

US NATURAL GAS- THERE HAS BEEN AND WILL BE BLOOD

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In the movie “There Will Be Blood”, we hear: “So, ladies and gentlemen...if I say I’m an oil man you will agree. You have a great chance here, but bear in mind, you can lose it all if you’re not careful.” (Paul Thomas Anderson, director)

BACK ON THE RANGE

What is the outlook for NYMEX natural gas prices (nearest futures continuation)? Even though current natural gas oversupply is substantial and will remain so for at least a few more months, the long run bear trend probably ended with the 1/23/12 low around 223. Admittedly, warmer than normal weather for the balance of this winter may inspire an attack on or even a slight breach of the January bottom. However, production cutbacks and higher demand gradually will erode much of the mountainous oversupply and help to ignite a rally.

Suppose announced production cuts motivated by prices crashing under 275 or so do not substantially materialize. Then first quarter 2012 lows may be challenged in late August/calendar September 2012. Regulatory issues, fuel switching, economic growth, anticipated drilling rates, weather issues, oil price levels, long run gas export potential, and alternative “investment” in commodities complicate predictions and boost the likelihood of violent price swings.

Prices should oscillate within a broad range for quite some time. With support at 200/225, where is resistance? Look at 320/335, then 360/370 and 405/415. Above that loom 460 and 500/520. A band from around 200/225 to 500/520 admittedly seems very wide. Yet although 2012 is not 2009/10, recall that prices blasted much higher in a bull campaign lasting only four months, from 9/4/09’s 241 to 1/7/10’s 611. A foray up to the middle section of the broad range, 360 to 415, over the next several months is likely.

US NATURAL GAS INVENTORY: DRAWING CONCLUSIONS

What will United States natural gas inventory days coverage be at end calendar March 2012? The EIA’s Short-Term Energy Outlook (“STEO”; 1/10/12; Table 5a) forecasts 1990bcf end March 2012 working gas inventory. That will represent about 29.7 days coverage (1990bcf divided by calendar year 2011’s about 66.9bcf per day average daily consumption). This is a very bearish quantity, for it towers 8.2 days above the 21.5 day end March average (1990-2010). The average end March inventory is 1289bcf. Prior record highs in arithmetic terms for end March were 1692bcf in 2005 and 1912bcf way back in 1990. Anticipated end March 2012 stocks jump over these heights. From the days coverage perspective, they break above 2005’s 28.1 day summit, though they lurk well below 1990’s ancient history of 36.4 days.

Warm weather may boost these anticipated end March 2012 levels. This obviously would make the bearish tale more so.

What about natural gas inventories at end October 2012, toward the end of build season? What about at the end of next winter’s draw season? Weather, production cutbacks, and other factors may induce the EIA to alter its January 10, 2012 STEO viewpoints

Anyway, the EIA's January STEO predicts (p7) end October 2012 natural gas inventories of 3960bcf, with those at end 1Q13 at 1899bcf (Table 5a). The STEO estimates America's calendar 2012 consumption at just over 68.2bcf/day. So days coverage will be around 58.0 days at end October 2012, with end March 2012's at 27.8 days.

However, suppose announced production cuts (on 1/23/12, the day of the NYMEX nearest futures low, and after the STEO report) by a key American natural gas producer (Chesapeake) of .5bcf/day are enacted. All else equal, then US natural gas inventories will fall relative to STEO predictions. Perhaps other firms will imitate this key producer.

Warnings remain for marketplace gunslingers. If prices rally substantially, not all such announced cuts may occur or stay in place for an extended period. Also note that Chesapeake said it will reallocate capital savings from reduced dry gas drilling to liquids-rich opportunities. Yet production reduction may be greater if prices resume their murderous fall toward (and especially under) 200/225. Chesapeake threatened a chop of up to 1.0bcf per day "if conditions warrant".

Nevertheless, though production cut totals and other considerations make October 2012 and March 2013 inventories conjectural, suppose .5bcf/day is eliminated as of the beginning of February 2012. Sustain this for nine months, through October 2012. That will lower US production by about 135bcf (nine months *30 days*.5bcf/day). In this scenario, closing October 2012 inventories, all else equal, will be around 3825bcf (the EIA's original 3960bcf less 135bcf). Relative to forecast full year 2012 calendar year demand, US inventories will have days coverage of about 56.1 days (3825/68.2).

