



HORNSBY & COMPANY, INC.

www.hornsbyco.com

March 10, 2008

Energy Risk  
Management Services

---

## U.S. Natural Gas Perspectives Monthly Review and Outlook

### Summary

Over the past month the prompt NYMEX natural gas contract has surged by almost \$1.70 per mmBtu. Required short covering by a few major hedge funds to avoid further substantial losses helped account for the recovery, which may have occurred in any event since the entire market witnessed an improving natural gas balance, despite moderating economic growth. In addition, WTI rising beyond \$100.00 per barrel led to the inevitable belief that no hydrocarbon would be left behind, and natural rose accordingly.

Although we feel compelled at this point to retain our assumption that there will be no “official” recession as defined as at least two consecutive quarters of negative real GDP growth, there is absolutely no question in our minds that manufacturing activity is probably weaker than the consensus of economists still believes, as measured by our coincident indicator of weather and export-adjusted implied distillate fuel oil demand. Accordingly, we have trimmed our 2008 outlook for the FRB index of manufacturing output, which leads to a modest downward revision to our forecast of industrial natural gas consumption this year, also impacted by higher prices which will trim small volumes of consumption in select regions. At the same time, however, colder February weather in major gas consuming regions has led to an upward revision in our estimate of first quarter residential natural gas demand. On the supply side, we have raised slightly our estimate of domestic natural gas production for this year, and assume that Canadian pipeline imports will average somewhat higher than before. Putting it all together, we now expect a smaller net working storage draw for 2008 as a whole than previously assumed.

Ironically, however, higher oil prices leads us to modestly revise up our forecast average for prompt NYMEX/Henry Hub for the first half of 2008, while retaining our Base Case outlook for the second half of the year. The net effect is an upward revision to our 2008 average by some \$0.30 per mmBtu to \$8.25 per mmBtu.

---

+ U.S. natural gas consumption is expected to rise by 2.1%, or about 495 bcf this year.

+ Domestic dry gas production is forecast to increase by 0.5%, or some 95 bcf in 2008.

+ We anticipate a net draw in working storage in 2008 of around 385 bcf, less than last month's assessment by 130 bcf.

---

## Viewpoint

Since the publication of our previous monthly report, the prompt NYMEX natural gas contract has surged by almost \$1.70 per mmBtu from about \$8.300 per mmBtu to almost \$10.000 per mmBtu.

A few major hedge funds, either out of prudence or necessity, covered substantial short positions, including short March/April 2009 spreads, to avoid further losses, which clearly helped account for the recovery.

As an example of the overall fund influence as reflected in the weekly CFTC Commitments of Traders report, from February 5 to March 4 the net futures-only short position held by non-commercials declined by 27,160 contracts, from 103,195 contracts to 76,035 contracts.

This move corresponded with a gain in the prompt NYMEX natural contract by \$1.411 per mmBtu, from \$7.942 per mmBtu to \$9.353 per mmBtu. Although as previously emphasized our research does not suggest as much influence by active funds on natural gas prices as on crude oil due to a lower percentage of open interest, recent experience implies one of the periodic exceptions.

Natural gas' gains may have occurred to a large degree in any event, however, since the entire market, both commercials and financial entities, witnessed an improving natural gas balance, as we have anticipated, despite moderating economic growth and rising concerns that an actual recession is at hand.

In addition, WTI surging beyond \$100.00 per barrel led to the inevitable conclusion by traders that no hydrocarbon would or should be left behind, and natural rose accordingly, but still retaining a hefty discount to crude oil.

At this point, though increasingly in the minority, we feel compelled to retain our assumption that there will be no "official" recession as defined as at least two consecutive quarters of negative real GDP growth.

Having said this, however, there is absolutely no question in our minds that manufacturing activity is weaker than the consensus of economists still believes, as measured by our coincident indicator of weather

and export-adjusted implied distillate fuel oil demand.

