

Petroleum and Natural Gas Markets Workshop

This event will begin shortly.

Session 1:

Identifying signposts for rebalanced oil and gas markets

Panelists:

- John Kemp, Reuters
- Kevin Book, Clearview Energy Partners (Managing Director)

Oil market situation

Selected indicators

JOHN KEMP

REUTERS

28 September 2020

What do we mean by “oil market rebalancing”?

At least five elements

Closer balance between supply & demand

Normalisation of crude & product stocks

Forward price curve

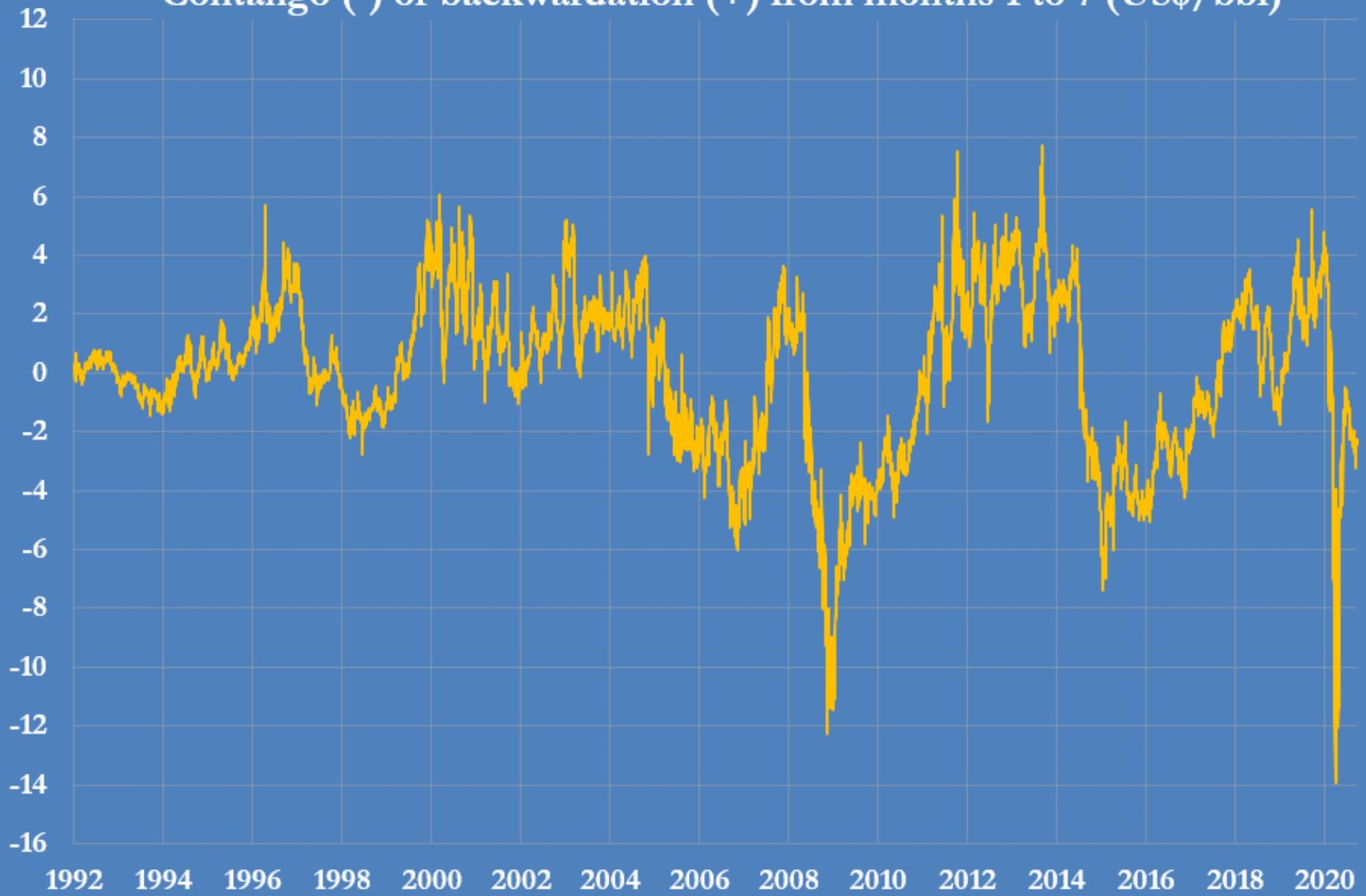
Sustainable flat price

Sustainable investment

We will put aside for the moment the question of whether the oil market has ever been or will be “in balance”

Shape of the futures price curve in Brent crude

Contango (-) or backwardation (+) from months 1 to 7 (US\$/bbl)



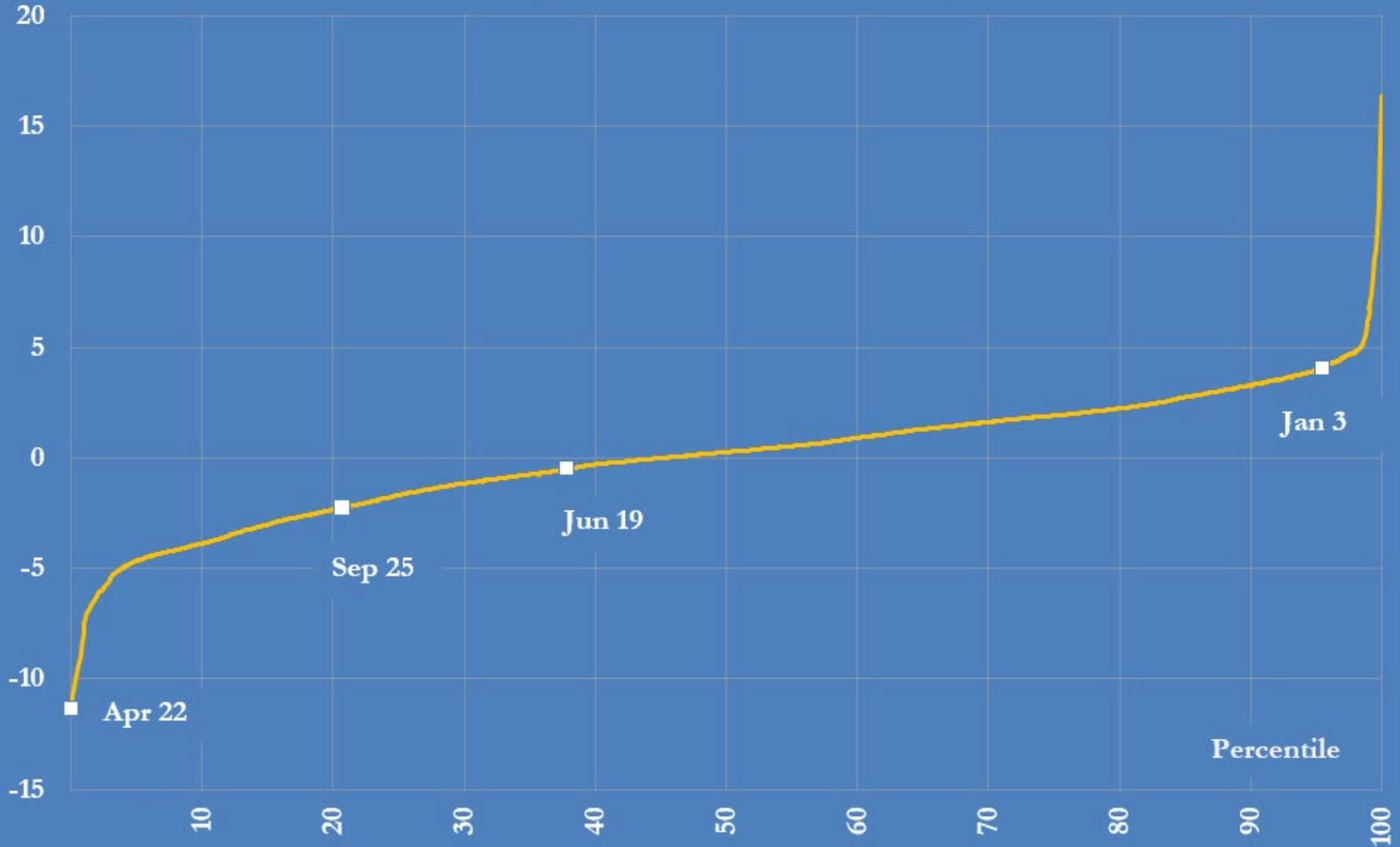
Price difference Brent month 1 and month 7 (U.S.\$/bbl)
Contango (-) or backwardation (+)

Source: ICE Futures, @JKempEnergy

Brent calendar spread from month 1 to month 7

Percentiles 1990-2020, US\$ per barrel
Contango (-) or backwardation (+)

