

US NATURAL GAS: WAITING FOR FIREWORKS

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“(All down the line.) We’ll be watching out for trouble, yeah.”

The Rolling Stones, “All Down the Line”

CONCLUSION

NYMEX natural gas (nearest futures continuation) probably will remain in a sideways trend between 2.40/2.50 and 3.20/3.45 over the next few months. However, United States natural gas inventories from the days coverage perspective (stocks relative to consumption) are much lower than the historical average. Suppose economic growth remains moderate and that commodity prices in general (and those in the petroleum complex in particular) do not collapse. This natural gas inventory situation, assuming it persists, makes it probable that the marketplace eventually will ascend over 3.20/3.45 toward major resistance around 4.00/4.10. The most likely achievement of a flight to 4.00/4.10 is around winter, whether that of winter 2018-19 or thereafter. A colder than normal winter (or even belief such will occur) boosts the chances of such a spike. If widespread expectations of upcoming massive US natural gas production increases are disappointed, that also likely will rally prices above 3.20/3.45 and toward 4.00/4.10.

Over the past year or two, the natural gas industry probably has shifted toward a lower level of desired (“appropriate”, “reasonable”, “normal”, “prudent”, “sufficient”) stock holding relative to historical averages. Why? One factor probably is faith that calendar 2018 (and subsequent) gas production will remain far over that of calendar 2017. So many players probably believe there “always (or almost always) will be enough gas around”. Another variable likely encouraging lower inventory in days coverage terms is the substantial expansion of America’s pipeline infrastructure. Thus it has (will) become easier to move sufficient gas to many locations where it is needed. Moreover, the growing share of renewables in total US electricity generation arguably to some extent reduces the amount of necessary natural gas inventories.

These structural changes in the US natural gas marketplace apparently have shifted the natural gas inventory management approach to more of a “just in time” (lower inventories) relative to a “just in case” (higher stockpiles) method.

However, the natural gas inventory situation nevertheless appears somewhat bullish. Even if the “reasonable” level of industry holdings of natural gas inventories has tumbled relative to historical benchmarks in days coverage by a few days, prospective levels for October 2018 and October 2019 nevertheless appear “low” relative to “normal” totals, particularly from the perspective of the winter stock draw period.

Arguably many natural gas marketplace participants are overly complacent regarding the availability of supplies, particularly in periods of high demand. Imagine a colder than normal winter. Emerging worries that available supply (whether in days coverage or arithmetical terms) is or may be tight can inspire heated scrambles to procure it.

Energy Information Administration (“EIA”) statistics indicate that calendar 2019 US liquefied natural gas (LNG) net exports will be substantial (notably higher than net LNG exports in 2017

and 2018). This net foreign demand for LNG will tend to tighten the US inventory situation. Also note that in calendar 2017 and 2018, America was a net importer of natural gas via pipeline; in calendar 2019, the US becomes a net exporter via pipeline.

US NATURAL GAS INVENTORIES: AN OVERVIEW

In the following analysis of US working gas inventories, bcf levels are from the Energy Information Administration. Recent bcf history and estimates come from its Short-Term Energy Outlook, (“STEO”, Table 5a, 6/12/18, next release 7/10/18).

Detailed historical analysis of working natural gas inventories enables audiences to ascertain the degree of tightness in America’s overall supply/demand situation. Although arithmetical (bcf) levels are important, review from the days coverage perspective generally provides greater insight. After all, supply and demand levels in commodity playgrounds can evolve over time, sometimes significantly. For US natural gas, compare calendar year 2015’s 75.3bcf/day consumption with 2005’s 60.3bcf/d. US demand in calendar 2018 reaches 79.6bcf/day, up 7.2 percent from 2017’s 74.2bcf/d. However, the EIA predicts calendar 2019 consumption will remain about unchanged versus 2018, at 79.4bcf/day.

One can define labels such as supply, demand, and consumption in various ways. Keep in mind that the EIA’s summary of actual “consumption” deals only with that within the United States. Its LNG and pipeline import and export data appear in the “supply” section. Thus growing net exports, if added to the actual American consumption, thus can show a greater “overall” demand number for US-sourced natural gas. Growing net exports also can reduce the absolute total of natural gas output available for US inventories.

