



Natural Gas Supply and Demand Outlook

My, How Things Have Changed Since Two Years Ago!

**DOE and NASEO Winter Fuels Conference
October 6, 2009**

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Disclaimer

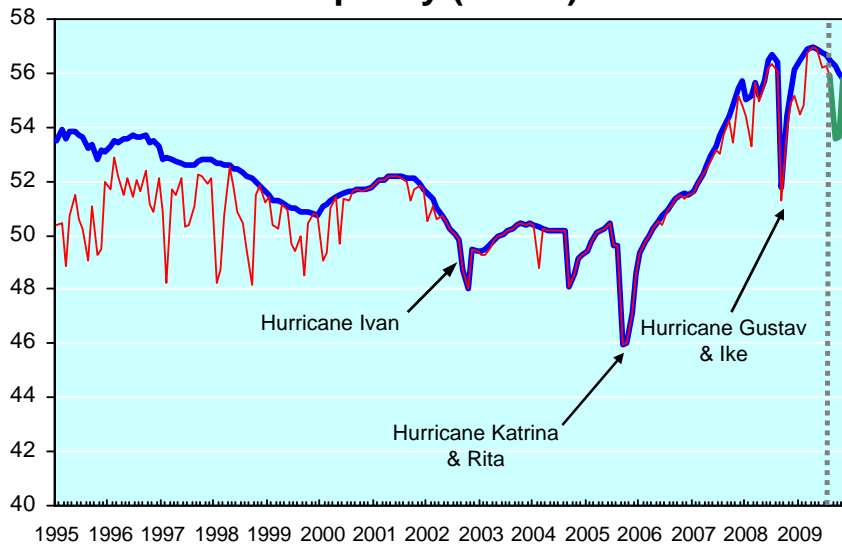
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Contents

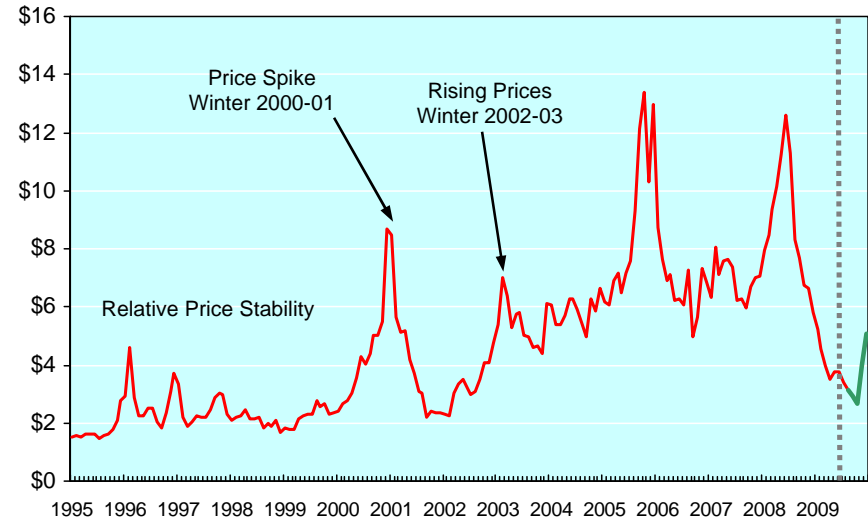
- Review of Recent Trends in the Natural Gas Market
- 2009-2010 Outlook
- Parameters to Watch
- Conclusions

The Natural Gas Balance

Lower-48 Dry Gas Production Vs. Dry Gas Capacity (BCFD)



Gas Price at Henry Hub (Dollars per MMBtu)



