



HORNSBY & COMPANY, INC.

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Energy Risk
Management Services

U.S. Natural Gas Perspectives Monthly Review and Outlook

Summary

Since our last report the prompt NYMEX natural contract has declined by about \$1.00 per mmBtu. Factors contributing to the decline intrinsic to natural alone have included the absence of any sustainable cold spells in major gas consuming regions. In addition, however, data from the Federal Reserve Board confirm that manufacturing activity continued to deteriorate over the last couple months, constraining industrial sector gas demand despite lower prices. Adding to natural's woes has been the decline in crude oil prices, since over the same period of time prompt WTI has dropped by about \$15.00 per barrel, interrupted only by a pre-Thanksgiving day spike to almost \$55.00 per barrel as traders incorrectly anticipated an OPEC production cut at its November 29 "brainstorming" session. From a fundamental standpoint, our balances have required relatively little revision despite the continued deterioration in the economy. Although industrial sector gas demand has suffered, natural gas imports have been arriving below even our conservative assumptions due to weaker netbacks.

Looking ahead, we have made relatively little revision to our U.S. natural gas balances for next year. For some time now our Base Case has been characterized by lower than record storage levels moving into the 2008-2009 heating season. However, because of rising domestic production and the lagged impact of progressively weaker manufacturing activity, our balances have anticipated a lofty level of working storage coming out of the upcoming winter which will imply a net build in working storage for 2009 as a whole. With regard to price, our Base Case WTI average for next year now lies on the bullish side of expectations, given the consensus bearishness that has emerged, a 180 degree turn in market sentiment from only a few months ago. We have revised our prompt NYMEX/Henry Hub average for next year to \$7.40 per mmBtu, a \$0.60 per mmBtu reduction from last month. With WTI forecast to average \$75.00 per barrel next year, it would imply a natural to crude ratio of 59%, compared to the current ratio of about 83%.

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- + U.S. natural gas demand is expected to rise by 0.3%, or some 80 bcf next year.
 - + Domestic dry gas production is forecast to rise by 3.0%, or about 615 bcf in 2009.
 - + Our balances imply a net build in working storage of some 485 bcf next year.
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Viewpoint

Over the last month the prompt NYMEX natural contract has declined by some \$1.00 per mmBtu. As we issue this report the January NYMEX contract is trading under \$6.00 per mmBtu.

Factors contributing to the decline intrinsic to natural gas in isolation have included the absence of any sustainable pre-winter chills in major gas consuming regions.

In addition, however, data from the Federal Reserve Board confirm that manufacturing activity continued to deteriorate significantly over the last couple months, constraining industrial sector gas demand despite lower prices.

Adding to natural's woes has been the decline in crude oil prices, since over the same period of time prompt WTI has dropped by almost \$15.00 per barrel, interrupted only by a pre-Thanksgiving day spike to almost \$55.00 per barrel as traders incorrectly anticipated an OPEC production cut at its November 29 "brainstorming" session.

From a fundamental standpoint, our natural gas balances have required relatively little revision despite the continued deterioration in the U.S. economy.

Although industrial sector gas demand has suffered and growth in the utility sector has moderated, natural gas imports have been averaging somewhat below even our conservative assumptions in terms of both lower LNG volumes due to non-economic netbacks and reduced pipeline imports from Canada.

The global hedge fund de-leveraging process and credit crisis which has largely accounted for the \$100.00+ per barrel collapse in WTI since July reflecting the substantial unwinding of non-commercial positions has had its sympathetic effect on natural gas.

Despite this impact, however, natural gas has declined less, and therefore the ratio of NYMEX natural to crude oil has recovered to one of its highest levels in years.

Looking ahead, we have made relatively little revision to our U.S. natural gas balances for 2009. For some period of time our Base Case has been characterized by lower storage levels moving into the 2008-2009 heating season than the consensus had assumed last summer.

However, because of rising domestic production and the lagged impact of progressively weaker manufacturing activity adversely impacting industrial consumption, our balances have implied a large level of working storage coming out of the upcoming winter, suggesting in turn a net build in working storage for 2009 as a whole.

With regard to price, our Base Case WTI average for next year now lies on the bullish side of expectations, given the consensus bearishness that has emerged, a 180 degree turn from only a few months ago.

As discussed in our most recent World Petroleum Perspectives, we have reduced our forecast 2009 average for WTI to \$75.00 per barrel.

As such, we have revised our prompt NYMEX/Henry Hub average for next year to \$7.40 per mmBtu, a \$0.60 per mmBtu reduction from last month.

Under our WTI forecast for next year, it would imply a natural to crude ratio of 59%, compared to the current ratio of about 83%.

