



HORNSBY & COMPANY, INC.

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Energy Risk  
Management Services

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

### Summary

Since our last monthly report the prompt NYMEX natural gas contract has dropped by about \$.75 per mmBtu. As we issue this report the March contract is struggling to remain above \$4.00 per mmBtu. Factors adversely impacting natural gas have remained largely the same over the last month. Concerns over the dire state of manufacturing activity have taken their fundamental and psychological toll on the market, and a lack of sustainable cold spells have all combined to manifest themselves in weekly storage levels that are rising versus last year. Finally, falling crude oil prices reflecting weaker demand and rising crude oil stocks have weakened natural in sympathy.

Thus, there is nothing obvious on the immediate horizon that can turn things around. Instead of seeking the magic catalyst, however, we are compelled to rely on our basic assumptions looking our through the remainder of the year. Short-term, we concede the balance is not favorable. Our updated numbers still target and end-March working storage level well above the end of the first quarter last year. Recent data from the FRB confirm that U.S. manufacturing activity is coming in even weaker than our conservative assumptions, and we have amended our forecast industrial sector gas demand accordingly.

In the second half of this year, however, we still assume that manufacturing activity will stabilize and by year end begin a modest recovery, although we fully concede that our outlook is quite optimistic relative to the consensus. If our forecast timing is reasonable, however, economic improvement would occur in tandem with a substantial slowdown in domestic natural gas production growth and imports. The combination will lead to stable working storage levels and an eventual reduction from the end-first quarter targeted "overage". Such a scenario would yet be one more example of the ability of U.S. natural gas industry fundamentals to self correct.

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+ U.S. natural gas demand is expected to decline by 1.8%, or some 415 bcf this year, a downward revision of about 180 bcf.

+ Domestic dry gas production is forecast to rise by only 0.2%, or around 45 bcf in 2009, modestly below previous expectations.

+ Our balances imply a net build in working storage this year of some 365 bcf.

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## Viewpoint

Over the past month the prompt NYMEX natural gas contract has declined by some \$.75 per mmBtu. As we issue this report the March contract is attempting to remain above \$4.00 per mmBtu on a settlement basis despite the ongoing collapse in other markets.

Those factors adversely impacting natural gas prices have remained largely intact since our last report. Universal concerns over the dire state of U.S. manufacturing activity have taken both a fundamental and psychological toll on the market. In addition, a lack of sustainable cold spells has combined with economic fundamentals to lead to weekly storage levels that are rising in comparison to last year.

Finally, falling crude oil prices reflecting weaker demand and rising crude oil stocks have weakened natural in sympathy. The correlation trade by funds between the S&P 500 and prompt WTI remains alive and well, and until equity markets begin to gain any modicum of confidence once again, crude oil will remain under pressure.

Thus, there is of course nothing imminent on the immediate horizon that can turn everything around. Instead of trying to uncover the magic catalyst, however, we are compelled to rely, right or wrong, on our basic assumptions looking out through the remainder of the year.

Short-term, we will fully concede that the natural gas balance is not favorable, but we have long assumed that an effective surplus would build in the first quarter as measured by storage levels versus the previous year.

Our updated numbers still target end-March working storage levels some 345 bcf above the end of the first quarter of last year.

Recent data from the Federal Reserve Board confirm that U.S. manufacturing activity is coming in even weaker than our conservative assumptions, however, and we have amended our forecast industrial sector gas demand accordingly through June and part of the third quarter.

In the second half of this year, however, we still assume that manufacturing activity will begin to stabilize, beginning a

modest recovery by year end, although obviously our outlook is quite optimistic relative to the consensus.

If our forecast timing is reasonable, however, economic improvement would coincide with a substantial slowdown in domestic natural gas production growth and imports.

This combination will lead to stable working storage levels and an eventual reduction from the end-first quarter targeted "overage", which we believe will mark the peak for such a comparison. This scenario would yet be one more example of the ability of U.S. natural gas industry fundamentals to self correct as we have previously discussed.

## Demand: Review and Outlook

Updated numbers from the Department of Energy suggest that last year U.S. natural gas demand rose by less than 1.0%, with virtually all of the gain occurring in the first half of the year.

More importantly, however, early 2009 numbers suggest the economic deterioration has accelerated, adversely impacting industrial natural gas consumption in particular.

## Eight Largest Industrial Consumers Of Natural Gas January Manufacturing Output

Industry	YOY %Chg. Output
Chemicals	-11.7
Petroleum and Coal	-4.3
Primary Metals	-36.2
Paper	-16.9
Food	-1.8
Non-Metallic Mineral	-14.2
Fabricated Metal	-14.2
Transportation Equip.	-27.2

Our customary table illustrated above reveals the severe weakness in the eight largest

industrial consumers of natural gas as reported in the “industry group” category of the monthly FRB release on industrial production and capacity utilization.

January manufacturing activity versus the prior year weakened virtually across the board in these industries relative to the December comparisons, weaker than our conservative Base Case assumptions.