U.S.\$/bbl



Real oil price, U.S./bbl, monthly, 1990-2020

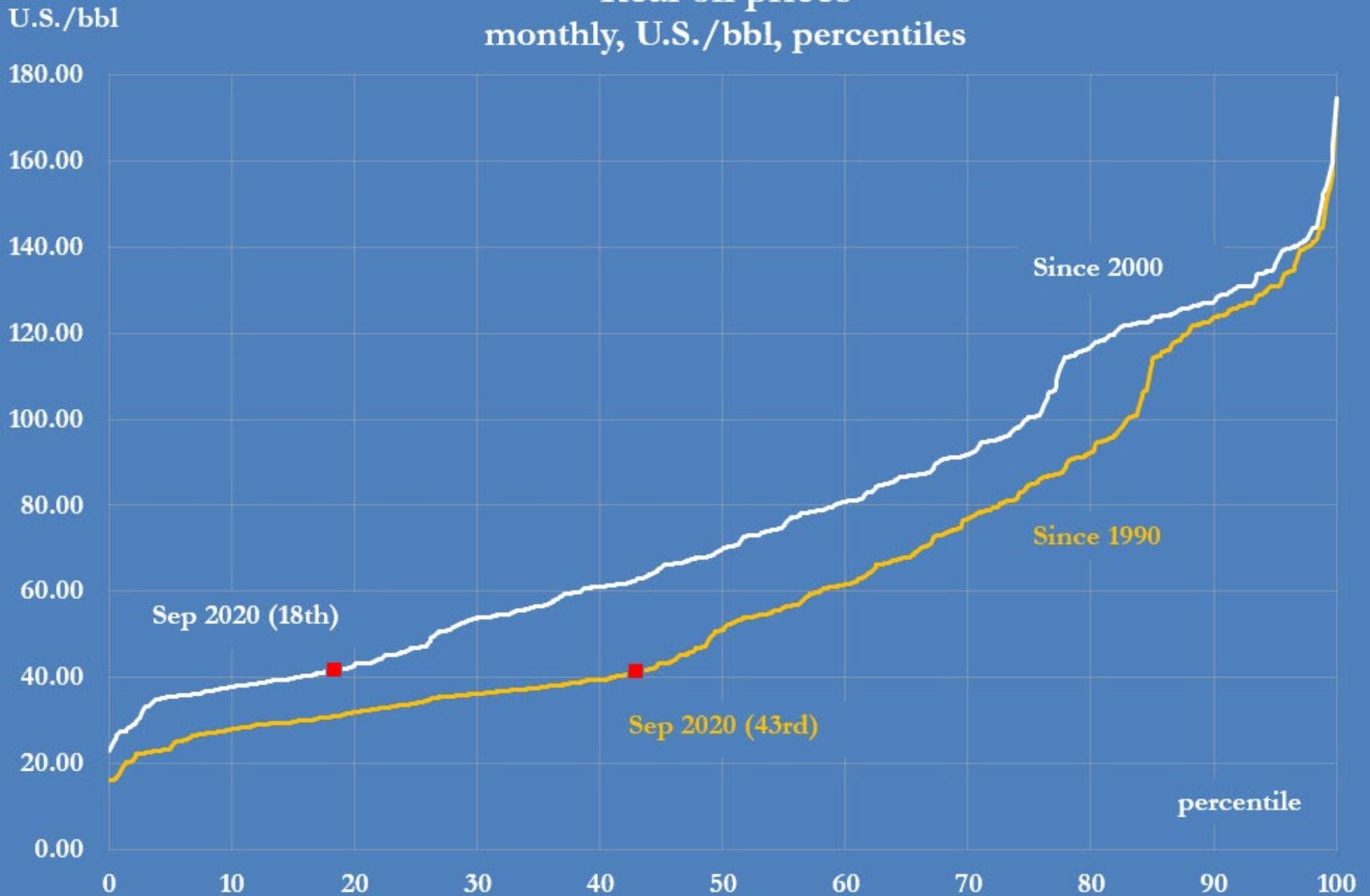
Front month Brent futures adjusted by U.S. CPI ex food and energy



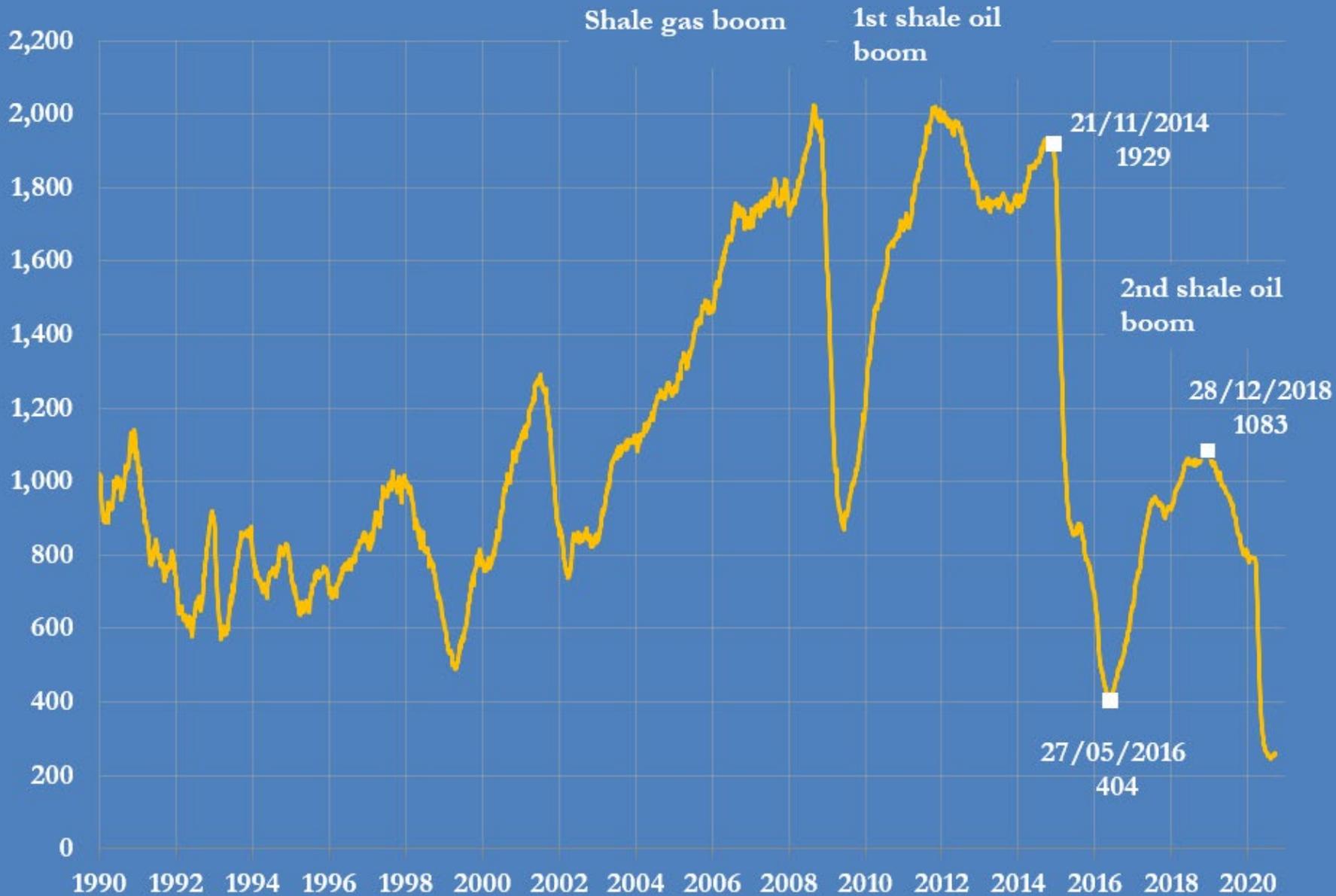
Sources: ICE Futures Europe, U.S. Bureau of Labor Statistics

@JKempEnergy

Real oil prices monthly, U.S./bbl, percentiles



Rigs drilling for oil and gas in the United States, 1990-2020



Source: Baker Hughes

@JKempEnergy



OIL MARKET QUESTIONS FOR AN "ASTERISK YEAR"

PRESENTATION TO THE U.S. ENERGY
INFORMATION ADMINISTRATION

KEVIN BOOK
MANAGING DIRECTOR

SEPTEMBER 29, 2020



DISCLOSURES

Risks

Legislative, regulatory and diplomatic agendas are subject to change.

Analyst Certifications

I hereby certify that the views expressed in this presentation accurately reflect my personal views as of the date of this presentation. I further certify that no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views contained in this presentation.

By: *Kevin Book*

Disclosures

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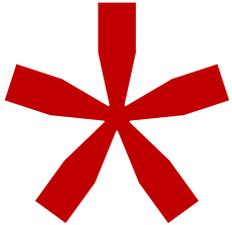
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THE ASTERISK: A SYMBOL OF OMISSION OR LIMITING FACTS



Source: ClearView Energy Partners, LLC

THE ASTERISK: A SYMBOL OF OMISSION OR LIMITING FACTS

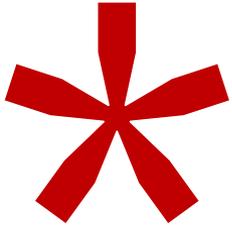


Is Demand Different, And For How Long?

- COVID-19 could change the nature of demand: (1) scale; (2) form; (3) timing; and (4) location.
- Examples:
 - Electrons at home vs. molecules on the road
 - Consumption effects of enhanced unemployment (and the loss of it)
 - Going local: U.S. light-duty consumption is ~10% of global liquids

Source: ClearView Energy Partners, LLC

THE ASTERISK: A SYMBOL OF OMISSION OR LIMITING FACTS



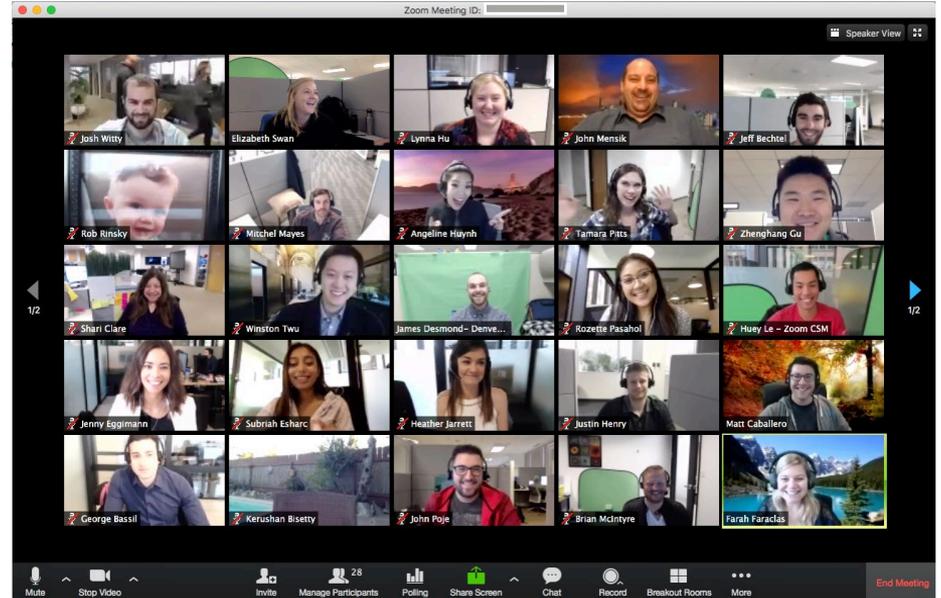
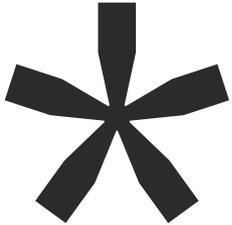
Key Uncertainties

- (1) How governmental, institutional and individual risk perceptions might shape consumption behaviors;
- (2) The nature of COVID-19 itself, especially the existence and duration of immunity; and
- (3) The inertia and plasticity of economies wracked by stark job losses.