Accordingly, we have trimmed once again our outlook for the FRB index of manufacturing output, which leads to a modest downward revision to our forecast of industrial natural gas consumption in 2008. Our revision in demand is also impacted by higher prices which will trim small volumes of consumption in select regions as gas and fuel oil values re-converge.

At the same time, however, colder February weather in major gas consuming regions has led to an upward revision in our estimate of first quarter residential natural gas demand. As previously discussed, we also believe residential demand was enhanced by new gas hookups/conversions in select areas, which more than offset any incremental conservation.

On the supply side, we have raised slightly our estimate of domestic natural gas production for this year based on recent trends, and now assume that Canadian pipeline imports will average somewhat higher than before.

Putting it all together, we now expect a smaller net working storage draw for 2008 as a whole than previously assumed, some 385 bcf versus our previous estimate of 510 bcf.

Ironically, however, higher oil prices leads us to modestly revise up our forecast average for prompt NYMEX/Henry Hub for the first half of 2008, while retaining our Base Case outlook for the second half of the year. The net effect is an upward revision to our 2008 average by some \$0.30 per mmBtu to \$8.25 per mmBtu.

## Demand: Review and Outlook

The DOE made only modest revisions to history in its latest monthly, which we incorporate and proceed accordingly. Although December data are preliminary, it appears that 2007 U.S. natural gas consumption gained by a full 6.3%, or some 1.36 tcf, representing one of the largest one-year gains in history, aided by strong demand in the residential, commercial, and electric utility sectors.

For 2008, as alluded to earlier we have revised up our estimate for first quarter

residential gas consumption now that home gas furnace-weighted heating degree days are in hand for the month of February. On this basis, last month was 2.2% colder than normal.

With regard to the industrial sector, as also discussed previously we have trimmed our estimate of manufacturing output for this year, now believing, right or wrong, that it will be slightly negative until mid summer.

**Eight Largest Industrial Consumers  
of Natural Gas  
January Manufacturing Output**

Industry	YOY %Chg. Output
Chemicals	+0.2
Petroleum and Coal	-1.2
Primary Metals	+4.7
Paper	+1.4
Food	+0.9
Non-Metallic Mineral	+0.4
Fabricated Metal	+3.0
Transportation Equip.	+3.2

In terms of recent history, we lay out above our customary table of FRB manufacturing output data for January for the eight largest industrial consumers of natural gas. The numbers reveal some pluses and minuses compared to the previous month's year-over-year comparisons, but no significant change in the aggregate.

However, we sense that things may have shifted in February at least to a degree. We have discussed in other reports our distillate fuel oil demand model which takes the weekly implied demand data as reported in the DOE Weekly Petroleum Status Report and adjusts for weather, exports and secondary stock movements to derive a reasonable coincident indicator of economic activity as represented by diesel fuel consumption.

The analysis has helped us over the years, and we have concluded that when we adjust for all the non-economic variables, the odds appear to favor that at the least manufacturing activity is weaker than the current consensus of economists' estimates, and may in fact have turned negative.

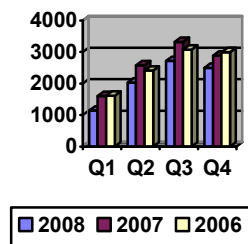
If so, it would impact the most gas-intensive industries in varying degrees, but it still warrants a trimming of industrial gas consumption expectations for 2008, which we now believe will decline this year by 1.2%, or about 80 bcf.

Putting all sectors together, we anticipate U.S. natural gas consumption will rise in 2008 by 2.1%, or about 495 bcf, an upward revision from last month by 10 bcf as early-year gains in residential demand slightly offset a reduction in industrial demand expectations going forward.

**Supply:  
Review and Outlook**

Based on recent trends, we have revised up slightly our growth in domestic dry gas production for this year, and we look for a 0.5%, or a 95 bcf gain this year, which could end up conservative.

**End-Quarter  
Working Gas Storage Levels  
(BCF)**



We have also now assumed that Canadian pipeline exports to the U.S. will hold up better than expected based on updated input and analysis. In terms of other imports, we see no need at this point to revise our LNG cargo expectations despite recent domestic price gains.