Demand: Review and Outlook

Incorporating the latest assessments from the DOE for the third quarter, we would now estimate that 2008 U.S. natural gas demand will rise by only 1.4%, or some 320 bcf. Weaker than expected electric utility sector demand for the third quarter largely accounted for the downward revision.

In addition, however, we have modestly trimmed our estimated industrial sector consumption for the fourth quarter in response to weaker than expected manufacturing activity for October and November as reported by the Federal Reserve Board.

Our customary table illustrated below reveals that in terms of year-over-year comparisons, November manufacturing activity deteriorated in general for the eight largest industrial consumers of natural gas relative to October. Based on anecdotal and other economic statistical evidence, this is not surprising.

**Eight Largest Industrial Consumers
Of Natural Gas
November Manufacturing Output**

Industry	YOY %Chg. Output
Chemicals	-8.7
Petroleum and Coal	-0.9
Primary Metals	-19.7
Paper	-8.1
Food	-0.3
Non-Metallic Mineral	-10.3
Fabricated Metal	-8.0
Transportation Equip.	-17.6

There is little evidence to suggest that the light is now visible at the end of the tunnel, and in fact there is a clear risk that economic activity could get even worse before it gets better.

Nonetheless, we cannot shy away from making assumptions that, right or wrong, are critical to the path of U.S. natural gas consumption in 2009.

In terms of the residential sector, which accounts for about 20% of total demand, it is somewhat more “straightforward” since our model takes home gas-furnace-weighted heating degree days and calculates demand incorporating hookup and conservation factors. As always, the best we can do is assume normal winter weather.

In terms of the industrial and electric utility sectors, however, which each account for some 28%-29% of total U.S. gas demand, it becomes more difficult in terms of the timing, as well as the intensity, of any recovery.

Our Base Case has assumed that manufacturing activity will begin to “stabilize”, as defined as not falling versus the previous year, around June of next year. Of course, many would now believe this assessment is overly optimistic, but we maintain that it is a mistake to continue to extrapolate weakness indefinitely into the future as each month of negative manufacturing activity is reported.

We would also emphasize that for the fourth quarter of next year we have assumed a gain in the FRB manufacturing index of 3.0%, which would clearly be conservative by historical recovery standards.

Putting it all together, under our weather and economic assumptions we anticipate that U.S. natural gas consumption will rise by 0.3%, or some 80 bcf in 2009, a modest downward revision from last month.

**Supply:
Review and Outlook**

As discussed in previous reports, this year’s surge in domestic gas production has been quite impressive, and would have been more so had not hurricane activity temporarily shut in GOM volumes a few months ago.

As also discussed, however, our long-standing expectation that imports, particularly LNG, would be lower than consensus expectations has been reasonable, and as mentioned earlier non-economic netbacks for incremental cargoes have constrained volumes to below our original Base Case.

Canadian pipeline volumes have also averaged a bit lower, and combined with higher exports have partially, but obviously not completely, offset rising domestic output.

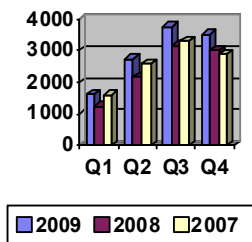
Looking to next year, we believe lower gas prices will constrain the 2009 domestic production gain to 3.0%, or about 615 bcf over 2008. If we are off the mark, we suspect the output increase will come in a bit less than we anticipate, given likely company upstream budget cuts.

Imports are expected to tick up slightly, although as with domestic output it would not surprise us if the bias is lower and not higher.

Notwithstanding this directional bias to production and imports, embracing our current Base Case suggests that by the end of the first quarter of next year working storage will lie about 395 bcf above the end of March of this year. This would come close to the end-first quarter “overage” in existence in 2006.

From there, however, the assumption that manufacturing activity will begin to stabilize and recover suggests that the storage “overage” will not build materially through the course of 2009, but rather experience a net build for the year of about 485 bcf, not materially revised from last month’s assessment.

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



Once again, however, as we have previously emphasized, **if our forecast storage build for next year is off the mark, the odds favor it lower, not higher. Our thoughts in this regard stem from the gas industry's unique ability to self correct through a combination of production and fuel switching behavior.**

Implications for Price

With financial deleveraging and weak economic activity now pervading the globe, the crude oil price clock has been turned back to early 2004, the year when our quantitative work pinpoints the beginnings of the massive non-commercial influence on oil prices. At that time, prompt NYMEX natural was trading at similar levels as well.

Sentiment across the hydrocarbon pits remains quite negative, with the consensus extrapolating, right or wrong, current conditions for the entirety of 2009. We still believe such an approach does not stand the test of time, but obviously no one holds the patent on calling all inflection points.

We believe that *modest* adjustments to price expectations remain justified at this time, particularly since we do not believe that fundamentals alone will determine the precise path of oil and gas prices going forward, just as they did not over the last four years.