However, the days coverage perspective of course does not provide a complete viewpoint on the natural gas inventory situation and related price risks. So fundamental considerations related to days coverage should be interpreted alongside arithmetic quantities (bcf). After all, arithmetic quantities (bcf) of gas are placed in storage locations with arithmetic capacity; inventory shortage problems or containment issues (oversupply relative to arithmetic storage capacity availability) reflect arithmetic levels.

It is a matter of opinion whether a given natural gas inventory, supply, or demand level is high, low, or normal (average; sufficient). Viewpoints as to whether a given natural gas price is high (or too high), low (too low), or average (normal; reasonable, rational) likewise reflects subjective perspectives.

END WINTER 2017-18 DRAW SEASON: MARCH 2018 NATURAL GAS STOCKS

In the following discussion regarding and tables for US end calendar March working gas inventories, the indicated “year” for a given March derives from the calendar year of the preceding October. Thus the 2473bcf (in actual calendar March 2012) noted for the 2011 “year” is from the end October 2011 to March 2012 winter draw season. This table extends through winter 2017-18 (includes March 2018’s 1389bcf inventory).

Long Run (1990-2017) Long Run (1990-2017)
End Calendar Month End Calendar Month
Arithmetic (Bcf) Days Coverage
Average Average

March 1411 22.3

	<u>Season Highs (Year)</u>		<u>Season Lows (Year)</u>	
	<u>(Bcf)</u>	<u>Days Cover</u>	<u>(Bcf)</u>	<u>Days Cover</u>
<u>March</u>	2486 (2015)	33.2 (2015)	730 (2002)	11.6 (2002)
	2473 (2011)	36.9 (2011)	742 (2000)	11.6 (2000)
	2063 (2016)	36.4 (1990)	857 (2013)	12.0 (2013)
			758 (1995)	12.5 (1995)

[For any given arithmetical bcf level, demand matters in the days coverage context. For example, the March 2016 bcf total represented about 27.5 days coverage, modestly above average but not by a massive amount. The 36.4 days coverage for 1990 derived from inventory of 1912bcf.]

March **Medium Run (2006-2017)**
End Calendar Month
Days Cover Average
24.7 days (2.4 days greater than 1990-2017's time span)

End March 2018 gas inventories of 1389bcf were about average relative to the 1990-2017 long run vantage point.

However, March 2018's 1389bcf stockpile is bullish. Its 18.7 days coverage (1389bcf/74.2 calendar year 2017 consumption) stands 3.6 days beneath 1990-2017's average and six days under 2006-17's. Note the rally in NYMEX natural gas (nearest futures continuation) from 2.530 (2/15/18) and 2.565 (3/26/18).

THE 2018 BUILD SEASON

For the week ending 6/22/18, United States working gas in underground storage (Lower 48 states; EIA) was 2074bcf, slumping 735bcf and down 26.2 percent relative to the prior year week. Relative to the five year average of 2575bcf for this time, 6/22/18 nosedived 19.5pc.

Long Run (1990-2017) Long Run (1990-2017)
End Calendar Month End Calendar Month
Arithmetic (Bcf) Days Coverage
Average Average

October 3381 53.5

	<u>Season Highs (Year)</u>		<u>Season Lows (Year)</u>	
	<u>(Bcf)</u>	<u>Days Cover</u>	<u>(Bcf)</u>	<u>Days Cover</u>
<u>October</u>	4013 (2016)	66.0 (1990)	2732 (2000)	42.9 (2000)

3942 (2015)	60.7 (2009)	2810 (1996)	45.5 (1996)
3929 (2012)	58.4 (2010)	2886 (1997)	46.3 (1997)
3851 (2010)			

[Again, focusing primarily on the arithmetic bcf level only tells part of the story regarding so-called oversupply (or undersupply). The 2016's arithmetic record for end October equaled 53.4 days coverage, an about average total. Days coverage for end October 2015 represented 52.7 days, with 2012's days cover at 56.3 days.]

