

Outlook For Energy Markets

New York Energy Forum 2013

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Key Themes In Today's Energy Markets

1. Crude Flat Price: *Plus ça change...*

Ongoing supply outages versus persistently weak demand have kept prices rangebound.

2. US energy landscape:

What a difference 3 years makes! Time to think about 'second order' impacts of the boom.

3. Natural gas:

Marginally supportive balance in 2013... but market will really turn a corner when utility demand for gas becomes price inelastic.

2013 Calendar Year Average Price Forecasts:

West Texas Intermediate: \$98

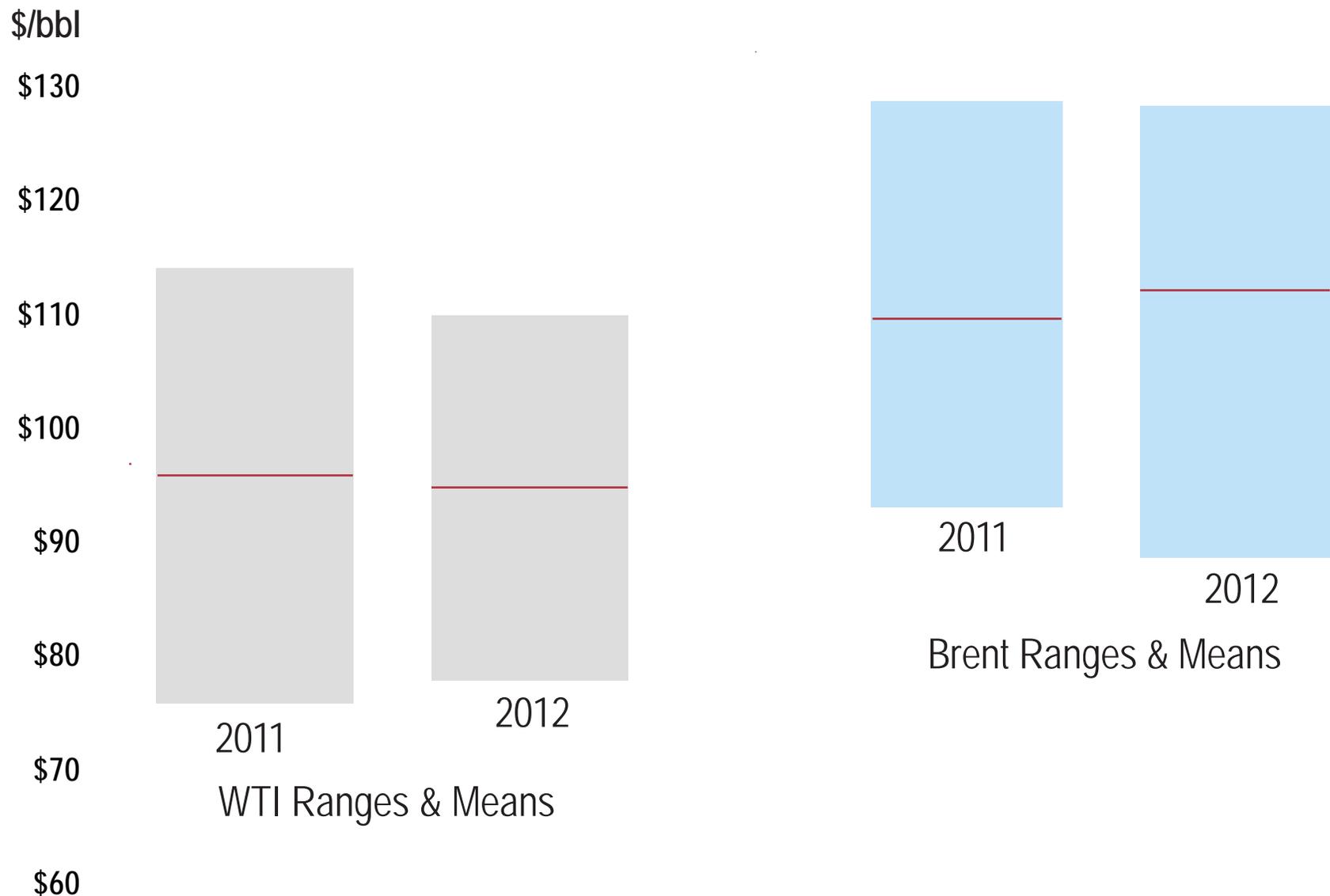
Brent: \$114

Henry Hub Natural Gas: \$3.40

1. Rangebound Outlook for Crude Flat Price

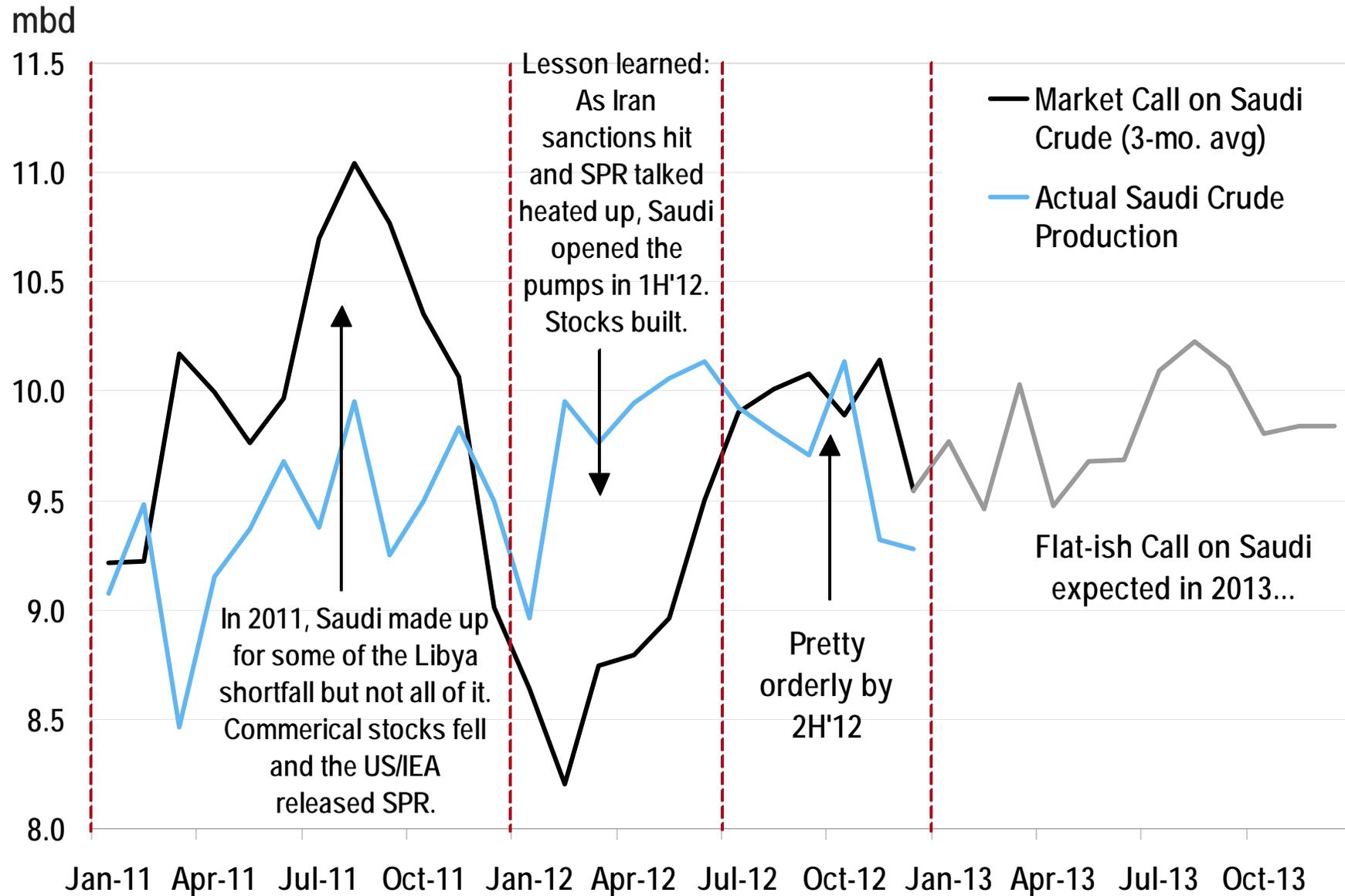
Ongoing supply outages versus persistently weak demand

Consistent Crude Range in 2011-12...and 2013?