As such, we have little choice but to amend our view of industrial gas demand through the first half of the year and into the third quarter.

Having aid this, however, we still believe there is a chance that manufacturing activity can begin to stabilize relative to last year later in 2009, the timing of which we have pegged for September/October.

Our path is moderated from our prior report and put off a couple months, but we still anticipate the genesis of a recovery before the end of the year.

At the least, the FRB manufacturing comparisons should become less onerous versus the previous year by October, when the data reveled that the economic deterioration began to accelerate significantly.

We now believe that industrial sector gas demand will decline by 4.3%, or some 290 bcf this year, a downward revision from last month by 145 bcf.

We have made little change to the other sectors, and as such believe that total U.S. natural gas demand will decline this year by 1.8%, or 415 bcf, a downward revision from our previous assessment by 180 bcf.

**Supply:  
Review and Outlook**

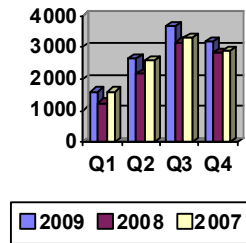
In response to the drop in natural gas prices, rig activity has also collapsed. We had long assumed that despite the robust rate of growth in shale gas development, the aggregate rate of domestic dry gas production would begin to slow considerably, influenced by the accelerating decline rates of mature onshore conventional gas fields. With the drop in rig activity our thesis appears even more on the mark. Thus, although we have cut our natural gas demand expectations for this year,

we have likewise been compelled to reduce our expectations for domestic production.

We now believe that by the second half of the year the aggregate production growth rate will slow considerably, such that in the fourth quarter we anticipate that U.S. dry gas production will come in below the fourth quarter of 2008.

For the year as a whole we are looking for U.S. gas output to rise by only 0.2%, or about 45 bcf. We have made relatively little change to our gross import assumptions for the remainder of the year, since we have assumed a moderation from last year due to our long-standing forecast of unfavorable economics for spot LNG cargoes.

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



Putting our balances together, our current Base Case calls for end-March working storage to stand at 1,590 bcf, about 345 bcf above the end of first quarter 2008.

Due to our forecast dynamics for the remainder of the year on both the demand and supply side, however, although the storage “overage” versus last year expands somewhat more in the summer, by the fourth quarter this surplus is eroded as demand begins to improve and supply declines.

Our updated Base Case calls for end-2009 working storage to stand at about 3.2 tcf, implying a net build of around 365 bcf for 2009 as a whole, roughly unchanged from last month’s assessment.

**Implications for Price**

As we issue this report the prompt NYMEX natural contract is still struggling to remain above \$4.00 per mmBtu on a settlement basis. As previously discussed sentiment is quite bearish, with little on the horizon holding the key to a turnaround.

In this month's report we turn our short-term attention to June, with our updated model output illustrated below.

Under our natural gas balances, absent any oil price influence our table shows that with the fundamental relationships of the last nine years, June natural (basis July NYMEX) "should be" trading at \$5.00 per mmBtu. July NYMEX is currently trading some 50-60 cents below our target.

However, as we customarily provide, we indicate our June target incorporating our "oil premium" based on the trading characteristics of natural that have been in evidence for the last several years.

**Henry Hub Price Outlook  
Average for Month of June 2009  
(\$/mmBtu)**

<b>1990-2008 Relationships</b>	<b>\$3.10(E)</b>
<b>1990-1999 Relationships</b>	<b>\$1.45(E)</b>
<b>2000-2008 Relationships</b>	<b>\$5.00(E)</b>

**2000-2008 Relationships  
Plus Oil Premium      **\$5.40(E)(a)****

a) @ 160 cents per gallon distillate and \$55.00 per barrel WTI.

As usual, with the "oil premium" our model yields a higher gas price than any target based on gas balances in isolation, in this case a June target of \$5.40 per mmBtu. Of interest, however, is the fact that the premium is "only" 40 cents per mmBtu, much smaller than usual.

This may suggest in turn that gas prices are "low enough" based purely on our balances and therefore are beginning to stabilize even if crude oil falls further if our balances turn out to be close to the mark.

Right or wrong, this would clearly be consistent with our view that from this point forward both crude oil and natural gas prices will begin to recover and experience a modest seasonal rebound through the second quarter.

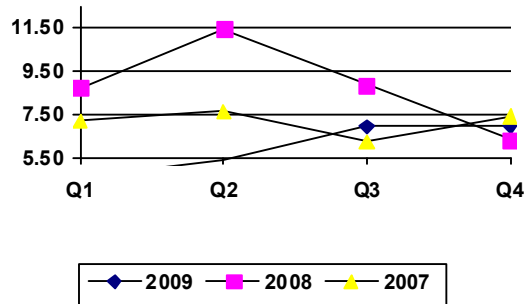
With oil, this heroically assumes that OPEC continues to do what it has been doing, i.e. reasonably good compliance, but not 100%, in line with our assumptions.

If this all begins to fall in place, we believe that, in the case of oil in particular, non-commercials will significantly increase passive length in the second half of the year, adding to crude oil's gains.