October **Medium Run (2006-2017)**
End Calendar Month
Days Cover Average
55.0 days (1.5 days more than the 1990-2017 time span)

The EIA forecasts working natural gas inventories will ascend to 3531bcf at end October 2018 (STEO, Table 5a). Relative to calendar year 2018 consumption of almost 79.6bcf/day (up 7.2 percent year-on-year), days coverage at the close of the 2018 build season will be about 44.4 days (3521bcf divided by 79.6bcf/day)

Even allowing that the desired level of industry coverage for end October arguably has fallen significantly from 53.5 or 55.0 days, it is unlikely that reasonable (normal, typical, desired) levels have plummeted by a huge total (9.1/10.6 days). All else equal, end October 2018's 44.4 days coverage level is bullish. It stands 9.1 days beneath 1990-2017's end October 53.5 days coverage average and craters 10.6 days beneath 2006-17's 55.0 days. Moreover, the 44.4 day total hovers in the range of all-time lows. Also compare October 2017 stocks of 3816bcf, or about 51.4 days cover.

End November inventories from 1990-2017 average 3278bcf and 51.8 days coverage. They average a draw of about 103bcf.

Sometimes US natural gas inventories accumulate a bit more into calendar November. Over the calendar 2000 to 2017 period, end November stocks have exceeded those of end October three times. Recall 2001 (end October's 3144bcf to end November's 3254bcf, up 110bcf), 2009 (3810bcf to 3837bcf, up 27bcf), and 2011 (3804bcf to 3843bcf, a 39bcf rise).

EXPLODING SUPPLY

The EIA's data signals a natural gas production explosion in the recent past and over the next several months. Let's perform year-on-year quarterly comparisons for US total dry gas production.

Second quarter 2018 supply of about 81.3bcf/day skyrockets 12.9 percent over 2Q17's 72.0bcf/day. Third quarter 2018's 82.1bcf/d balloons 10.9pc beyond 3Q17's roughly 74.0bcf/d. As for 4Q18, its 82.8bcf/d shoots 7.6pc above 4Q17's 77.0bcf/d. And 1Q19's 83.7bcf/d output parades 6.6pc past 1Q18's 78.5bcf/d. On a full calendar year basis, 2018's 81.2bcf/day soars 10.4pc over 2017's 73.6bcf/d. Calendar 2019's ascent to nearly 83.8bcf/d is relatively modest, up 3.2pc against calendar 2018's height.

Production estimates and actual output for calendar 2018 and thereafter obviously in part depend on price, not only on drilling productivity. The June 2018 STEO (Table 2) projects the Henry Hub spot natural gas price will average \$2.99/mmbtu in calendar 2018 (the same as in calendar 2017), The estimate for calendar 2019 is \$3.08.

In the output context, monitor natural gas production levels and decline rates for natural gas from legacy (older) wells. See the EIA's "Drilling Productivity Report".

Canada's natural gas output has been abundant. Estimates for Canadian marketable natural gas production for full calendar 2018 suggest about a 5.5 percent year-on-year boost (National Energy Board, 7/1/18).

SUMMER BUILD 2018: FORECAST AND COMPARISON

The EIA predicts a 2142bcf stock build from end March 2018 to end October 2018 (1389bcf to 3531bcf). April 2018's working gas inventory is 1413bcf (17.8 days cover relative to full calendar year 2018 demand of 79.6bcf/d), May 2018's is 1837bcf, with June 2018's estimated at 2223bcf. The build from April 2018's 1413bcf to end October 2018 is 2118bcf.

History suggests that high (low) inventory levels at end-winter probably inspire smaller (larger) builds. The 2014 build season saw a gigantic 2730bcf climb from end March's 857bcf to end October's 3587bcf.

The 1990-2017 average inventory build from end April to end October is 1789bcf, or 28.4 days coverage. For the past dozen years 2006-17, the average stock increase from end April to end October is 1826bcf, or 26.8 days coverage. The 2118bcf build, though above the historical average from the arithmetical standpoint, is slightly below average from the days coverage perspective. The estimated 2118bcf build from end April 2018 to end October 2018 adds 26.6 days coverage relative to calendar 2018 demand (2118bcf/79.6bcf per day).