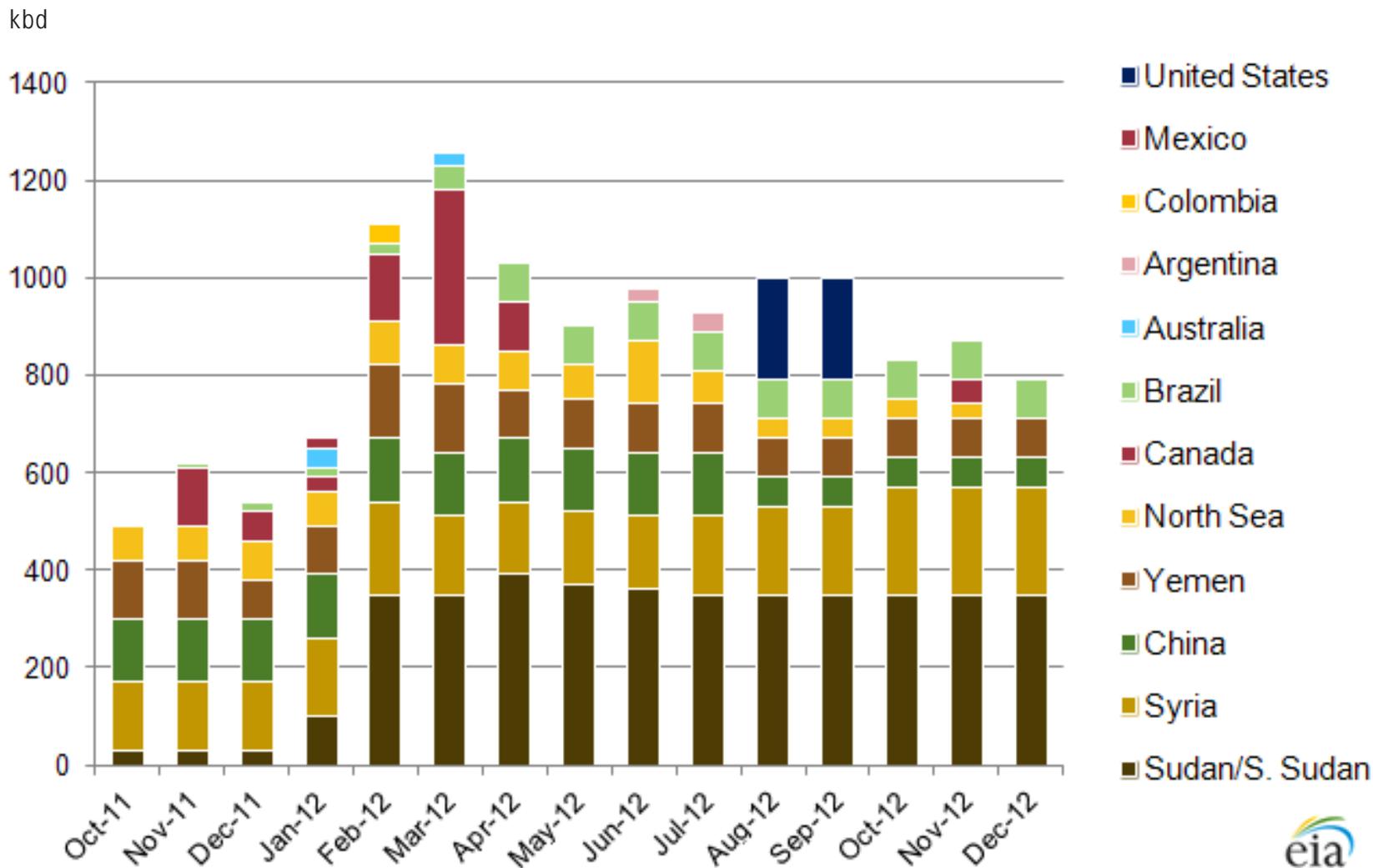
CIBC Commodities Strategy

Oil Prices Reflected Fundamentals In 2011-2012



CIBC Commodities Strategy, Petrologistics, IEA, Company and Govn't Reports

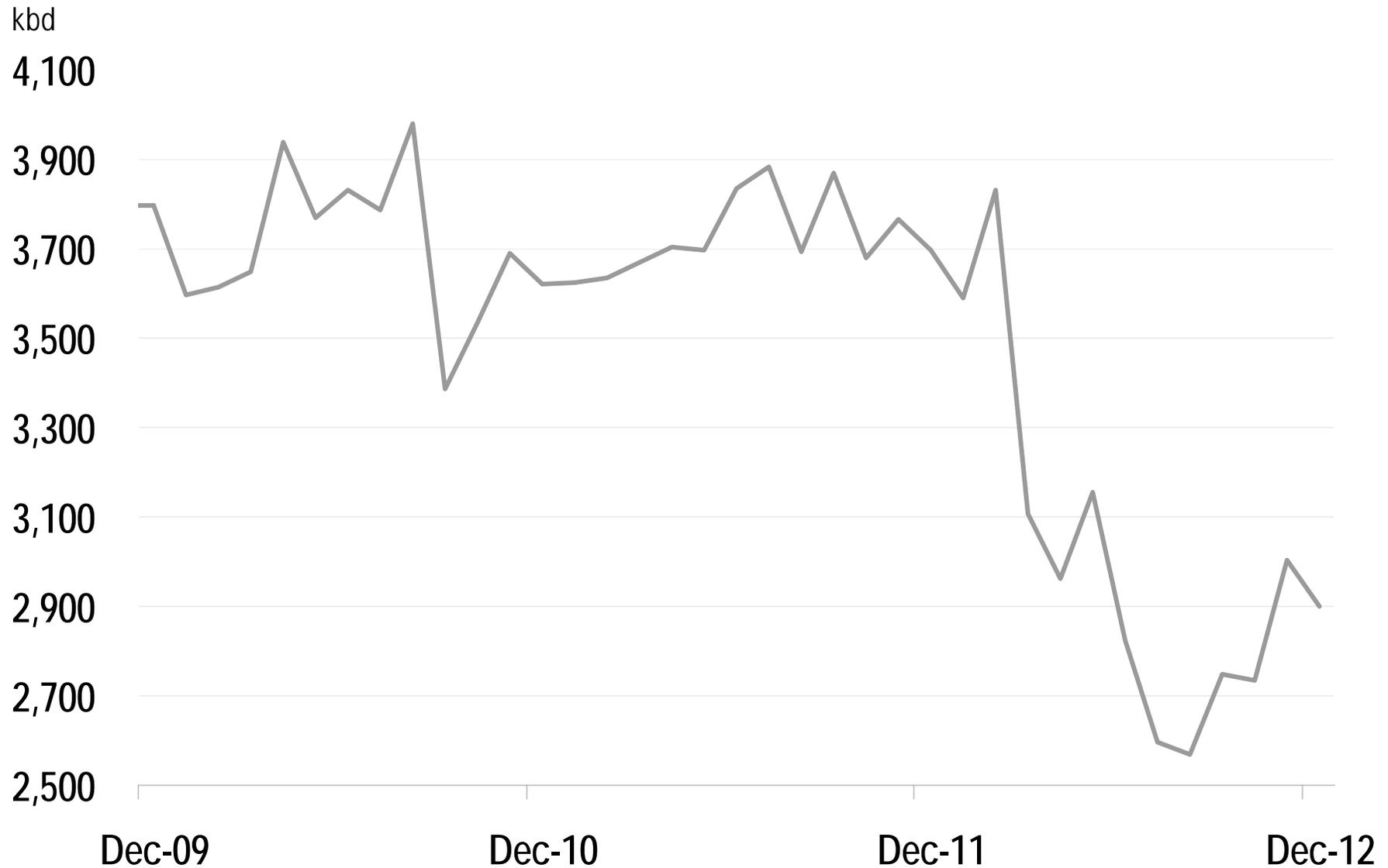
Unplanned Outages Add Up In Non-OPEC



Source: EIA



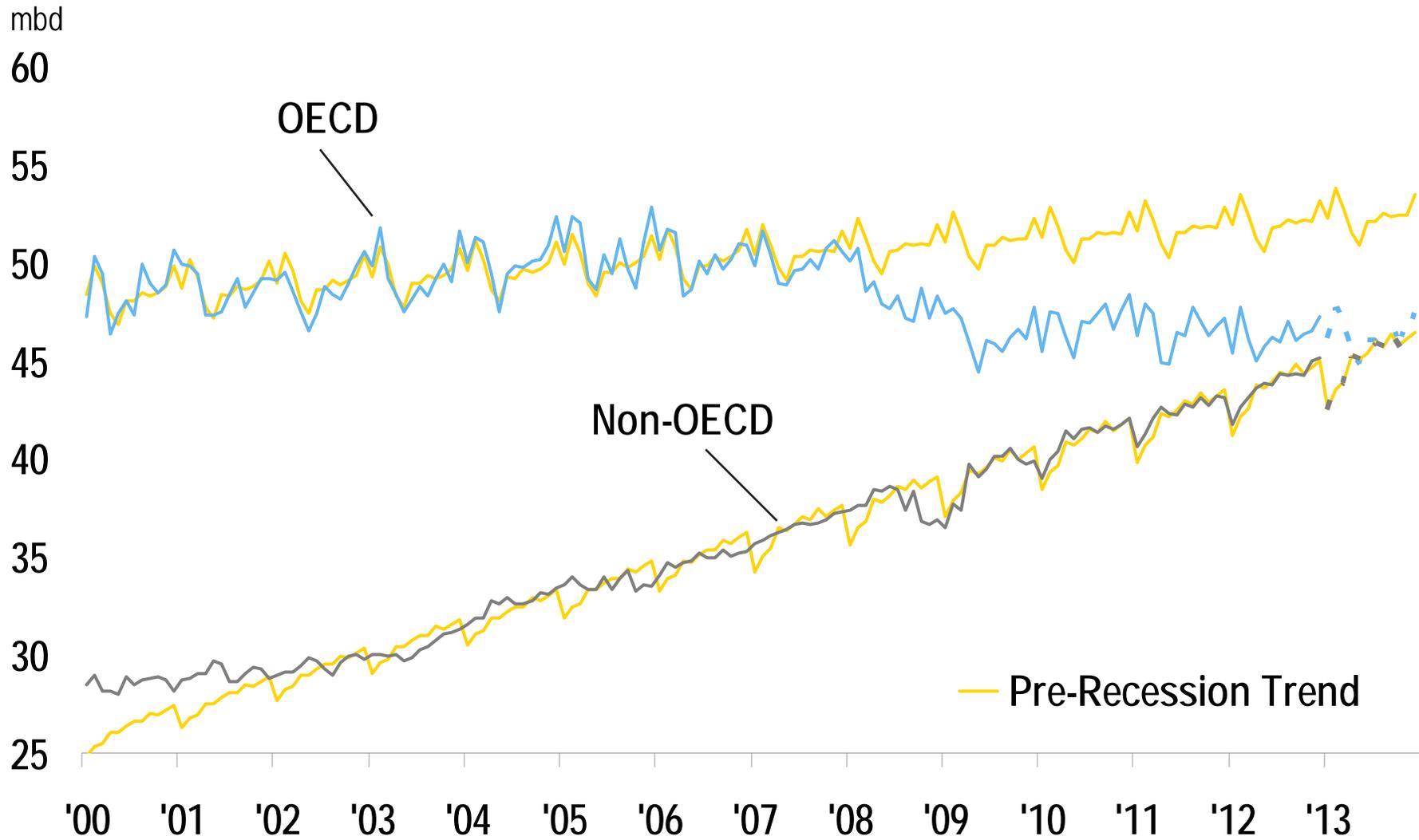
Iranian Sanctions Bite; Crude Output Falls... A Lot



CIBC Commodities Strategy, Petrologistics

Oil Demand Growth is in the Emerging World

(Before the recession, during the recession, after the recession)



Macro Fundamentals Summary....

