

Energy Market Outlook Any Upside to the Downturn?

Prepared For:

Southwest Chemical Association



Stephen Jones
January 13, 2011



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Purvin & Gertz – Background

- Ø Founded in 1947 – in business for 64 years
- Ø Independent global firm owned by active consultants
- Ø Provide technical, commercial and strategic advice in the petroleum, natural gas, gas liquids, chemical and power generation industries
- Ø Consulting staff of Chemical Engineers/MBAs
 - § Technical, commercial and financial experience with an average of 25 years firm-wide



Combining our global presence and local knowledge to provide world class assistance . . .



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Energy Market Outlook

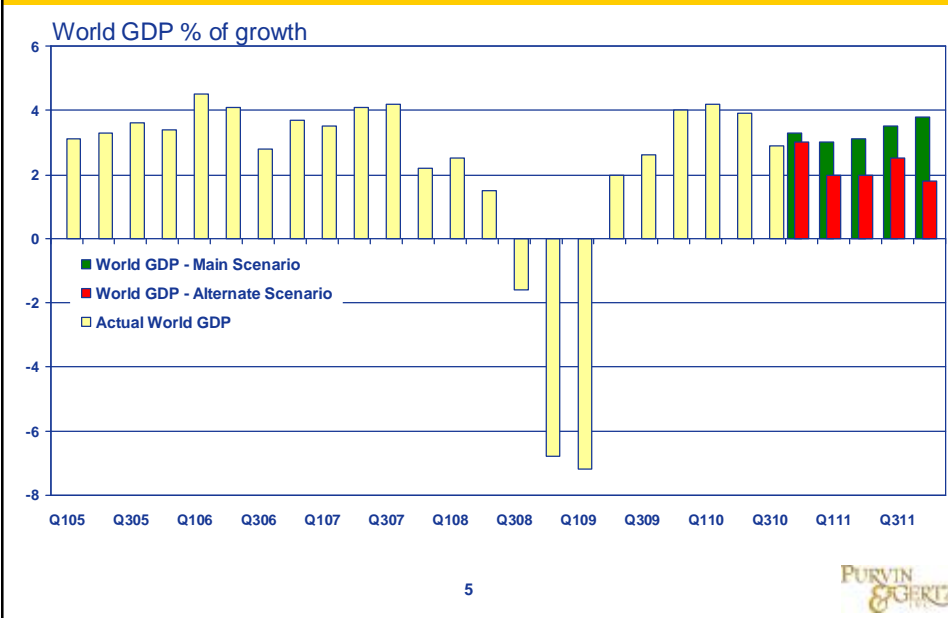
New year, Old Problems, Renewed optimism

- Ø Economic view – Deniably improving**
- Ø Product factors – Trade dependent**
- Ø Refining situation – Endurance test**
- Ø Natural gas – Unnatural market**

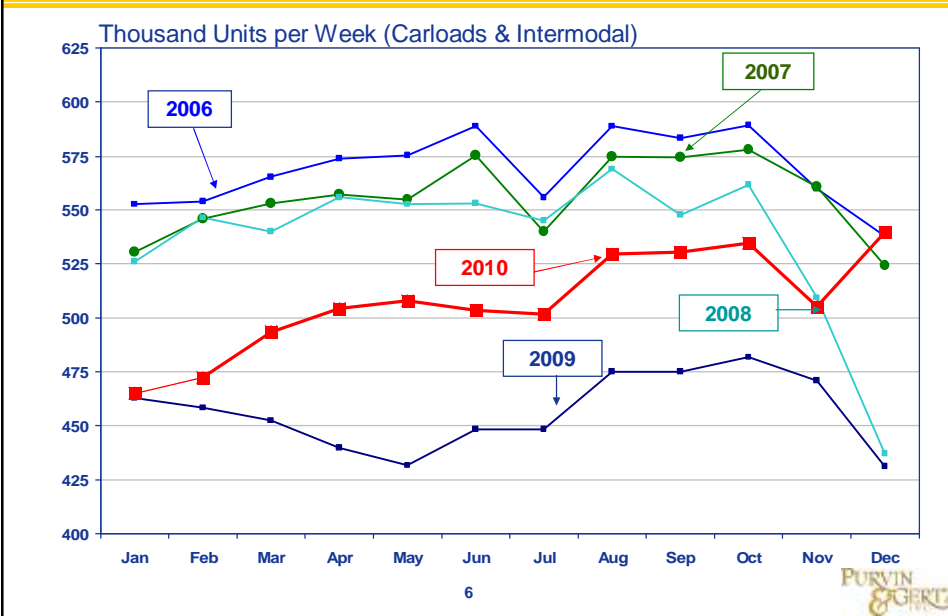


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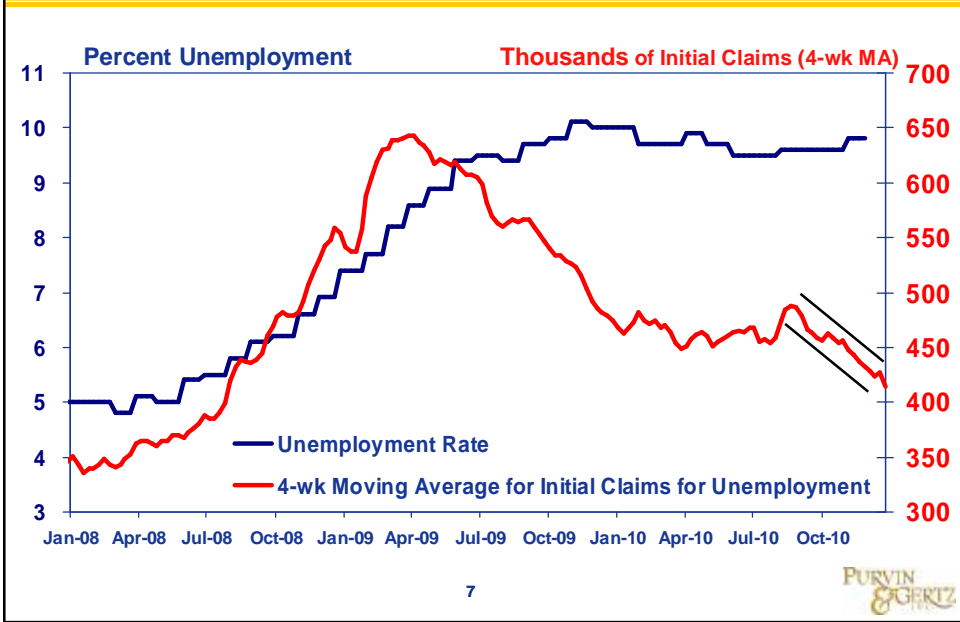
World GDP estimated to be 3.6% in 2010 Expansion continues at 3.3% in 2011



