New York Energy Forum 2013-
Price Outlook for Oil and Natural Gas Markets

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January 10, 2013

Primary Thesis: Déjà Vu All Over Again
The Role of Fundamentals and Financials in Crude Oil and Natural Gas Price Determination

- From a qualitative and quantitative standpoint, ***both*** fundamental and financial factors have played significant roles in NYMEX crude oil price determination over the last few years, but neither group of factors is perfectly ***consistent*** and ***continuous*** in its "explanatory power".

- Rather, it is the ***interplay*** of both sides of the equation over time with varying degrees of influence, either independently or together, during ***discrete*** time periods that ***link to form a continuous chain,*** ultimately yielding the actual path of NYMEX crude oil prices.

- In contrast, our research has shown that NYMEX natural gas prices respond primarily to the underlying changes in the U.S. natural gas balance.

Fundamentals
2013

- The Oil Bottom Line:

  Saudi crude oil deliveries expected to average roughly 9.7 MMB/D this year, modestly below our estimated average for 2012. However, sales remain within range of contractual tolerances, hence no effective "swing supplier" role or confrontation with Iraq.

  We expect world oil demand to be stronger than current consensus expectations, but non-OPEC supply will witness a healthy gain while select OPEC members will increase production, notably Iraq.

  Iran will probably be a geopolitical "factor" once again, but still unable/unwilling to "close" the Strait of Hormuz. Although relatively "quiet" last year, we still believe Iraq can be a major supply wildcard in 2013 with the risk that Prime Minister al-Malaki becomes a "benevolent dictator".

- The Natural Gas Bottom Line:

  Assuming "normal" first quarter weather, working storage will move into a significant deficit to last year, but end-March marks the most favorable comparison to 2012. U.S. manufacturing activity continues on course.

As We Begin The New Year....

- Fund allocations to oil have been relatively "restrained".
- Ever-present pain of Washington dysfunction encourages first quarter caution.
- Funds now contemplating impact on oil prices of possible end to Fed QE if unemployment rate drops to 6.5%.
- Our primary thesis: U.S. and global economy will continue to muddle along at a moderate rate of growth irrespective of what the Beltway ends up with; QE has had little or impact on oil market *fundamentals.*

Financials 2013
The “Tactical ” Perspective:

- In the last couple of years we have presented the argument that on a short-term basis one could observe what appeared to be the influence of funds via early-month asset allocation decisions.

- The early-month gain or loss (investment/disinvestment) relative to the average of the subsequent trading days was a function of economic optimism/pessimism, QE or no QE, and more recently “fiscal cliff” concerns.

- In 2012, one could argue that such a pattern appeared evident with both NYMEX crude and ICE Brent, although the pattern of NYMEX crude appeared somewhat more discernable since during any given month Brent would tend to respond more to any geopolitical incident.

- We believe 2013 will probably be similar to 2012 in this regard.

The "Tactical" Perspective

Profile of Monthly Prompt NYMEX Crude Oil Contract Settlements in 2012

	Average	**Max**	**Min**	**Max-Min**	**Price Peak: First 3 Trading Days**	**Average: Remaining Trading Days**	**Price Peak Minus Average**
January	$100.32	$103.22	$98.46	$4.76	$103.22	$100.01	$3.21
February	$102.26	$109.77	$96.36	$13.41	$97.84	$103.14	($5.30)
March	$106.21	$108.84	$102.78	$6.06	$108.84	$106.01	$2.83
April	$103.35	$105.23	$101.02	$4.21	$105.23	$103.31	$1.92
May	$94.72	$106.16	$86.53	$19.63	$106.16	$93.15	$13.01
June	$82.41	$85.02	$77.69	$7.33	$84.29	$82.17	$2.12
July	$87.97	$92.66	$83.75	$8.91	$88.39	$88.17	$0.22
August	$94.16	$97.26	$87.13	$10.13	$91.40	$94.91	($3.51)
September	$94.56	$99.00	$89.98	$9.02	$95.53	$94.40	$1.13
October	$89.57	$92.48	$85.54	**$6.94**	$92.48	$89.38	$3.10
November	$86.73	$89.28	$84.44	**$4.84**	$87.09	$86.88	$0.21
December	$88.43	$92.27	$85.56	**$6.71**	$89.09	$88.42	$0.67
Mean	$94.22	$98.43	$89.94	$8.50	$95.80	$94.16	**$1.63**