Putting the demand and supply side together, our slight upward revision in demand for this year is more than offset by higher expected supply. The net result is a somewhat lower forecast net storage draw for 2008 than previously expected, now about 385 bcf versus our previous 510 bcf net draw.

We target end-first quarter working storage at around 1.14 tcf which, if reasonable,

implies an “underage” from end-March 2007 of some 461 bcf, still a sizeable improvement from the current position.

At year end we expect working storage to total a shade under 2.5 tcf which once again if reasonable suggests storage some 385 bcf below the end of 2007. Our year-end storage target would place supplies roughly on par with the end of 2003.

### Implications for Price

The clear impression one would have gathered from our reports and comments on the natural gas market over the past several months is that we believed the hydrocarbon was undervalued primarily for two reasons.

The first was in the context of the gas balance in isolation where, following the achievement of all-time record storage levels last fall, we believed the balance would improve for a variety of fundamental reasons.

The second reason was the surge in oil prices. As managed funds amassed net length in crude oil, net short positions in natural gas also attained new records. Our conclusion was that if we were even close on the gas balance, gas prices were a “coiled spring” that would not be left behind indefinitely.

Fast forward to the present, and the prompt NYMEX natural contract is now trading above our previously optimistic expectations, in large part due to the surge in crude above \$100.00 per barrel. The most recent linkage has been a weaker dollar, higher crude, higher gas, but with a lag.

In this context, we believe that natural gas prices will end up somewhat higher than previously expected, but then retrace back to our previous Base Case in the second half of the year.

We simply feel that at some point, as oil market fundamentals continue to deteriorate, hedge funds will begin unwinding the long crude/short dollar trade that has pulled WTI up from \$86.00 per barrel or so since early February. The timing is uncertain and is unlikely to occur “tomorrow”.

### Henry Hub Price Outlook Average for Month of June 2008

(\$/mmBtu)

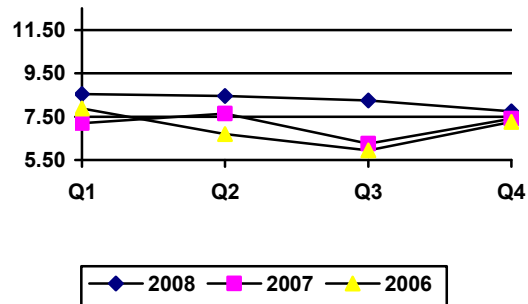
<b>1990-2007 Relationships</b>	<b>\$3.65(E)</b>
<b>1990-1999 Relationships</b>	<b>\$1.90(E)</b>
<b>2000-2007 Relationships</b>	<b>\$5.40(E)</b>

<b><u>2000-2007 Relationships</u></b>	
<b><u>Plus Oil Premium</u></b>	<b><u>\$9.10(E)(a)</u></b>

a) @ 260 cents per gallon distillate and \$94.00 per barrel WTI.

Our customary table above has “recalibrated” our quarterly price outlook to June. In line with our above comments, we would look for a reasonable June (basis July NYMEX) target of \$9.10 per mmBtu. While above what our previous assessment would have implied, it still suggests downside risk from current levels of about \$1.00 per mmBtu.

**Henry Hub Prices  
2006-2008  
(Dollars per MCF)**



For 2008 as a whole, the arithmetic of revising up first half expectations while leaving the second half intact suggests a prompt NYMEX/Henry Hub average of \$8.25 per mmBtu, an upward revision from last month’s report by about \$0.30 per mmBtu.