The end October average inventory (for 1990 through winter 2010/11) was 3227bcf and 53.6 days coverage. Including end October 2011's roughly 3809bcf (interpolation from EIA weekly statistics); gives average inventory at end October (from 1990 through build season 2011) of 3253bcf and 53.7 days of coverage. Record plateaus for end October are 3847bcf (2010) and 60.9 days coverage (2009; 66.0 days in 1990). October 2011's 3809bcf equaled 56.9 days of coverage.

Thus if production cuts of about 135bcf occur (and assuming normal weather for the balance of this winter and thereafter), inventories at end October 2012 will be only around 2.4 days above average (56.1 less 53.7 days). In addition, they will be beneath October 2011's 56.9 days of coverage, when the NYMEX nearest future price was a fair amount higher than very recent low levels. Recall the picture shortly before the final round of carnage: the 10/31/11 high was 398, the 11/18/11 low 329.

Moreover, if end October 2012 inventories are 56.1 days, they will be deep beneath the massive 60.9 days coverage of October 2009. Thus NYMEX nearest futures continuation prices probably will sustain levels above that of 9/4/09's 241 abyss.

When one underlines the substantial growth in US natural gas consumption since calendar 2009, the anticipated "high" level of October 2012 stocks appears less lofty. Calendar 2009 consumption was 62.6bcf/day, so calendar 2011's 66.9bcf/day stretches about 6.9 percent over this. The EIA anticipates US consumption ascends nearly two percent more in 2012 to over 68.2bcf/day, or nearly nine percent over calendar 2009. According to the EIA, 2013 natural gas consumption will edge higher to 69.1bcf/d. And even using the unadjusted EIA January 2012 STEO estimate, end October 2012 days coverage around 58.0 days slips under the October 2009 record.

What about March 2013 natural gas stockpiles? Let's adjust upwards the long run 21.5 day end March average (from 1990-2010) to 21.9 days to include anticipated March 2012 totals (based on the January 2012 STEO estimate for end March 2012). The average bcf level for end March correspondingly rises to about 1321bcf.

Suppose end October 2012 inventories are around 3825bcf. Thus judges should reduce the EIA's STEO forecast for the March 2013 level by 135bcf to account for recently declared production cuts. Thus end March 2013 stocks slide to 1763bcf (1899 less 135bcf), or about 25.8 days coverage. Although this revised March 2013 days coverage is almost four days above the long run end March average (25.8 less 21.9 days), it is substantially beneath end March 2012's probable 29.7 days coverage (and March 2012's 1990bcf inventory). Though four days above average is bearish, it is a lot more bullish than eight days above average.

But there may be more production cuts than these. Assume the .5bcf/day production cut continues through March 2013. Another 75bcf in inventory disappears (five months, from November through March, 30 days per month). **If American natural gas stocks at end March 2013 are 1688bcf (1763-75bcf), they will represent 24.7 days coverage, or only 2.8 days above average.**

Thus- and quite significantly in relation to its time and price (technical analysis) context- the US natural gas oversupply situation probably- and gradually- becomes less burdensome once the 2011/12 winter departs and time passes.

What are ground floor levels for US natural gas inventory and days coverage at end March? The 1990 through winter 2010-11 record trough was 2002's 730bcf and 11.6 days of coverage. For the 2000 season, end March coverage also was 11.6 days, with inventory at 742bcf. In third place arrives 1995's 758bcf and 12.5 days.

As winter season 2011/12 marches toward its conclusion, high gas inventory may induce some commercial inventory owners in some regions to fight to reduce their stocks for accounting purposes. This could pressure prices in some regions in the near term.

Suppose US gas inventories during the 2012 build season climb to 3900-4000bcf. Will there be a containment problem this autumn? Probably not on a nationwide basis. However, some locations may confront difficulties. In theory there will be roughly 100 to 200bcf of space still available. Demonstrated peak working gas capacity as of April 2011 for the lower 48 states is 4103bcf (EIA, 8/31/11). Also, operators probably have built some more storage since April 2011.