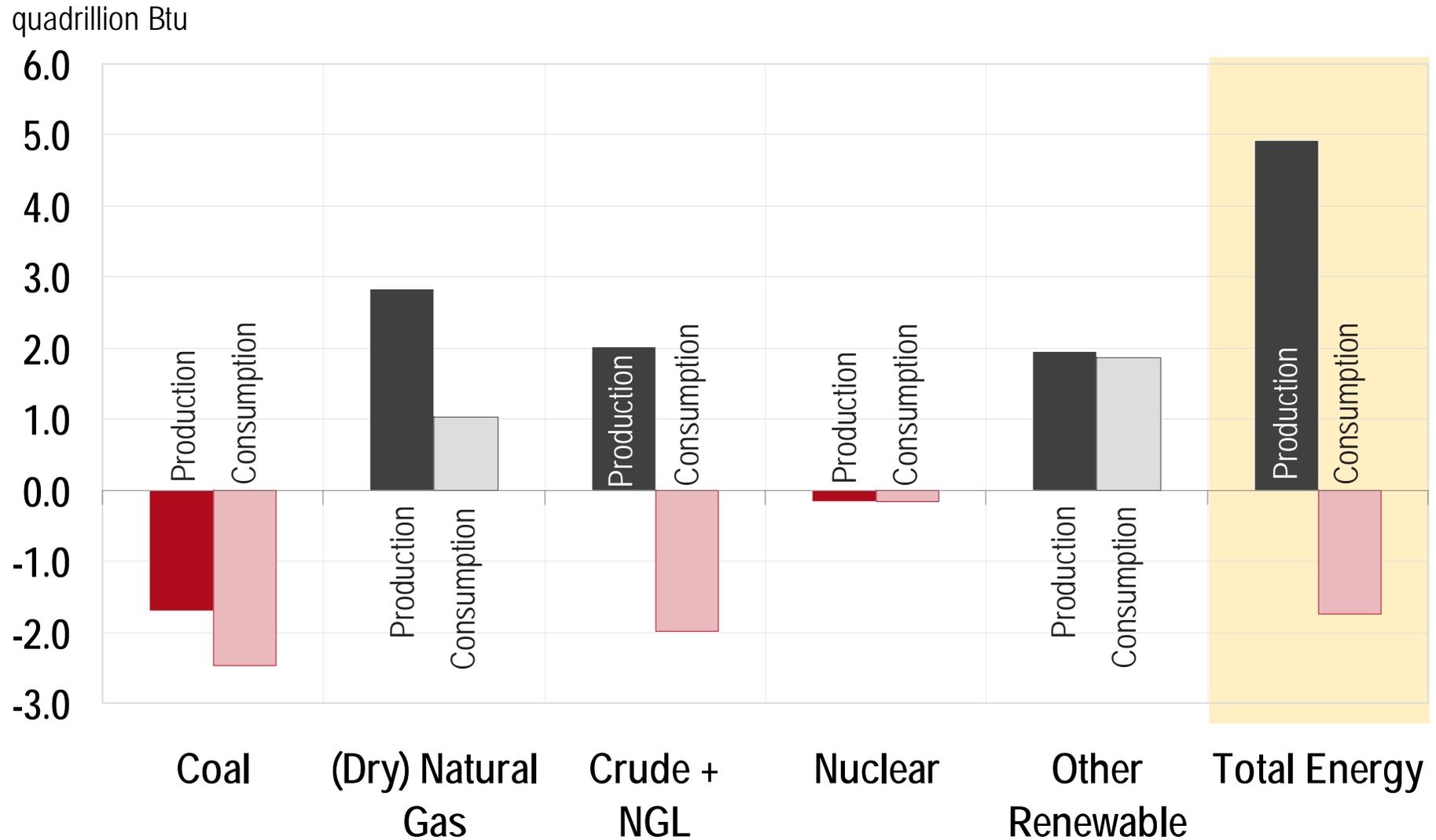
- Status quo oil demand...not a new story, likely only marginal improvement in 2013.
- Supply was the story in 2011-12, and is more likely than demand to surprise in either direction in 2013. What we do know is that Iranian volumes will fall further.
- Saudi has done a pretty good job of balancing the market.
- But the bullish take on this story? During a period of exceptionally weak oil demand growth, it took record Saudi production for months in a row to balance the market, and global oil prices never went much below \$90.

2. The US Energy Landscape:

What A Difference Three Years Makes! Time to Think About 'Second Order' Implications of the Boom

What a Difference 3 Years Makes!

