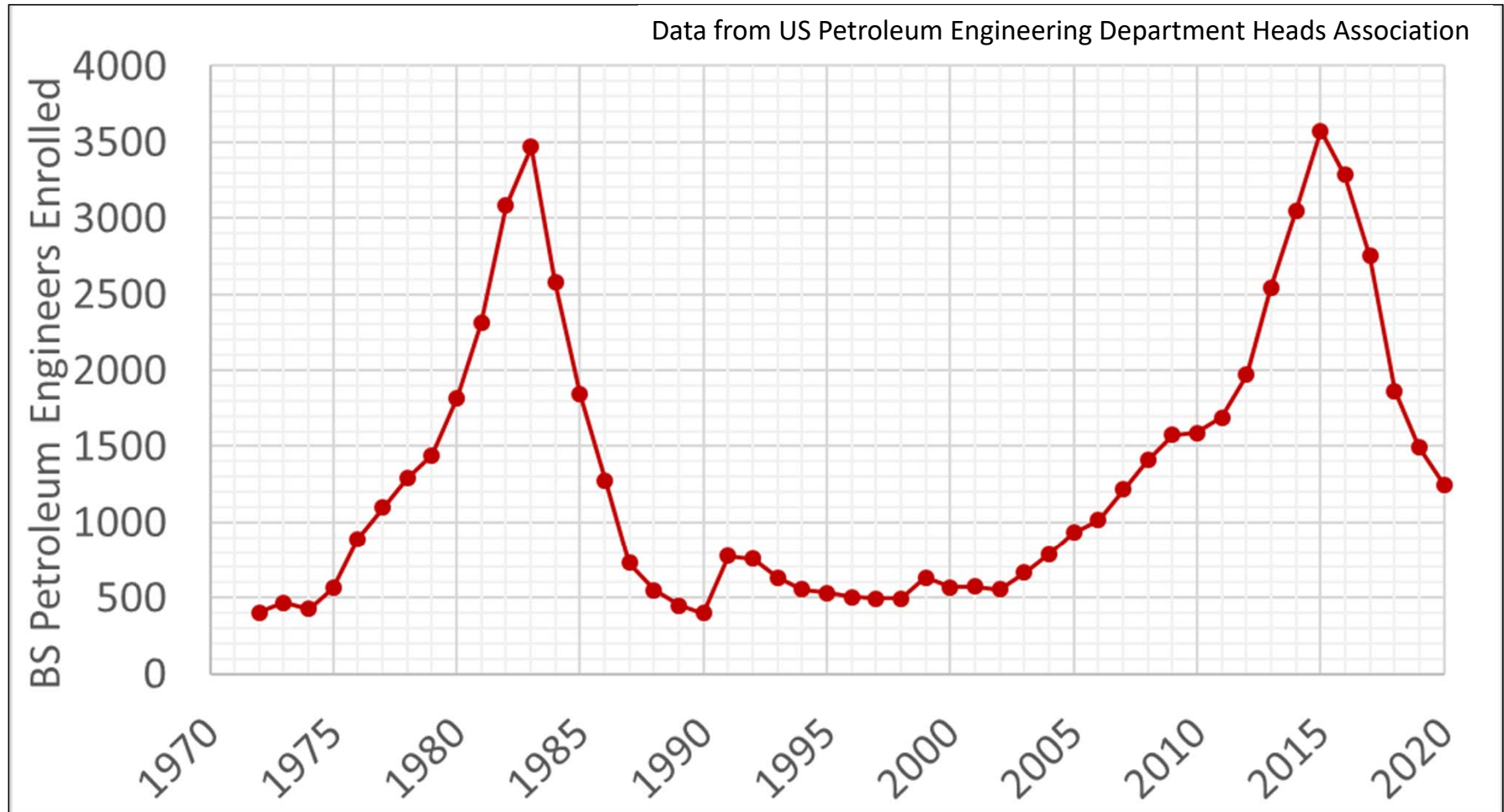


Prorating at 10% would be so small it does not even show up on the graphic. Such small changes in production cannot cause a detectable upward movement in price, especially when it could easily be replaced by non-Texas production. And at the same time, the loss in state revenue that is driven by oil production is unavoidable. The market will respond to price, as it always has, without government intervention. And a decision to intervene where there is already a market mechanism may be a decision that proves very hard to un-make.