Keep an eye on current high Canadian inventories and Canada's production trends.

Baker Hughes estimates that for the 1/27/12 week, 777 rigs were drilling in North America for natural gas. This is a 14.6 percent year-on-year dive. The Smith Bits count for US gas rigs shows a similar slump. For the 1/27/12 week, the 784 rigs are 13.4pc under the year-ago total. However, US drilling for oil inspired by very profitable crude oil prices probably has boosted associated natural gas production in some regions.

The EIA soothsayers claim 2012 US electricity demand will be 10.66 billion kilowatt hours/day, about flat with 2011. Demand rises 1.6pc in 2013. The share of electricity generation gathered by natural gas increases over the next two years, from 24.4pc in 2011 to 25.4pc in 2012 and 25.8pc in 2013. Coal's portion declines from 43.0pc in 2011 to 41.5pc in 2013.

How much recoverable shale gas is really out there? A very recent EIA study sharply cut its reserve ("unproved technically recoverable resource") estimates from those made a year earlier ("AEO [Annual Energy Outlook] 2012 Early Release Overview", 1/23/12, "Executive Summary"; pp3, 9). Note the related NYTimes article (1/29/12, p16).

IN THE SPOTLIGHT: MARKETPLACE TIME, PRICE, AND DISTANCE

"There was a consciousness always of the presence of his comrades about him. He felt the subtle battle brotherhood more potent even than the cause for which they were fighting. It was a mysterious fraternity born of the smoke and danger of death." Stephen Crane's Civil War novel, "The Red Badge of Courage" (chapter five)

What does draw season history reveal regarding the timing of major marketplace lows and highs (NYMEX nearest futures continuation basis)?

**November- one low, that of 11/24/99 (208; part of a double bottom with 1/15/00's 213); highs 11/26/90 (at 265), 11/30/06 (905).

**December- no noteworthy lows; important tops 12/21/95 (at 372), 12/20/96 (460), 12/27/00 (1010), 12/13/05 (1578; all-time high).

**January- major low 1/24/92 (102), 1/13/95 (125), 1/15/00 (213; see November), 1/28/02 (185; preceded by the 9/26/01 low at 176); tops 1/9/04 (763), 1/7/10 (611).

**February- troughs at 2/24/97 (168), 2/26/99 (163); summits 2/2/94 (269), 2/25/03 (1190)

**March- no noteworthy lows or highs.

Since March has had no significant price turns, odds favor any low to be achieved in January, February, or a much later month (as in late August or calendar September).

A low in calendar January is a strong possibility. Significantly, there have been four key bottoms in calendar January. The two highs that also occurred in January underscore the potential for trend change during that month.

Also, diagonal calendar timing (same month for the high and the low) exists for the adventurous trip from the calendar January 2010 high at 611 to a January 2012 low destination. The average timing for the four crucial calendar January lows is January 20, around the time of the 1/23/12 low at 223. Many major marketplace turns occur fairly close to contract expiration. The January 2012 low is within a few days of the 1/27/12 contract expiration.

Calendar February has had very important peaks and valleys. Thus history (as well as current sky-high inventory) warns that a lower low for NYMEX nearest is possible in February. However, it arguably will take sustained warm weather to produce one that breaches the January 2012 bottom by much (if at all). The March 2012 futures expire 2/27/12.

Did the price (NYMEX nearest futures continuation) fall “far enough” and “long enough” (over sufficient time) so that one can assert that a significant natural gas bottom probably was made in January (or will be made rather soon)? Yes.

Suppose one takes the 1/7/10 top at 611 as the starting point. The bloody tumble down to 223 is 63.5 percent and two years, a lengthy voyage in both price and duration terms. Or, suppose one dates the bear marketplace trend from 6/9/11’s 498. The precipitous fall of 55.2 pc over seven and a half months is a still-substantial bear move, though other natural gas collapses have been greater.