US Energy Production & Consumption, 2011 Versus 2008

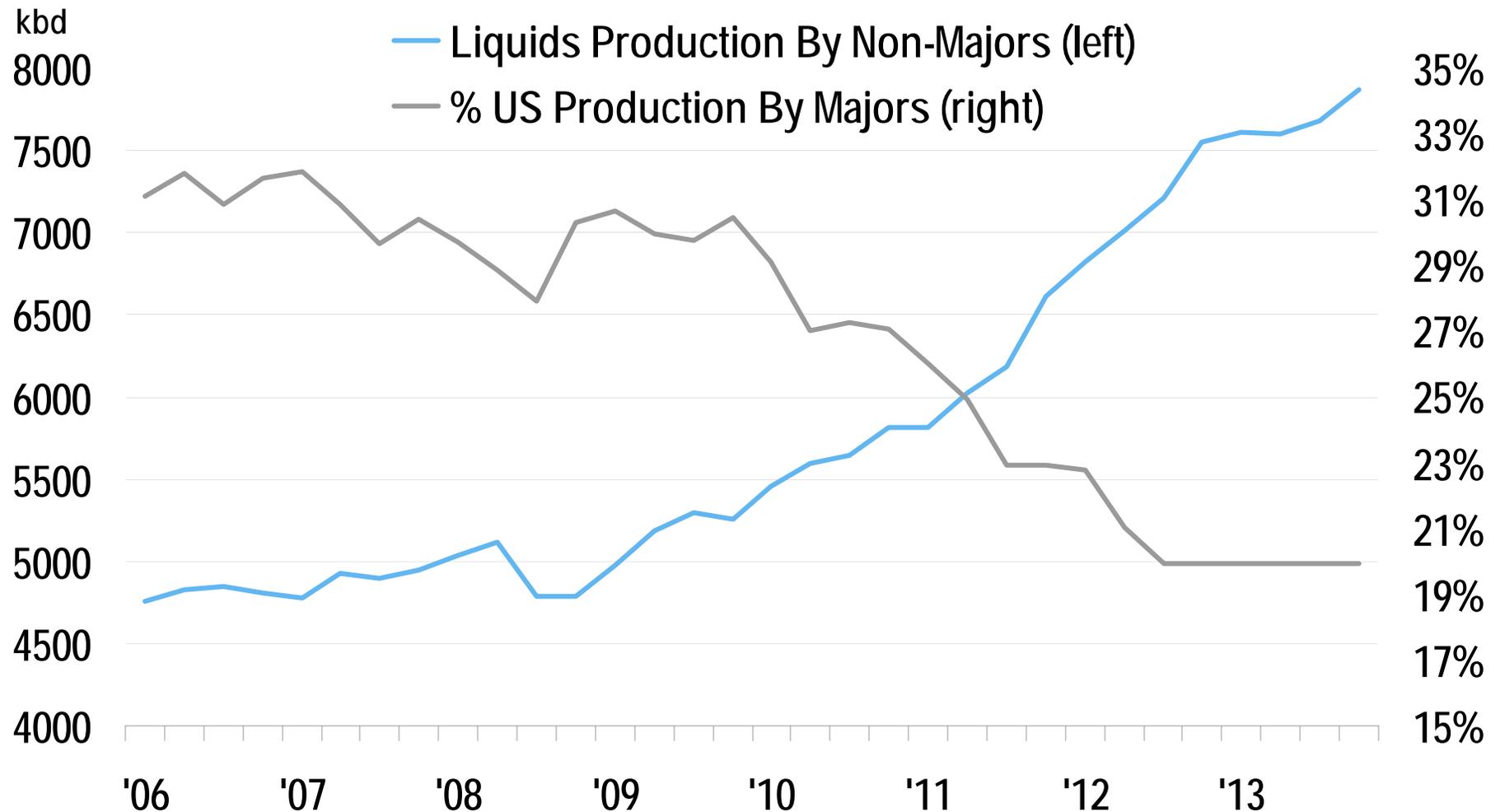


CIBC Commodities Strategy, EIA

Impact On WTI Term Structure

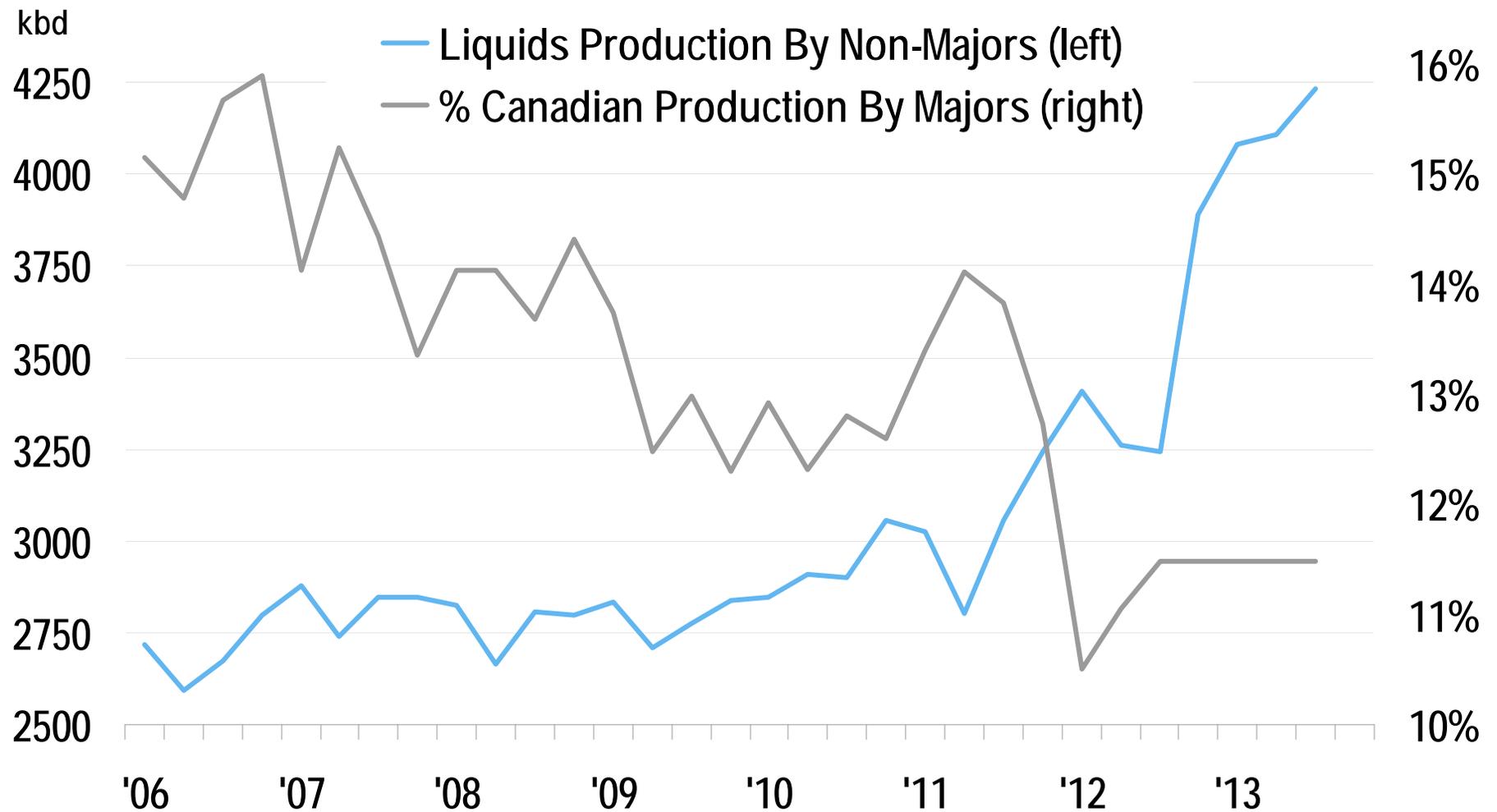
- We all know what the shale boom has done to the front of the WTI curve. Seaway's new capacity will help, but not enough to move the front 6 months out of contango.
- Beyond the front six months though, we think spreads will stay bid, in large part because, going forward, and increasing percentage of new crude production will be hedged in the forward market.
- North American producers hedge more than producers in other regions, and that's where virtually all incremental crude production growth is coming from. The type of companies most active in shale plays are even more inclined to be disciplined hedgers.
- At the same time, we would argue that deferred liquidity from hedge funds and banks has deteriorated.

Crude Growth Not From the Majors* In the US



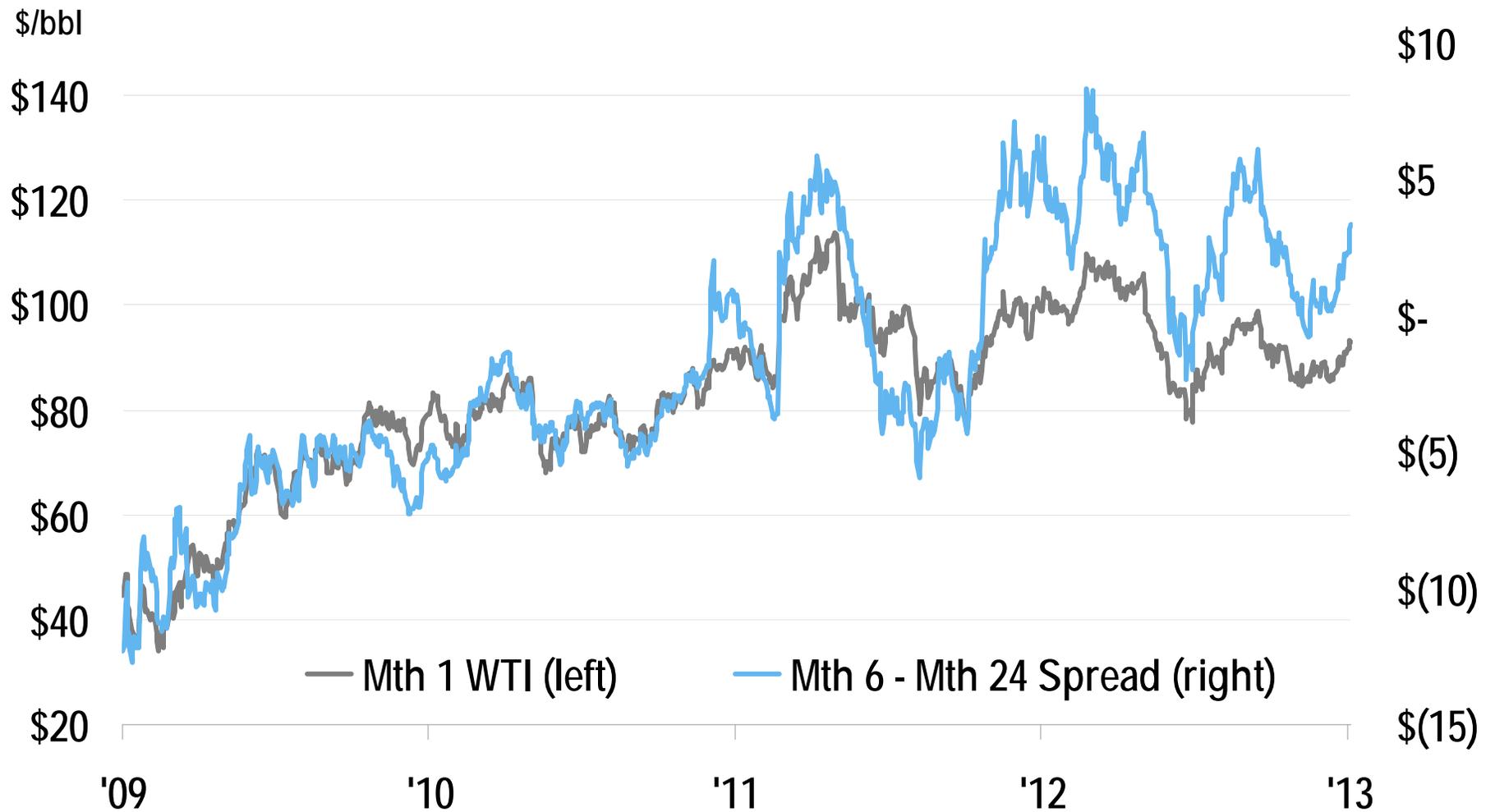
CIBC Commodities Strategy, IEA, Industry Reports
 *Majors here include BP, CVX, COP, XOM, RDSA, TOT

...Or In Canada



CIBC Commodities Strategy, IEA, Industry Reports
 *Majors here include BP, CVX, COP, XOM, RDSA, TOT