The "Tactical" Perspective

Profile of Monthly ICE Brent Crude Oil Contract Settlements in 2012

2012	Average	Max	Min	Max-Min	Peak First 3 Trading Days	Average: Remaining Trading Days	Price Peak Minus Average
January	$111.43	$113.70	$109.81	$3.89	$113.70	$111.10	$2.60
February	$119.01	$125.47	$111.56	$13.91	$114.58	$120.12	($5.54)
March	$124.54	$126.22	$121.98	$4.24	$126.20	$124.54	$1.66
April	$120.49	$125.43	$117.97	$7.46	$125.43	$119.83	$5.60
May	$110.43	$119.66	$101.87	$17.79	$119.66	$109.24	$10.42
June	$95.93	$100.64	$89.23	$11.41	$98.85	$95.46	$3.39
July	$102.86	$107.80	$97.34	$10.46	$100.70	$103.41	($2.71)
August	$108.07	$116.90	$105.40	$11.50	$108.94	$113.54	($4.60)
Septembe	$112.89	$116.90	$108.19	$8.71	$114.18	$112.76	$1.42
October	$111.53	$115.80	$107.85	**$7.95**	$112.19	$111.66	$0.53
Novembe	$109.34	$111.70	$105.75	**$5.95**	$108.23	$109.69	($1.46)
Decembe	$109.11	$111.11	$107.02	**$4.09**	$109.84	$109.22	$0.62
Mean	$111.30	$115.94	$107.00	$8.95	$112.71	$111.72	**$0.99**

Financials 2013:
The "Strategic" Perspective:

- With regard to financial factors, we have looked at a number of variables against NYMEX crude oil prices.

- These variables include:
  - The categories of the weekly CFTC Commitments of Traders Report
  - Changes and/or expectations of changes in Fed policy
  - The equity market as represented by the S&P 500
  - The dollar/euro rate

- Of course, these factors are not mutually exclusive. If hypothetically there is a close relationship between oil prices and CFTC fund position data, those positions are established for a reason, e.g. Fed policy, positive/negative economic expectations, etc. which implies in turn a close relationship between oil prices and those catalysts for fund positions.

Results: CFTC Data: Explanatory or Not?

