

“The following ten days were, as W. C. Fields said, ‘fraught with eminent peril’—and mad.” Jack Kerouac, “On the Road” (Part One, chapter 7)

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### **CONCLUSION AND OVERVIEW**

The probable avenue for the United States natural gas marketplace (NYMEX nearest futures continuation basis) for the next several months is a range between 2.15 and 3.40. The major bear trend that followed 2/24/14’s major peak at 6.493 attained a key bottom with 4/27/15’s 2.443 low. Was this a major low? Perhaps, but prices probably will challenge that level again and perhaps modestly break it over the next several months.

But why? After all, assuming normal weather, current and anticipated upcoming natural gas days coverage through winter 2015-16 tend to support prices, particularly in the context of NYMEX natural gas prices well under 4.00. Historical analysis indicates the bear trend from February 2014 to April 2015 travelled sufficiently far in price and duration terms to justify a shift to a neutral to bullish outlook. Also, the last prior major low, 1.902 on 4/19/12, likewise occurred in calendar April. Many key bottoms have occurred around contract expiration. In addition, many significant marketplace trend changes in natural gas (and petroleum) roughly coincide with very elevated net long or short noncommercial positions. From the historical perspective, the net noncommercial short position was very large around the time of April 2015’s low; the net noncommercial length likewise was substantial around the time of the February 2014 peak.

Natural gas prices often travel substantially independently of both petroleum (and commodities “in general”) and so-called “international” or “financial” factors. However, especially since mid-to-late June 2014 and into calendar 2015, bearish natural gas price movements have intertwined with those in the petroleum complex and the bull move in the broad real trade-weighted US dollar. The retreats since their spring 2015 highs in the commodities complex in general and petroleum in particular fit with similar slumps in natural gas. Petroleum likely will remain weak and the US dollar will remain strong for the near term, which will be bearish factors for American natural gas prices.

Quite a few marketplace observers believe the US natural gas marketplace will have massive inventories at the end of calendar 2016 build season (end October). This bearish perspective also weighs on prices. Although such oversupply probably will not occur (assume normal weather), such views are not unreasonable.

### **US NATURAL GAS INVENTORIES**

For the week ending 7/24/15, United States working gas in underground storage (Lower 48 states) was 2880bcf, up 586bcf and 25.5 percent relative to the prior year week. This year-on-year comparison, however, does not tell the whole story regarding inventory levels.

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 offers greater insight.

Nowadays, for calendar October (and for all other calendar months), the medium run span from 2006 to the present arguably better displays the normal (average) level of days coverage than the long run 1990-present vista. Why? The average level of natural gas industry stock holding probably shifted upwards beginning around 2006. One likely variable influencing this boost has been alternative investment in commodities, which reduces natural gas free supply. This reduction in free supply probably can have particularly significant consequences in low inventory situations around the finish of the winter draw season. See essays such as “US Natural Gas- a Winter’s Tale” (1/12/14), “US Natural Gas Inventory: the Producing Region Drawing Board” (12/16/13), and “US Natural Gas: Drawing Pictures” (11/25/13) on this issue.

However, the alternative investment situation is not the only relevant development regarding days coverage. The further explosive natural gas production boost in the past couple of years, particularly when viewed in the context of notable gas pipeline expansion/building (over that time span and looking forward), perhaps has shifted the natural gas industry’s desired level of days coverage downward to some extent. Greater output now (or relatively soon) will have (more) avenues of escape, so why should players keep as much inventory around?

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In the following discussion regarding and tables for US working gas inventories, bcf levels are from the EIA. Recent bcf history and estimates come from its Short-Term Energy Outlook, (“STEO”, Table 5a, 7/7/15, next release 8/11/15).

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### **END BUILD SEASON 2015**

The EIA’s prediction for end build season 2015 inventory situation, viewed “alone” and “all else equal”, looks mildly bullish for natural gas prices.

It forecasts working natural gas inventories will be 3919bcf at end October 2015 (STEO, Table 5a). Relative to calendar year 2015 demand of about 76.6bcf/day (up a sharp 4.2pc year-on-year), days coverage at the close of the 2015 build season will be about 51.2 days (compare October 2014’s 48.8 days coverage). Sometimes inventories build into calendar November, but they usually do not do so by much.