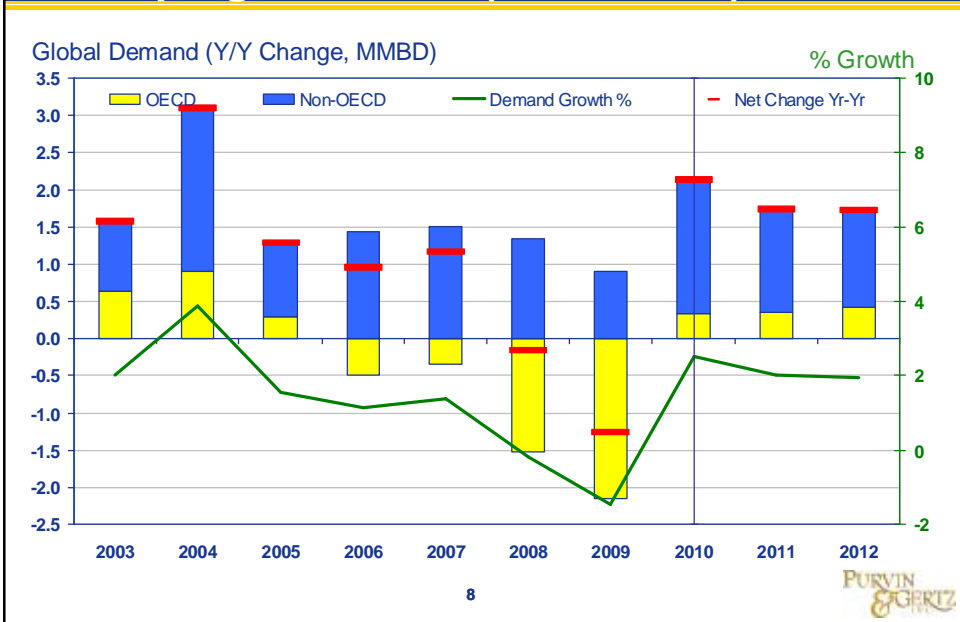
Rail traffic remains well above last year and is closing on 2006-2007 level of movements



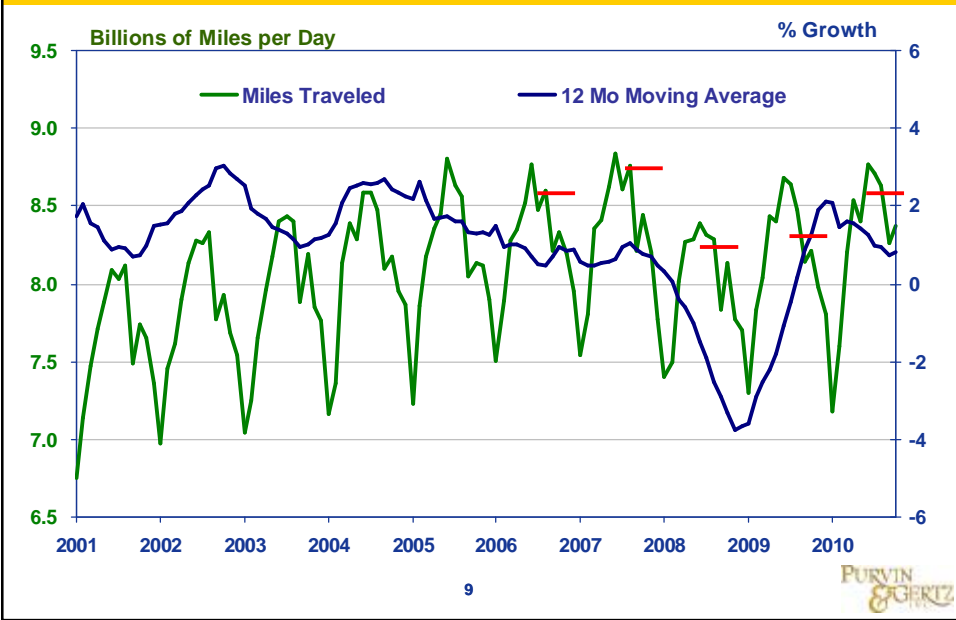
U.S. initial unemployment claims has trended lower, but remains large exposure



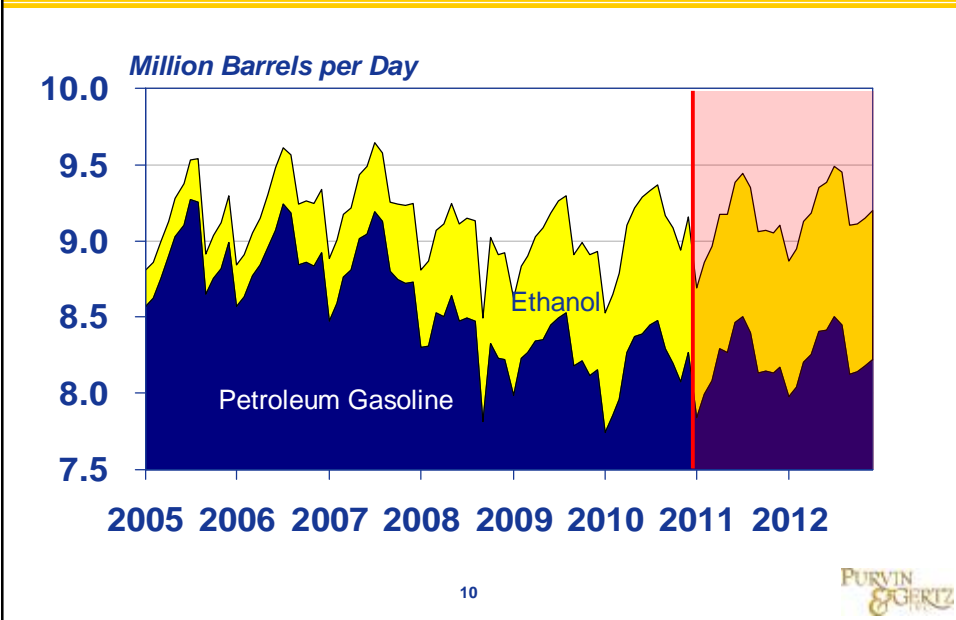
Global demand growth is driven by developing countries (Non-OECD)



