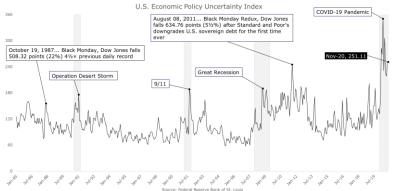
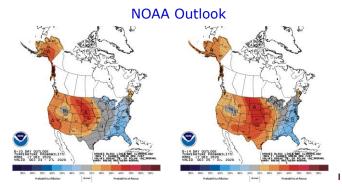


FUNDAMENTAL + TECHNICAL ANALYSIS OF THE ENERGY MARKETS





Temperature 6-10 Day

Temperature 8-14 Day

Note Bene: The Federal Reserve Bank of St. Louis calculates an <u>Economic Uncertainty Index</u> based on the proportion of newspaper stories that discuss uncertainty, changes to tax codes, and disagreement among forecasters.

Last spring, as COVID-19 mitigation decrees shuttered the economy, the index surged past the previous record from the Black Monday stock market crash of August 2011 to 350.45 points. The index fell through the summer—bottoming in August at 224.43—but has since moved higher, coming in at 251.11 for November (2.4× its non-recession mean).

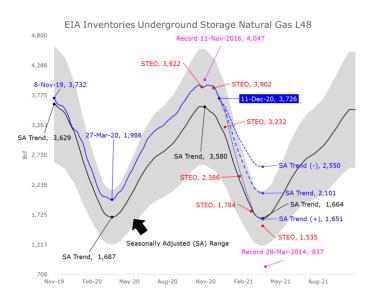
As the known unknown of COVID-19 lockdowns persist (e.g. here, here, and here) economic uncertainty shall remain at abnormally elevated levels through winter.

Omnium Gatherum

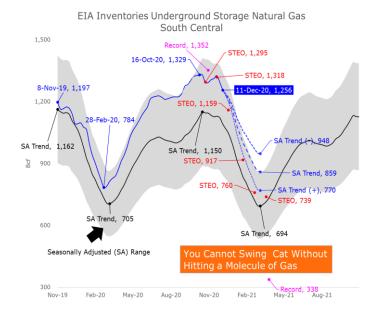
PRICES WERE MIXED YESTERDAY... NYMEX gas for January 2021 delivery closed lower for a second straight session. The Jan-21/Feb-21 spread has closed in contango (discount) in nine of the last eleven sessions, while the end-of-winter March-21/April-21 spread has settled in contango in seven of the last eight sessions. NYMEX WTI for delivery next month closed at the highest high, \$48.36/b since last February, while the contango in the Feb-21/Mar-21 ICE, NYMEX 321 crack narrowed to a six-week low of -\$0.20/b.

EIA Natural Gas Review

Yesterday the EIA reported a large delivery of natural gas from L48 underground storage. As of December 11^{th} , 122 Bcf was withdrawn. The typical delivery is 109 \pm 30 Bcf, the five-year average (interpolated) is 105 Bcf.



Gas was delivered out of the Salts (South Central Region) for a second straight week. As of last Friday, storage fell by 13 Bcf to 348 Bcf. The seasonally adjusted norm for last week was a 9 ± 2 Bcf delivery. Over the last four weeks, the market has reported a net delivery of 2 Bcf. The seasonal norm is a 1 ± 2 Bcf injection.



For the entire South Central region, inventories fell by 38 Bcf whereas the seasonally adjusted norm is a 30 ±7 Bcf delivery. Inventories dropped to 1.26 Tcf and the surplus to a year ago narrowed by 81 basis points to 10% or 114 Bcf. This season's net delivery is up to a bullish 73 **Bcf**. The norm is a 58 ± 13 Bcf delivery.

Last week, temps in the all-important Chicago market area averaged a relatively warm 39°F. In return, storage in the Midwest fell by a standard 36 Bcf. You normally expect a delivery of 37 ±13 Bcf. It has been a slow start to winter in the Midwest. Although it is early in the season and a lot can change between now and April, only 80 Bcf of gas has been delivered thus far to the market. This pace is 19% below the five-year average, a whopping 41% below a year ago and 11% below normal.

Through the current trading week, Chicago temps are averaging 32°F, 20% colder than the previous week but around 8% warmer than the seasonal norm. The normal delivery for next Thursday's report is 35 ±13 Bcf.

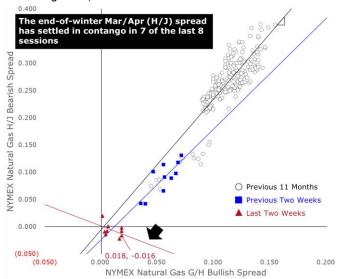
A total of 34 Bcf was delivered out of the East. The typical delivery is 31 ±11 Bcf. New York City temps averaged a warm 44°F which was 10% above normal but, 20% colder week-over-week. Given the rise in implied space heating demand through the week, inventories fell by a reasonable amount. The season-to-date delivery of 72 Bcf is 15% below the five-year mean, 23% below a year ago and 22% below the seasonal trend.

Temps in NYC plunged this week, dropping from a 62°F mean last Sunday, to 31°F yesterday. The typical delivery for next Thursday's report is 26 ±9 Bcf.

As far as next week's report is concerned (EIA week ended December 18th) we are going to see an abnormally large pull on inventories. The typical delivery for this week is 99 ±28 Bcf, the five-year mean is 127 Bcf. Early market chatter is looking for a delivery in the high 150s Bcf. In light of these updates, we venture the probability of finishing this season above the EIA's forecast (STEO) of 1.535 Tcf plunged from 75% to 50%.

Prices

The NYMEX summer strip for 2021 peaked at a 52-week high of \$3.033/MMBtu at the end of October. Over the next five weeks the market traded with a strong bearish skew, falling on average by 0.76% per session and bottoming on Monday, December 07th at a five-month low of \$2.505. However, over the last week the bulls have stormed back, rallying on average by 1.48% per session. On Wednesday of this week the strip settled at a twoweek high of \$2.776.



Over the last month we have seen considerable weakness in the end-of-winter March-21/April-21 spread with March closing at a discount to April in seven of the last eight sessions.

Gas for next winter has also found new life. The NYMEX 2021-22 winter strip peaked at the beginning of November at a 52-week high of \$3.236/MMBtu but, the strip fell on average by 0.61% per session over the next five weeks and bottomed two Mondays ago, December 07th, at a four-month low of \$2.793/MMBtu.

The trend in the discount (contango) on summer gas to next winter has narrowed over the last two weeks by an average of 0.31% per session, narrowing from -\$0.259/MMBtu to -\$0.243/MMBtu. Nevertheless, the market is till pricing in weaker fundamentals for 2021.