Let’s survey the 3919bcf stocks and 51.2 days coverage level for end October 2015 in historical context. Focus especially on the days coverage variable.

	<b>Long Run (1990-2014)</b>	<b>Long Run (1990-2014)</b>	
<b><u>October</u></b>	<b>End Calendar Month</b>	<b>End Calendar Month</b>	
	<b>Arithmetic (Bcf)</b>	<b>Days Coverage</b>	
	<b><u>Average</u></b>	<b><u>Average</u></b>	
	<b>3316</b>	<b>53.6</b>	
	<b><u>Season Highs (Year)</u></b>		<b><u>Season Lows (Year)</u></b>
	<b><u>(Bcf)</u></b>	<b><u>Days Cover</u></b>	<b><u>(Bcf)</u></b>
			<b><u>Days Cover</u></b>
<b><u>October</u></b>	3929 (2012)	66.0 (1990)	2732 (2000)
	3851 (2010)	60.7 (2009)	42.9 (2000)
			2810 (1996)
			45.5 (1996)

**October**      **Medium Run (2006-2014)**  
**End Calendar Month**  
**Days Cover Average**  
**55.8 days** (2.2 days more than the 1990-2014 time span)

End October 2015's 51.2 days coverage level slides 4.6 days beneath the 2006-14 end October average of 55.8 days and 2.4 days under 1990-2014's 53.6 days. This end October 2015 days coverage total therefore is bullish (even if not wildly so given still-high natural gas production). Even if end October 2015 inventories are 4000bcf, 52.2 days coverage remains somewhat below average.

Demonstrated underground maximum working gas capacity in the Lower 48 states as of November 2014 was 4336bcf (EIA, "Underground Natural Gas Working Storage Capacity"; 2/25/15). The US as a whole therefore probably will not face significant containment problems this year.

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**END WINTER 2015-16 DRAW SEASON: MARCH 2016 NATURAL GAS STOCKS**

In the following discussion regarding and tables for US end 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 2014-15 (includes the 2014 year).

	<b>Long Run (1990-2014)</b>		<b>Long Run (1990-2014)</b>	
	<b>End Calendar Month</b>		<b>End Calendar Month</b>	
	<b>Arithmetic (Bcf)</b>		<b>Days Coverage</b>	
	<b><u>Average</u></b>		<b><u>Average</u></b>	
<b><u>March</u></b>	<b>1343</b>		<b>21.8</b>	
	<b><u>Season Highs (Year)</u></b>		<b><u>Season Lows (Year)</u></b>	
	<b><u>(Bcf)</u></b>	<b><u>Days Cover</u></b>	<b><u>(Bcf)</u></b>	<b><u>Days Cover</u></b>
<b><u>March</u></b>	2473 (2011)	37.1 (2011)	730 (2002)	11.6 (2002)
	1692 (2005)	28.1 (2005)	742 (2000)	11.6 (2000)
			857 (2013)	12.0 (2013)
			758 (1995)	12.5 (1995)

Some statisticians would label the 1723bcf end March inventory for the 2012 year as very high. Yet this represented only 24.7 days coverage- a modest 2.9 days above the long run average, whereas 2005's leaped 6.3 days above that average. Compare calendar year 2012's 69.8bcf/day consumption with 2005's 60.3bcf/d.

**March**      **Medium Run (2006-2014)**  
**End Calendar Month**  
**Days Cover Average**  
**24.1 days** (2.3 days more than 1990-2014's time span)

At end March 2016, the EIA predicts working gas inventory of 1766 bcf. So at around the finish of winter 2015-16 draw season, days coverage will be about 23.1 days relative to calendar year 2015 demand just under 76.6bcf/day. This stands one day under the 2006-14 average and 1.3 day above that for the 1990-2014 span.

What's the bottom line in regard to the natural gas bear trend that began in February 2014 if one concentrates on the end calendar March 2016 natural gas inventory variable? With the NYMEX nearest futures natural gas price currently well under 4.00, this end winter 2015-16 inventory factor "taken by itself", looks neutral to supportive for gas prices. This fundamental consideration should be interpreted alongside marketplace history relating to price and time factors.