Long-dated WTI Spreads Outpace Flat Price



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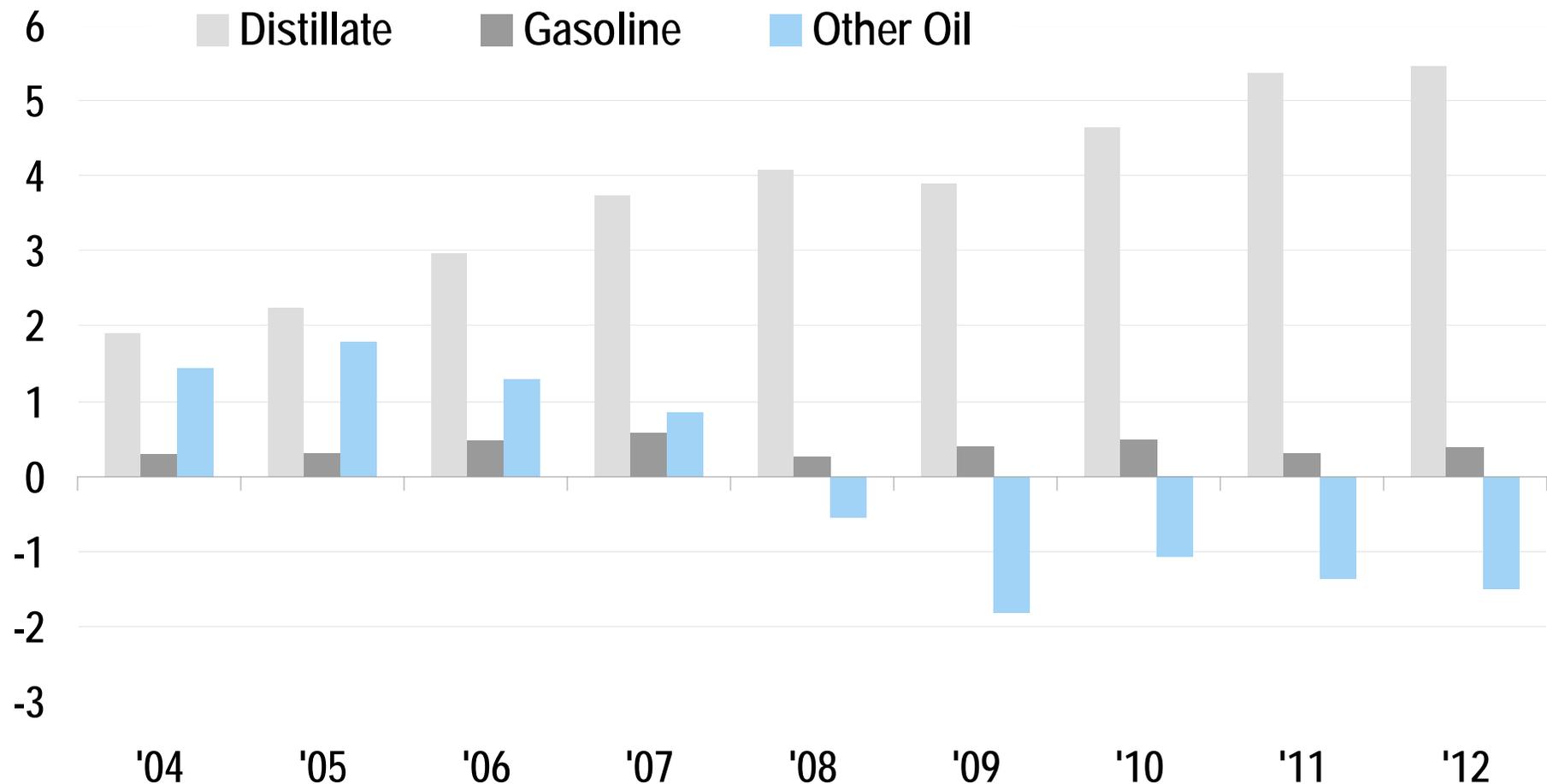
Impact On Refinery Economics

- Diesel will increasingly lead the oil complex and set marginal refinery economics.
- Globally, the vast majority of oil demand growth over the past decade has been in distillates. At the same time, US gasoline demand has likely peaked thanks to a structural shift to more efficient vehicles and a larger share of biofuels. In the middle of the last decade, net gasoline imports supplied 10% of US demand, now that number is more like 3.5%.
- The US crude production boom has been disproportionately light, sweet — just after a period of refinery investment geared towards shifting to a heavier crude slate.
- As heavy crude becomes relatively scarce, refiners that run a heavy slate will face new economics. Short of hardware investments, one option will be to reduce coker utilization — implicitly sacrificing diesel yield.

Distillates Dominate Global Oil Demand Growth

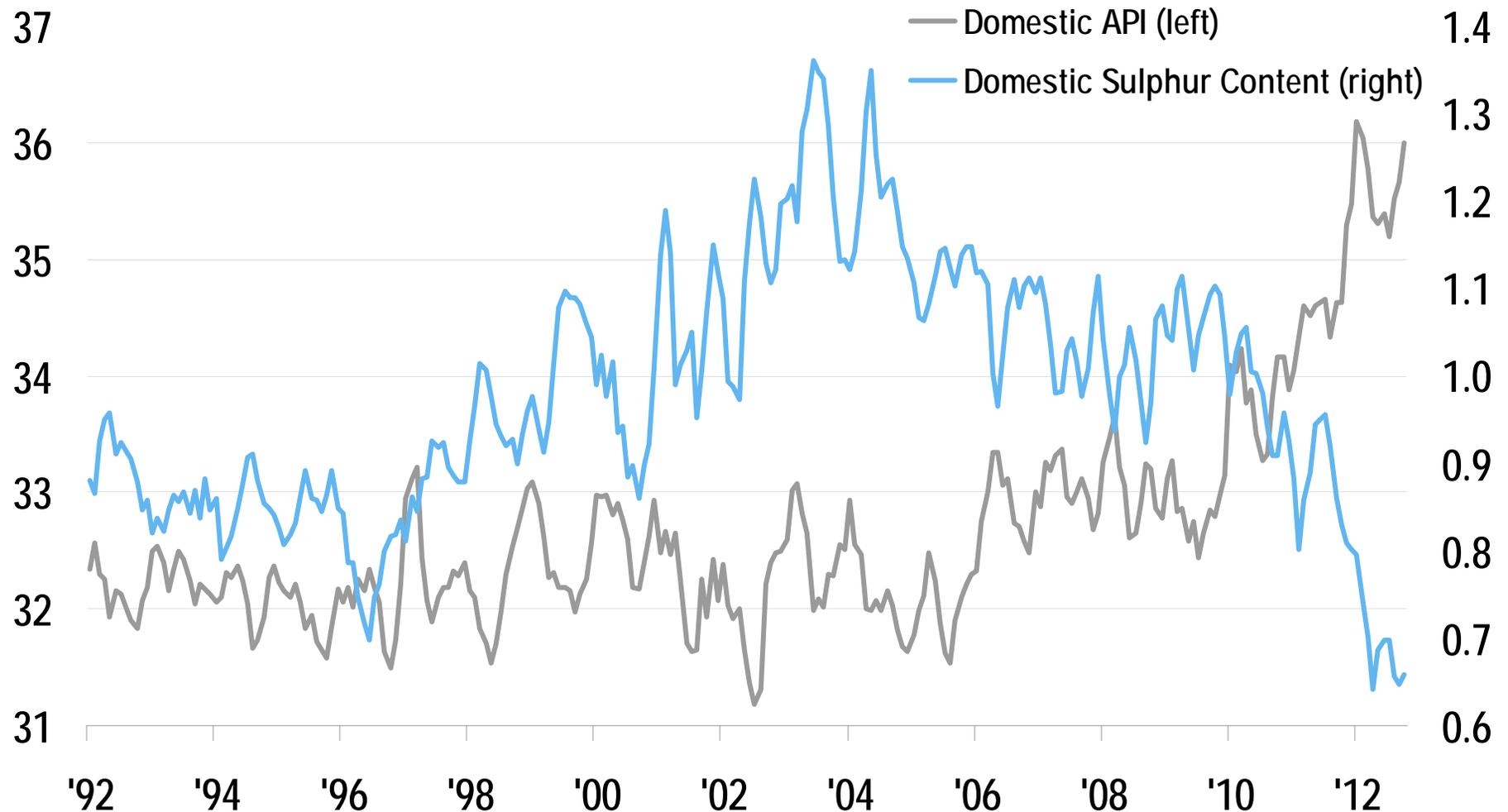
OECD + China + India

mbd



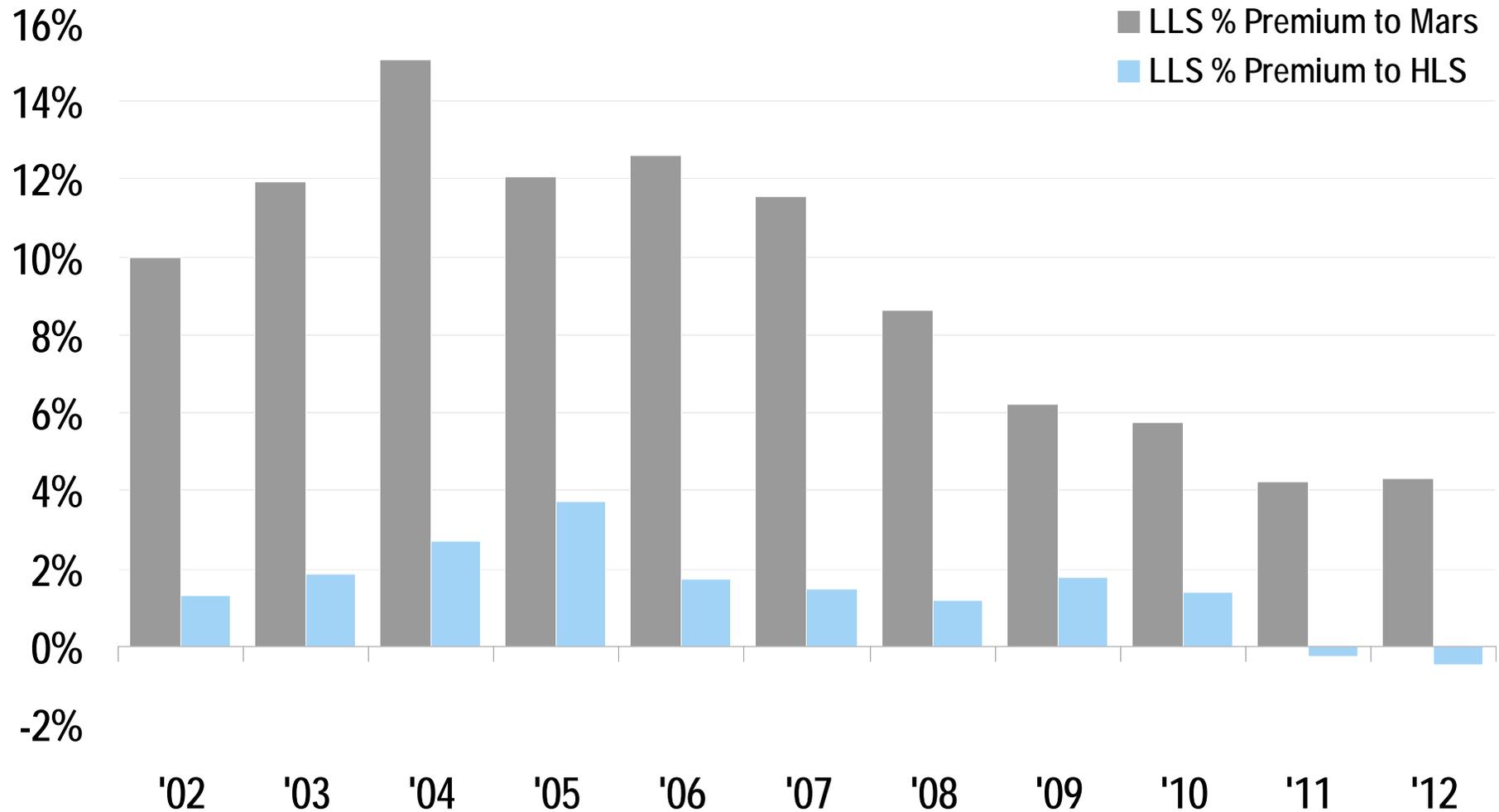
CIBC Commodities Strategy, IEA, government sources

