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.$/bbl)  
Source: ICE Futures, @J Kemp Energy
Contango (-) or backwardation (+)
Brent calendar spread from month 1 to month 7
Percentiles 1990-2020, US$ per barrel
Contango (-) or backwardation (+)

Source: ICE Futures Europe
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
Rigs drilling for oil and gas in the United States, 1990-2020

Source: Baker Hughes
Oil Market Questions
For an “Asterisk Year”

Presentation to the U.S. Energy Information Administration

Kevin Book
Managing Director

September 29, 2020
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

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THE ASTERISK: A SYMBOL OF OMISSION OR LIMITING FACTS

Source: ClearView Energy Partners, LLC
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
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
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
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
Factory Workers In the 2020s?

Source: ClearView Energy Partners, LLC, using photo from airbus.com
Asterisk Year Supply Question #1: OPEC+ (or OPEC*)?

Source: ClearView Energy Partners, LLC, using EIA data (thru September 2020 STEO)
**Asterisk Year Supply Question #2: Upstream CAPEX and Supply**

**Adjusted Global Oil Investment ($B)**

**Estimated New Oil Supply (MM bbl/d)**

*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

Gasoline Product Supplied vs. Year-Ago (%) - Annualized U.S. Gasoline Spending as a Share of Real, Per Capita DPI (%)

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

Monthly New Cases as Share of State Population, March 2020 (%)

Bubble Size Corresponds to State Share of CY 2019 U.S. Road Fuels Consumption

Change in State VMT vs. Year-Ago, 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

Monthly New Cases as Share of State Population, April 2020 (%)

Change in State VMT vs. Year-Ago, April 2020 (%)

Bubble Size Corresponds to State Share of CY 2019 U.S. Road Fuels Consumption

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

Monthly New Cases as Share of State Population, May 2020 (%)

Change in State VMT vs. Year-Ago, May 2020 (%)

Bubble Size Corresponds to State Share of CY 2019 U.S. Road Fuels Consumption

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

Change in State VMT vs. Year-Ago, June 2020 (%)

Bubble Size Corresponds to State Share of CY 2019 U.S. Road Fuels Consumption

Monthly New Cases as Share of State Population, 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 2020

Monthly New Cases as Share of State Population, July 2020 (%)

Change in State VMT vs. Year-Ago, July 2020 (%)

Bubble Size Corresponds to State Share of CY 2019 U.S. Road Fuels Consumption

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 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

WHO Declares Global Pandemic

*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 LNG feedgas deliveries collapsed when netback spreads turned negative. Exports expected to recover this winter, but price risks persist into 2021.

**US Gulf Coast LNG Netbacks**

**US LNG Feedgas Deliveries**

**LNG Netbacks:** Destination market price minus variable costs of supply and transportation.
US is expected to become the world's largest LNG exporter by 2022; North American capacity to breach 16 Bcf/d by 2026
Upcoming:

Electric Power Markets Workshop
Thursday, October 1, 2020 (1:00 p.m.–2:30 p.m.)

Follow up questions: AnnualEnergyOutlook@eia.gov