From a mean and standard deviation perspective (NYMEX nearest futures continuation), the January 2012’s 223 low point appears depressed. The mean since the 1/7/10 high to the end of last week is about 414, the mean less one standard deviation around 357, the mean less two SD 300, and the mean less three SD 243. The mean since the 6/9/11 elevation is 372, the mean less one standard deviation 319; the mean less two SD is 266, less three SD about 213. Such statistics of course do not prove that the price will not move lower.

The mean since the unveiling of natural gas futures trading over 20 years ago in 1990 is about 403. The mean since the 7/2/08 peak near 1369 (just before the worldwide economic crisis accelerated and commodities crashed) is 465, the mean less one standard deviation 314.

Suppose natural gas established a key low in calendar January 2012 (or does so in February 2012). Will there be a second noteworthy (or even lower) low later this year? Just because the marketplace fell off a cliff, that doesn’t mean it can’t eventually drop into a hole.

Much depends on the long list of supply demand factors, especially whether production cuts are extensive and sustained. However, several very important natural gas bottoms emerged in late August and calendar September. Recall 8/27/98 at 161, 9/26/01 at 176, 9/22/03 at 439, 9/16/04 (final depth) at 452, 9/27/06 at 405, and 9/4/09 at 241. With the exception of a top almost 20 years ago (9/23/92 at 279), notable highs have not occurred in this calendar period window.

Recollect that 2010’s initial low at 361 on 8/27/10 developed within this calendar time, although the final low was later (10/27/10). An average of the August and October 2010 periods gives late September 2010.

Suppose a rally commences in calendar January or February 2012. When might prices attain at least an interim top? Note the calendar June highs of both 2011 and 2010 (6/15/10’s at 519).

Suppose natural gas prices keep falling and falling. Where may support exist? Around 200 is one signpost. Double the all-time low at 102 gives 204. One-third of the 611 January 2010 peak is about 204. A ten percent break of the recently achieved 223 level is 201. Monitor mean less three standard deviation levels from the June 2011 peak.

Beneath this 200 stage inhabit some lows of a decade ago. Remember the double bottom at 176 (9/26/01)/185 (1/28/02). Lower lows occurred previous to these 2001/02 ones. One-third the June 2011 high is 166.

To assess the overall trend for the NYMEX natural gas complex, players should review more than the nearest futures continuation contract. To indicate that a sustained move to the bull side in the natural gas complex is underway, not only deferred natural gas months must strengthen, but so should important intramarket natural gas spreads. For example, analyze the March/April relationship for 2013, and later years. Increased backwardation in the March/April spreads would confirm a bullish price move.

Recent history indicates that a sustained decline (or rally) in US natural gas will be accompanied by a move in that direction “around that same time” by coal (Appalachian) and electricity (PJM).

Note the broad similarity in these various marketplaces around the 6/9/11 peak in NYMEX natural gas nearest futures. Recent lows in calendar 2012 suggest the current continuing linkage between (across) these battlefields.

*NYMEX natural gas (nearest futures continuation)- 498 (6/9/11); 223 (1/23/12)

*NYMEX natural gas, July 2012 actual contract- 513 (6/9/11); 264 (1/20/12)

*Natural gas, calendar 2013 strip- 550 (5/3/11, a bit earlier than nearest futures); 340 (1/19/12)

*NYMEX natural gas spread, March less April 2013- 27.6 cents backwardation (6/6/11; settlement basis); 3.3 cents backwardation (1/10/12)

*Natural gas spread, October 2012 less January 2013- about 43 cents contango (6/7/11); nearly 63 cents contango (1/17/12)

*Coal (Appalachian, NYMEX; settlement prices)- although the key peak on 1/3/11 at 8345 was followed by 4/26/11's at 7967, note the 6/13/11 high at 7912; also compare the timing of its high on 8/31/11 at 7708 with the nearest futures natural gas one on 9/1/11 at 413. Coal's recent low was 5935 (1/20/12).

*Electricity (PJM) July 2012 contract (settlement basis)- 67.7 (6/8/11; the high for the PJM 2012 calendar strip also was 6/8/11, at 56.6); July 2012's recent low was 45.9 on 1/19/12.

*Electricity, 2013 calendar strip of contracts- 57.7 (7/18/11); about 41.4 (1/19/12).