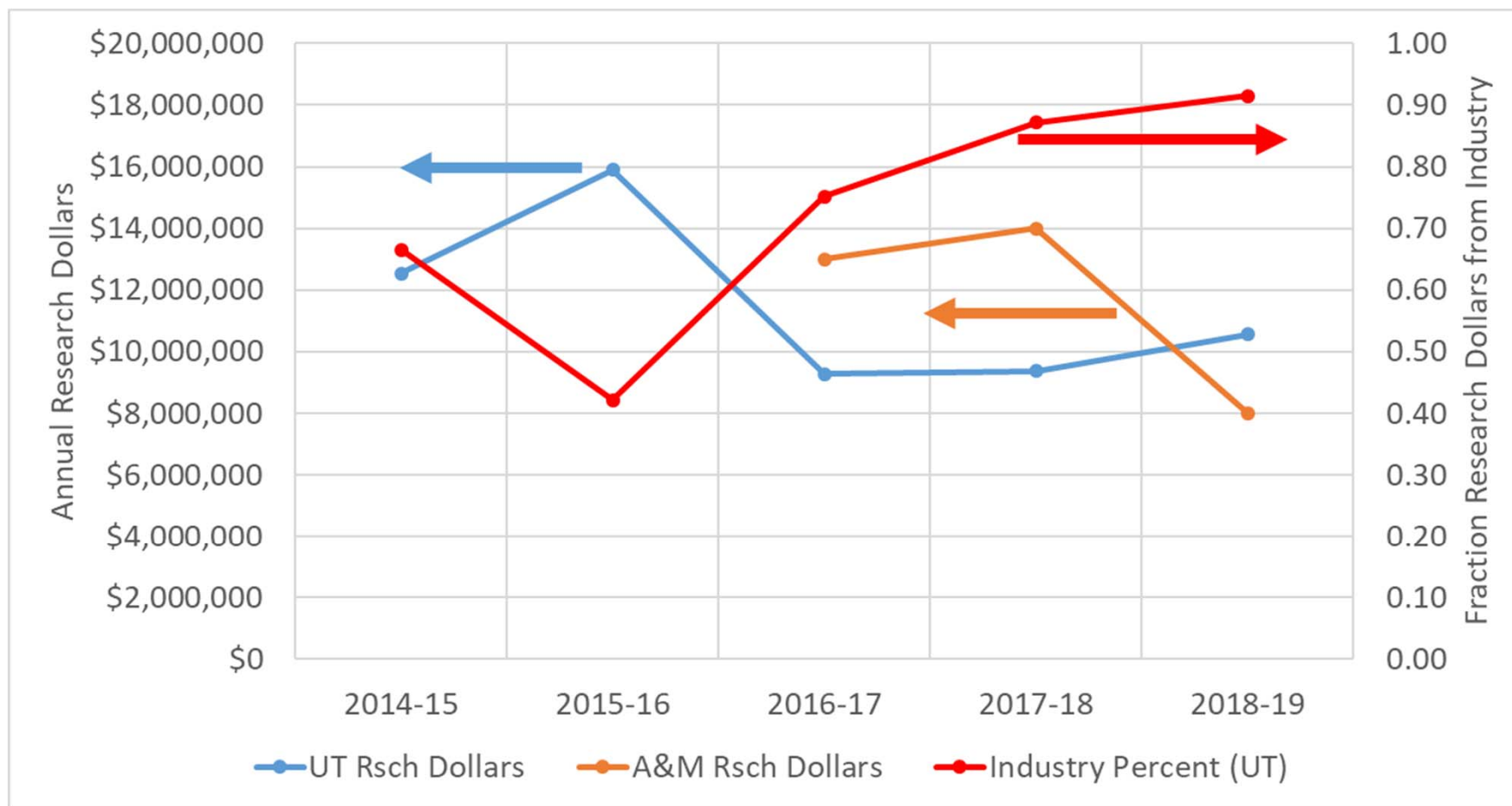
The loss of state revenue in the hundreds of millions of dollars per year for a venture on prorating does not appear to be a wise trade for Texas' fiscal condition.

