



HORNSBY & COMPANY, INC.

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Energy Risk
Management Services

U.S. Natural Gas Perspectives Monthly Review and Outlook

Summary

Since our last monthly report the prompt NYMEX natural contract has fallen by roughly \$.60 per mmBtu, with two important factors accounting for the decline. After strengthening *relative* to crude oil, natural gas has finally succumbed to the collapse in crude oil prices, a victim of interfuel competition and market arbitrage. Second, recent data from the Federal Reserve Board confirmed that manufacturing activity accelerated its decline versus the previous year in the month of December. Sentiment overall remains quite bearish, and within this context we have updated our natural gas outlook for 2009. As a preface, we would emphasize, as we have in the past, the inordinate ability of the U.S. natural gas balance to self correct. That is, almost irrespective of how bullish or bearish sentiment may be at a given point in time, there is enough “play” at the margin between interfuel competition, LNG import economics, and domestic production incentives to correct any imbalance.

Obviously at the present time fundamentals are leading the consensus to assume that a gas surplus will endure for the foreseeable future, and we concede that manufacturing activity in the fourth quarter came in weaker than our original assumptions for the period made at the beginning of 2008. At the same time, however, we believe that in the second half of the year the U.S. economy will begin to stabilize, clearly sooner than current consensus expectations. This will combine with modest levels of LNG imports and a dramatic deceleration of domestic production growth to lead to a smaller net build in working storage than previously assumed. By the same token, our analysis of January crude oil price behavior suggests that non-commercial participation on the long side will be less robust in the first half of the year than in 2008, implying a somewhat longer time period for oil price recovery. As such, despite our more constructive natural gas balance compared to our previous assessment, we are compelled to revise down our forecast prompt NYMEX/ Henry Hub average for this year by roughly \$1.00 per mmBtu to around \$6.35 per mmBtu.

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- + U.S. natural gas consumption is expected to decline by 1.0%, or some 235 bcf this year.
 - + Domestic dry gas production is forecast to rise by only 0.7%, or about 135 bcf.
 - + Our balances imply a net build in working storage this year of around 380 bcf.
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Viewpoint

Since our last monthly report the prompt NYMEX natural contract has fallen by roughly \$.60 per mmBtu from about \$5.30 per mmBtu to the current February contract value of around \$4.70 per mmBtu.

We believe that two important factors have accounted for the price decline. After strengthening dramatically relative to crude oil, reflecting a BTU-equivalent ratio rising from less than 50% to more than 70%, natural gas prices in absolute terms have finally succumbed to the collapse in crude oil prices, a victim of interfuel competition and market arbitrage.

Second, recent data from the Federal Reserve Board confirmed that in December the decline in manufacturing activity versus the prior year accelerated, with overall sentiment remaining quite bearish. Within this rather bleak picture, we have updated our natural gas balances for 2009.

As a preface, we would strongly emphasize, as we have in the past, the unique characteristic of the U.S. natural gas balance to self correct.

By this we mean that almost irrespective of how bullish or bearish fundamentals and sentiment may be at any given point in time, there is enough fundamental “play” at the margin between interfuel competition, LNG import economics, and domestic production incentives to correct any imbalance over a period of months, and not years.

Obviously at the present time fundamentals are leading the consensus to assume that a surplus of natural gas will last for the foreseeable future. We fully concede that manufacturing activity in the fourth quarter came in weaker than even our original and highly conservative assumptions for the period that were made at the beginning of 2008.

By the same token, however, we believe that in the second half of the year the U.S. economy will begin to stabilize, clearly sooner than current consensus expectations.

If we are even remotely close to the mark, this timing will combine with even more modest levels of LNG imports and a dramatic

deceleration of domestic production growth, thus leading to a smaller net build in working storage than we anticipated in last month’s report.

At the same time, however, our analysis of January crude oil price behavior suggests that non-commercial participation on the long side will be less robust in the first half of the year than in 2008.

All else equal this would imply a somewhat longer time period for WTI recovery since prices in the first six months may not have the incremental “boost” that non-commercial activity has previously provided.

As such, despite our more constructive natural gas balance compared to our prior assessment, a more protracted crude oil price recovery compels us to revise down our forecast prompt NYMEX/ Henry Hub average for this year by almost \$1.00 per mmBtu to around \$6.35 per mmBtu.

Demand: Review and Outlook

Incorporating the latest data from the Department of Energy reveals, as anecdotal evidence has suggested, that the fourth quarter of last year witnesses the greatest point of decline thus far in manufacturing activity as the recession’s grip firmly took hold.