Source: ClearView Energy Partners, LLC

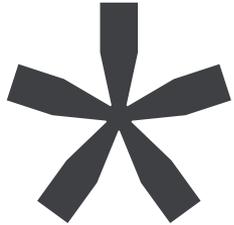
ASTERISK-YEAR DEMAND: LESS AIR TRAVEL

An Industry Conference In the 2020s?



Source: ClearView Energy Partners, LLC, using photo from blog.zoom.us

ASTERISK-YEAR DEMAND: LESS DAILY COMMUTING



The Morning Commute In the 2020s?



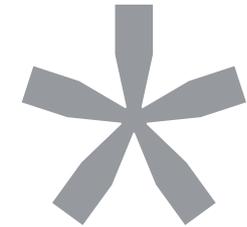
Source: ClearView Energy Partners, LLC, using photo from [freepik.com](https://www.freepik.com)

ASTERISK-YEAR DEMAND: LESS PUBLIC TRANSIT FOR THOSE WHO COMMUTE

Public Transportation In the 2020s?

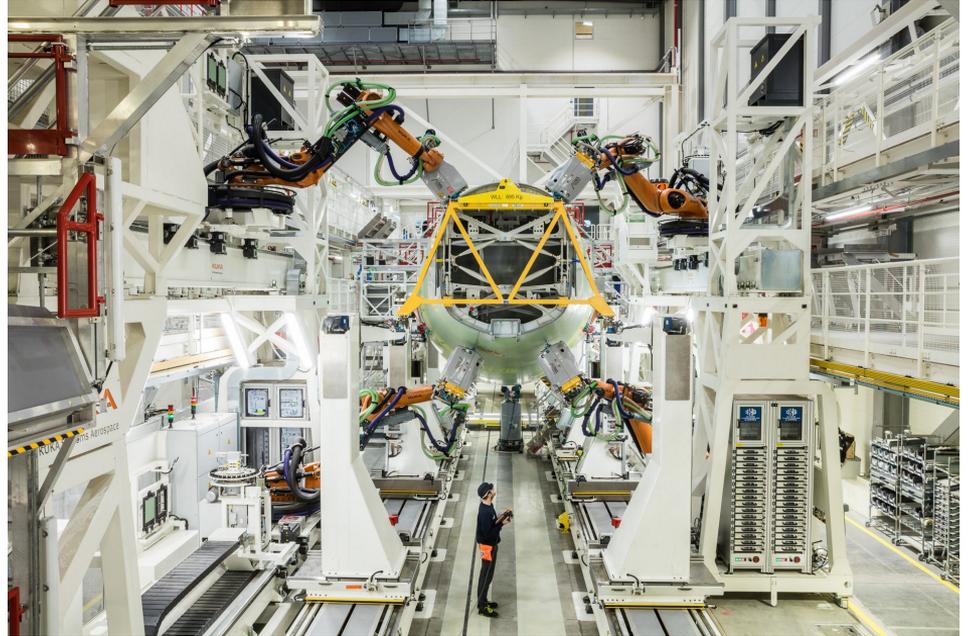
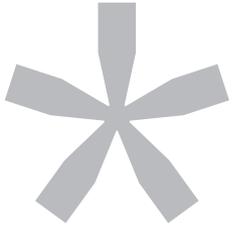


Source: ClearView Energy Partners, LLC, using photo from vox.com credited to Kevork Djansezian/Getty Images



ASTERISK-YEAR DEMAND: LOWER LABOR INTENSITY AT WORK

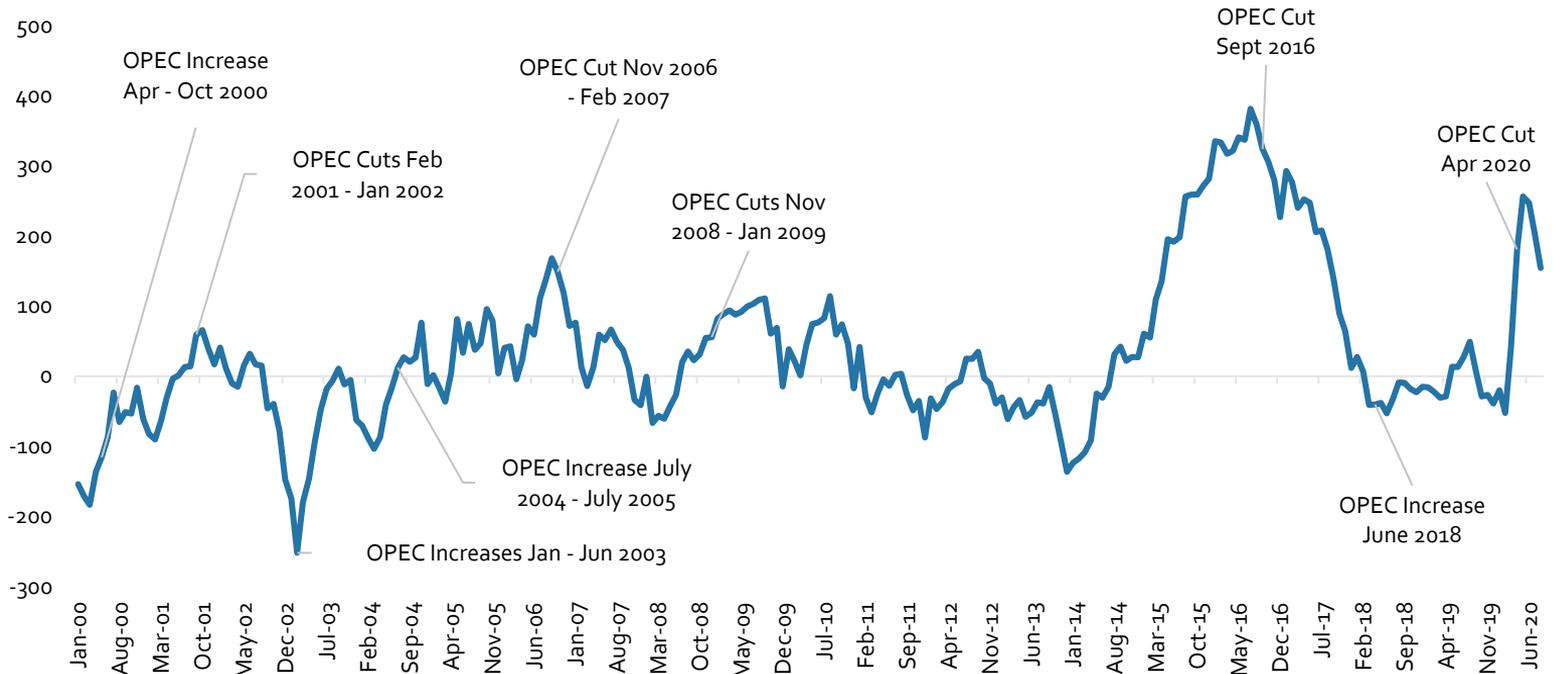
Factory Workers In the 2020s?