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### **THE MORE DISTANT FUTURE: NATURAL GAS STOCKS IN OCTOBER 2016**

"Cause when life looks like Easy Street, there is danger at your door". "Uncle John's Band", The Grateful Dead

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Now look further out in the misty future to October 2016. Of course much can happen between now and then. Based upon the EIA's current STEO, potential days coverage does not suggest notable oversupply relative to historic averages.

The EIA forecasts end October 2016 stocks at 3956bcf. October 2016's hypothetical days coverage is 51.8 days (3956 bcf/full calendar year 2016 average daily demand of just over 76.4bcf/d. This is about 1.8 days under the 53.6 day 1990-2014 average for that calendar month and 4.0 days beneath 2006-14's 55.8 day average. This scenario is mildly supportive of prices.

How much underground storage will operators construct between now and October 2016? Viewpoints on this are conjectural, but perhaps not much. The maximum working gas volume rose merely three bcf from November 2013 to November 2014's 4336bcf. Yet many other periods have manifested more storage expansion.

In any case, suppose little new storage is built. Will there be containment problems if end build season supplies reach the EIA's estimate, or go up to 4000bcf? After all, the maximum theoretical storage space may not necessarily be achievable in practice, and storage space may not be available to all marketplace players. Nevertheless, inventories of 4000bcf fill about 92.3pc of November 2014's storage level, so there probably will not be nationwide containment problems, even if some appear in particular regions.

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If current or even lower natural gas prices are sustained, maybe there will be further switching to gas from coal.

The EIA's July STEO forecasts a declining gap between coal and natural gas fired electricity generation. Coal's annual share of US generation will average 36 percent in 2015, down from 2014's 39pc. The average fuel share of natural gas in 2015 will be 31pc, up from 27pc last year. (See also "Today in Energy", 7/31/15; "Electricity from natural gas surpasses coal for first time, but just for one month). The STEO predicts flat American electricity demand. Consumption in calendar 2014 was 10.58 billion kilowatt hours/day; compare 2015's 10.65 bbkwh/d and 2016's 10.70 bbkwh/d.

Coal retirements continue, which should help natural gas demand. Yet renewable energy sources creep higher in importance in many regions. What will be the outcome of heated legal battles related to the Clean Air Act and coal power plants? Will environmental concerns related to fracking grow stronger?

What about US LNG exports? LNG exports eventually are a significant bullish variable for America's natural gas arena. Yet this is more of a longer run factor since near-term prospects are relatively modest. The EIA believes LNG gross exports will be only .6bcf/day in 4Q15, rising to 1.1bcf/d in 4Q16.

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However, the EIA's inventory perspective relative to end build season 2016 of course is not destined to occur. For example, two potential intertwined developments represent bearish considerations for end build season 2016 and thus for prices between now and then. First, suppose supply hovers considerably greater over demand. EIA estimates show calendar 2016's demand at just over 76.4bcf/day will inch slightly under 2015's 76.6bcf/d. Second, recall inventory build seasons 2014 and 2015.

In any case, suppose US production continues to climb, and especially if consumption remains around unchanged year-on-year. The EIA states calendar 2015 total marketed production is about 79.0bcf/day, up a towering 5.7 percent year-on-year (dry gas production jumped 6.3pc to about 74.9bcf/d). Calendar 2016 total marketed production keeps rising, adding another 2.0pc to reach almost 80.6bcf/d.

Some bearish scenarios may recall not only the output boosts of recent years, but also the production acceleration from March 2014's 72.3bcf/day (around the February 2014 NYMEX natural gas price peak; March 2013's was 69.2bcf/d) even though prices tumbled. Total marketed production was 79.2bcf/d in December 2014, achieving a new high of 79.4bcf/day in April 2015.

US output slipped to 78.2bcf/d in June 2015. Yet the EIA predicts it will resume its upward march, touching 79.9bcf/d in December 2015 and 81.4bcf/d in December 2016.

Is the EIA being too conservative in regard to production estimates for the balance of 2015 and calendar 2016? Some bears may think so. Obviously much depends on price. The STEO projects the Henry Hub natural gas price will average \$3.06/mmbtu in 3Q15, \$3.17 in 4Q15 (\$2.97 calendar year 2015) and \$3.31 in calendar 2016 (Table 2).