March 10, 2008

U.S. Natural Gas Supply and Demand Balances  
2007-2008  
(Billion Cubic Feet)

	Q1	Q2	Q3	Q4	2007(E)	%Chg 07-06	Q1(E)	Q2(E)	Q3(E)	Q4(E)	2008(E)	%Chg 08-07
<b>Supply</b>												
Total Dry Gas Production	4,591	4,709	4,832	4,947	19,079	3.3	4,614	4,733	4,856	4,972	19,174	0.5
Withdrawals From Storage	1,791	241	325	964	3,321	33.2	2,069	329	392	771	3,561	7.2
Supplemental Gaseous Fuels	18	14	15	13	61	-9.6	19	14	15	13	61	1.5
Imports	1,170	1,149	1,205	1,060	4,583	9.5	1,150	1,169	1,224	1,068	4,610	0.6
Canada	967	853	965	974	3,760	4.7	964	851	963	971	3,749	-0.3
LNG	184	280	227	79	771		174	308	250	87	819	
Other	18	16	12	7	52		11	11	11	9	42	
Balancing Item	76	154	59	(403)	(115)		0	0	0	0	0	
Total Supply	7,646	6,267	6,436	6,581	26,929	6.5	7,851	6,245	6,487	6,824	27,407	1.8
<b>Disposition</b>												
Additions To Storage	328	1,209	1,063	546	3,146	7.5	331	1,221	1,074	551	3,177	1.0
Exports	203	171	198	231	802	10.8	180	185	185	205	755	-5.8
Consumption	7,115	4,887	5,175	5,804	22,981	6.3	7,339	4,839	5,228	6,067	23,474	2.1
Lease And Plant Fuel	278	286	294	299	1,157	3.0	277	284	291	298	1,150	-0.6
Pipeline and Distribution Use	192	132	140	157	621	6.2	152	151	155	164	623	0.3
Residential	2,320	761	347	1,296	4,724	8.2	2,506	735	350	1,421	5,012	6.1
Commercial(a)	1,262	564	377	806	3,009	6.2	1,363	540	375	893	3,172	5.4
Industrial	1,777	1,552	1,569	1,735	6,633	2.1	1,731	1,508	1,562	1,752	6,554	-1.2
Electric Power	1,286	1,592	2,448	1,511	6,837	9.9	1,310	1,621	2,494	1,538	6,963	1.8
Total Disposition	7,646	6,267	6,436	6,581	26,929	6.5	7,851	6,245	6,487	6,824	27,407	1.8
<b>Addendum:</b>												
Net Storage Injections	(1,463)	968	738	(418)	(175)		(1,737)	892	682	(220)	(383)	
End Period Working Gas In Storage	1,603	2,580	3,316	2,879	2,879		1,142	2,034	2,716	2,496	2,496	
<b>Henry Hub Price (Dollars Per mmBtu)</b>	<b>7.20</b>	<b>7.64</b>	<b>6.25</b>	<b>7.41</b>	<b>7.12</b>	<b>2.6</b>	<b>8.54</b>	<b>8.45</b>	<b>8.25</b>	<b>7.75</b>	<b>8.25</b>	<b>15.8</b>
Gas Wells Drilled					32,910	4.2					34,556	5.0
Total Discoveries(Bcf)					14,810	-6.2					13,822	-6.7
Discoveries Per Well(Bcf)					0.45	-10.0					0.40	-11.1
Total Revisions and Adjustments(Bcf)					4,000	0.0					4,000	0.0
Total Reserve Additions(Bcf)					18,810	-5.0					17,822	-5.2
<b>Reserve Replacement Ratio</b>					99%						93%	
Total Recoverable Reserves (Bcf)					186,684	-0.1					185,332	-0.7
<b>Reserve To Production Ratio(Years)</b>					9.8						9.7	

Source: Historical Data, U.S. Department of Energy.

Not a recommendation or offer to sell securities. Past performance is not indicative of future results and the risk of loss is substantial in futures trading. Information contained herein is believed to be reliable but its accuracy cannot be guaranteed. Past performance is not indicative of future results and the risk of loss is substantial in futures trading. (E) WHB Energy Research, Inc. and W.H. Brown may, from time to time, have positions in the futures market relative to these recommendations. (a) Includes minor use as vehicle fuel.