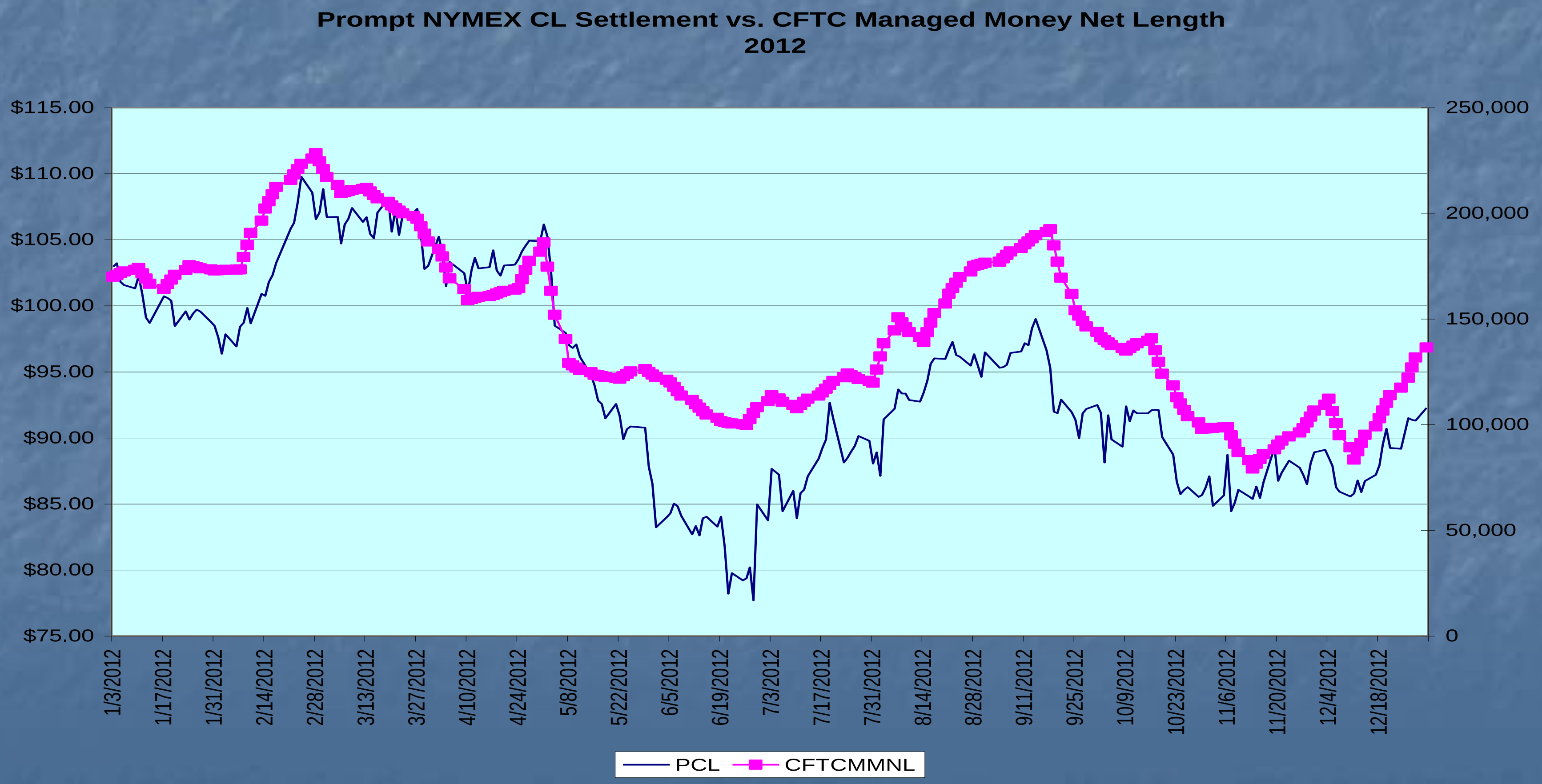
Correlation Between the Prompt NYMEX Crude Oil Settlement
And
The Change in Managed Money Net Position

2007	**0.42**
2008	**0.41**
2009	**0.72**
2010	**0.75**
2011	**0.64**
2012	**0.81**

- The relatively higher correlation in more recent history, on average, suggests that **either Managed Money is concurrently *reacting* to short-term fundamental developments (read demand) or is helping to *cause* prices to rise or fall.** This obviously begs the question of correlation versus causality. To believe that Managed Money is reacting to fundamentals, however, perhaps ***presupposes a real-time, continuous, and near-perfect knowledge of fundamental developments in the physical market, which we believe is unlikely given anecdotal evidence of the profile of the average oil trader these days who has come into the market as commodities became a more popular asset class.***

Financials: CFTC Data: Explanatory or Not?

- Once again we would make the point that "Managed Money" has a strong explanatory power regarding NYMEX crude oil, but generally during *discrete* periods *within* a given year.