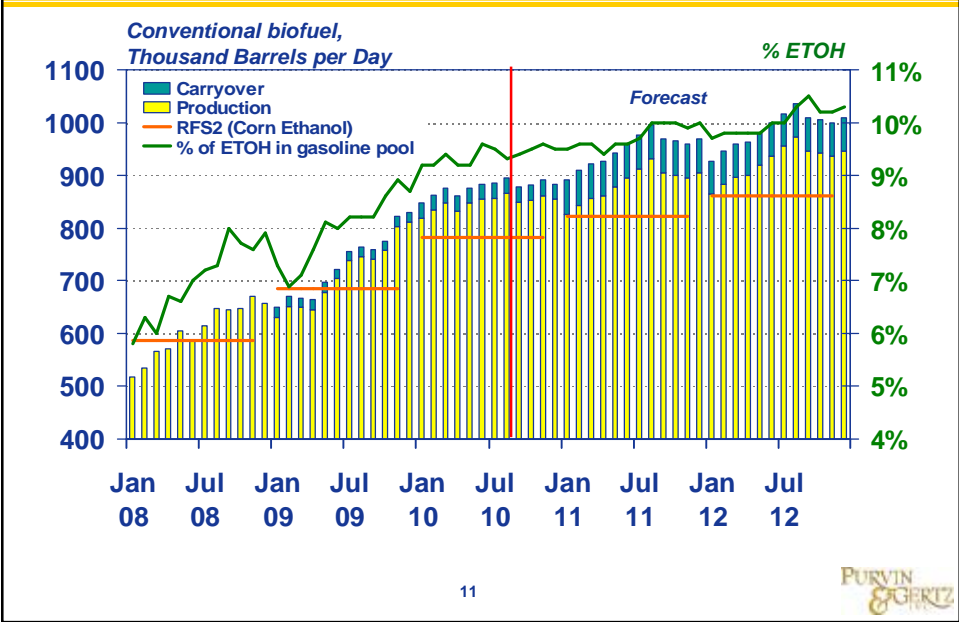
Miles-traveled is now on a seasonal decline but remains well above the prior two years



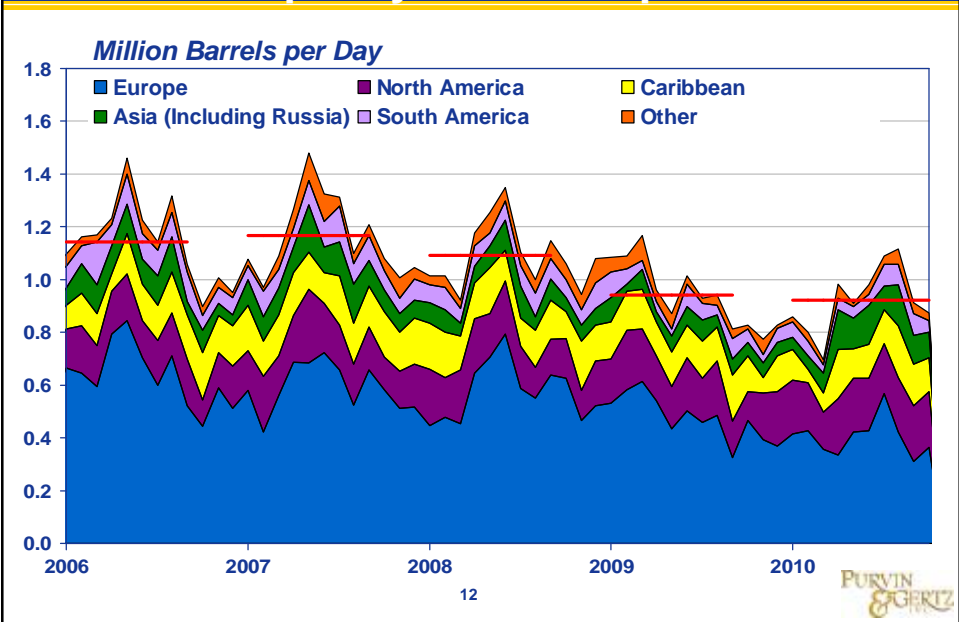
Gasoline demand to improve through 2012 Peak level remains below historical highs



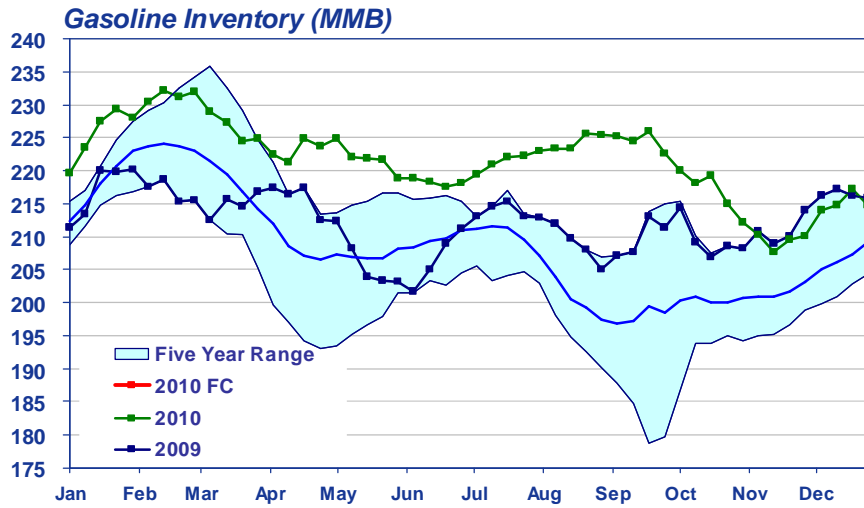
Strong blending incentives have pushed ethanol volumes above RFS standard



Gasoline imports should remain soft as domestic capacity remains spare



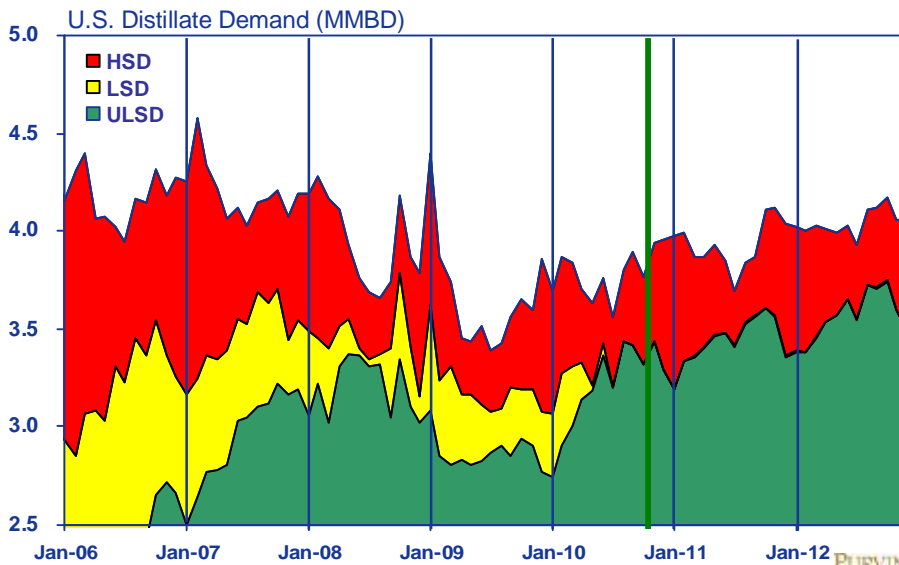
Gasoline stocks have corrected as runs/imports fell, but remain strong