Source for Historic Data: Platts Gas Daily

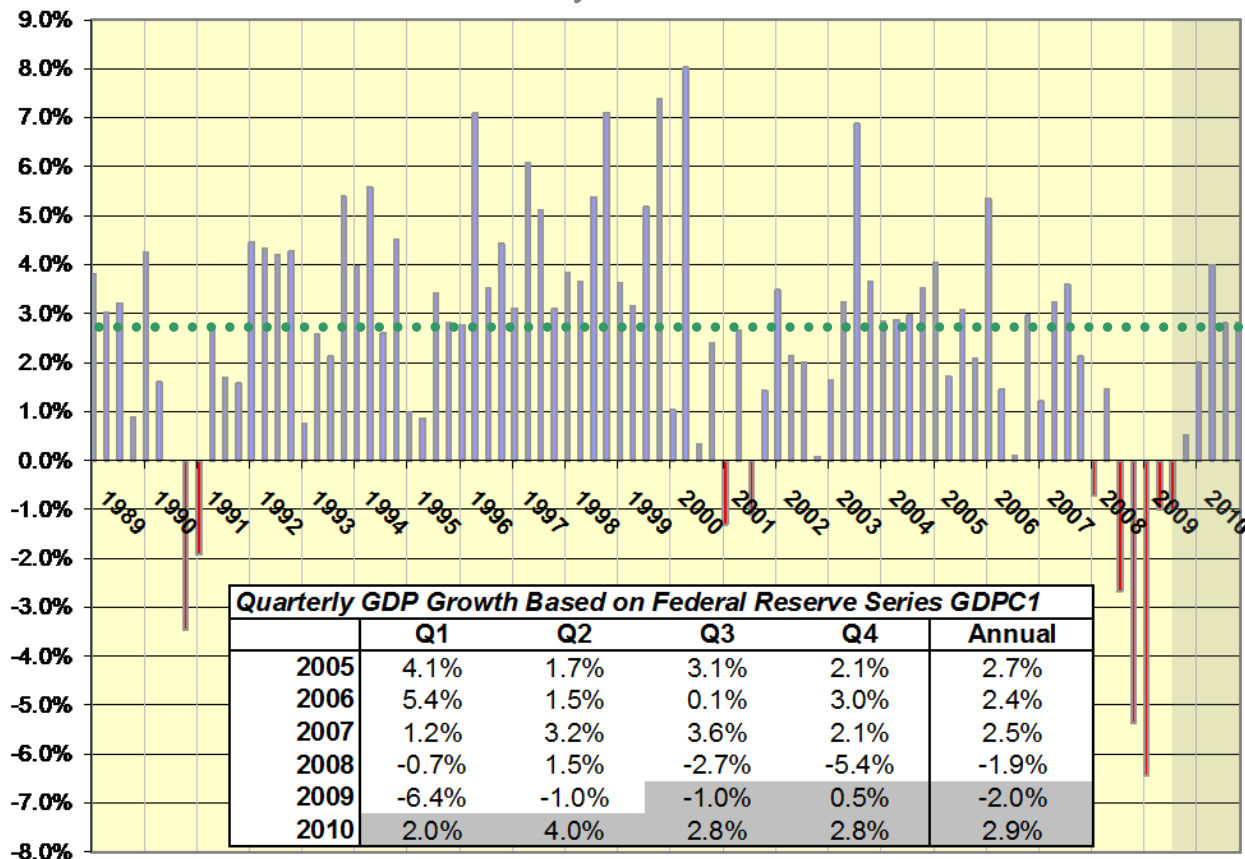
The recent downturn in the economy has led to a relatively looser balance between natural gas supply and demand.

Economic Growth Trends

- Until this past year, the U.S. had not experienced a major recession since the early 1980s.
 - The U.S. economy has seen four straight quarters of negative growth, the longest downturn since the early 1980s.
- GDP growth from 1988 to 2007 (before the current recession) averaged 3.0% per year.

ICF projects GDP to grow at an average of 2.8% per year after this recession.