Source: ClearView Energy Partners, LLC, using photo from airbus.com

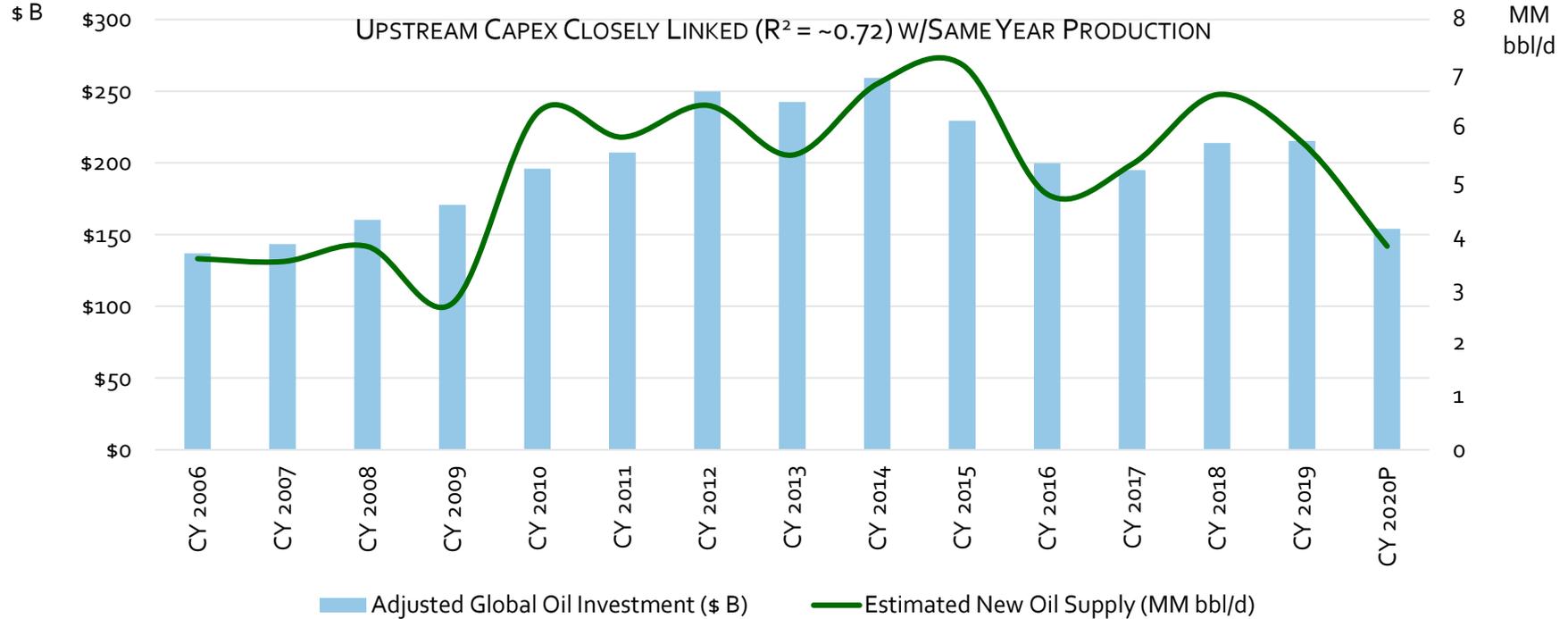
ASTERISK YEAR SUPPLY QUESTION #1: OPEC+ (OR OPEC*) ?

OECD
Inventories
vs. 5 Year
Average
(MM bbl)



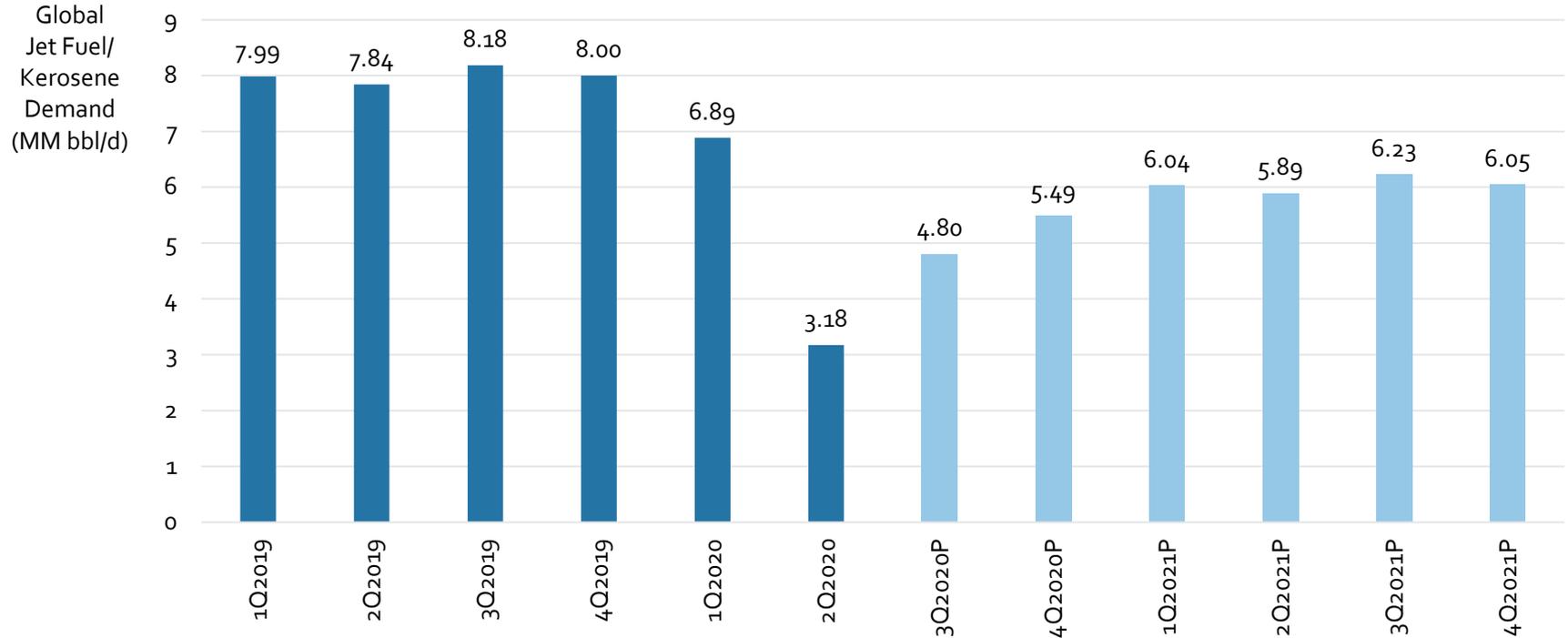
Source: ClearView Energy Partners, LLC, using EIA data (thru September 2020 STEO)

ASTERISK YEAR SUPPLY QUESTION #2: UPSTREAM CAPEX AND SUPPLY



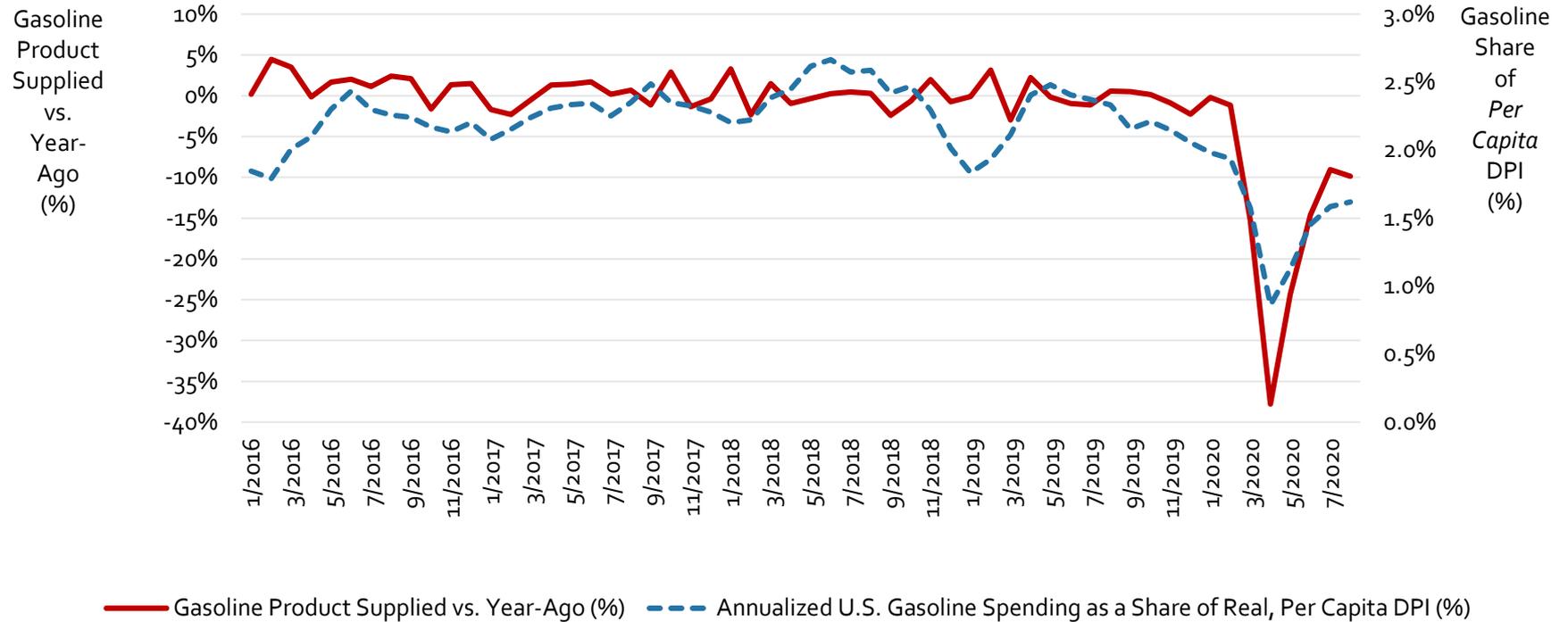
Source: ClearView Energy Partners, LLC, using BP, EIA and IEA data