In any case, suppose output expands significantly more than the EIA now forecasts. This bearish viewpoint, though conjectural (and probably less likely than bears believe), is not unreasonable, for it derives support from the memorable inventory increases of the 2014 and 2015 build seasons. Containment fears for end build season 2016 thus lurk in the minds of many marketplace adventurers. This perspective tends to put downward pressure on prices along the entire natural gas price curve.

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The 2014 build season saw a gigantic 2730bcf climb from end March's 857bcf to end October's 3587bcf. What is the EIA's 2015 March to estimated October build? Stocks expand a hefty 2437bcf from end March's 1482bcf to reach end-October 2015's 3919bcf.

Assume end March 2016 stocks are what the EIA predicts, 1766bcf. Assume limited expansion of maximum working gas volumes relative to the 4336bcf level. A 2730bcf inventory build leaves

end October stocks at 4496bcf, surpassing the 4336bcf total; there probably would be a notable containment problem. The 2437bcf growth leaves them at 4203bcf, within about three pc of maximum storage capacity. This probably would create storage problems in many regions.

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Yet these bearish concerns remain conjectural. Assume normal weather for the balance of calendar 2015 and thereafter. First, the 2013 build season net injection was much less than those of 2014 and 2015, at just under 2100bcf (end October 3817bcf versus March's 1720bcf). The EIA's 2016 build season estimate of 2190bcf (3956bcf less 1766bcf) is relatively close to yet exceeds 2013's.

Also, 2014's huge build in part reflected an effort to respond to high prices and very low stocks. The 2016 situation probably will be different. Yet because 2015's probable build will not be small, and as current prices remain rather low, marketplace sentinels concerned about the 2016 stock build season should pay especially close attention to actual production levels and variables such as rig count and drilling productivity.

In regard to 2015's fairly high production level, and its anticipated large inventory increase over build season, do debt burdens in the context of rather low natural gas prices force some US natural gas producers to maximize production to pay off creditors and stay in business? If so, will they be able to repeat such expansion in 2016? Arguably not.

Energy groups generally appear to be slashing investment projects. For example, the Financial Times underlines: "Energy groups postpone \$200bn in projects as oil price slumps again" (7/27/15, p1). Though this FT headline focuses on oil, the consequences of such price concerns also apply to US natural gas.

Baker Hughes data reveals the collapse of petroleum rotary rig counts in the context of the oil price crash. The Baker Hughes oil rotary rig count on 7/31/15 was 664 (6/26/15 low 628); compare 1573 a year ago, with 1609 the high on 10/10/14.

What about 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 810, end 2012 about 430, and end 2013 375. However, note the slump in natural gas rigs since 11/7/14's 356 rigs (3/7/14's total, close to February 2014's major price pinnacle, was 345) As of 7/31/15, there were only 209 gas rigs (contrast the 313 at that time last year), a new low in the declining gas rig count trend.

Thus in the context of current relatively low gas prices, what do falling investment and the slumping gas rig count suggest? The EIA's current estimate for only a modest US natural gas production increase and a related modest stock build during the 2016 build season probably are more likely than predictions of big production boosts and hefty stock increases promoted by marketplace bears. And maybe even the EIA output estimates in practice will turn out to be optimistic.

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".

### **WALKING THE WALK: PRICE, DISTANCE, AND TIME**

"Keep your eyes on the road your hands upon the wheel..."

The future's uncertain and the end is always near  
Let it roll, baby roll". The Doors, "Roadhouse Blues"

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Interpretation of natural gas price history can venture beyond the NYMEX nearest futures continuation contract. Wall Street trend hunters may elect to peer at individual actual contract months (such as the NYMEX October 2015 futures contract), several trading months of a season (as in the NYMEX winter 2015-16 strip), calendar years (like the calendar 2018 strip of contracts), spreads (such as NYMEX March 2016/April 2016), prices in other regions than the NYMEX realm, and basis relationships. Marketplace warriors can derive insight into and tell tales regarding natural gas domains and their bull and bear patterns via analyzing electricity, coal, other marketplaces, and assorted additional economic and political phenomena. In natural gas as in other territories, supply/demand investigation can intertwine with so-called technical analysis.