Suppose marketplace luminaries add the typical 1990-2017 days cover build of 28.4 days to April 2018's 17.8 days of coverage. Then end October 2018 inventories will be 46.2 days, still significantly below average. If a guide adds 2006-17's average increase of 26.8 days cover to April 2018's total, end October supplies equal 44.6 days coverage. These are very low days coverage levels for end October.

Over the 1990 to 2017 time horizon, what were lofty and low builds in days coverage for the end April to end October period?

High Days Cover Builds

36.7 (2003)
35.3 (2001)
34.6 (2014)

Low Days Cover Builds

18.2 (2016)
18.9 (2012)
20.5 (2017)
23.1 (2002)

[Alternatively, look at build history from end March through end October. The average end March to end April build from 1990-2017 is about 2.2 days, with that from 2006-17 is about 2.7 days.

Thus the average days coverage build from end March to end October over the 1990 to 2017 period is about 30.6 days (2.2 plus 28.4), with end March to end October over the 2006-17 span expanding about 29.5 days (2.7 plus 26.8). Take the 2006-17 horizon as the yardstick. Assuming end March 2018 days coverage of 18.7 days, average days coverage expansion of 29.5 days will leave end October 2018 working gas inventories at about 48.2 days coverage, still significantly below the historical average.

Suppose calendar 2018 consumption is as the EIA predicts, about 79.6bcf/day. If days coverage grows by 29.5 days, then 29.5 days times roughly 79.6bcf/day creates a 2348bcf inventory gain. Add 2348bcf to the EIA's 1389bcf end March 2018 height. This hypothetical 3737bcf inventory is 46.9 days cover.]

The EIA estimates the demonstrated maximum working gas storage volume for the lower 48 states. It defines this as the sum of the highest storage inventory levels of working gas observed in each storage reservoir over the previous five year period.

Demonstrated underground maximum working gas capacity in the Lower 48 states as of November 2017 was 4343bcf ("Underground Natural Gas Working Storage Capacity"; 3/30/18, next release March 2019). This slipped about one percent from November 2016's 4363bcf capacity. Based upon the EIA's anticipated inventories for the end of build seasons 2018 and 2019, the US probably will not face containment problems in either year.

NATURAL GAS STOCKS IN MARCH AND OCTOBER 2019

Steppenwolf sings in "Born to Be Wild":
"Get your motor runnin'
Head out on the highway
Looking for adventure
In whatever comes our way".

The future for 2019 is murky. Obviously much can happen between now and then. The EIA predicts United States consumption of 79.6bcf/day in calendar 2018, with calendar 2019's 79.4bcf/d essentially flat relative to this.

Suppose end March 2019 working gas inventory is the EIA's predicted 1542bcf (STEO, Table 5a). Relative to full calendar year 2018 demand of about 79.6bcf/day, that represents 19.4 days coverage. This is 5.3 days under 2006-17's 24.7 day end March average, and is 2.9 days below 1990-2017's long run vista of 22.3 days.

The EIA states end October 2019 inventories will be 3563bcf. Natural gas days coverage at end October 2017 will be about 44.9 days coverage (3563bcf divided by 79.4bcf/day). Such end October 2019 days falls a monumental 10.1 days under the 1996-2017 end October average of 55.0 days and 8.6 days beneath 1990-2017's 53.5 day average.

These days coverage levels (especially for October 2019) are bullish relative to historical measures. Even though the natural gas industry probably has cut its desired levels of days coverage to some extent, the October 2019 natural gas situation appears about as bullish as that for October 2018.

Yet look at rather low prices (given these anticipated inventories) of several NYMEX natural gas outer month calendar strips and years. Distant month price levels and trends seemingly do not reflect such bullish inventories. Does some of the relative weakness in those marketplaces reflect hedge selling from producers? Potential buy-side hedgers, in contrast, given anticipated natural gas production gains (and pipeline building and a growing role for power supplies from renewable sources), may be less inclined to establish forward pricing.