MORE LIKELY A BIRD (OR SUPERMAN) THAN A PLANE



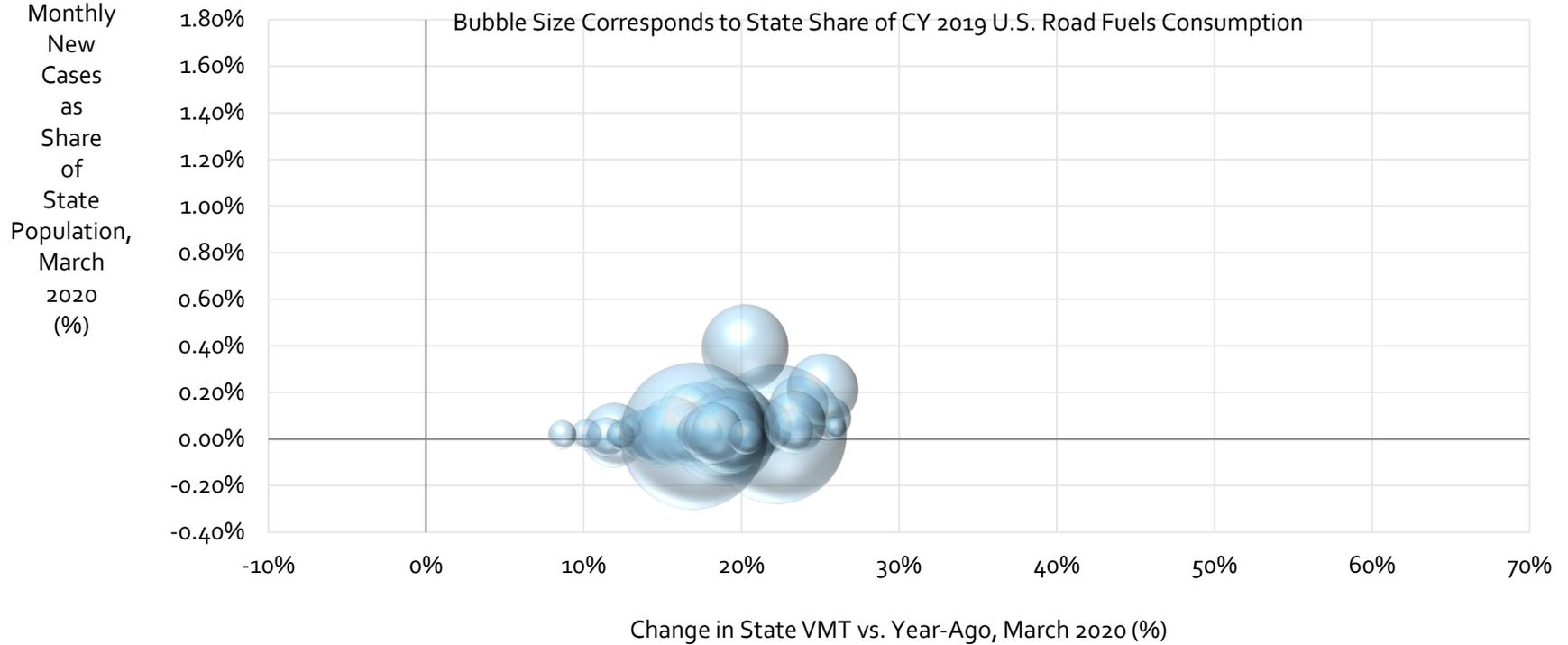
Source: ClearView Energy Partners, LLC, using IATA and IEA data

LOCKDOWN DEMAND DESTRUCTION VS. INCOME-DRIVEN DEMAND EFFECTS



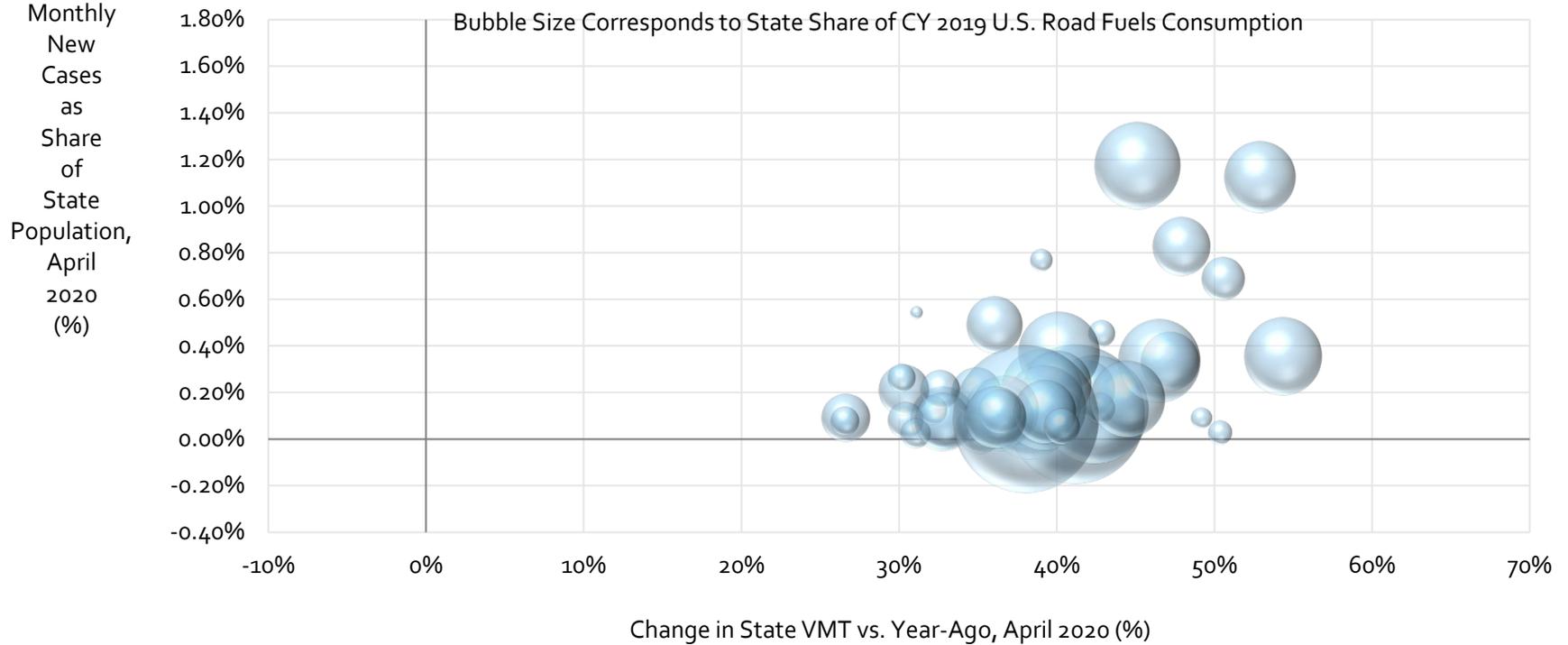
Source: ClearView Energy Partners, LLC, using BEA, Census Bureau, EIA, FHWA and St. Louis Fed data

M/M Δ U.S. CASES vs. Y/Y Δ VMT BY STATE: MARCH 2020



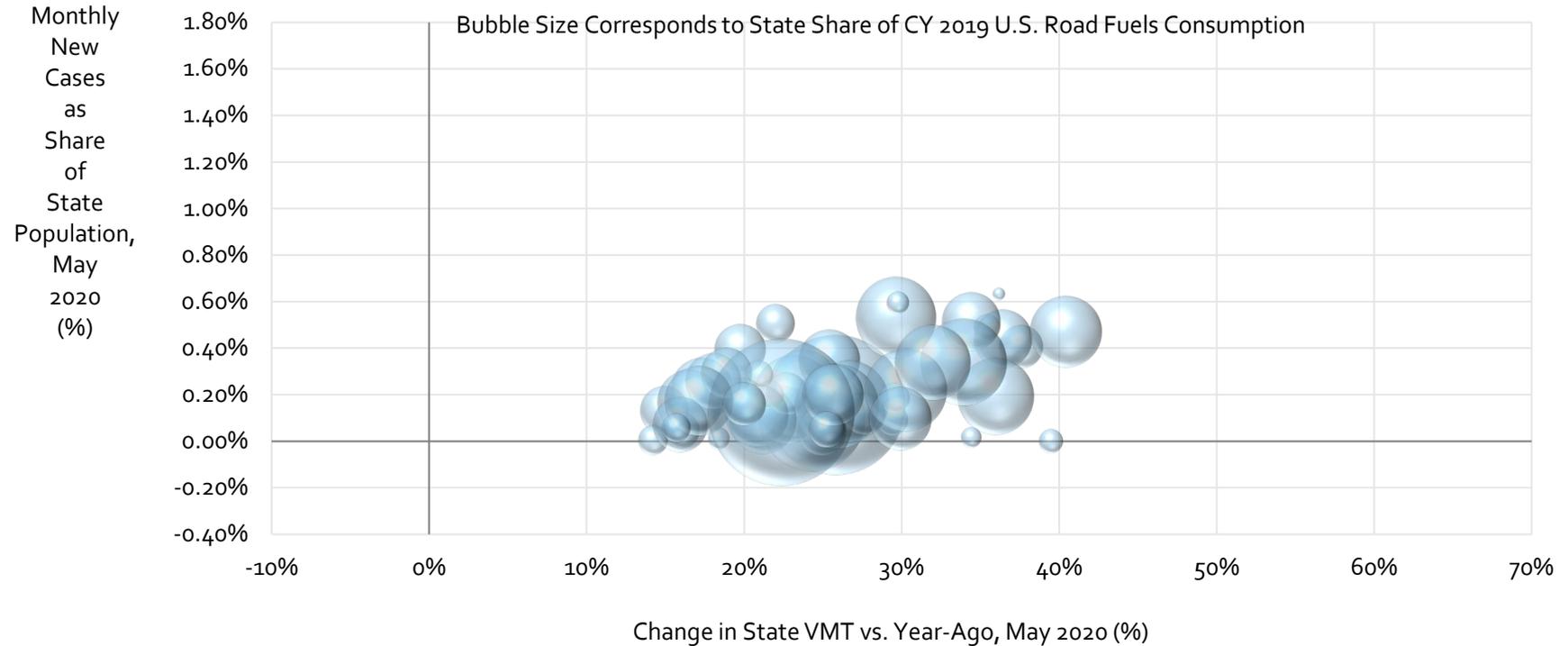
Source: ClearView Energy Partners, LLC, using Census Bureau, EIA, FHWA and Johns Hopkins CSSE data