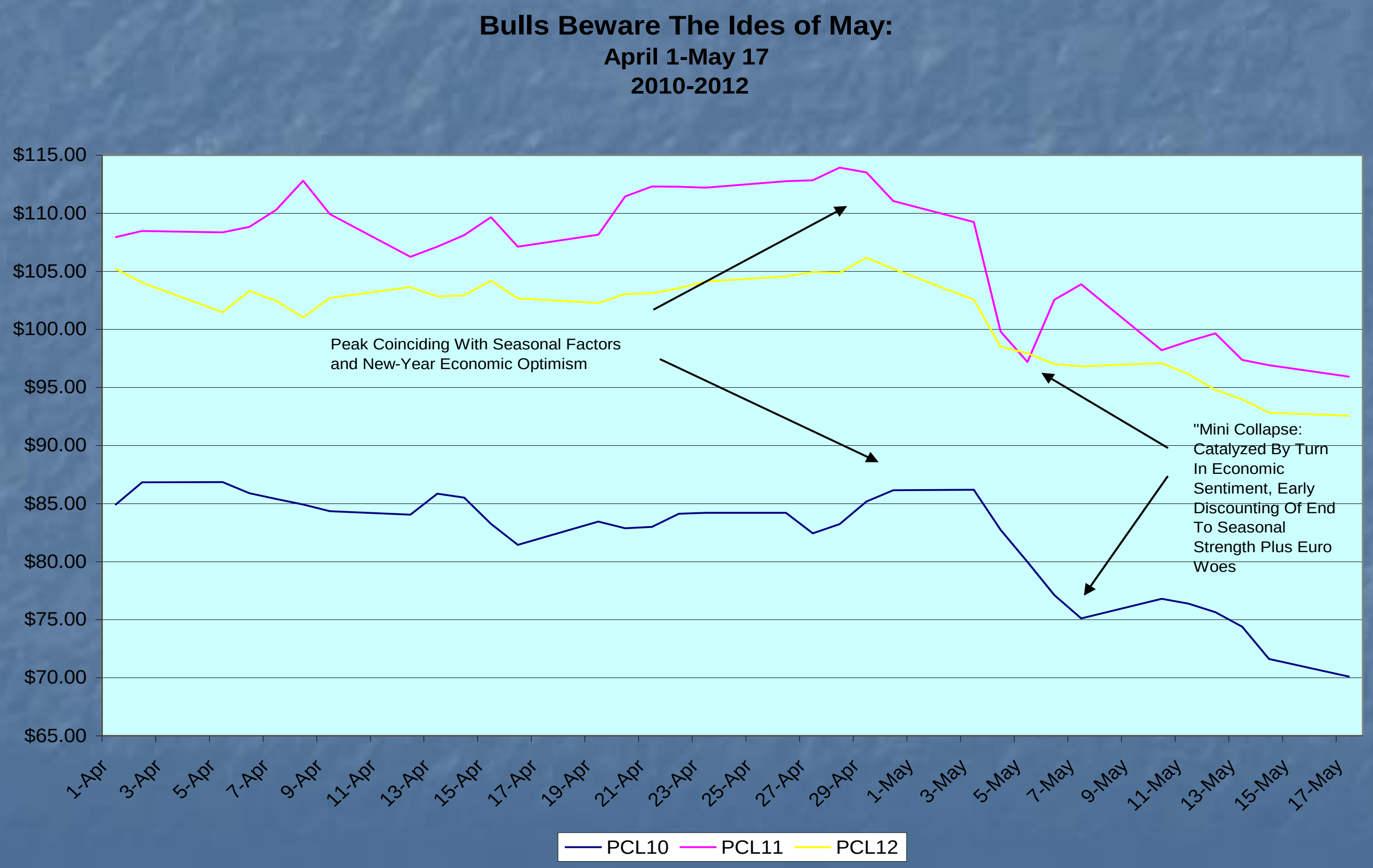
Financials:
Prompt NYMEX Crude Oil vs. S&P 500