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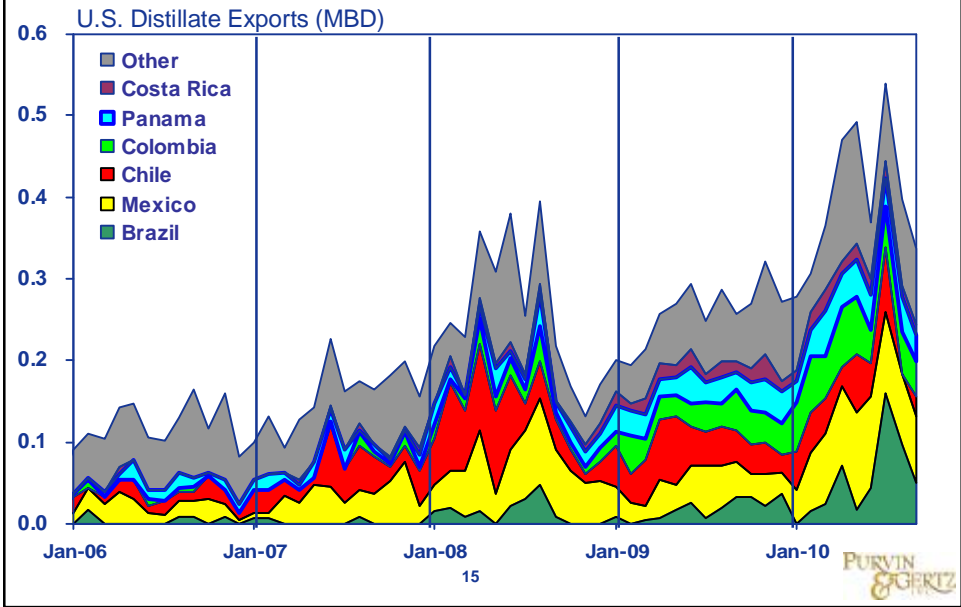
Distillate growth expands as driven by economic recovery, gaining 125+ MBD/yr



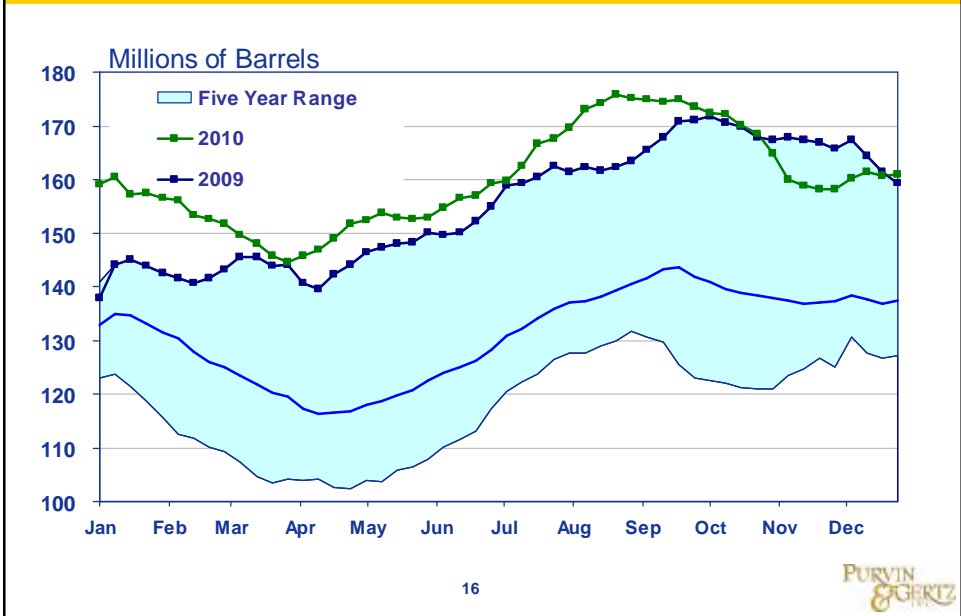
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Distillate exports have been strong with trade to Brazil and other LatAm countries



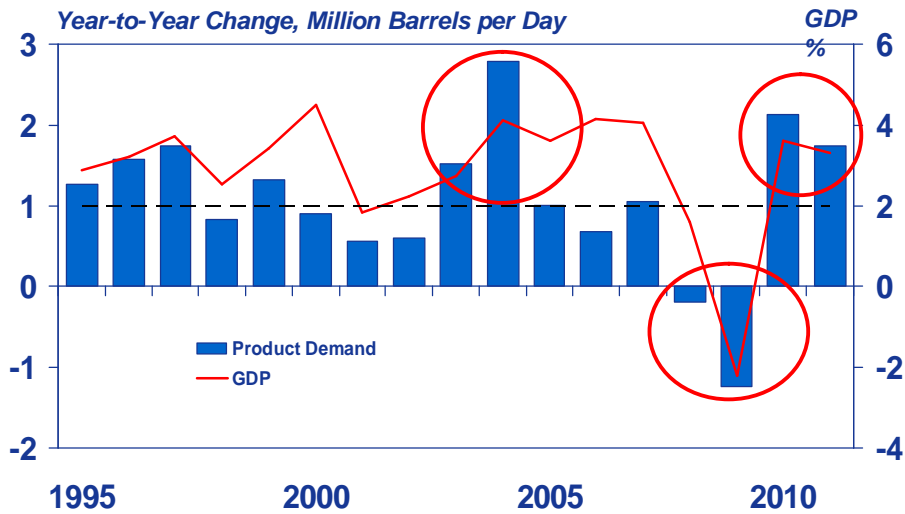
Distillate stocks have eased, but remain high by historical context (refiners' risk)