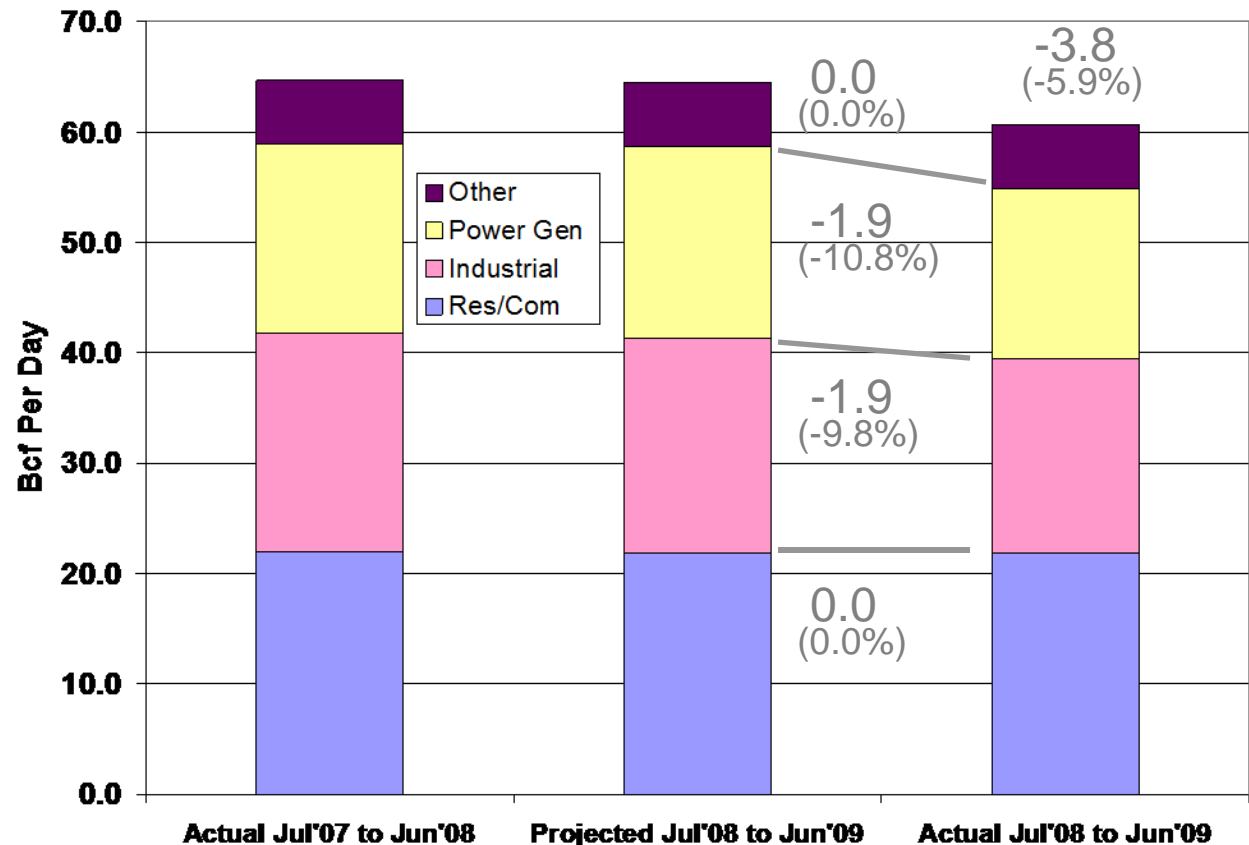
Quarterly GDP Growth



Historical U.S. Gas Use

Average Bcfd July through June

- Recession has reduced U.S. gas consumption by an average of 3.8 Bcfd (or by 5.9%) versus recent levels.
- The decline is concentrated in the industrial and power sectors.



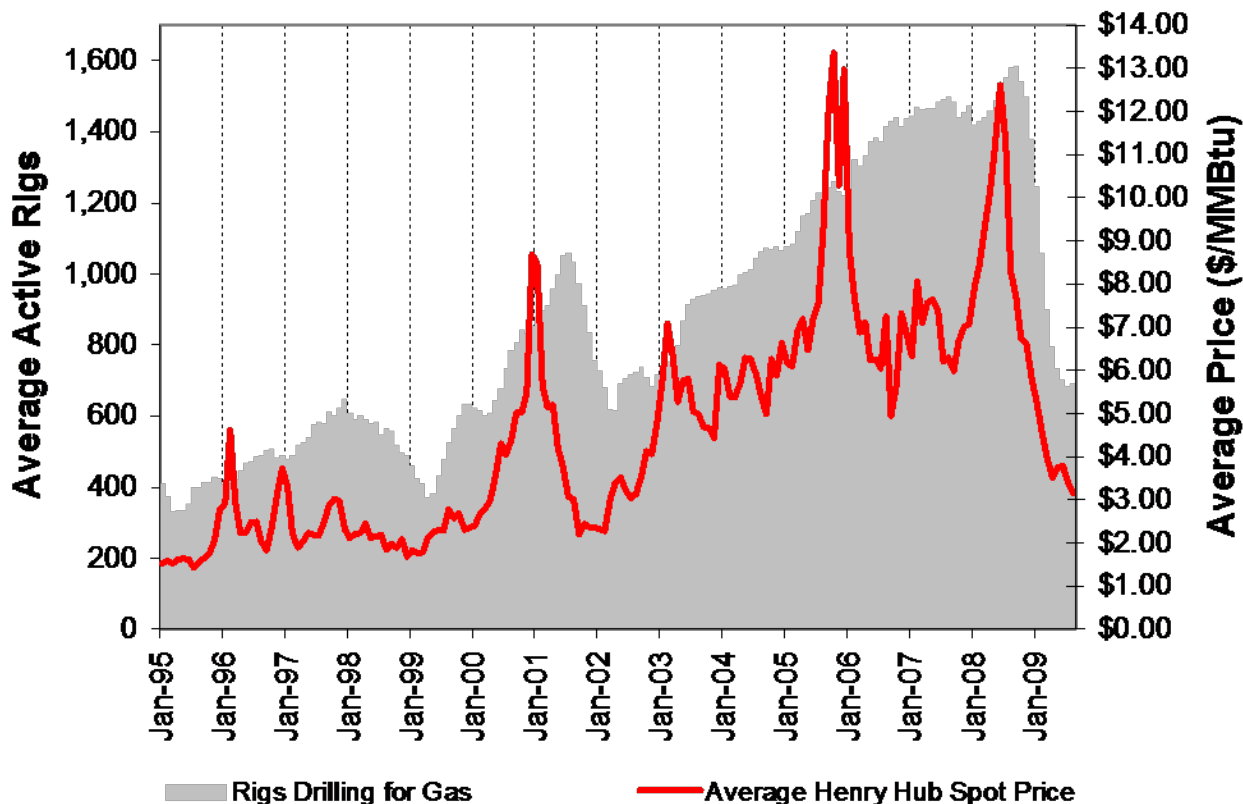
Recent Gas Production (Bcf per year)

➤ Changes in drilling activity and production growth have been more heavily concentrated in a few areas.