Dr. Jon Olson  
and  
Dr. Jeffrey Spath

# BS Petroleum Engineering Enrollment in Texas



# University Research Funding and Increasing Dependence on Industry



A list of companies that recently supported our research and/or hired our students, most of whom operate in Texas

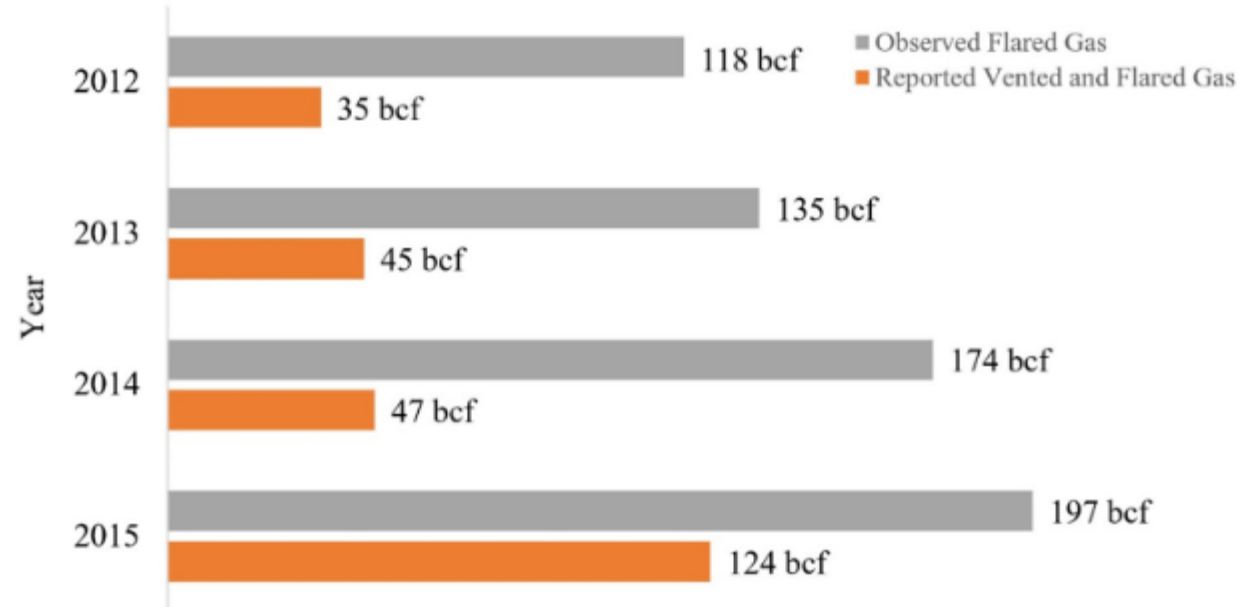
Baker Hughes	Intera	PDO
BASF	JACOS	Petrobras
BP	Japan Oil, Gas and Metals	Petrochina
Cargill	JOGMEC	Pluspetrol
Chevron	JOGMEC (Japan Oil consortia type)	Repsol
CNOOC	JXNippon (US division in Houston)	Sasol
ConocoPhillips	KAO industries	Saudi Aramco
DeGolyer & McNaughton	Kinder Morgan	Schlumberger
Devon Energy	Kuwait Oil	Shell
ENI	Messer (formerly Linde)	Sinopec
Equinor	MOL	SNF
ExxonMobil	NCS Multistage (Canadian)	Southwestern Energy
Hilcorp	Nippon Oil & Gas	Total
IHS Markit	OMV	Vedanta Limited
Inpex Corporation	Oxy	YPF



# Emma Pabst

Environment Texas

From 2012- 2015 in the Texas Permian Basin and Eagle Ford Shale,  
**observed gas flaring was significantly higher than what companies reported.**



Source: NOAA Satellite and TxRRC Venting and Flaring Data

Katherine Ann Willyard and Gunnar W. Schade, "Flaring in two Texas shale areas: Comparison of bottom-up with top-down volume estimates for 2012 to 2015." November 15, 2019. *Science of The Total Environment*, Volume 691. Pages 243-251.  
<https://www-sciencedirect-com.ezproxy.lib.utexas.edu/science/article/pii/S0048969719330384?via%3Dihub>.