M/M Δ U.S. CASES vs. Y/Y Δ VMT BY STATE: APRIL 2020



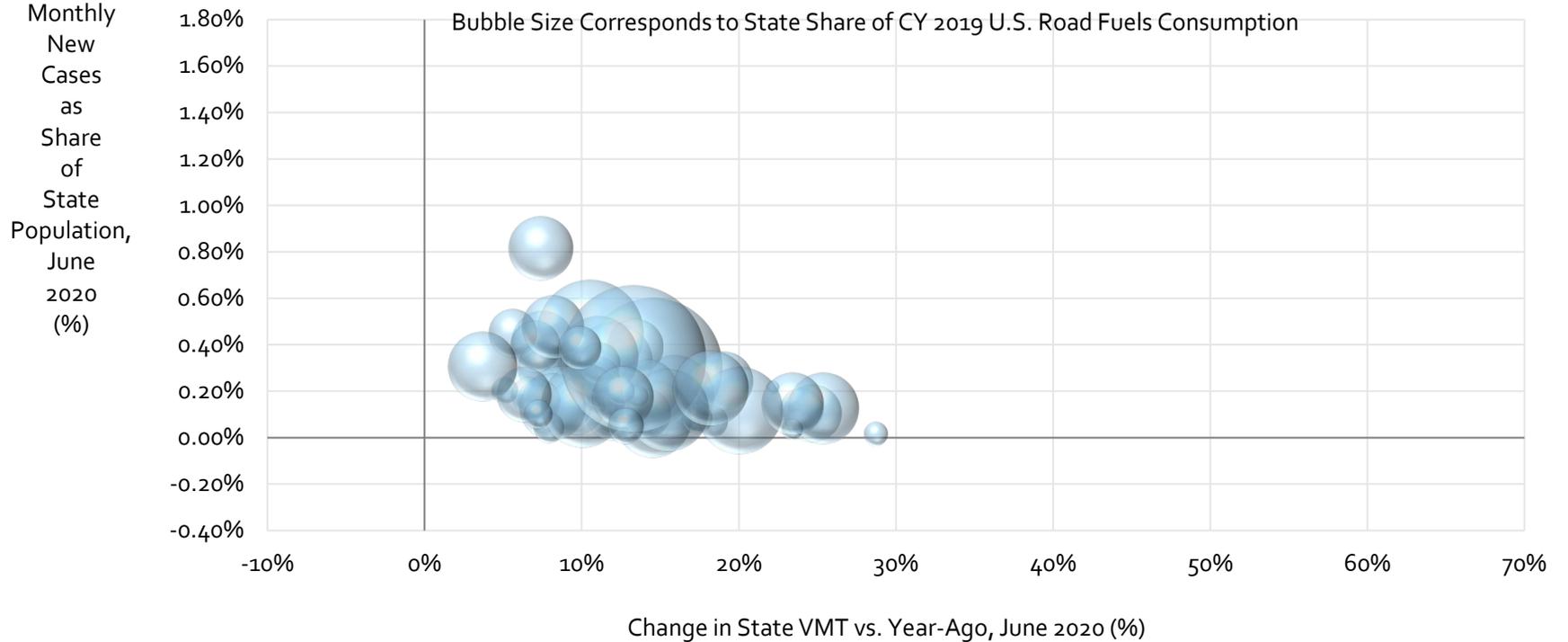
Source: ClearView Energy Partners, LLC, using Census Bureau, EIA, FHWA and Johns Hopkins CSSE data

M/M Δ U.S. CASES vs. Y/Y Δ VMT BY STATE: MAY 2020



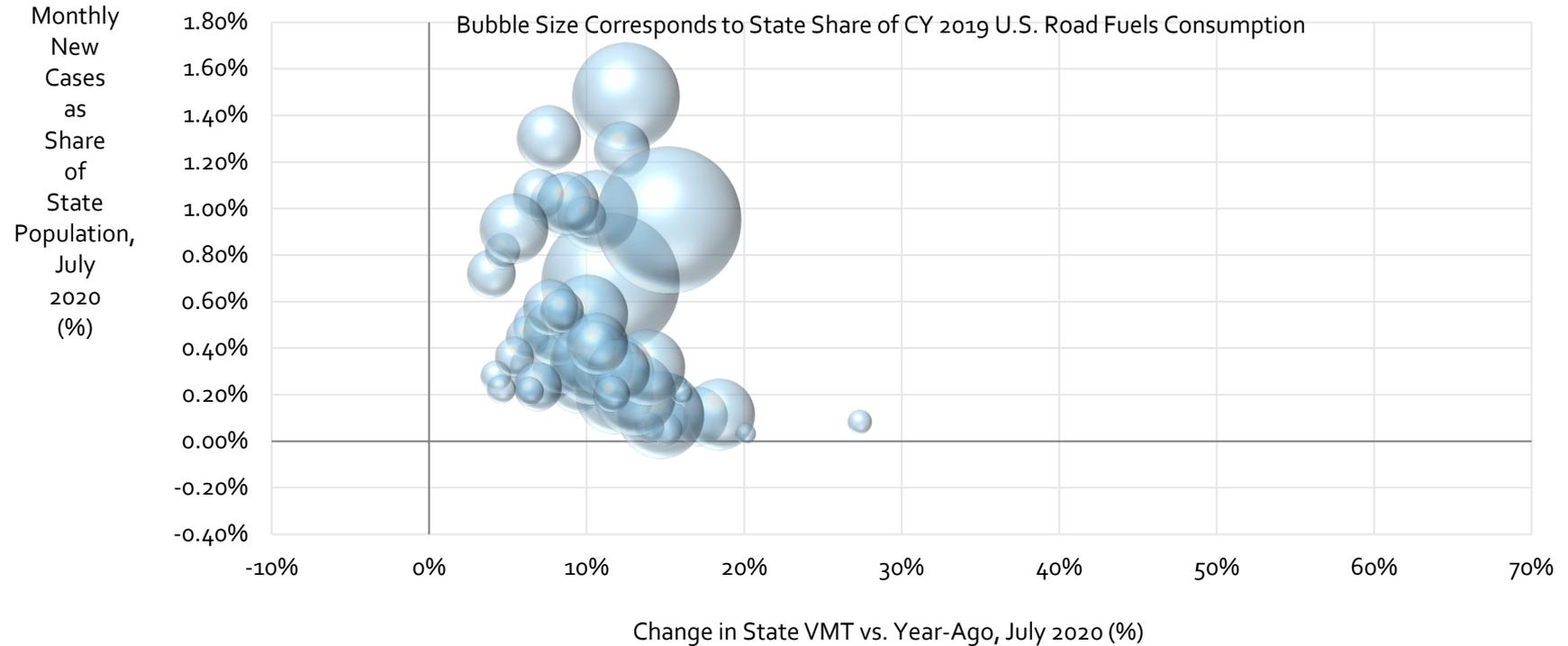
Source: ClearView Energy Partners, LLC, using Census Bureau, EIA, FHWA and Johns Hopkins CSSE data

M/M Δ U.S. CASES vs. Y/Y Δ VMT BY STATE: JUNE 2020



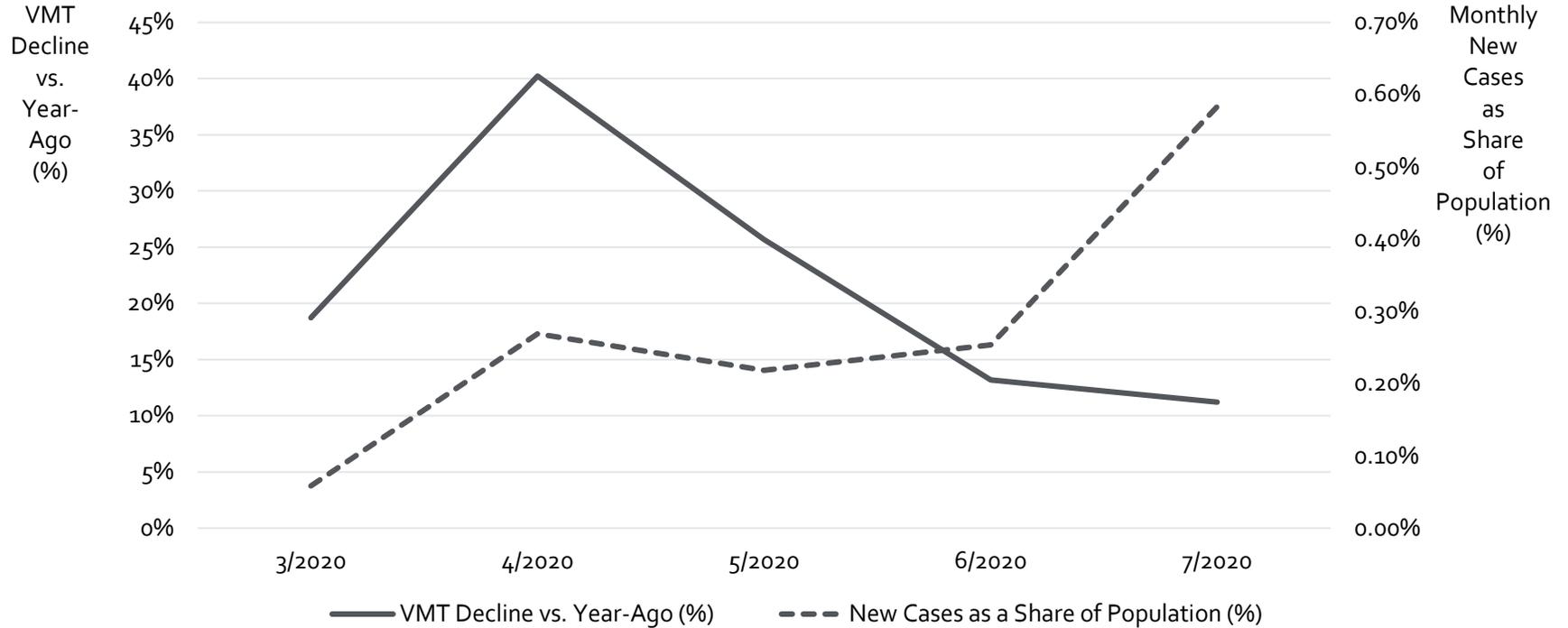
Source: ClearView Energy Partners, LLC, using Census Bureau, EIA, FHWA and Johns Hopkins CSSE data