Supply Area	2005	2006	2007	2008
Northern Rocky Mountain Basins	2,284	2,461	2,700	3,081
Midcontinent Shales	652	813	1,265	2,142
Other U.S. and Canada	22,071	22,433	22,510	21,695
Total U.S. and Canada	25,007	25,707	26,475	26,918

E&P Activity

**U.S. Gas Directed Drilling Activity and Gas Prices
(Rigs and Prices Through August, 2009)**

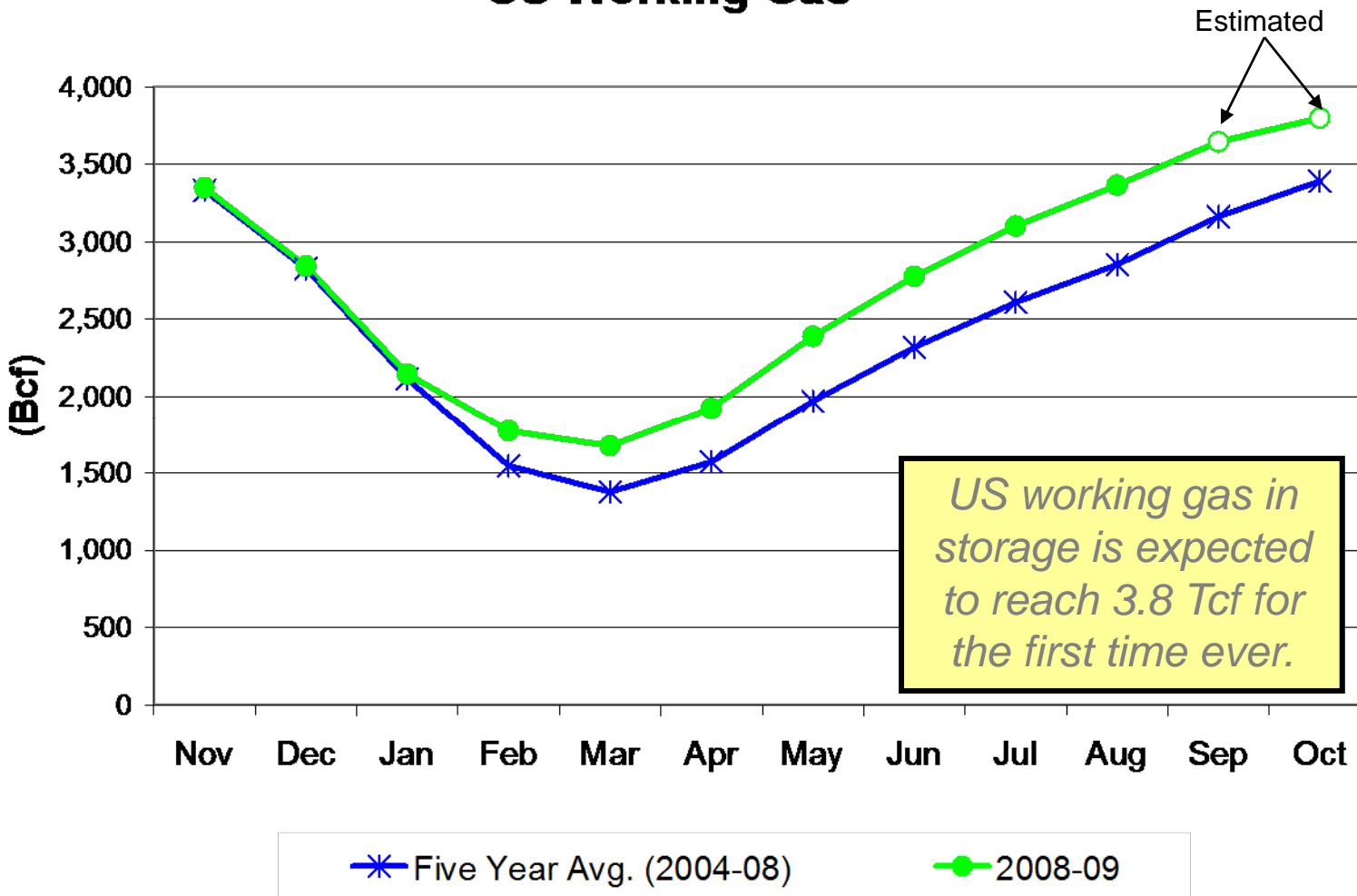


Future
Drilling
Activity?

Drilling activity has cratered as along with gas prices.

Gas Storage Trends

US Working Gas



Summary of Recent Trends

- Deep recession has caused a significant decline in gas consumption.
 - Gas use in the industrial and power sectors is off by about 10 percent versus recent levels.
- Supply had been growing, significantly.
 - Mostly a result of robust growth in the Midcontinent shales.
- U.S. Gas storage is at a historical high, and capacity will be “full” entering this winter.

U.S. Gas Supply/Demand Balance

(Billion cubic feet per day)

Story Line

1) As the economy rebounds, gas demand will firm, but market will still be relatively soft during the next year.