Recall the price and time analysis of the essays "Taking Shape: NYMEX Natural Gas Bear Trend History" (1/19/15) and "Rollin' and Tumblin' in US Natural Gas" (4/20/15). Here follows one perspective on major natural gas bear moves based upon the NYMEX natural gas nearest futures continuation contract.

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<b><u>High; Date</u></b>	<b><u>Low; Date</u></b>	<b><u>Decline (Percent)</u></b>	<b><u>Duration (Months)</u></b>
1. 4.60; 12/20/96	1.68; 2/24/97	63.5pc	Two
2. 3.85; 10/28/97	1.61; 8/27/98	58.2	Ten
3. 10.10; 12/27/00	1.76; 9/26/01	82.6	Nine
4. 11.90; 2/25/03	4.39; 9/22/03	63.1	Seven
5. 15.78; 12/13/05	4.05; 9/27/06	74.3	Nine and two weeks
6. 13.694; 7/2/08	2.409; 9/4/09	82.4	Fourteen
7. 6.108; 1/7/10	1.902; 4/19/12	68.9	Twenty-seven and one wk

The average distance traveled over these seven bear moves is 70.4 percent. The average duration is about eleven and one-quarter months.

Looking back prior to the December 1996 high does not significantly alter the table's price and time portrait. The 53.4 percent decline from the 3.72 plateau on 12/21/95 to the 1.735 valley on 9/5/96 lasted about nine and a half months (though a final low, as part of a double bottom, arguably occurred 2/24/97 at 1.68). The 60.0pc drop from 11/26/90 at 2.65 to 6/25/91 at 1.06 spent seven months. The 52.3pc fall from 11/5/91 at 2.14 to 1/24/92 at 1.02 lasted two and a half months.

So for the ten bear moves combined, the average fall is about 65.9 percent, with the average duration about nine and three quarter months.

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What about the current marketplace situation? It is a close case as to whether the calendar April 2015 low was the final bottom in the bear trend that appeared in February 2014. If 4/27/15's 2.443 low is broken, whether this month or later, time and price history on balance signals that prices probably will not fall dramatically beneath this.

The nosedive from the 6.493 major high on 2/24/14 to the low since then, 4/27/15's 2.443, is 62.4 percent and nearly 14 months. The percentage bear move slump from February 2014 through April 2015 is less than average, including the three most recent ones. An average bear move of

65.9 percent gives a target of 2.214 (6.493\*.341). A 66pc erosion from 6.493's summit is 2.162, close to 6/14/12's interim low at 2.168.

However, history indicates the downturn from the February 2014 peak to the late April 2015 low was sufficiently long in duration to be looking for a noteworthy trend change. It extended longer in time than eight of 10 big bear moves, and it was about equal to one (2008-09).

In the timing context, keep in mind that a significant April 2015 low, even if interim, finds a calendar parallel in April 2012's major bottom. April 2015's nearest futures continuation 2.443 depth stands close to 9/4/09's 2.409. A five percent breach of 2/6/15's minor low at 2.567 gives 2.439. Half of 6/16/14's 4.886 key drop-off point within the February 2014 bear crash is 2.443, neighboring the September 2009 abyss.

Many important NYMEX natural gas trend changes have occurred around contract expiration.

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The April 2015 natural gas lows (nearest futures continuation) probably will be challenged again, perhaps significantly. Weakness in commodities "in general" and petroleum in particular play a key role in this perspective, especially if they are accompanied by a strengthening United States dollar, weak emerging marketplace stocks, and a down move in the S+P 500.

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There have been a handful of significant double bottoms in the natural gas complex. A likely time for an assault on April 2015's support, and the creation of another noteworthy low, is in late August or calendar September 2015.

Several very important 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 2.41. In the current context of an April 2015 trough, keep in mind timing of the interim low of 8/29/12 at 2.58, for it followed a calendar April bottom. And September 2009's bottom stands near and thereby bolsters the support represented by the 4/27/15 low.

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.

What about lows in early August? Possible, but less likely. An important trough occurred about 25 years ago at 1.396 on 8/1/90. 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), but it was an interim low, not a major bottom.