Eight Largest Industrial Consumers Of Natural Gas December Manufacturing Output

Industry	YOY %Chg. Output
Chemicals	-11.6
Petroleum and Coal	-1.1
Primary Metals	-31.7
Paper	-11.7
Food	-1.9
Non-Metallic Mineral	-9.6
Fabricated Metal	-11.8
Transportation Equip.	-14.5

In the final analysis U.S. natural gas consumption may have risen by only 0.2%, or

possibly less last year, with early year gains almost eliminated by fourth quarter declines.

Our customary table above illustrates the December manufacturing output change from the prior year for the eight largest consumers of natural gas, and the pain is quite evident when viewed in detail.

All sectors witnessed a weakening in year-over-year comparisons in December versus November, with the greatest deterioration evident in primary metals.

Periodic cold spells have provided little or no offset to the impact from industrial gas demand, since the latest consumption data for October would imply continued conservation efforts in the residential and commercial sectors.

Electric utility sector gas demand has also moderated, and thus taking everything into consideration we are compelled to revise down our expectations for U.S. natural gas consumption in 2009.

Our projected path of manufacturing output now assumes weaker performance than previously in the first half of the year, with a recovery followed later in 2009 after a summer of stabilization.

This would imply a decline in industrial sector gas demand for the year of 2.2%, or some 145 bcf, a downward revision from last month's assessment by about 130 bcf. Electric utility sector gas demand is expected to fall marginally from last year, a downward revision of also around 130 bcf.

Assuming, as we always do, normal winter and summer weather and putting all sectors together, we now believe that U.S. natural gas demand will decline by 1.0%, or about 235 bcf, lower than last month's forecast by around 315 bcf.

**Supply:
Review and Outlook**

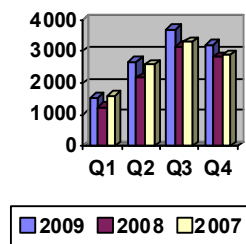
Last year's growth in domestic dry gas production from shale and "conventional" fields was of course quite impressive, and we estimate that 2008 witnessed a 6.1%, or near-1.2 tcf gain in output. This marked the largest annual rate of growth in domestic gas production in memory.

Within this context, however, statistical and anecdotal evidence from companies suggest that the rate of growth in domestic gas production is likely to decelerate materially over the next several months.

This may seem intuitively obvious given the collapse in price, but we need to take all this into the context of producer hedging strategies that have been put in place over the last couple years. It is quite clear that on a net industry basis, the market price still matters, with budgets, and eventually production, impacted accordingly.

As such, we have revised down our expectations for domestic natural gas production for 2009. We now believe that U.S. dry gas production from all sources will rise by only 0.7%, or some 135 bcf this year, a reduction from last month's expectations by a full 475 bcf.

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



While our revision is not insignificant, we believe that if we are off the mark, production will end up lower rather than higher.

Putting this revised outlook into the context of our demand and import expectations, we believe 2009 will witness a net build in working storage of some 380 bcf, a downward revision from last month's assessment by about 100 bcf.

Implications for Price

Ordinarily, an implied improvement in forecast storage position would imply an upward revision in price. However, we find ourselves in the position, given the output of our gas pricing models, that any improvement in the gas balance is more than outweighed by any revision in crude oil price assumptions.

Our expectations for crude oil will be discussed in detail in our next World Petroleum Perspectives. Suffice to say, however, that we expect to revise our forecast *path* for WTI in 2009.

We strongly emphasize, however, that we would still consider ourselves constructive relative to the consensus, which previously was too optimistic about 2009 and has decided to respond to short-term trends, passing us by on the way.

Factors influencing our revisions to the *path* of crude prices, but not the *level* ultimately achievable this year are first, the depressed state of WTI relative to other global crude oil benchmarks. Over time, we expect Cushing inventories to stabilize and decline, but it will take most of the remainder of the first and into the second quarter to do so.

Second, over the last couple years our approach when forecasting the year's average has been to wait and observe January crude oil price behavior, since we believe, confirmed by much evidence, that non-commercials such as pension funds will make major asset allocation decisions early in the year.

We have consistently stated that if WTI were to average \$75.00 per barrel or so this year, the "fundamentally justifiable" level currently targeted by Saudi oil minister Ali Naimi, **fundamentals alone will not do it.** Our Base Case global balances must be accompanied by a renewed interest in passive length by non commercials.

Right or wrong, we did not observe the magnitude of inflow into passive length in January that would help boost the market overall in 2009. Therefore, a revision in our path for WTI is required, despite little revision to our global balances.