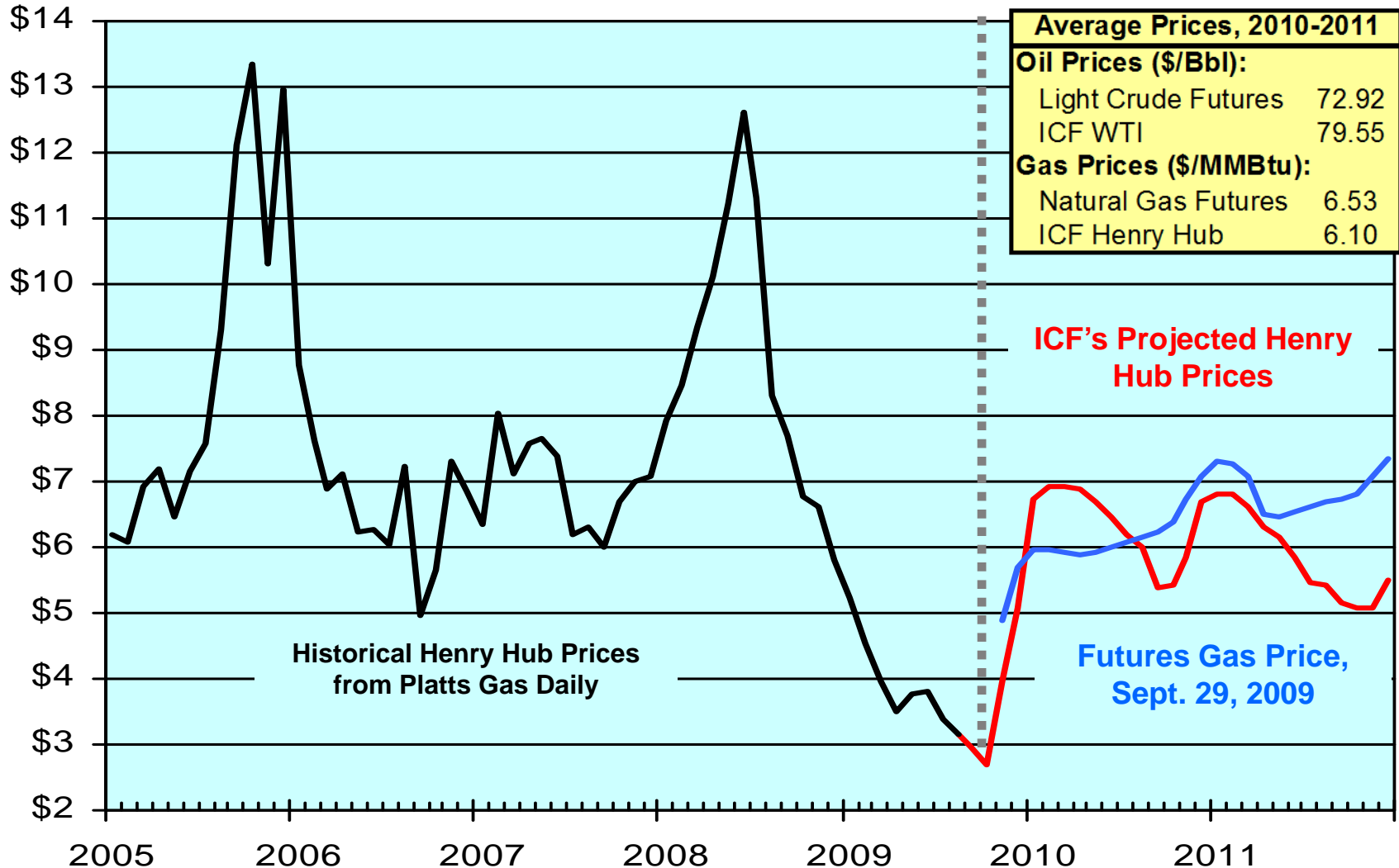
2) Gas production will decline as the reduced level of drilling activity takes effect. Declining production with firming demand will tighten the supply/demand balance for gas somewhat during the next year.

	Winter			Injection Season		
	2007-08	2008-09	2009-10 ¹	2008	2009	2010 ¹
Gas Demand	78.4	74.0	76.4	63.3	63.0	62.4
<i>R/C/I Gas Use</i>	57.9	54.7	57.0	29.9	29.7	30.5
<i>Power Gas Use</i>	14.5	13.3	13.3	17.4	17.4	16.2
<i>Other Gas Use</i>	6.0	6.0	6.1	5.7	5.8	5.6
<i>Net Injections</i>	NA	NA	NA	10.3	10.1	10.1
Gas Supply	79.2	74.9	77.1	64.0	63.5	62.9
<i>U.S. Production</i>	56.1	56.5	56.3	56.3	57.0	55.3
<i>Net Imports</i>	7.5	6.9	6.5	7.7	6.5	7.6
<i>Net Withdrawals</i>	15.6	11.5	14.3	NA	NA	NA
Balancing Item (S-D)	0.8	0.9	0.7	0.7	0.5	0.5

1. Projected results assume normal weather, and no significant hurricane disruptions of gas production.

The supply/demand balance in the North American Natural gas market is loose right now, but likely to firm over the next 6 to 12 months – very dependent on the rebound in economic activity.