US Crude Production Gets Lighter and Sweeter



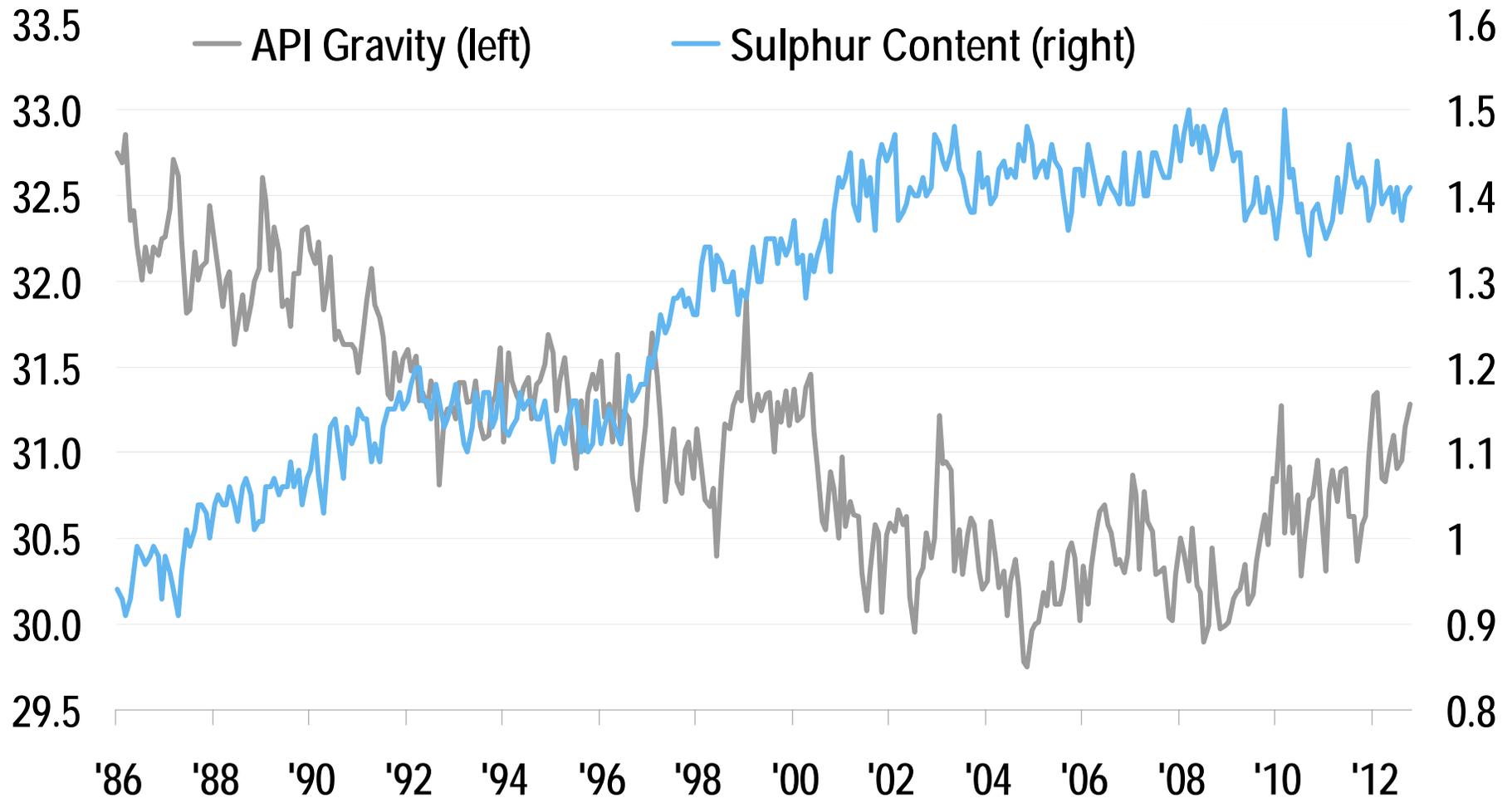
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US Light, Sweet Crude Premium Deteriorates



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US Refiners Tweak Their Slate... To A Point



CIBC Commodities Strategy, EIA

5. North American Natural Gas

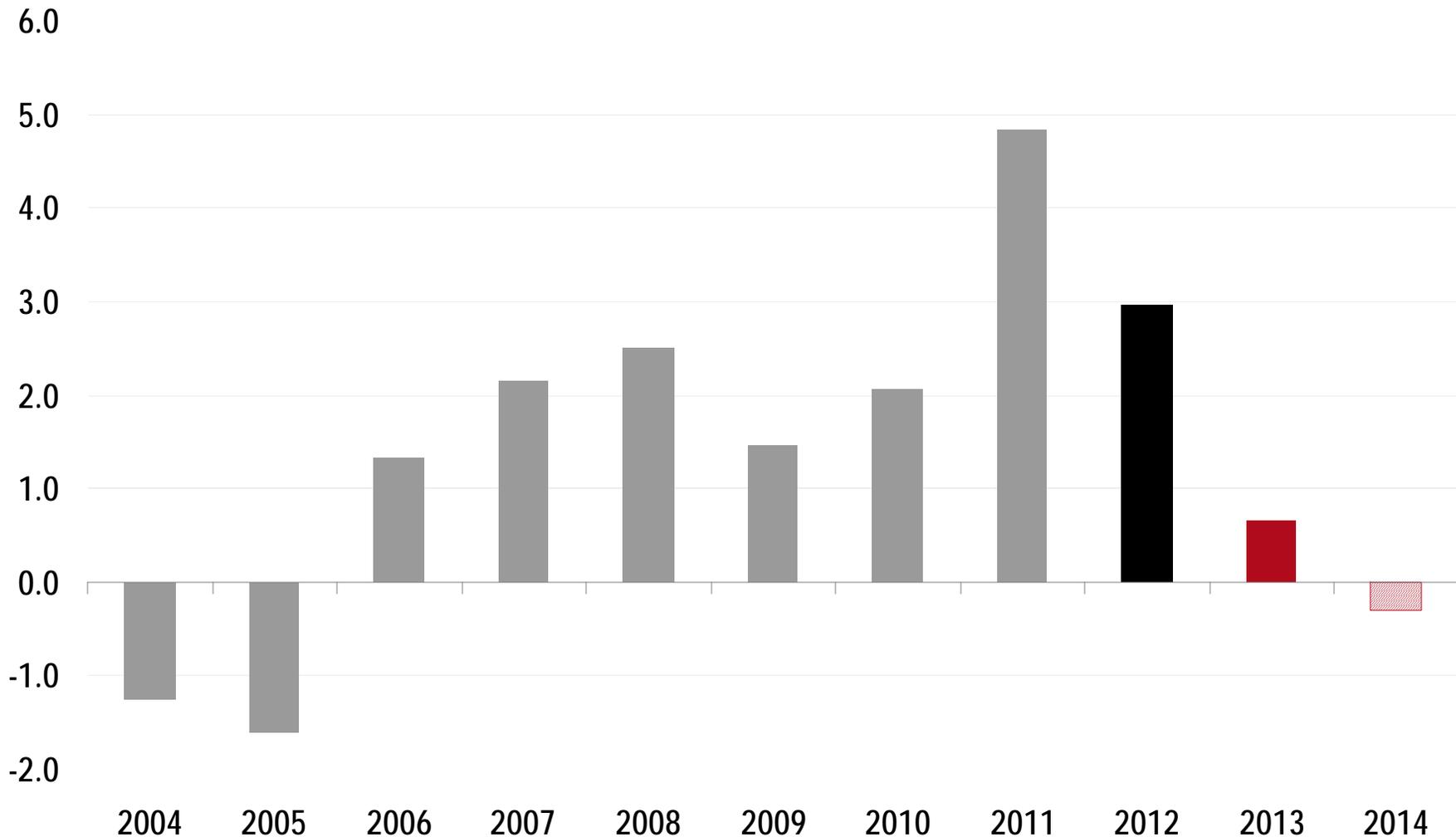
Marginally Supportive in 2013... But Not Out of the Woods

N. American Natural Gas Story Is A Lot Like Oil

- The US gas balance looks marginally more price supportive in 2013, but so far winter weather isn't helping.
- Meanwhile, North American producers are wildly underhedged in gas. Pent up hedging demand will cap rallies.
- In the medium- to long-run, gas production will continue to be price sensitive. It is when gas demand — specifically utility demand for gas — is no longer price elastic that the market will truly turn the corner.
- Last summer gave us a taste of what coal-to-gas substitution can do to the market. Coal retirement will make that shift permanent. One implication is that gas prices will reflect a steeper summer peak going forward.
- LNG will matter at the margin, but won't be the game changer for the supply/demand balance.
- Production of gas liquids has been phenomenal, and prices have come off sharply. What will it take to see a shift back to dry gas production?