As such, our customary table below "recalibrates" our short-term outlook for March, having been too optimistic for December. As illustrated, if we assume \$60.00 per barrel WTI for March, conceding that it would lie above current consensus expectations, our Henry Hub target would be \$7.10 per mmBtu.

We do not believe this "bogie" lies beyond the realm of possibility. We are not contrarians by nature, but rather relative "steady-staters" compared to the consensus, concentrating on longer-term trends and not the price of the moment, right or wrong.

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

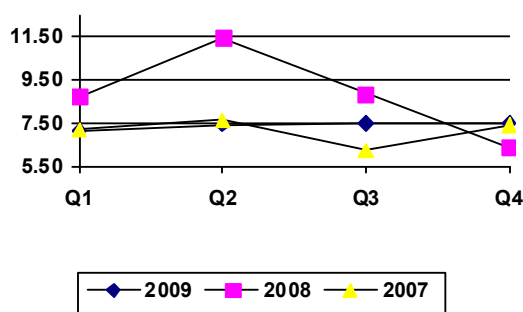
1990-2008 Relationships	\$2.90(E)
1990-1999 Relationships	\$1.50(E)
2000-2008 Relationships	\$4.00(E)

2000-2008 Relationships
Plus Oil Premium **\$7.10(E)(a)**

a) @ 170 cents per gallon distillate and \$60.00 per barrel WTI.

For 2009 as a whole, some adjustment is necessary despite little revision to our gas balance given our current WTI outlook for \$75.00 per barrel. As such, we now believe prompt NYMEX/Henry Hub natural will average about \$7.40 per mmBtu next year, a downward revision of \$0.60 per mmBtu.

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



December 19, 2008

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	5,110	5,089	20,407	5.9	5,232	5,282	5,263	5,242	21,020	3.0
Withdrawals From Storage	1,891	242	101	685	2,919	-12.1	1,646	96	243	812	2,797	-4.2
Supplemental Gaseous Fuels	11	14	14	13	53	-12.9	11	15	14	13	54	1.5
Imports	1,096	902	949	1,054	4,000	-13.1	1,100	900	958	1,059	4,017	0.4
Canada	1,017	798	836	950	3,602	-4.6	1,018	798	837	950	3,603	0.0
LNG	76	97	98	94	365		80	92	110	100	382	
Other	3	7	14	10	33		3	9	11	9	32	
Balancing Item	(43)	96	191	(89)	155		0	0	0	(270)	(270)	
Total Supply	8,035	6,382	6,365	6,753	27,535	2.0	7,990	6,292	6,479	6,856	27,617	0.3
Disposition												
Additions To Storage	255	1,173	1,270	551	3,249	3.3	258	1,185	1,283	557	3,282	1.0
Exports	324	215	194	205	938	14.0	317	202	185	205	909	-3.0
Consumption	7,456	4,994	4,901	5,997	23,348	1.4	7,415	4,905	5,011	6,095	23,426	0.3
Lease And Plant Fuel	307	311	309	305	1,232	5.3	314	317	316	315	1,261	2.3
Pipeline and Distribution Use	201	134	133	158	626	0.5	165	166	168	173	672	7.4
Residential	2,358	776	347	1,421	4,902	3.8	2,385	695	350	1,436	4,866	-0.7
Commercial(a)	1,302	569	383	892	3,146	4.6	1,297	497	381	888	3,063	-2.7
Industrial	1,866	1,603	1,532	1,643	6,644	0.2	1,804	1,597	1,555	1,675	6,630	-0.2
Electric Power	1,422	1,601	2,197	1,577	6,797	-1.1	1,450	1,633	2,241	1,608	6,933	2.0
Total Disposition	8,035	6,382	6,365	6,753	27,535	2.0	7,990	6,292	6,479	6,856	27,617	0.3
Addendum:												
Net Storage Injections	(1,636)	931	1,169	(134)	330		(1,388)	1,089	1,039	(255)	485	
End Period Working Gas In Storage	1,247	2,171	3,163	3,029	3,029		1,641	2,729	3,769	3,514	3,514	
Henry Hub Price (Dollars Per mmBtu)	8.74	11.46	8.86	6.39	8.86	24.4	7.17	7.42	7.50	7.52	7.40	-16.5
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%						83%	
Total Recoverable Reserves (Bcf)					184,246	-1.2					180,580	-2.0
Reserve To Production Ratio(Years)					9.0						8.6	

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. Historical Data: U.S. Department of Energy, trading, Hornsby & Company, Inc. and W.H. Brown may, from time to time, have positions in the futures market relative to these recommendations.

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

(E) WHB Energy Research LLC estimates.

(a) Includes minor use as vehicle fuel.