## Global oil demand growth continues to slow

Global oil demand growth, 2011-2025



# Cyrus Reed

Sierra Club

# CUT PRODUCTION BY CLEANING UP PRODUCTION

Cyrus Reed, PhD, Lone Star Chapter,  
Sierra Club

Thomas Singer, PhD, Western  
Environmental Law Center

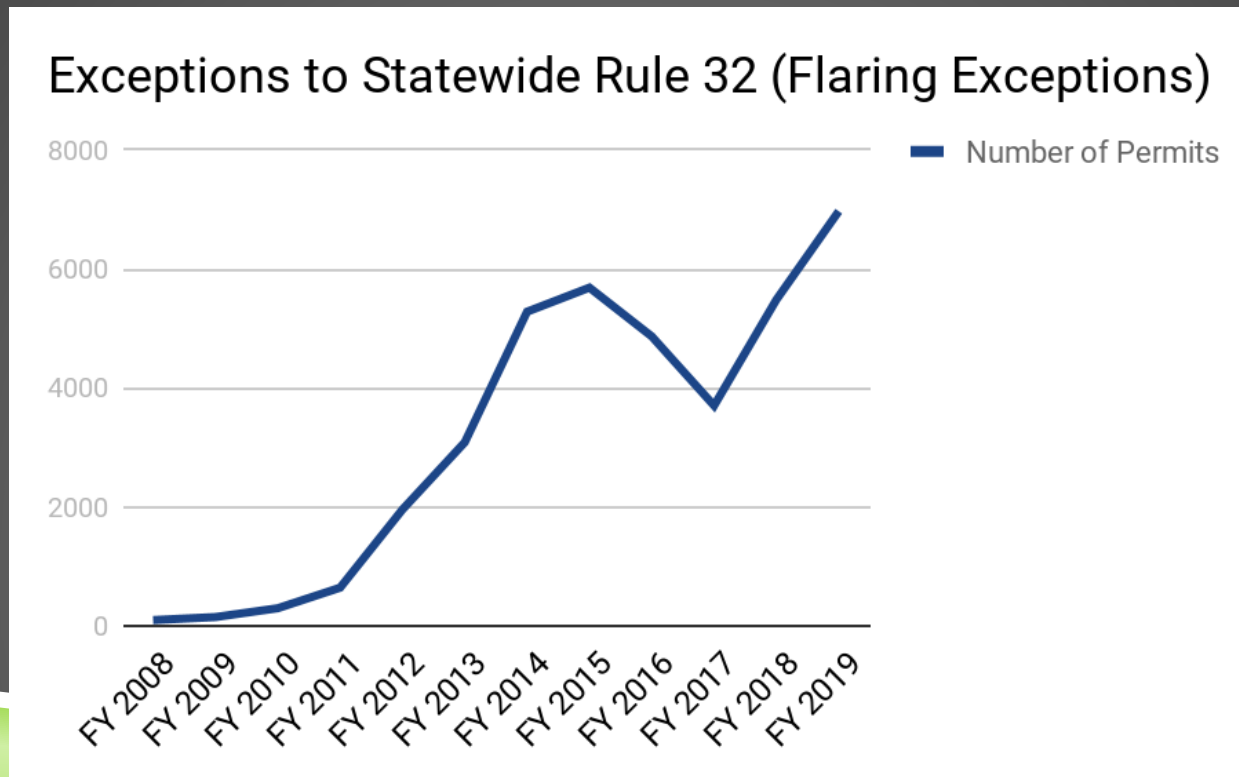
# NO POSITION ON SHORT-TERM “PRORATION”

- ▶ A short-term proration based solely on historical production will simply cut oil production and perhaps stabilize prices but not result in cleaner production or the long-term managed decline of oil and gas
- ▶ Our real concern of our organizations is creating a more managed oil and gas industry that
  - ▶ Does not waste product through venting, flaring and methane releases
  - ▶ Has needed infrastructure in place to safely manage and store product
  - ▶ Respects environmental laws and rules
  - ▶ Honors cleanup commitments for shut-in and orphan wells

RRC should use its regulatory power to enact policy that leads to cleaner production and avoids our current chaotic boom and bust cycles