Why the (Relatively) Bullish Sentiment For 2013?

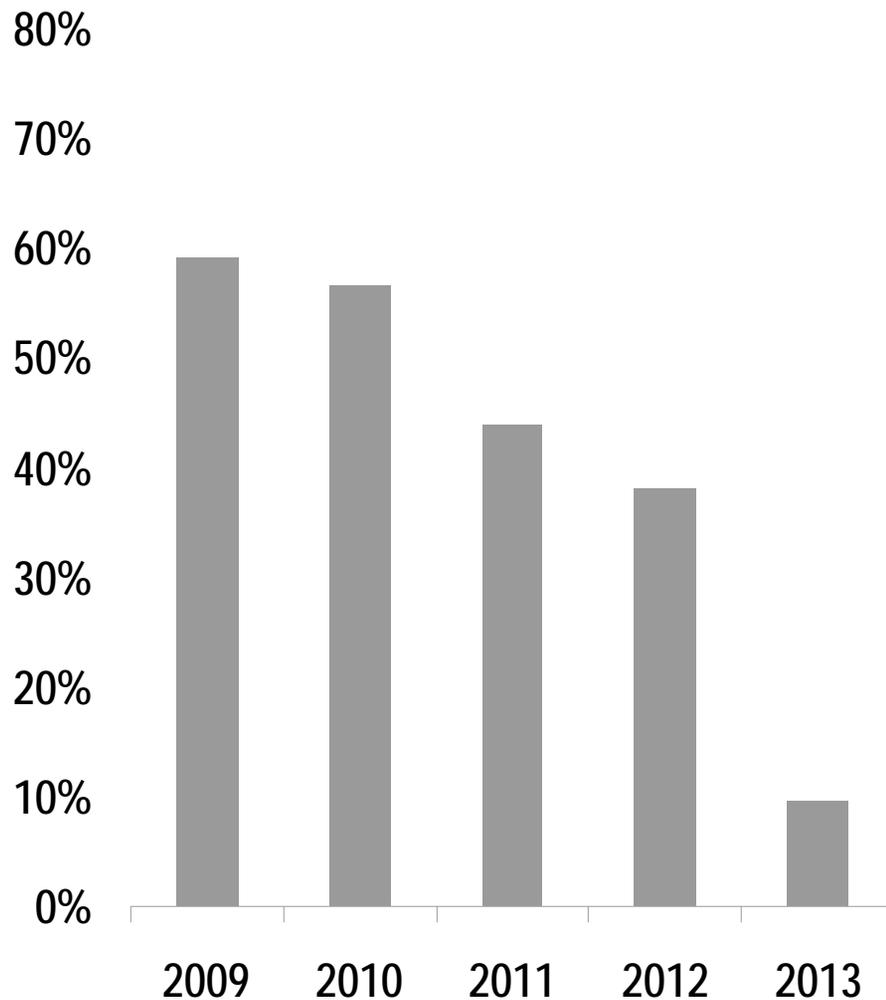
US Dry Gas Production (bcf/day YOY)



CIBC Commodities Strategy, EIA

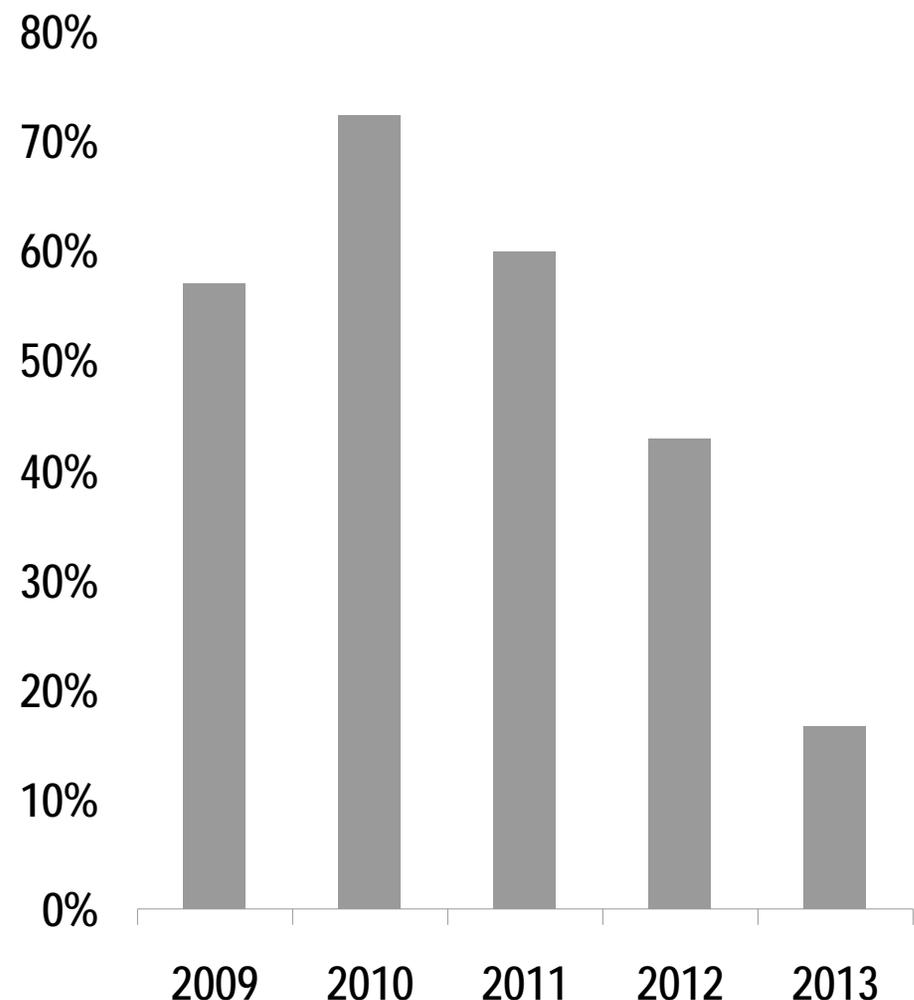
N. American Producers Are Wildly Underhedged

Canada — % of Production Hedged At Midyear



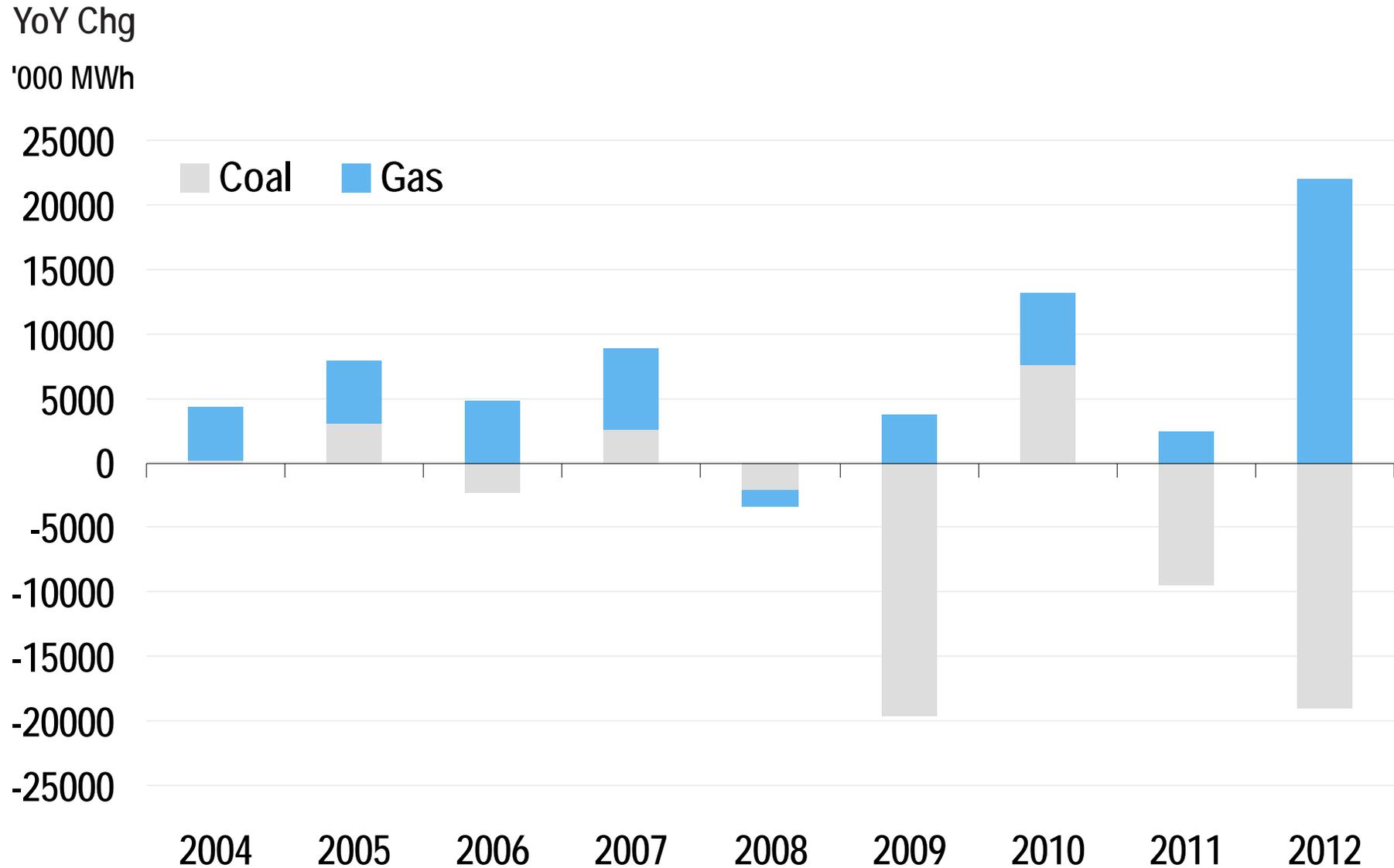
CIBC Commodities Strategy, Company Reports