PIPELINE EXPANSION; GROWTH IN RENEWABLES

Pipeline expansion probably is one key reason for a decline in US industry target levels for appropriate (adequate) natural gas inventory in days coverage terms.

According to the EIA's "Today in Energy" ("Northeast region slated for record natural gas pipeline capacity buildout in 2018"; 5/18/18), "EIA expects construction of new natural gas pipeline capacity in the United States to continue in 2018, in particular in the northeastern United States. By the end of 2018, if all projects come online by their scheduled service dates, more than 23 billion cubic feet per day (Bcf/d) of takeaway capacity will be online out of the Northeast, up from an estimated 16.7 Bcf/d at the end of 2017 and more than three times the takeaway capacity at the end of 2014." Much of the pipeline capacity buildout, has aimed at and will continue to focus on supplying natural gas to the Midwest demand market. However, as new pipeline projects come online, they also create outlets for increased production into the Southeast and eastern Canada.

Another reason for a slide in the desired (reasonable) level of days coverage likely relates to the growth of the renewable energy universe. The share of the renewables field (hydropower, wind, solar, etc.) as a percentage of US electricity demand (all sectors) has grown in recent years (based upon statistics in Table 7d of the June 2018 STEO). The 2014 share stood at about 13.2 percent, with that of 2015 at 13.4pc. Renewables took 15.0pc of electricity demand in 2016 and grabbed 17.1pc in 2017. The EIA data implies a 17.1 percent share for renewables in 2018 as well, edging up to 17.4pc in 2019.

THE EXPORT SCENE: LNG AND PIPELINES

Those counting on sufficient natural gas supply availability not only are probably overly complacent regarding the adequacy (especially during winter draw season) of anticipated days coverage levels. They also arguably are underestimating the implications of increased net LNG exports for the inventory situation.

US liquefied natural gas exports trends are slashing the potential inventory available to the US marketplace, and thus diminishing (all else equal), arithmetic and days coverage inventory totals. Climbing net LNG exports are a significant longer run bullish variable for America's natural gas arena. EIA data reveals net LNG exports of about 1.7bcf/day in calendar 2017, rising to over

2.7bcf/d in 2018 and jumping to almost 4.9bcf/d in 2019 (4Q19 net LNG exports reach almost 6.4bcf/d). The net shift (net increase in exports) of about 3.2bcf/day from calendar 2017 to calendar 2019 represents a substantial amount of supply (output), about 1168bcf (365 days*3.2bcf/d).

On the pipeline front, America was a net importer of about 1.4bcf/day of natural gas in 2017. The EIA forecasts net imports via pipeline will fall to about .8bcf/d in calendar 2018. However, in calendar 2019, the US becomes a net exporter of about .6bcf/d. From 2017 to 2019, this change of about 2.0bcf/day represents a notable diminution of supply to (within) the US natural gas marketplace.

NATURAL GAS SUPPLY/DEMAND, CONTINUED

Baker Hughes data reveals the collapse of petroleum rotary rig counts in the context of the oil price crash and the fall in United States crude oil production. According to the EIA (June 2018 STEO, Table 4a), Lower 48 crude oil output (excluding the Gulf of Mexico) peaked at 7.7 million barrels per day in March 2015 (compare 4.3mmbd of March 2012). It spiraled down to 6.5mmbd in December 2016. The Baker Hughes United States oil rotary rig count on 5/27/16 touched 316, the low for the oil rig trend. That nosedived 80.4 percent from the 1609 peak on 10/10/14.

NYMEX crude oil made a major bottom on 2/11/16 at \$26.05 (\$26.19 on 1/20/16). As prices rallied, the US oil rig count raced up to 863 on 6/15/18 (6/29/18's is 858). In December 2017, Lower 48 crude output reached over 7.9mmbd. The EIA estimates June 2018 production at almost 8.6mmbd; it forecasts December 2018 production will reach 9.1mmbd, with 2019's leaping up to 9.7mmbd.

What about US natural gas? Gas drilling (via fracking, especially) has become more productive, so fewer rigs are producing more supplies.