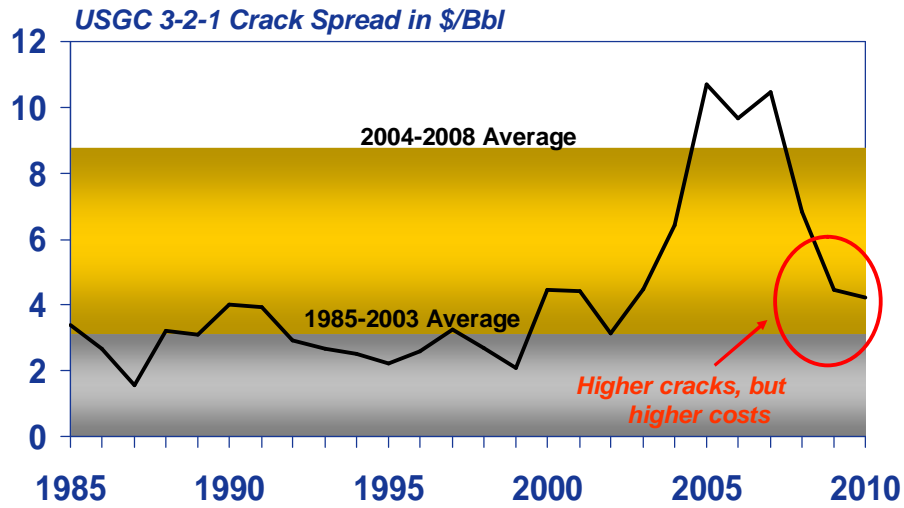
Refining's Endurance Test



The 2004 demand surge set the stage for the "Golden Age" with 2009 leading the bust



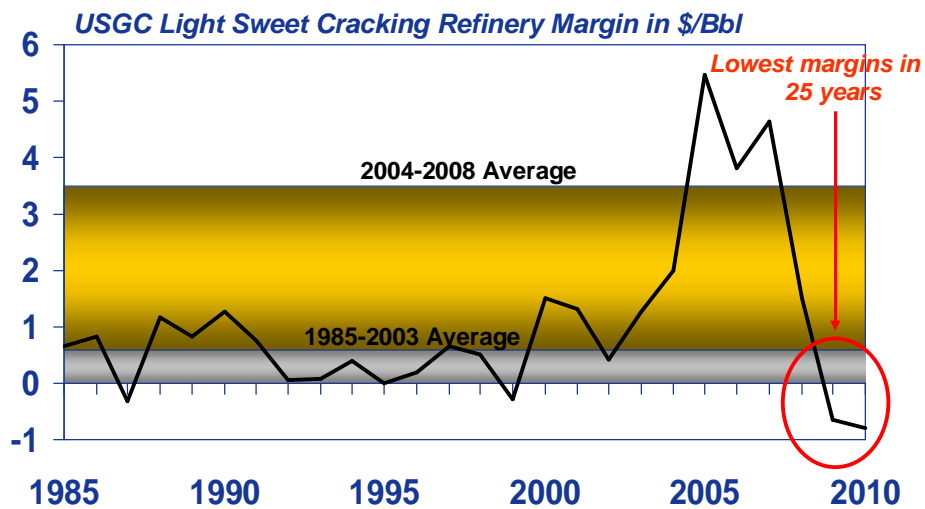
Industry crack spreads have taken a wild ride



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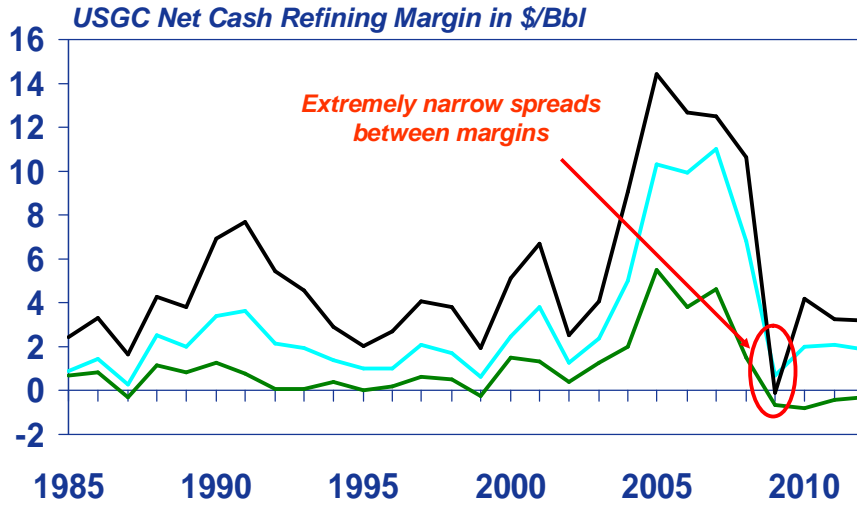
Refining margins have been even wilder



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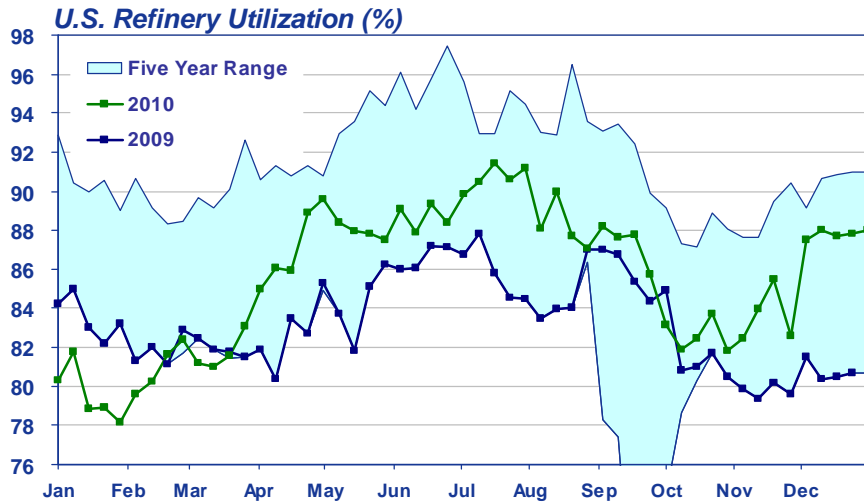
Margins for high-conversion refineries show extreme volatility, initially paralyzing plans



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U.S. op-rates have rebounded despite weak incentives; Expect moderate utilization