Correlation,
S&P 500 Close vs. Prompt NYMEX Settlements

2004	**0.00**
2005	**0.25**
2006	**0.40**
2007	**0.15**
2008	**0.66**
2009	**0.76**
2010	**0.76**
2011	**0.46**
2012	**0.00**

The "heydays" of consistent positive relationships were in 2009 and 2010 due to the market's preoccupation with economic recovery and the assumption that economic growth = oil demand = oil prices

Bulls Beware The Ides of May



Price Components in Yet Another "Recovery" Year 2013: Conclusions

- The overall fundamental global balance should remain competitive in 2013 with excess producing and refining capacity suggesting lower prices than $80.00 per barrel, basis WTI.
- However, funds and other non-commercials will be intent upon allocating incremental capital to oil this year, even if Washington punts.
- Thus, a higher price "bar" will be established from which prices will rise seasonally as we move through the first half of the year from a first quarter trough.
- We continue to believe, however, that in the current economic environment a "terminal value" for crude oil exists, i.e. WTI at around $105.00-$110.00 per barrel and Brent at around $125.00-$130.00 per barrel which, if reached, will catalyze fund net length liquidation. ***Funds will limit their net length liquidation, however, in order to retain some exposure to the possibility of generating "excess" portfolio returns.***

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- ***We are therefore still suggesting a crude oil price cycle composed of mini "boom and bust" for the foreseeable future.***

Price Components in Yet Another "Recovery" Year 2013:
Adding It All Up

- 2012 Post Mortem:

  At last year's presentation WTI was trading at roughly $101.00 per barrel with dated Brent at about $112.00 per barrel. We forecast the prompt NYMEX crude oil contract to average $98.50 per barrel with dated Brent averaging $107.25 per barrel for 2012 based on fundamentals overlaid with a "robust" financial outlook.

- The actual averages for last year were WTI, $94.22 per barrel and dated Brent, $111.65 per barrel. We'll blame a dysfunctional Washington for the actual "underage" on WTI and Iran for the actual "overage" of Brent, i.e. the WTI-Brent differential averaged more than we originally anticipated. If we take full, (but unjustifiable!) license and just average the two crudes, we were only 6 cents per barrel off the mark.

- Our fundamental balance was reasonable, with demand and non-OPEC supply fairly close on target.

- Our expected second quarter seasonal price recovery did not last as long as history would suggest, with once again euro and global economic concerns derailing the second quarter rally in early May for the third year in a row.

Price Outlook for Another "Recovery" Year 2013:

Prompt NYMEX Crude Oil and Dated Brent

	Prompt NYMEX CL	Dated Brent	Differential
Q1	$92.00	$111.25	-$19.25
Q2	$99.00	$115.25	-$16.25
Q3	$93.00	$107.75	-$14.75
Q4	$94.00	$106.75	-$12.75
Year	$94.50	$110.25	-$15.75