# RRC HAS LEGAL AUTHORITY TO ACT ON WASTE

- ▶ WE need to go back to conservative principles and stop this



FEDS AND OTHER STATES HAVE CUT INDIVIDUAL PRODUCTION IF PRODUCERS DON'T HAVE GAS CAPTURE TECHNOLOGY IN PLACE

► Federal BLM Rule

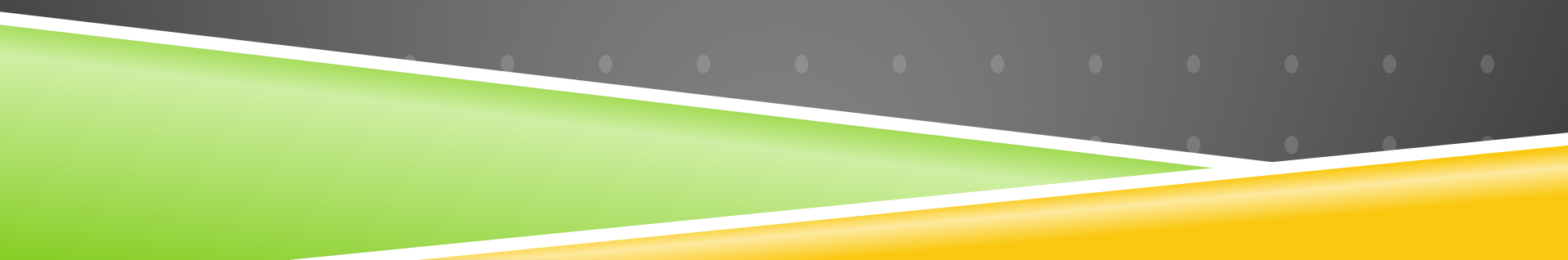
- *(b) If gas capture capacity is not yet available on a given lease, the BLM may exercise its authority under applicable laws and regulations, as well as its authority under the terms of applicable permits, orders, leases, and unitization or communitization agreements, to delay action on an APD for that lease, or approve the APD with conditions for gas capture or limitations on production.*



# NORTH DAKOTA 2014 RULE (ORDER NO. 24685 )

- ▶ *“The Commission will accept compliance with the gas capture goals by well, field, county, or statewide by operator. If such gas capture percentage is not attained at maximum efficient rate, the well(s) shall be restricted to 200 barrels of oil per day if at least 60% of the monthly volume of associated gas produced from the well is captured, otherwise oil production from such wells shall not exceed 100 barrels of oil per day.”*

# OTHER CONSIDERATION

- ▶ Prioritize enforcement and compliance – use the power of severance to cut production for those operators – oil or gas – not following the rules
  - ▶ Prioritize inspections of storage facilities to assure that overpressure does not lead to spills or VOC venting
  - ▶ Consider requiring operators to file infrastructure and storage reports
  - ▶ Look at Broad Flaring and Methane Capture Rule by beginning stakeholder meetings now in conjunction with TCEQ
  - ▶ Don't allow present situation to be used by industry to cut corners
- 