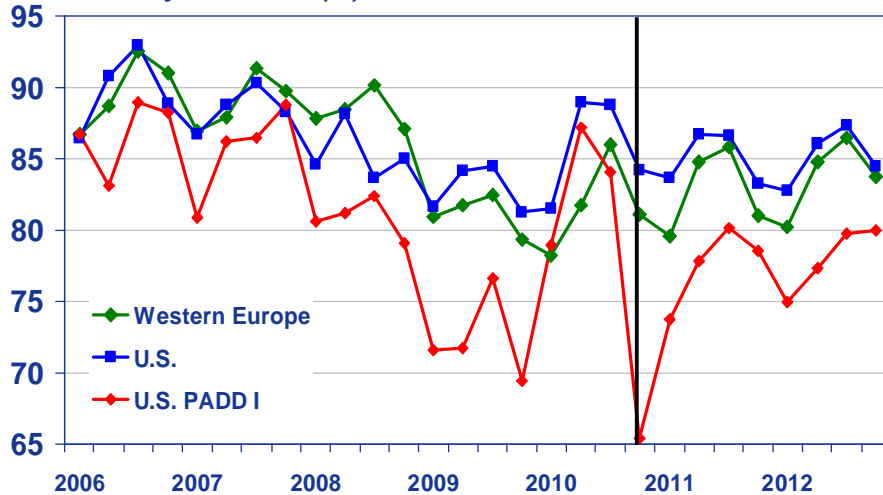


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PADD I operating rates have plummeted USEC utilization to remain below NW Europe

Refinery Utilization (%)

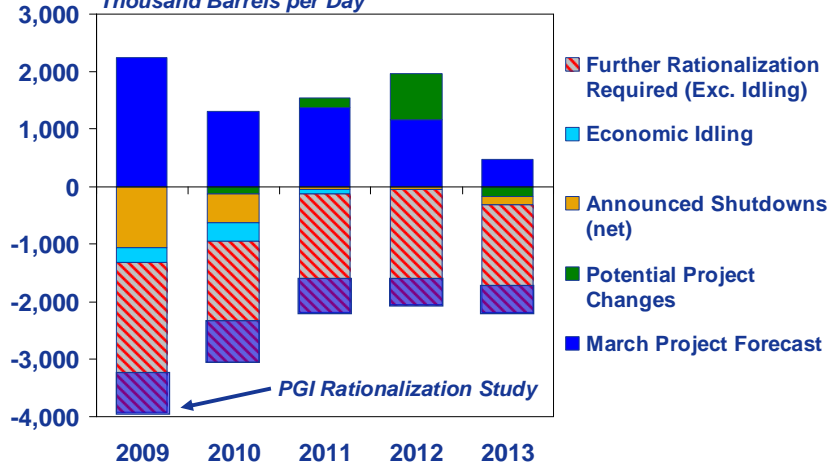


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An oversupply of crude distillation capacity remains in the developed markets

Global Capacity, Year-Year Change,
Thousand Barrels per Day



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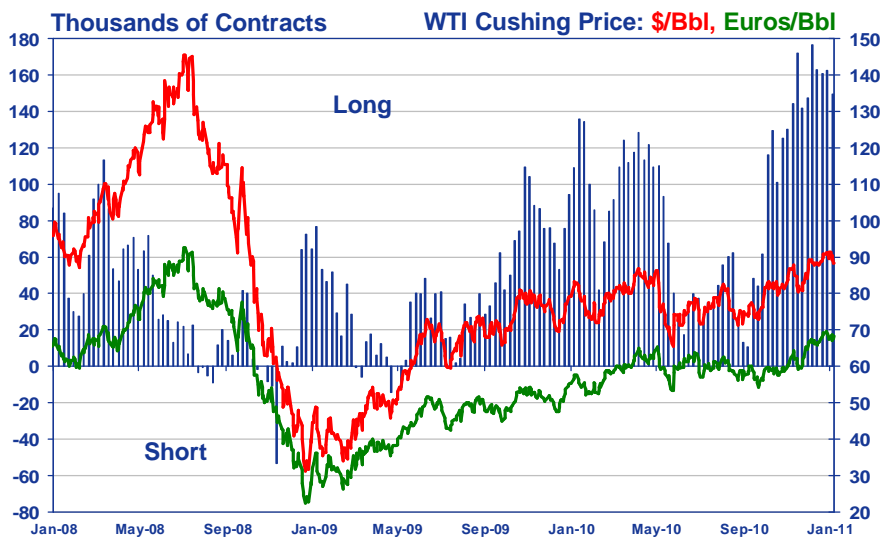
Price follows the money



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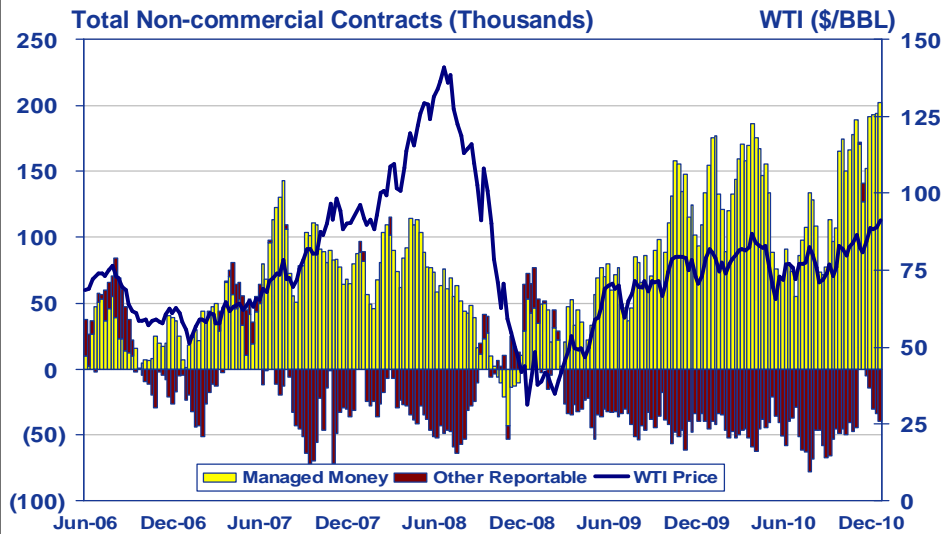
Weak U.S. dollar has attracted money flow into commodities



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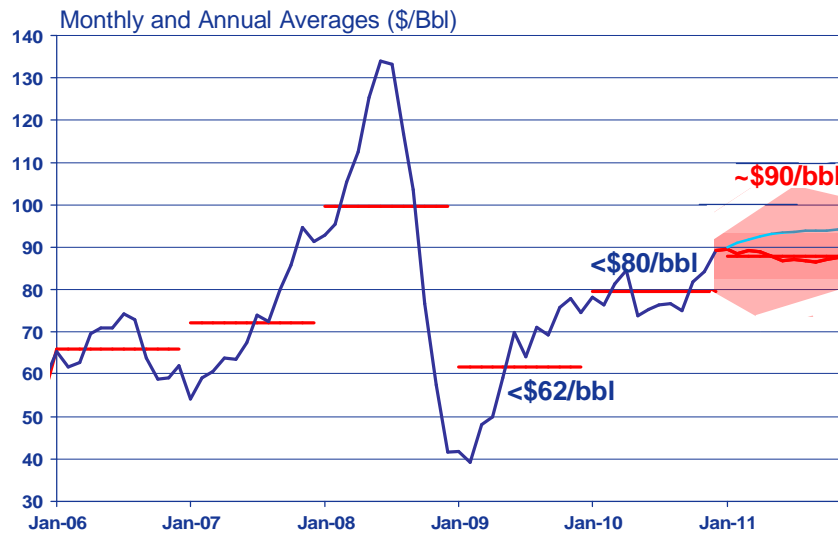
Managed money flow corresponds to price volatility; Indicates broad sentiment