Henry Hub Natural Gas Prices (\$ per MMBtu)

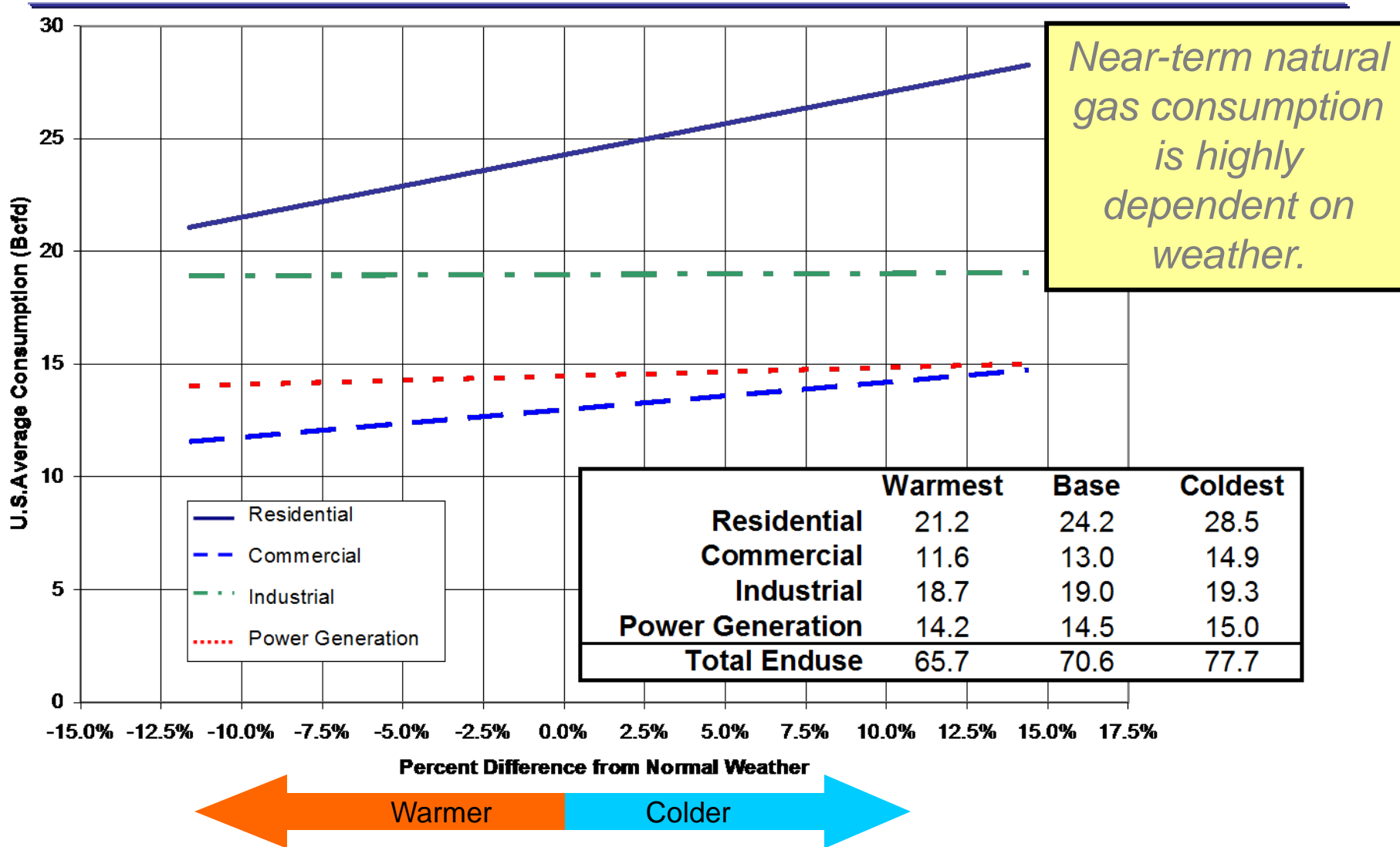


Parameters to Watch During the Next Year

- Weather
- The Economy
- Oil Prices
- Drilling Activity and Well Completions

U.S. Gas Consumption versus Weather

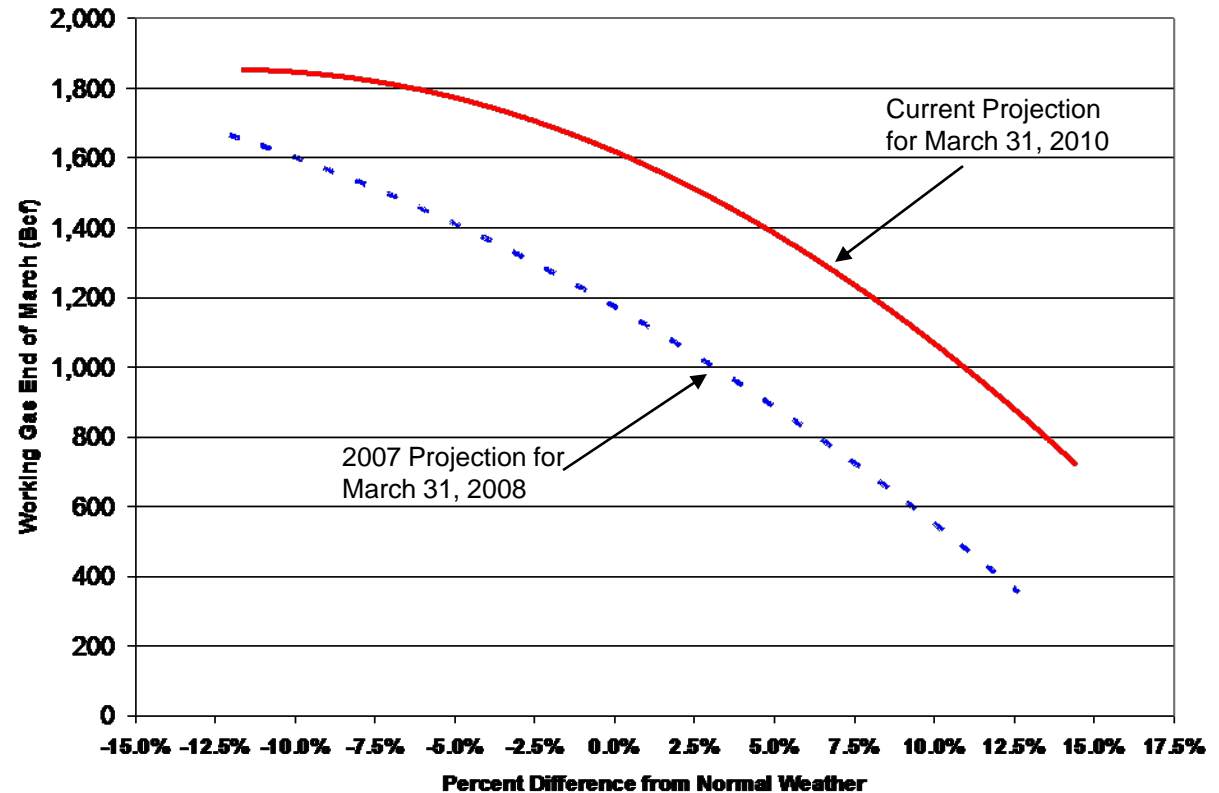
Projected Averages from November 2009 through March 2010