# CONCLUSIONS

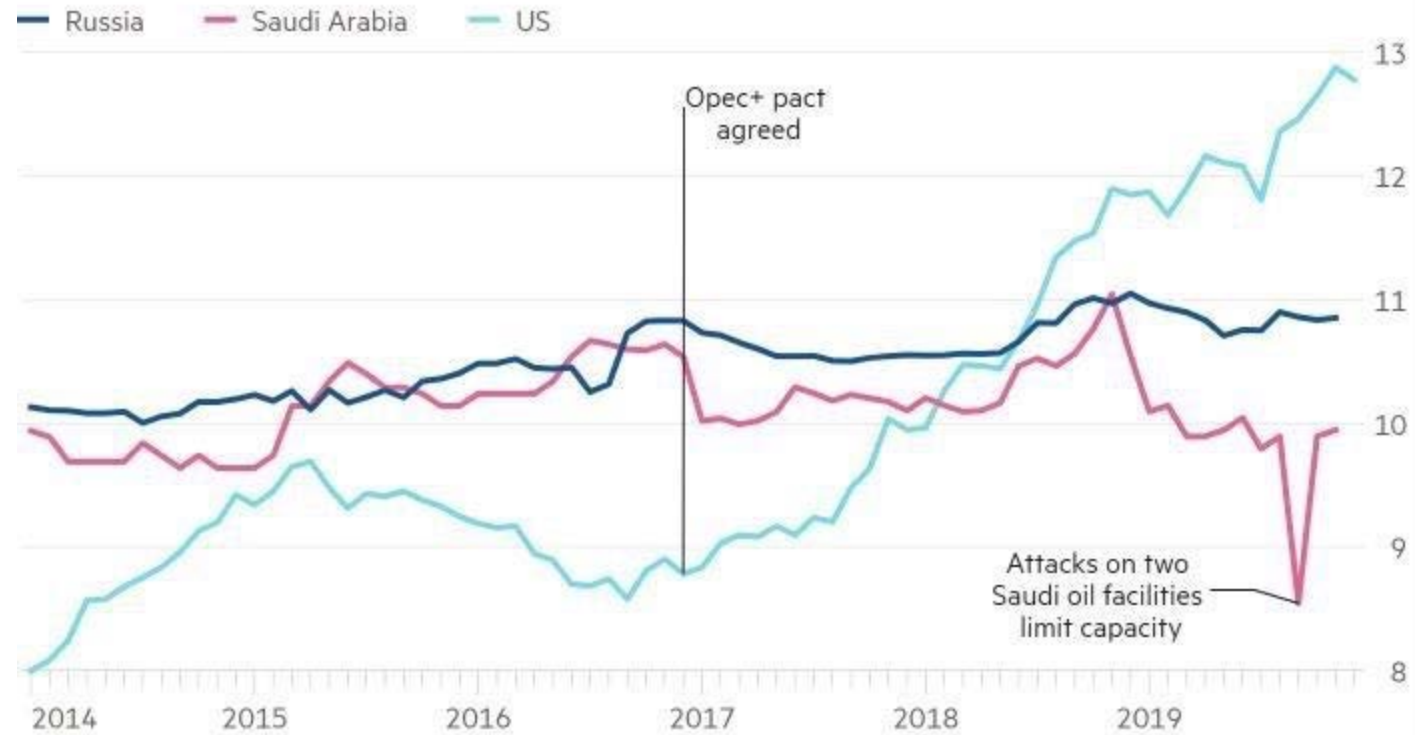
- ▶ In short term, RRC should go back to conservative principles and not grant exceptions to flaring and require gas capture
- ▶ In medium term, RRC in conjunction with TCEQ should begin a stakeholder process and rulemaking on broad flaring and gas capture rule
- ▶ RRC should continue to prioritize enforcement and compliance and not allow production for producers that don't comply
- ▶ RRC should consider a review of gas infrastructure to assure that storage tanks and other infrastructure complies with environmental rules
- ▶ RRC and industry should not use the present crisis to gut environmental rules and compliance – instead let's use this time to clean up industry
- ▶ WE are concerned that industry could use this time to cut corners.