Rotary gas rigs at end year 2011 were about 810, end 2012 430, and end 2013 almost 375. Note the slump in natural gas rigs since 11/7/14's 356 rigs; recall the interim price top in NYMEX natural gas nearest futures at 4.544 on 11/10/14. The 3/7/14 total, close to 2/24/14's major price pinnacle at 6.493, was 345. As of 8/5/16, a few months after the 3/4/16 major low in NYMEX natural gas at 1.611, there were only 81 gas rigs, a 77.2 percent plunge relative to 11/7/14. However, natural gas rig totals flew up to 200 as of 5/18/18 (187 on 6/29/18).

According to the June 2018 STEO, in recent months natural gas has remained the leading fuel for power generation. In 2017, natural gas supplied 32 percent of total US electricity production at utility scale power plants. The EIA predicts the gas share will reach 34 percent in 2018 and 2019. Coal's 30 percent share in 2017 dips to 28pc in 2018 and 2019.

Coal retirements continue, which should fortify natural gas demand. If natural gas prices travel lower, maybe there will be further switching to gas from coal.

American electricity consumption in calendar 2017 was 10.47 billion kilowatt hours/day. For 2018, the June STEO predicts 10.68 bbkwh/d electricity demand (Table 7a). The EIA expects 2019's to be flat, at 10.69 bbkwh/d.

“TECHNICAL” FACTORS

Interpretation of natural gas price history can venture beyond the NYMEX nearest futures continuation contract. Wall Street trend seekers may elect to review individual actual contract months (such as the NYMEX October 2018 natural gas futures contract). Marketplace gazers may analyze several trading months of a gas season (such as the NYMEX winter 2018-19 and summer 2019 strips), calendar years (like the calendar 2020 strip of contracts), spreads (such as NYMEX October 2018/January 2019 or March 2019/April 2019), prices in other regions than the NYMEX realm, and basis relationships. Marketplace players can derive insight into and tell tales regarding natural gas domains and their past, present, and potential bull and bear patterns by analyzing electricity, coal, petroleum, and other financial battlefields, as well as assorted additional economic and political phenomena. In natural gas as in other territories, supply/demand investigation can intertwine with so-called technical analysis.

What are significant support and resistance levels for NYMEX natural gas (nearest futures continuation basis)?

Major support sits at 2.40 to 2.50. Note the six notable lows in the past two years around 2.50: 8/12/16's 2.523, 11/9/16's 2.546, 2/22/17's 2.522, 12/21/17's 2.568, 2/15/18's 2.530, and 3/26/18's 2.565. The 1/8/16 interim top was 2.495. A fifty percent rally from 3/4/16's major low at 1.611 is 2.417. The major bottom of 9/4/09 was 2.409.

Support beneath this is at 1.90 to 2.00. A fifty percent fall from the 12/28/16 major high at 3.994 is 1.997. A price gap lurks around 2.00 (5/26/16 high 1.985, 5/27/16 low 2.101). The 4/19/12 major trough was 1.902.

Important resistance for NYMEX natural gas hovers at 3.20 to 3.45. Double the 3/4/16 major bottom of 1.611 gives 3.222. Recall the price drop-off points of second half 2017: 9/19/17's 3.166, 11/13/17's 3.231, and 11/29/17's 3.218 (they average 3.205). A key price gap emerged in January 2018: 1/29/18's low 3.297, 1/30/18's high 3.259. A twenty percent fall from 3.994 (12/28/16) is 3.195. A fifty percent fall from the 2/24/14 pinnacle at 6.493 equals 3.247. Recall the interim highs of 3.366 (10/13/16) and 3.431 (5/12/17).

A substantial barrier looms around 3.60 to 3.70. Recall the price gap after the late December 2016 peak around 4.00; the 12/30/16 low was 3.690, the 1/3/17 high 3.568. The 1/29/18 high at 3.661, which ended the ferocious rally from 12/21/17's low at 2.568, did not completely fill that gap.