A final low in late summer 2015 would stretch out the February 2014 bear marketplace trend substantially longer than the historical average. Although it would make the bear trip since February 2014 an extremely long one from the time standpoint, another potential target time for a low is January or February 2016.

## **MARKETPLACE ATTACHMENTS AND TRENDS: SEEKING COMMITMENTS**

At times the CFTC's Commitments of Traders is a helpful indicator for predicting 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 key highs and lows in price occur alongside notable levels in the net noncommercial position.

On 2/18/14, the net noncommercial long (“NCL”) position peaked at about 328,000 contracts, or 7.7 percent of total open interest (the percentage of total open interest attained its 8.4pc high the following week). February 2014’s net NCL summit roughly coincided with the NYMEX natural gas (nearest futures continuation) 2/24/14 pinnacle at 6.493. The substantial liquidation of this large net noncommercial long position in natural gas helped to propel prices sharply lower in succeeding months.

February 2014’s lofty net NCL levels reside beneath the 367m net NCL ceiling established 4/30/13 (7.6pc of total open interest; plateau percentage 5/28/13’s 7.8pc). This spring 2013 net NCL top occurred alongside the key interim top in NYMEX natural gas (nearest futures continuation) at 4.444 on 5/1/13.

What about recent times? On 4/28/15, adjacent to 4/27/15’s important low in NYMEX nearest futures natural gas, the net noncommercial short position (“NCS”) peaked at 260,000 contracts. This net NCS total, and the 8.8 percent of total open interest it represented, are records for the net NCS since ICE data began being reported in January 2010 (and this net NCS is greater than the net NCL pc record). The net NCS surpasses 11/22/11’s net NCS 227m (5.5pc of total open interest), attained during the major bear move that carried down to 4/19/12’s 1.902 major bottom.

As of the most recent week, 7/28/15, the noncommercial position remains significantly net short at about 190m contracts (6.8 percent of total open interest). With prices currently relatively low (under 3.00), the still very large net NCS position (both in arithmetic and percentage of open interest terms warns of potential for renewed rallies from the April 2015 low. Keep in mind the price level, time, and distance considerations in this context.

Nevertheless, remember that after the net NCS peaked in November 2011, prices kept moving lower while the net NCS position diminished. On 4/24/12, the net NCS position was merely 15m contracts. Thus one should approach the Commitments of Traders data with care.

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The 7/28/15 total open interest of about 2.79 million contracts plummets 34.6pc from 2/18/14’s 4.26mm (and 4/23/13’s 4.92mm), around the times of marketplace price peaks, as well as from the massive 5.27mm on 4/24/12, around the time of the major bottom.

## **PETROLEUM AND OTHER MARKETPLACES**

Big Bill Broonzy sings in “Goin’ Down the Road Feelin’ Bad”:  
“I’m goin’ down this road feelin’ so low and bad  
I ain’t gonna be treated this-a way”.

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A trend change in NYMEX natural gas need not coincide with one in the petroleum complex or in commodities “in general”. Nevertheless, to help assess probabilities as to whether and when natural gas has achieved an important top or bottom, observers should watch petroleum (NYMEX crude oil and Brent/North Sea crude oil, for example) and other marketplaces.

Remember the worldwide economic crisis of 2007-09. The major high in the broad Goldman Sachs Commodity Index was 7/3/08's 894. The 7/2/08 NYMEX natural gas summit at 13.694 was right in line with this, as was the timing of the NYMEX crude oil (nearest futures continuation) pinnacle at 7/11/08 at \$147.27 and the Brent/North Sea plateau on 7/11/08 at \$147.50.

In 2009, the 9/4/09 natural gas major bottom at 2.409 followed those in the broad GSCI (2/19/09 at 306) and the petroleum complex (NYMEX crude 12/19/08 at \$32.40, with a final low 2/12/09 at \$33.55; Brent major low 12/24/08 at \$36.20). What happened regarding bottoms in the recent marketplace scene? The broad GSCI's 1/29/15 low at 372 was the same day as the initial low in NYMEX crude at \$43.58 and close in time to Brent/North Sea's key low at \$45.19 on 1/13/15. The GSCI's late January 2015 bottom occurred around the same calendar month time as 2/19/09's major bottom at 306. The most recent low in NYMEX crude was 3/18/15's \$42.03; Brent established an interim low on 3/16/15 at \$52.50 (which now is being tested). The important 2015 low in NYMEX natural gas, 4/27/15's 2.443, as it did in the worldwide economic crisis era, followed important lows in the petroleum complex and the GSCI.