With crude oil rising and an improving natural gas balance, we believe there is a good chance that the prompt NYMEX natural contract can temporarily recover to \$7.00 per mmBtu by September.

On balance, we now believe that prompt NYMEX/Henry Hub will average about \$6.00 per mmBtu this year, a downward revision from last month by some \$.30 per mmBtu. The revision largely reflects weaker than expected prices in the first quarter thus far.

**Henry Hub Prices  
2007-2009  
(Dollars per MCF)**



February 24, 2009

U.S. Natural Gas Supply and Demand Balances  
2008-2009  
(Billion Cubic Feet)

	Q1	Q2	Q3	Q4(E)	2008(E)	%Chg 08-07	Q1(E)	Q2(E)	Q3(E)	Q4(E)	2009(E)	%Chg 09-08
<b>Supply</b>												
Total Dry Gas Production	5,080	5,128	5,108	5,192	20,508	7.4	5,189	5,129	5,093	5,140	20,551	0.2
Withdrawals From Storage	1,891	242	101	910	3,144	-5.3	1,510	118	259	1,072	2,960	-5.9
Supplemental Gaseous Fuels	11	14	14	15	55	-12.5	11	15	14	15	55	1.4
Imports	1,096	902	959	1,009	3,965	-13.9	1,100	897	952	1,008	3,957	-0.2
Canada	1,017	798	846	913	3,575	-5.4	1,018	798	846	914	3,576	0.0
LNG	76	97	98	80	351		80	90	95	85	350	
Other	3	7	14	15	39		3	9	11	9	32	
Balancing Item	(29)	111	149	(482)	(251)		(52)	0	0	(485)	(537)	
<b>Total Supply</b>	<b>8,049</b>	<b>6,397</b>	<b>6,331</b>	<b>6,643</b>	<b>27,420</b>	<b>1.6</b>	<b>7,759</b>	<b>6,159</b>	<b>6,319</b>	<b>6,750</b>	<b>26,987</b>	<b>-1.6</b>
<b>Disposition</b>												
Additions To Storage	255	1,173	1,270	593	3,291	4.6	258	1,185	1,283	599	3,324	1.0
Exports	324	215	193	222	953	15.9	317	202	185	205	909	-4.6
Consumption	7,470	5,009	4,868	5,829	23,176	0.7	7,184	4,772	4,851	5,946	22,754	-1.8
Lease And Plant Fuel	317	321	319	320	1,277	6.5	311	308	306	308	1,233	-3.5
Pipeline and Distribution Use	202	136	132	151	621	0.1	163	162	163	170	657	5.8
Residential	2,356	775	347	1,369	4,847	2.8	2,383	694	350	1,382	4,810	-0.8
Commercial(a)	1,302	569	382	854	3,107	3.0	1,297	497	380	850	3,024	-2.7
Industrial	1,871	1,607	1,538	1,635	6,651	0.4	1,636	1,543	1,512	1,672	6,363	-4.3
Electric Power	1,422	1,601	2,150	1,499	6,672	-2.5	1,394	1,569	2,141	1,563	6,666	-0.1
<b>Total Disposition</b>	<b>8,049</b>	<b>6,397</b>	<b>6,331</b>	<b>6,643</b>	<b>27,420</b>	<b>1.6</b>	<b>7,759</b>	<b>6,159</b>	<b>6,319</b>	<b>6,750</b>	<b>26,987</b>	<b>-1.6</b>
<b>Addendum:</b>												
Net Storage Injections	(1,636)	931	1,169	(317)	147		(1,253)	1,066	1,024	(473)	364	
End Period Working Gas In Storage	1,247	2,171	3,163	2,843	<b>2,843</b>		1,590	2,656	3,680	3,207	<b>3,207</b>	
<b>Henry Hub Price (Dollars Per mmBtu)</b>	<b>8.74</b>	<b>11.46</b>	<b>8.86</b>	<b>6.32</b>	<b>8.85</b>	<b>24.2</b>	<b>4.64</b>	<b>5.40</b>	<b>6.95</b>	<b>6.95</b>	<b>5.99</b>	<b>-32.3</b>
Gas Wells Drilled					33,733	2.5					21,926	-35.0
Total Discoveries(Bcf)					14,168	-4.3					8,551	-39.6
Discoveries Per Well(Bcf)					0.42	-6.7					0.39	-7.1
Total Revisions and Adjustments(Bcf)					4,000	0.0					4,000	0.0
Total Reserve Additions(Bcf)					18,168	-3.4					12,551	-30.9
<b>Reserve Replacement Ratio</b>					89%						61%	
Total Recoverable Reserves (Bcf)					184,308	-1.3					176,309	-4.3
<b>Reserve To Production Ratio(Years)</b>					9.0						8.6	

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

Note: May not sum to totals in all cases due to rounding.

(E) WHB Energy Research LLC estimates.

(a) 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. Hornsby & Company, Inc. and W.H. Brown may, from time to time, have positions in the futures market relative to these recommendations.