U.S. Working Gas Level Versus Weather

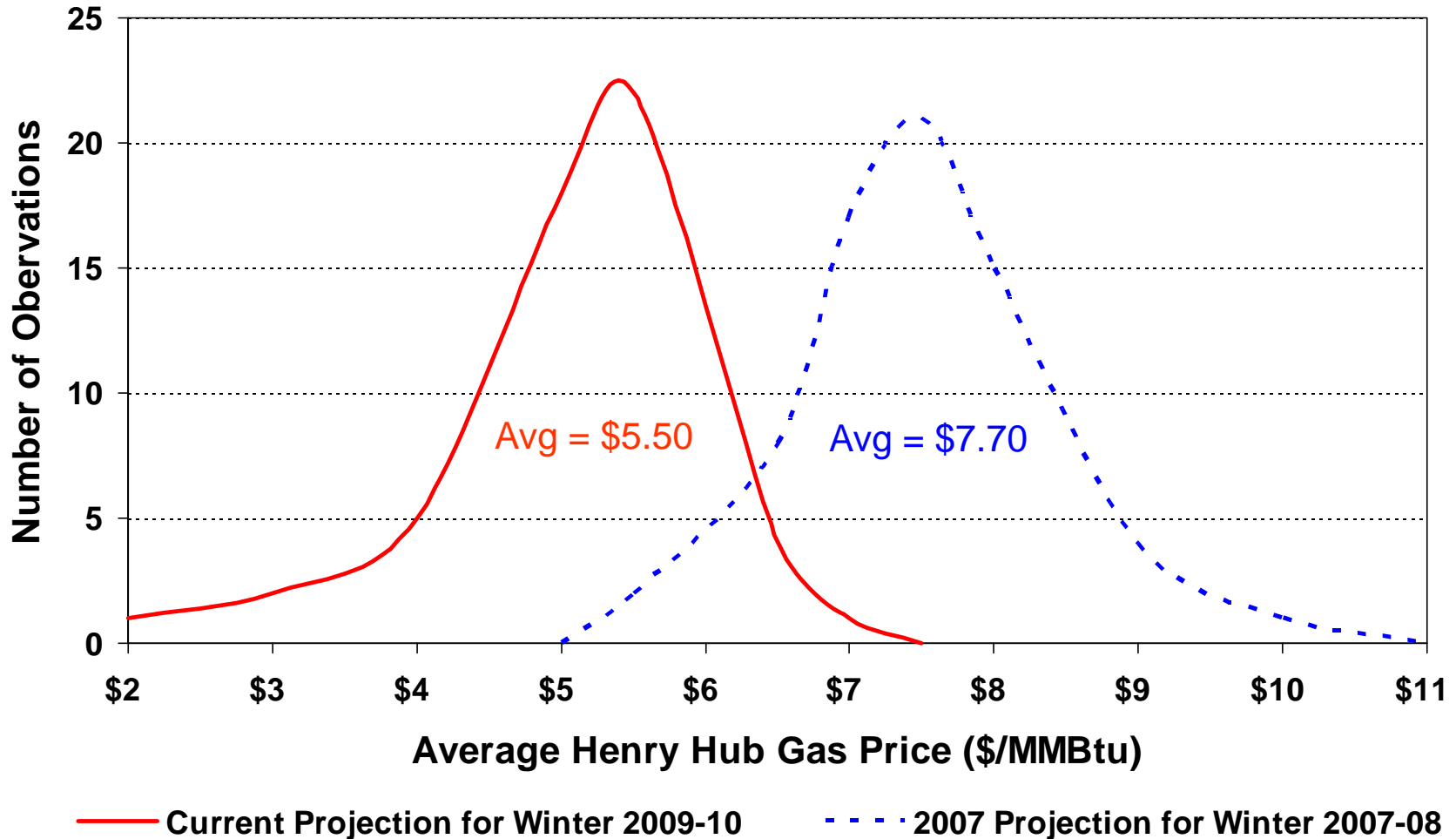
Projected Values for March 31

- 1) Changes in U.S. gas use balance with gas from storage.
 - 2) The upper limit for U.S. working gas in storage at the end of the winter is thought to be around 1,800 Bcf due to cycling requirements.
- The lower limit for U.S. working gas in storage at end of winter is believed to be about 500 Bcf due to system constraints.



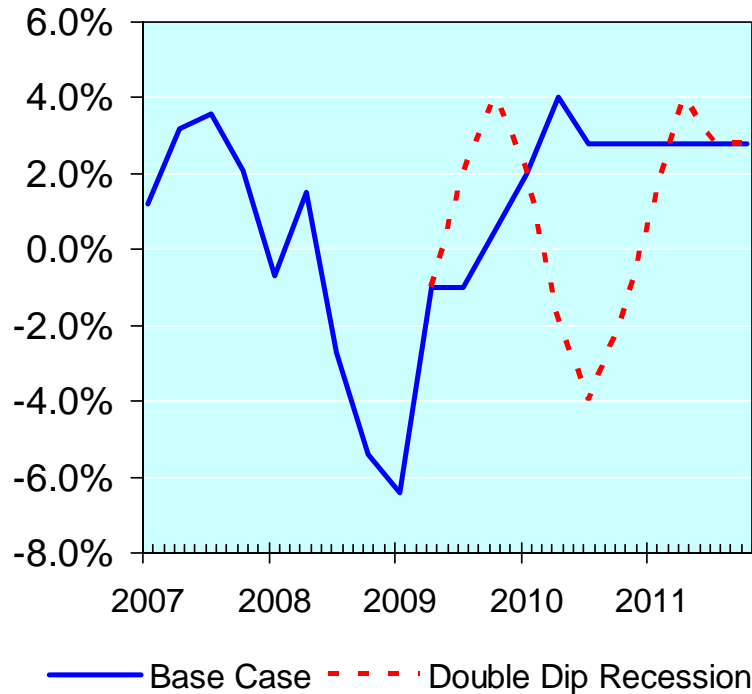
Projected Henry Hub Price Distributions

Winter Price Projections Considering Different Weather Scenarios

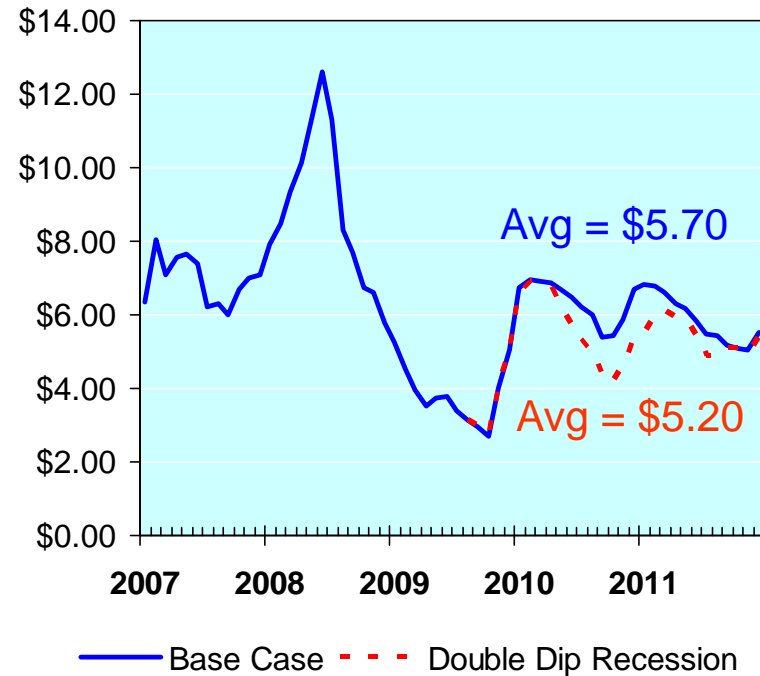


Impact of Economic Activity

GDP Growth Rate



Gas Price at Henry Hub (Dollars per MMBtu)



Conclusions

- 1) *The severe economic downturn, coupled with growing gas supply, has led to the looser balance between natural gas supply and demand and lower gas prices during the past 6 months.*
- 2) *The balance is expected to tighten and gas prices will firm back to near \$6 per MMBtu as the economy rebounds, consistent with futures market levels.*
- 3) *However, near-term parameters such as weather and the economy warrant close watch.*
- 4) *Weather can move gas prices up or down by a few dollars per MMBtu (risk appears to be greater in the downward direction right now).*
- 5) *A “double dip recession” would put downward pressure on gas prices, but the bigger impact would be on drilling activity as gas producers would likely keep rigs stacked for a longer period of time.*



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