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WTI price remains range-bound with demand growth and excessive capacities



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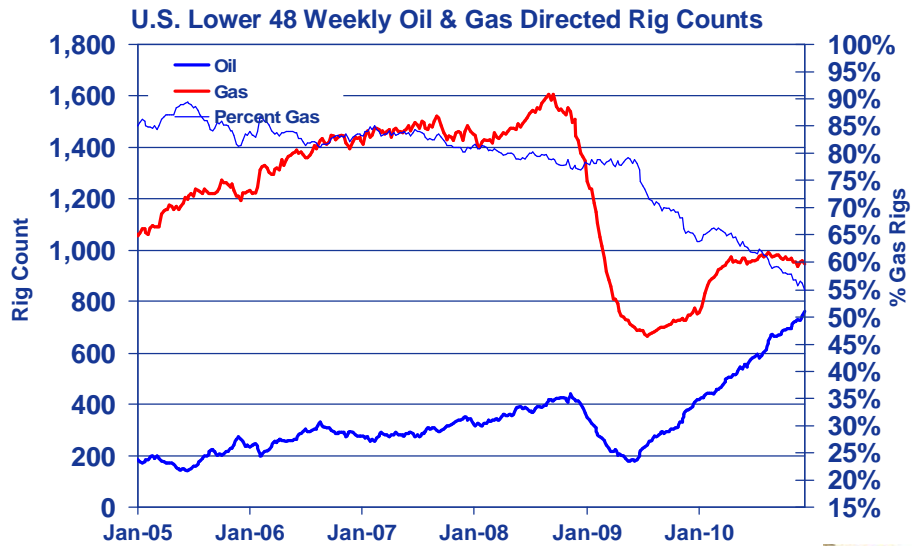
Natural Gas Outlook



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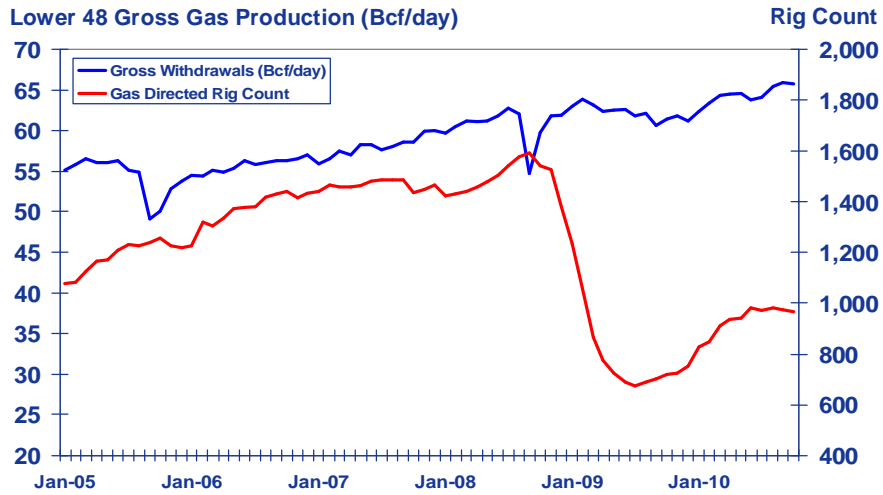
Producers are getting more “oily”, increasing oil directed drilling and slowing gas directed drilling



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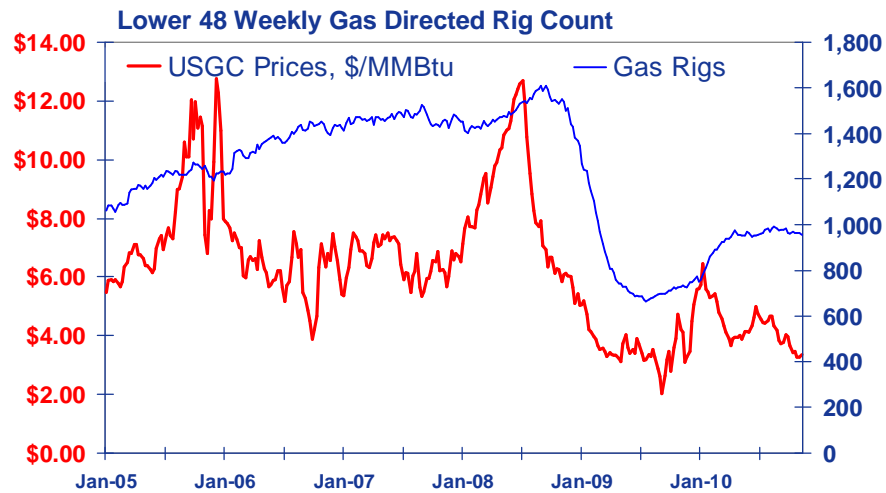
Gas production continues to increase in spite of falling but stabilizing gas directed drilling activity



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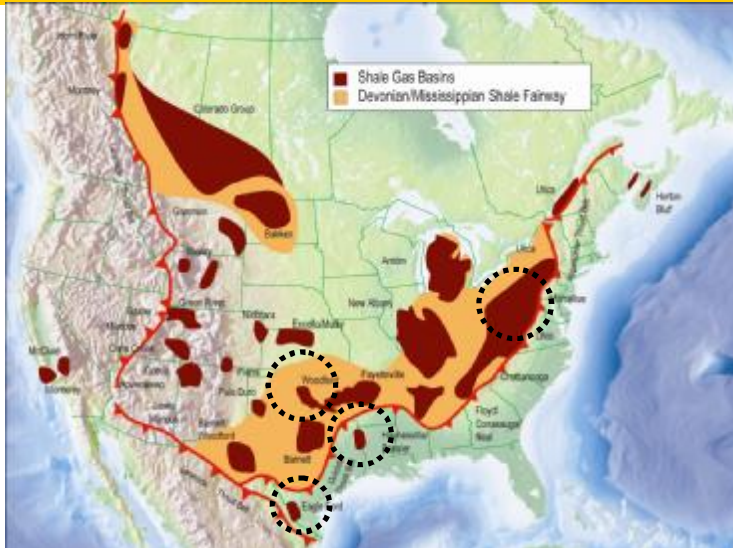
Lower price track is pushing producers to high-grade prospects and focus on cash flow