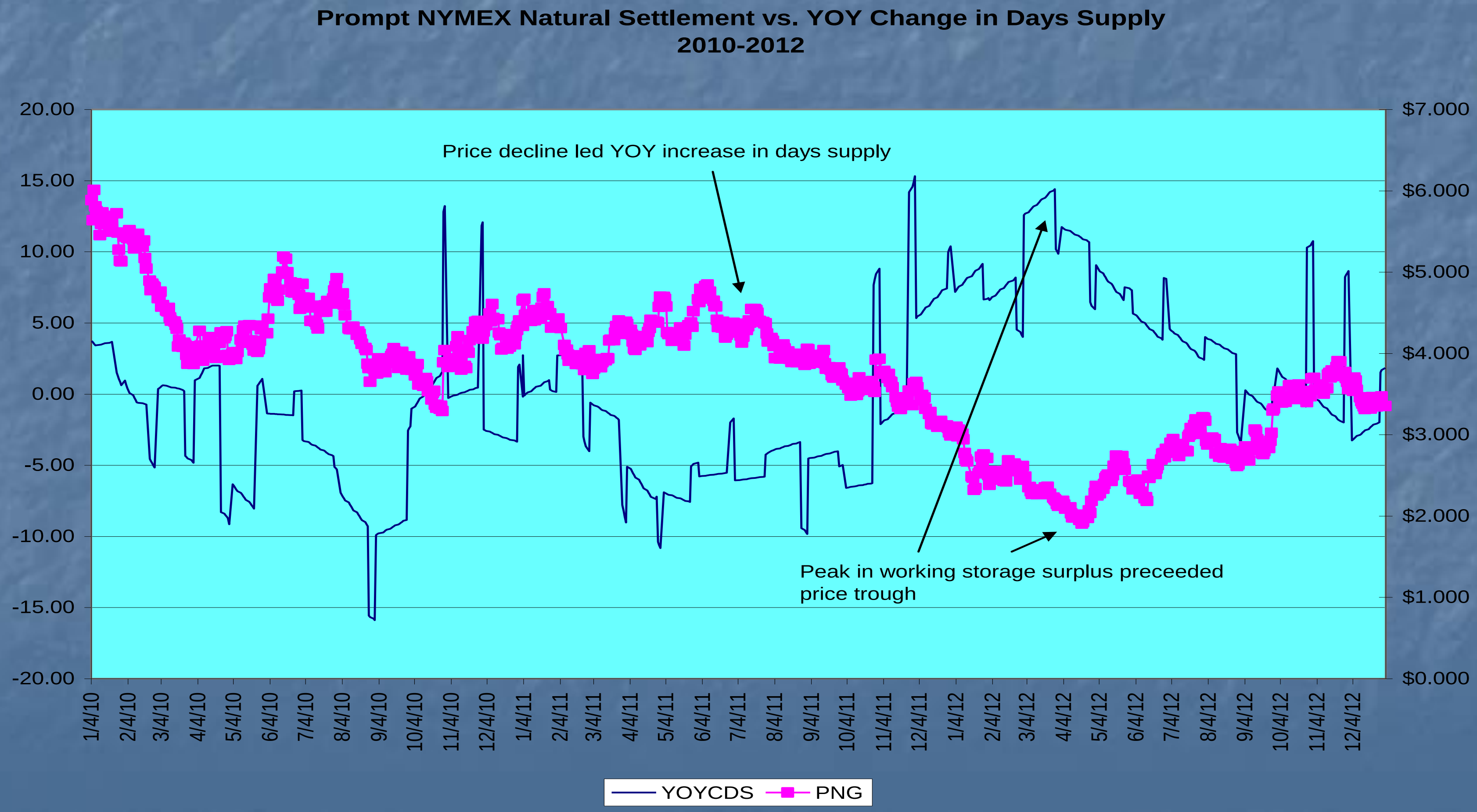
First quarter price risk is probably upside, not downside, irrespective of Washington's antics. If prices end up higher, however, we once again would not extrapolate into our second quarter seasonal rise from a higher Q1 trough since Q2 prices approach our long-standing estimated "terminal value".

U.S. Natural Gas Prices

- An analysis of the U.S. natural gas market reveals little consistent, *quantifiable* influence on NYMEX natural gas prices from funds.

- Our research has shown that NYMEX natural gas prices *do* respond to fundamentals, e.g. the change in price versus the change in year-over-year working storage comparisons, or the change in price versus the change in year-over-year days supply.

Prompt NYMEX Natural Gas Settlement vs. YOY Change in Days Supply



NYMEX Natural Outlook 2013

- Assuming (heroically) even close to a normal winter, working storage should move into a hefty deficit to last year by the end of March.
- Thereafter, the YOY storage comparison will be progressively less favorable as production growth accelerates once again in response to price, even if our weather and manufacturing assumptions are close to the mark.
- Prompt NYMEX/Henry Hub is expected to average $3.80 per mmBtu this year, a forecast for 2013 intact since June of 2012.