The 4.00 to 4.10 range represents major resistance for NYMEX natural gas (nearest futures continuation). Not only was 12/28/16's 3.994 summit the start of a significant price drop. There is an unfilled price gap from the 4.075 low on 11/28/14 to the 4.041 high on 12/1/14. Also, four times the all-time low for natural gas equals 4.08. A 150 percent rally from 1.611 (3/4/16) gives 4.028. A fifty percent retracement from 6.493 (2/24/14) to 1.611 (3/4/16) is 4.052.

For trend direction and timing, watch NYMEX intramarket spreads alongside flat (outright) NYMEX natural gas price moves. For example, the March 2019 less April 2019 spread has significant resistance around .40 to .42 (backwardation) and important support around .24 to .25.

The NYMEX winter 2018-19 calendar strip attained plateaus at 3.225 on 10/23/17, 3/142 on 1/30/18, and 3.159 on 6/18/18. It currently rests around 3.00. Such price heights admittedly do not indicate substantial concern about inventory availability during winter 2018-19. The winter 2019-20 calendar strip high was 11/6/17 at 3.058, with recent levels fairly distant from that summit. The calendar year 2020 strip's price recently has meandered around the mid-260s, as has that of the calendar 2021 strip. Such price levels (note also the long-running downward trends in the calendar 2020 and 2021 strips) hint that the desired (target) days coverage level for US natural gas inventories has fallen relative to historical averages.

However, fireworks can erupt fast in natural gas. End October 2017's US natural gas stocks stood at 3816bcf, or about 51.4 days coverage. Recall the entrancing rapid price blast-off of 42.6 percent from 2.568 (12/21/17) to 3.661 (1/29/18).

One should not be dogmatic about calendar month timing regarding major trend shifts. But marketplace history can offer guidance.

Several major natural gas lows appeared in late August and calendar September. Recall 8/27/98 at 1.61, 9/26/01 at 1.76, 9/22/03 at 4.39, 9/16/04 (final bottom) at 4.52, 9/27/06 at 4.05, and 9/4/09's 2.409. See also the 1.735 valley on 9/5/96.

With the exception of a top over 20 years ago (9/23/92 at 2.79), highly significant summits have not occurred in this August/September calendar period window.

Major bottoms generally have not occurred in early August. An important trough occurred over 25 years ago at 1.396 on 8/1/90. However, there have been a few notable interim lows in recent years. For example, the 8/8/13 low at 3.129 was very significant (it matched 2/15/13's 3.125 level and approached 1/2/13's 3.050); prices eventually peaked at 6.493 on 2/24/14. For the past two summers, keep in mind the 8/12/16 interim trough at 2.523 and 8/4/17's minor low at 2.753.

So suppose NYMEX natural gas (nearest futures continuation) prices drift lower from current levels. Marketplace timing history indicates the potential for an uptrend to start (or resume) in calendar August or September.

Natural gas prices often travel substantially independently of both petroleum (and commodities "in general") and so-called "international" or "financial" marketplaces and variables. Trend changes in NYMEX natural gas need not roughly coincide with one in the petroleum complex or commodities in general, or currency, stock, or interest rate playgrounds.

Nevertheless, bullish and bearish natural gas price movements at times have intertwined with those in the petroleum complex (and commodities in general).

The CFTC's Commitments of Traders is sometimes a helpful indicator for predicting (or confirming) significant trend changes and travels in natural gas marketplaces. Review the benchmark NYMEX and ICE natural gas contracts (futures and options combined) plus the NYMEX European look-alike options contract. In the natural gas complex, sometimes (but not always) key highs and lows in price occur alongside notable levels in the net noncommercial position.

The current net noncommercial position in natural gas is neutral in its price implications. As of 6/26/18, the net noncommercial long position (“NCL”) was only about 28,000 contracts (merely .9 percent of total open interest). Compare the net NCL of 292m (9.1pc of total open interest) on 9/19/17 and 381m on 5/16/17 (the net NCL of 5/16 and 5/23/17 had a record 10.6pc of total OI). However, the current net NCL represents a modest shift from 5/8/18’s net noncommercial short total of about 53,000 contracts. (1.7pc total OI).

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