M/M Δ U.S. CASES vs. Y/Y Δ VMT BY STATE: JULY 2020P



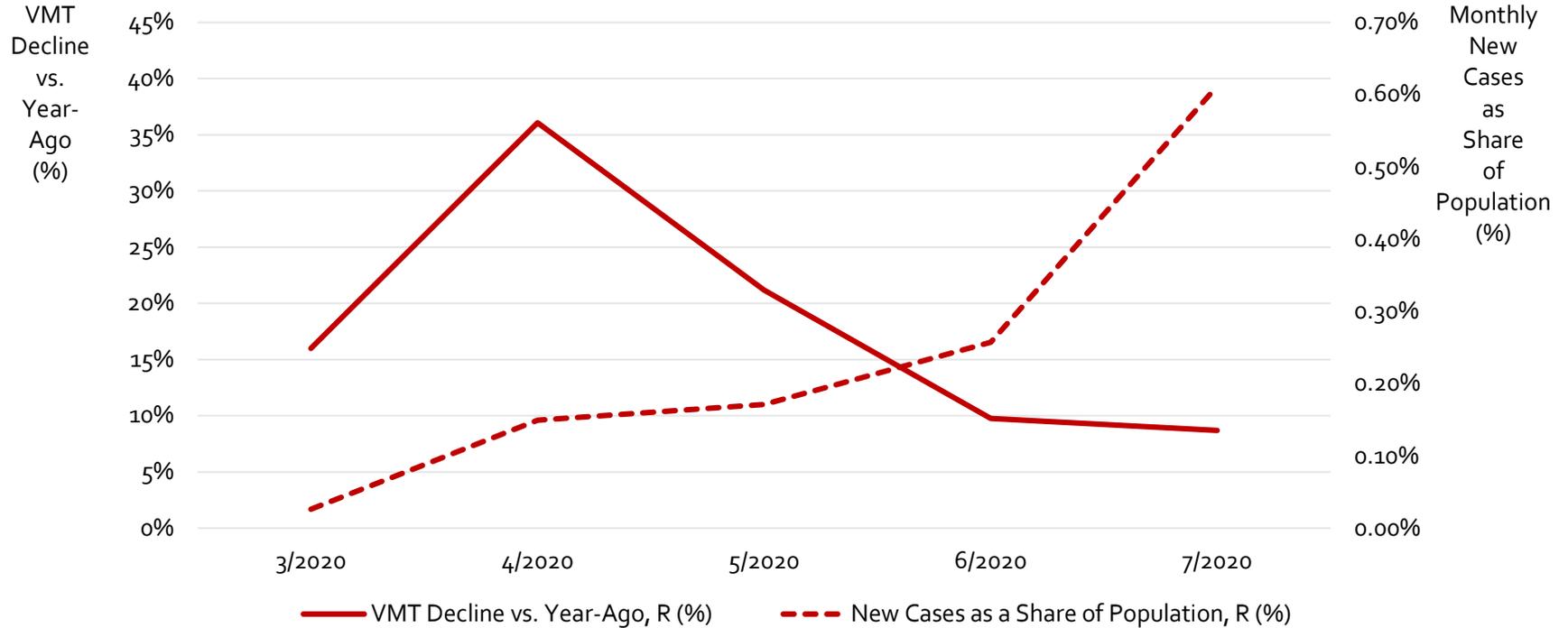
Source: ClearView Energy Partners, LLC, using Census Bureau, EIA, FHWA and Johns Hopkins CSSE data

M/M Δ U.S. CASES vs. Y/Y Δ VMT: ALL U.S. STATES + DC



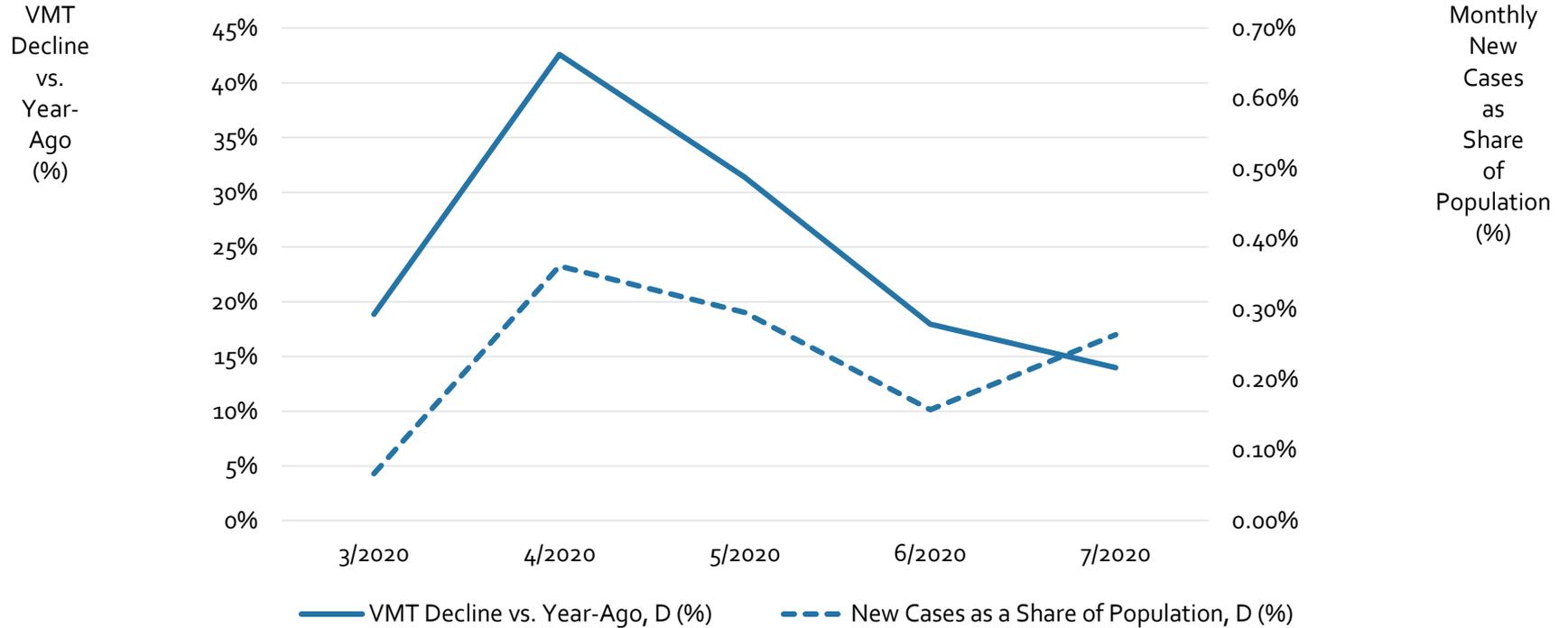
Source: ClearView Energy Partners, LLC, using Census Bureau, FEC, FHWA and Johns Hopkins CSSE data

M/M Δ U.S. CASES vs. Y/Y Δ VMT: 2016 “RED” (TRUMP) STATES



Source: ClearView Energy Partners, LLC, using Census Bureau, FEC, FHWA and Johns Hopkins CSSE data

M/M Δ U.S. CASES vs. Y/Y Δ VMT: 2016 “BLUE” (CLINTON) STATES



Source: ClearView Energy Partners, LLC, using Census Bureau, FEC, FHWA and Johns Hopkins CSSE data

Session 2:

Supply competition in oil and gas markets

Panelists:

- Mark Finley, Rice University's Baker Institute (Fellow)
- Sara Vakhshouri, SVB International (Founder)
- Ross Wyeno, S&P Global Platts (Lead Analyst, LNG Analytics)

Global Gas and LNG Market

Ross Wyeno
Lead Analyst, Americas LNG Analytics
S&P Global Platts

September 29, 2020

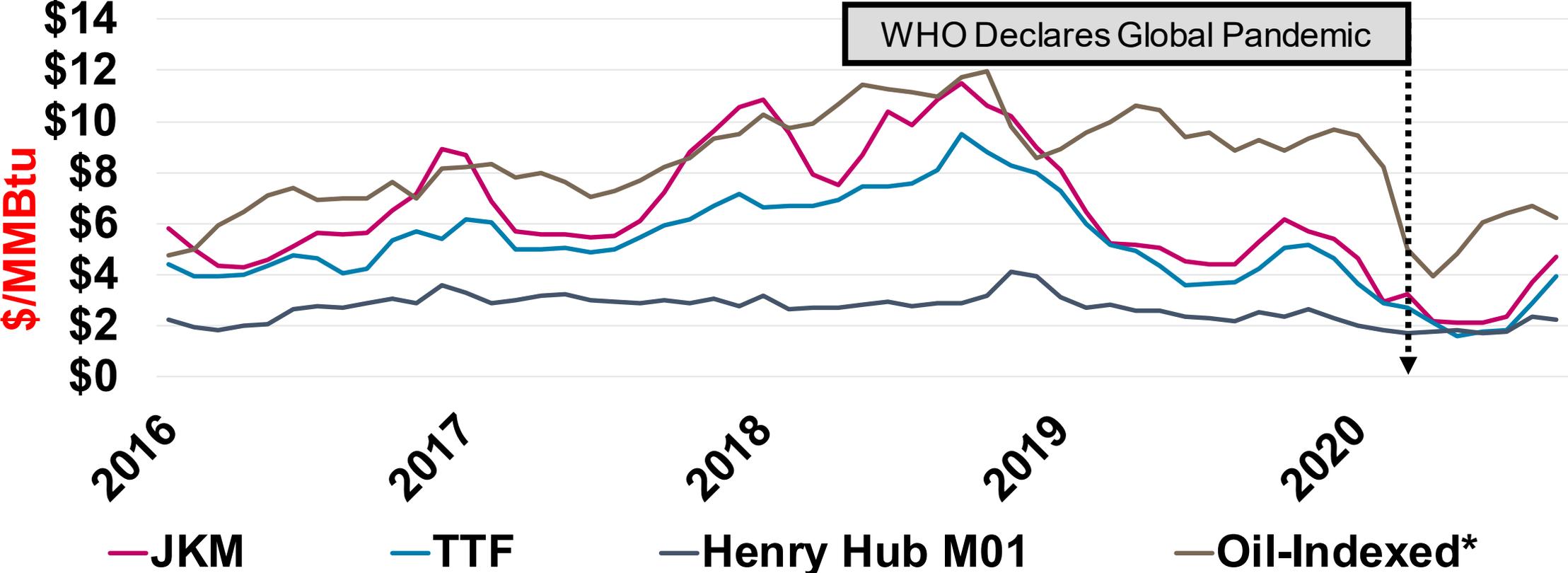


S&P Global
Platts



Global LNG prices have been down trending since 2018, but the pandemic caused outright prices to invert below the Henry Hub