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Producers focus on high IPs, basin location (market proximity), and liquids rich plays



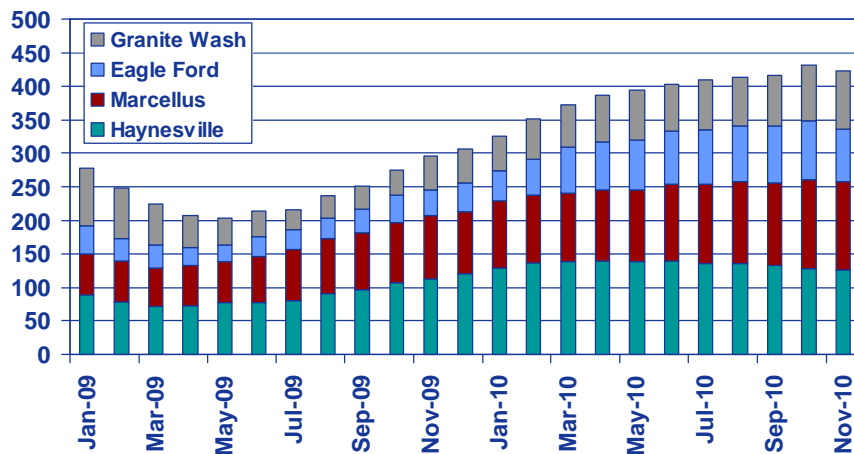
Source: PGI, National Energy Board

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Gas directed drilling in value-enhancing shale plays and liquids rich gas plays has increased

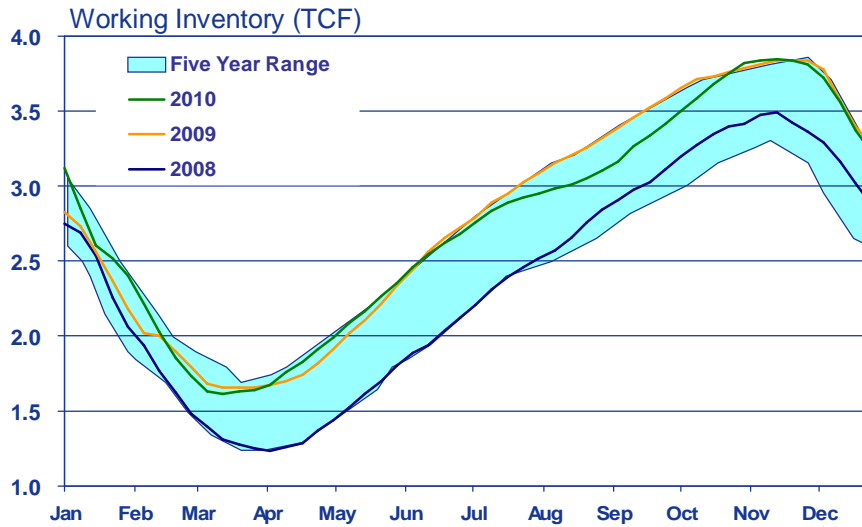
Gas Drilling in High IP, Close Proximity To Market, and Liquids Plays



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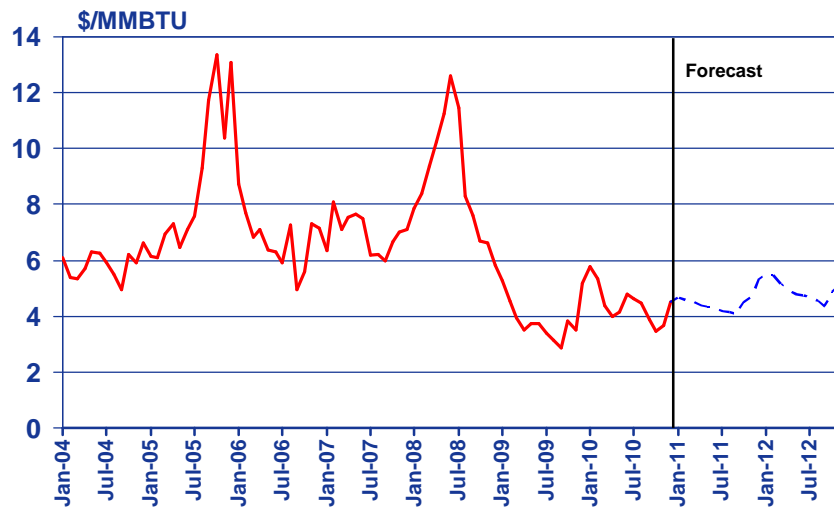
2011 production is expected to increase over 2010, resulting in high natural gas inventories



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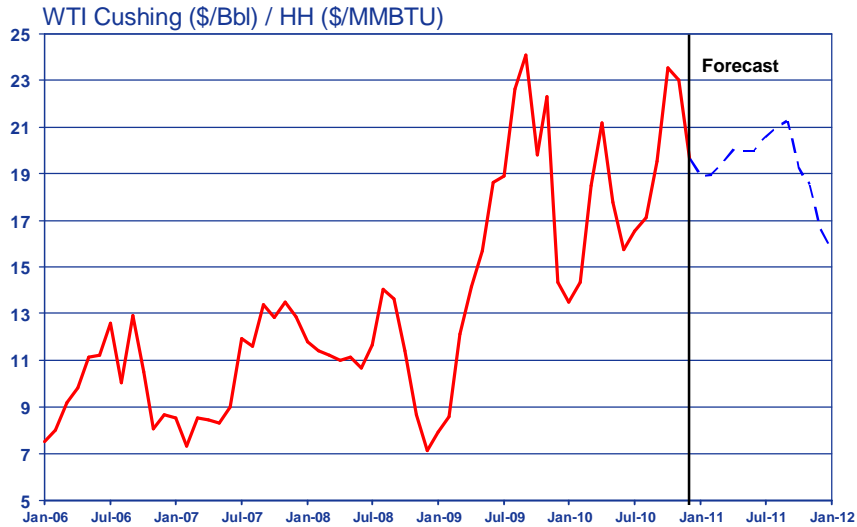
Henry Hub price is expected to remain soft through 2011 and through much of 2012



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Crude and gas fundamentals hold the crude-to-gas ratio high (and gas processing margins)



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Surviving the Downturn



When's the next "Golden Age"?



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Sunrise or Sunset?



Thank You



Stephen Jones
sljones@purvingertz.com
713.331.4000



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