Notably, in mid-June 2014, the broad Goldman Sachs Commodity Index, NYMEX natural gas, and NYMEX and Brent/North Sea crude oil tumbled downhill around the same time. For example, NYMEX natural gas established a significant interim high 6/16/14 at 4.886 (the 4/27/15 low at 2.443 is half of this mid-June 2014 price). The final top in NYMEX crude was 6/20/14 at \$107.73, that in Brent/North Sea crude 6/23/14 at \$115.66. Recall the broad GSCI's 6/23/14 interim high at 673.

The US natural gas supply/demand situation "by itself" for the next several months on balance does not look bearish. Yet natural gas is not an island these days. The resumption of the bear trends in the broad GSCI and the petroleum complex in recent weeks suggests a significant potential for NYMEX natural gas to make a noteworthy low later in time than its late April 2015 one. This natural gas depth probably would be relatively close to April 2015's, even if April 2015's level is broken. The broad GSCI made a significant top at 459 on 5/6/15 and nowadays is attacking 1/29/15's 372 trough. NYMEX crude oil has plummeted from 5/6/15's \$62.58 top, as has Brent from its \$69.63 elevation that day. NYMEX natural gas has drifted lower from its 5/19/15 interim top at 3.105, as well as 6/17/15's minor top at 2.955.

Moreover, and significantly, the renewed rally in the US broad real trade-weighted dollar ("TWD"; Federal Reserve, H.10) in the past few months has intersected with bear trends in various commodity marketplaces (don't forget base and precious metals) and emerging marketplace stocks (see the MSCI Emerging Stock Market Index, "MXEF", from Morgan Stanley). Even the S+P 500 shows related signs of weakness; its 5/20/15 high at 2135 remains intact. The broad real TWD is available only on a monthly basis, but the nominal real TWD has daily data. The nominal TWD resumed its major bull move from its minor low around 112.8 on 5/15/15. Note the proximity in time relative to that 5/15/15 low in the nominal trade-weighted dollar of the broad GSCI top at 459 on 5/6/15, NYMEX crude oil's 5/6/15's \$62.58 top (Brent \$69.63 elevation that day), the S+P 500's 5/20/15 high, and the NYMEX natural gas high of 5/19/15 at 3.105.

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See recent essays such as "Playing Percentages: Stock Marketplace Games" (7/13/15), "Marketplace Fireworks" (7/6/15), and "Marketplace Party Tantrums" (6/15/15), and "US Inflation Signals" (6/7/15).

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Looking forward, how strong will the US economy be? How will natural gas and other commodity marketplaces respond to a Federal Reserve interest rate rise, or a further round of dollar strength? To what extent will issues such as Eurozone turmoil (as in Greece) and emerging marketplace trends (including a slowing Chinese economy and equity weakness there) influence US natural gas?

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“Oil’s Troubled Waters” (5/18/15) provided a detailed analysis of the petroleum universe. OPEC remains determined to capture market share and to induce output cutbacks from high-cost oil producers around the world (which includes some American and Canadian ones). The worldwide petroleum marketplace remains significantly oversupplied. Overall OECD industry inventories (especially crude oil) are very high. This bearish oil situation will likely persist for at least the next few months. Continued downward pressure on petroleum prices will tend to weaken those of NYMEX natural gas.

According to the International Energy Agency “Oil Market Report” (7/10/15), total OECD industry stocks at end 1Q15 were a monumental 62 days of forward demand (Table 5). These are at least five days above average levels. At any rate, compare the 57 days of 4Q13. The IEA underlines (p1): “Global supply and demand balances suggest that the rate of global stock builds quickened rapidly to an astonishing 3.3mb/d during 2Q15.” A review of IEA’s Table 1 in the context of recent and generally anticipated OPEC crude oil production indicates that inventories will continue to build for the balance of 2015 and calendar 2016.

At what crude oil price point might OPEC change its current policy? OPEC’s next scheduled meeting is 12/4/15.

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