# Alex Cranberg

Aspect Energy

## The three-way battle to lead the market in oil production

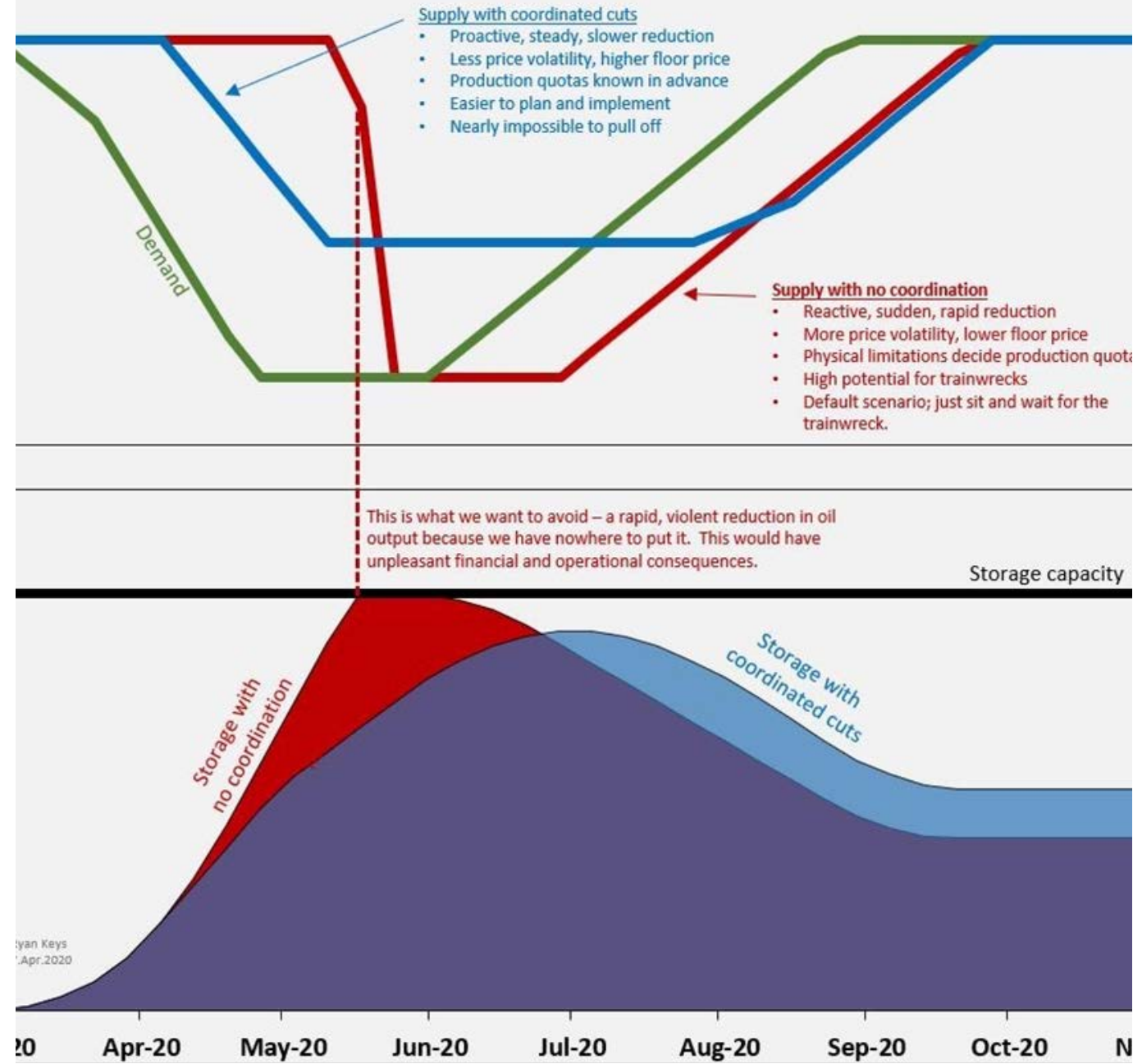
Crude oil production, millions of barrels a day



Sources: EIA, Refinitiv

© FT

# Flatten the Storage Curve



Michael Collier

## "VISUAL" for April 14th RRC Hearing 9:30am

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From: michael collier (michael75205@yahoo.com)

To: callie.farrar@rrc.texas.gov

Date: Sunday, April 12, 2020, 04:29 PM CDT

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We have CONFLATED two issues

(1) Response to Covid-19 Work Stoppage, and (2) The future of Texas Oil and Gas Industry.

Covid-19 Response: No need for Quota Deal with OPEC.

- (1) Storage should be limited to U.S. Production until "ALL CLEAR is given by our Governor.
- (2) Jobs are lost, Rigs have been laid down, Planned Production has been ABANDONED!

The Future of Texas Oil and Gas Industry is of:

NATIONAL SECURITY No need for Quota Deal with OPEC.

(1) Sell at Home 1st, then to the rest of the world.

- U.S. uses 20 million a day; U.S. produces 14 million per Day

(2) We need to PRODUCE 6 million "NEW" barrels per day when we return to "Normal" i.e Sept 2021?

(3) TARIFF on Foreign Oil (today \$20 per barrel)

America First Policy should included the Domestic Oil Industry

My friend in East Texas (maybe an Aggie or maybe a Longhorn) NEEDS TO START DRILLING HIS 3 WELLS as soon as Governor ABBOT and TRUMP give the ALL CLEAR FROM COVID-19

Thank You!



# William R. Edwards

Edwards Energy Consultants

## History of Oil Price -- with Forecasts

Including Actual Data