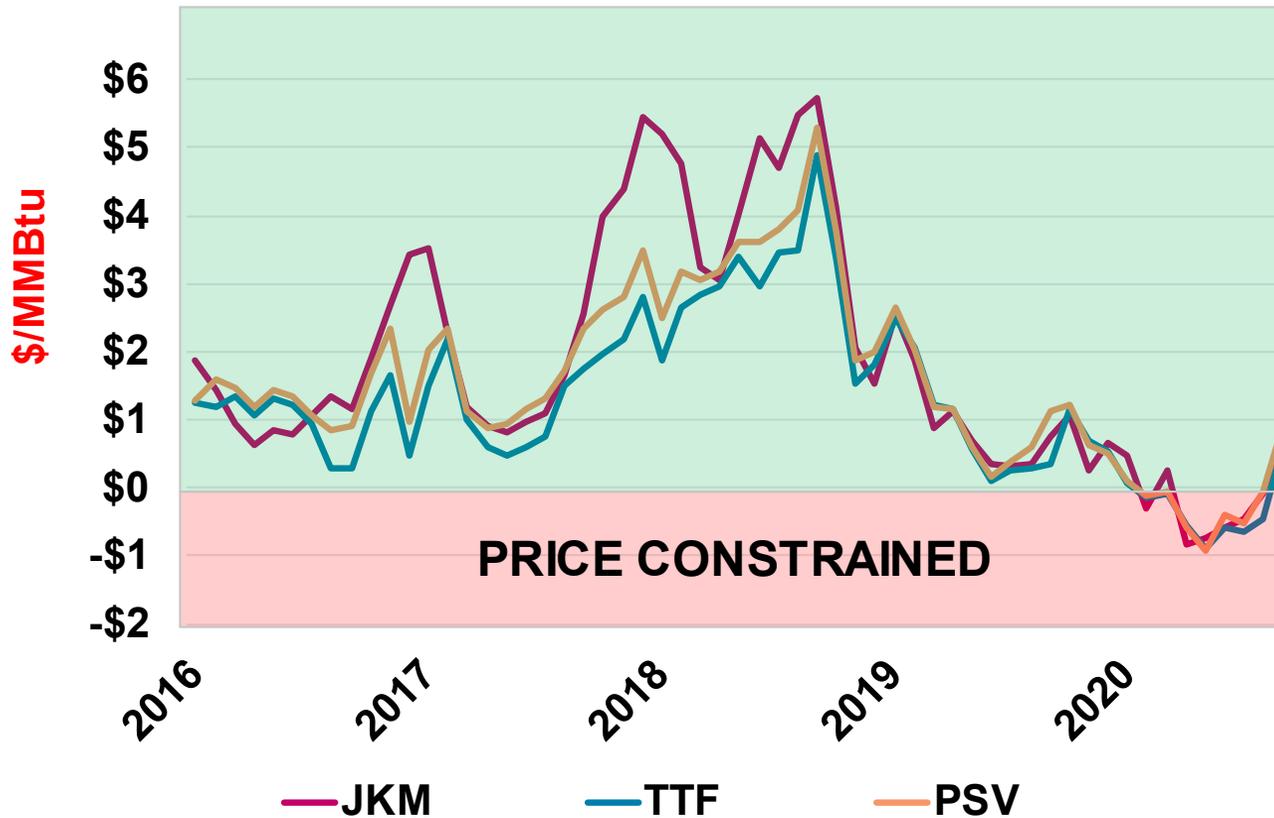
Global Gas and LNG Prices



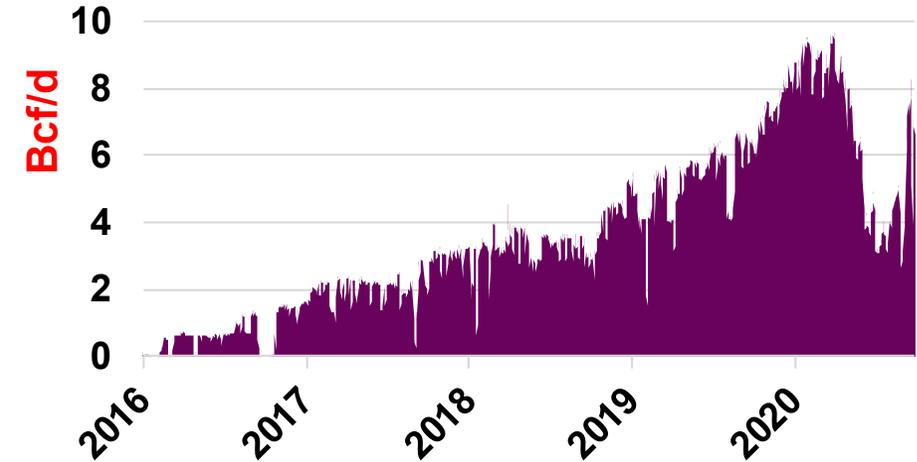
*Estimate based on 14.85% Brent Crude Oil

US LNG exports became constrained this summer as global prices fell below the variable costs of delivered LNG

US Gulf Coast LNG Netbacks



US LNG Feedgas Deliveries

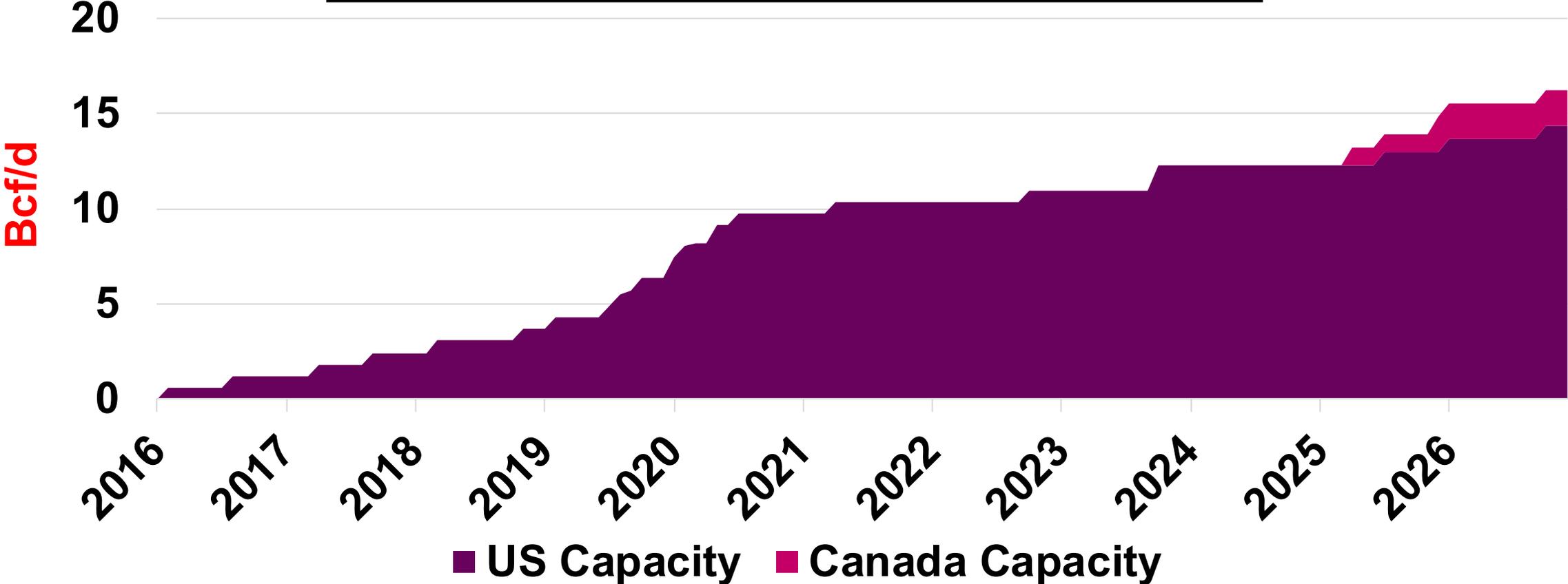


US LNG feedgas deliveries collapsed when netback spreads turned negative

Exports expected to recover this winter, but price risks persist into 2021

US is expected to become the worlds largest LNG exporter by 2022; North American capacity to breach 16 Bcf/d by 2026

North American LNG Export Capacity



Upcoming:

Electric Power Markets Workshop

Thursday, October 1, 2020 (1:00 p.m.–2:30 p.m.)

Follow up questions: AnnualEnergyOutlook@eia.gov