Henry Hub Price Outlook

Average for Month of March 2009 (\$/mmBtu)

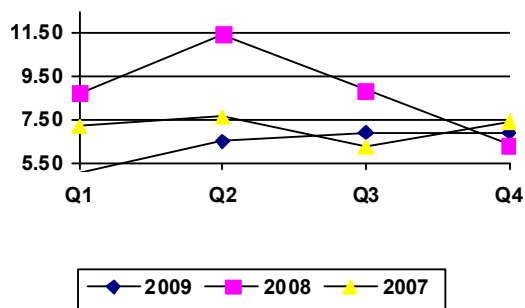
1990-2008 Relationships	\$3.05(E)
1990-1999 Relationships	\$1.60(E)
2000-2008 Relationships	\$4.25(E)

<u>2000-2008 Relationships</u>	
<u>Plus Oil Premium</u>	<u>\$5.85(E)(a)</u>

a) @ 155 cents per gallon distillate and \$50.00 per barrel WTI.

Quantifying our thoughts, our customary table above illustrates our latest outlook for a reasonable March (basis April NYMEX) Henry Hub target, now assuming \$50.00 per barrel WTI by then. Incorporating our more constructive gas balances in the context of somewhat lower crude oil prices would imply a March target of \$5.85 per mmBtu, some \$1.00 per mmBtu above the current level of the April NYMEX contract.

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



For 2009 as a whole, we now expect prompt NYMEX/Henry Hub to average about \$6.35 per mmBtu this year, a downward revision from last month's report by roughly \$1.00 per mmBtu.

January 20, 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
Supply												
Total Dry Gas Production	5,080	5,128	5,108	5,133	20,449	6.1	5,224	5,188	5,093	5,081	20,586	0.7
Withdrawals From Storage	1,891	242	101	861	3,095	-6.8	1,553	62	257	1,024	2,896	-6.4
Supplemental Gaseous Fuels	11	14	14	13	53	-12.9	11	15	14	14	54	3.2
Imports	1,096	902	955	1,034	3,987	-13.4	1,100	897	949	1,029	3,975	-0.3
Canada	1,017	798	843	934	3,592	-4.9	1,018	798	843	935	3,593	0.0
LNG	76	97	98	89	360		80	90	95	85	350	
Other	3	7	14	10	34		3	9	11	9	32	
Balancing Item	(43)	96	128	(512)	(331)		0	0	0	(485)	(485)	
Total Supply	8,035	6,382	6,307	6,529	27,252	0.9	7,888	6,161	6,314	6,663	27,027	-0.8
Disposition												
Additions To Storage	255	1,173	1,270	548	3,246	3.2	258	1,185	1,283	554	3,279	1.0
Exports	324	215	185	209	932	13.3	317	202	185	205	909	-2.5
Consumption	7,456	4,994	4,852	5,772	23,074	0.2	7,314	4,774	4,846	5,904	22,839	-1.0
Lease And Plant Fuel	307	311	309	309	1,236	5.7	313	311	306	305	1,235	-0.1
Pipeline and Distribution Use	201	134	131	152	618	-0.8	165	163	163	168	658	6.6
Residential	2,358	776	347	1,373	4,854	2.8	2,385	695	350	1,387	4,817	-0.8
Commercial(a)	1,302	569	383	843	3,097	3.0	1,297	497	381	839	3,014	-2.7
Industrial	1,866	1,603	1,532	1,632	6,633	0.0	1,760	1,539	1,506	1,681	6,486	-2.2
Electric Power	1,422	1,601	2,150	1,462	6,635	-3.5	1,394	1,569	2,141	1,524	6,628	-0.1
Total Disposition	8,035	6,382	6,307	6,529	27,252	0.9	7,888	6,161	6,314	6,663	27,027	-0.8
Addendum:												
Net Storage Injections	(1,636)	931	1,169	(313)	151		(1,296)	1,123	1,025	(470)	382	
End Period Working Gas In Storage	1,247	2,171	3,163	2,843	2,843		1,547	2,670	3,695	3,225	3,225	
Henry Hub Price (Dollars Per mmBtu)	8.74	11.46	8.86	6.32	8.85	24.2	5.07	6.50	6.90	6.90	6.34	-28.3
Gas Wells Drilled					33,733	2.5					34,239	1.5
Total Discoveries(Bcf)					14,168	-4.3					13,353	-5.7
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					17,353	-4.5
Reserve Replacement Ratio					89%						84%	
Total Recoverable Reserves (Bcf)					184,205	-1.2					180,972	-1.8
Reserve To Production Ratio(Years)					9.0						8.8	

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

Notation: (E) denotes estimated figures. All values are in billions of cubic feet unless otherwise indicated. Past performance is not indicative of future results and the risk of loss is substantial in futures. (E) WHB Energy Research Group, 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.