US — % of Production Hedged At Midyear



CIBC Commodities Strategy, Company Reports

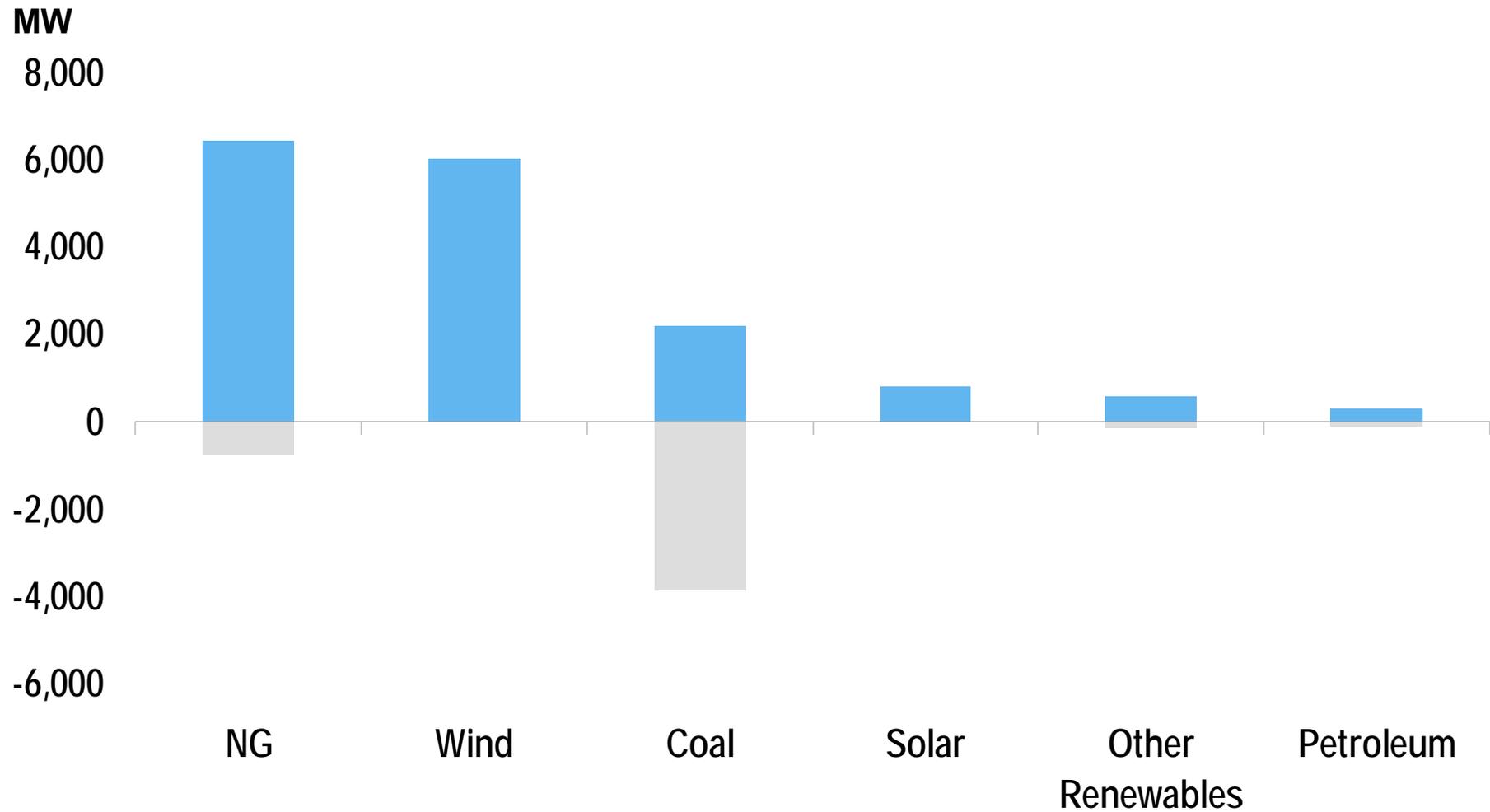
Utilities Trend Towards Natural Gas



CIBC Commodities Strategy, EIA

Electric Capacity Additions/Retirements By Fuel

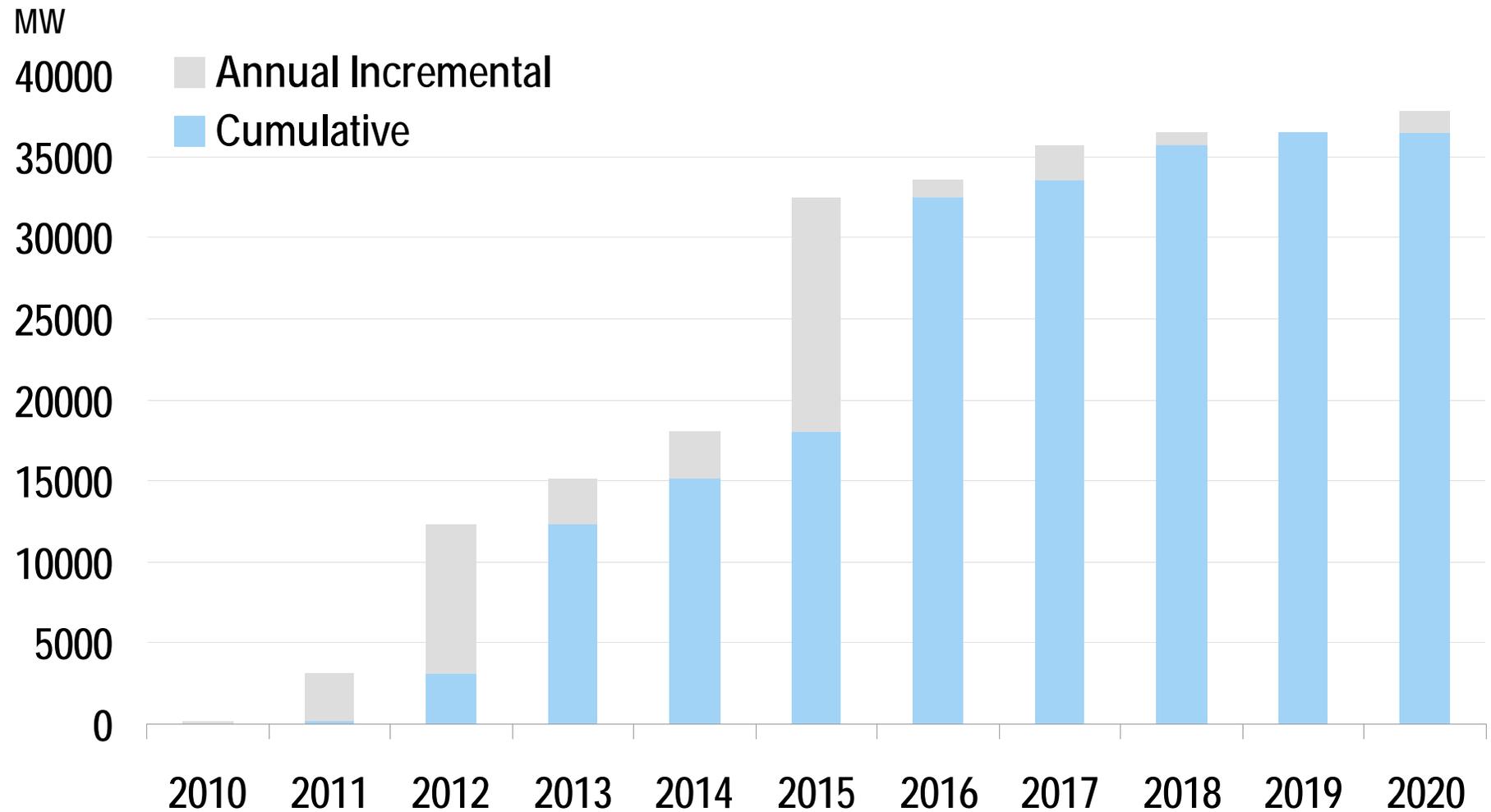
Electric Capacity Additions/Retirements — 2012



CIBC Commodities Strategy, EIA

Coal Plant Phaseouts Bullish For Long Term Gas

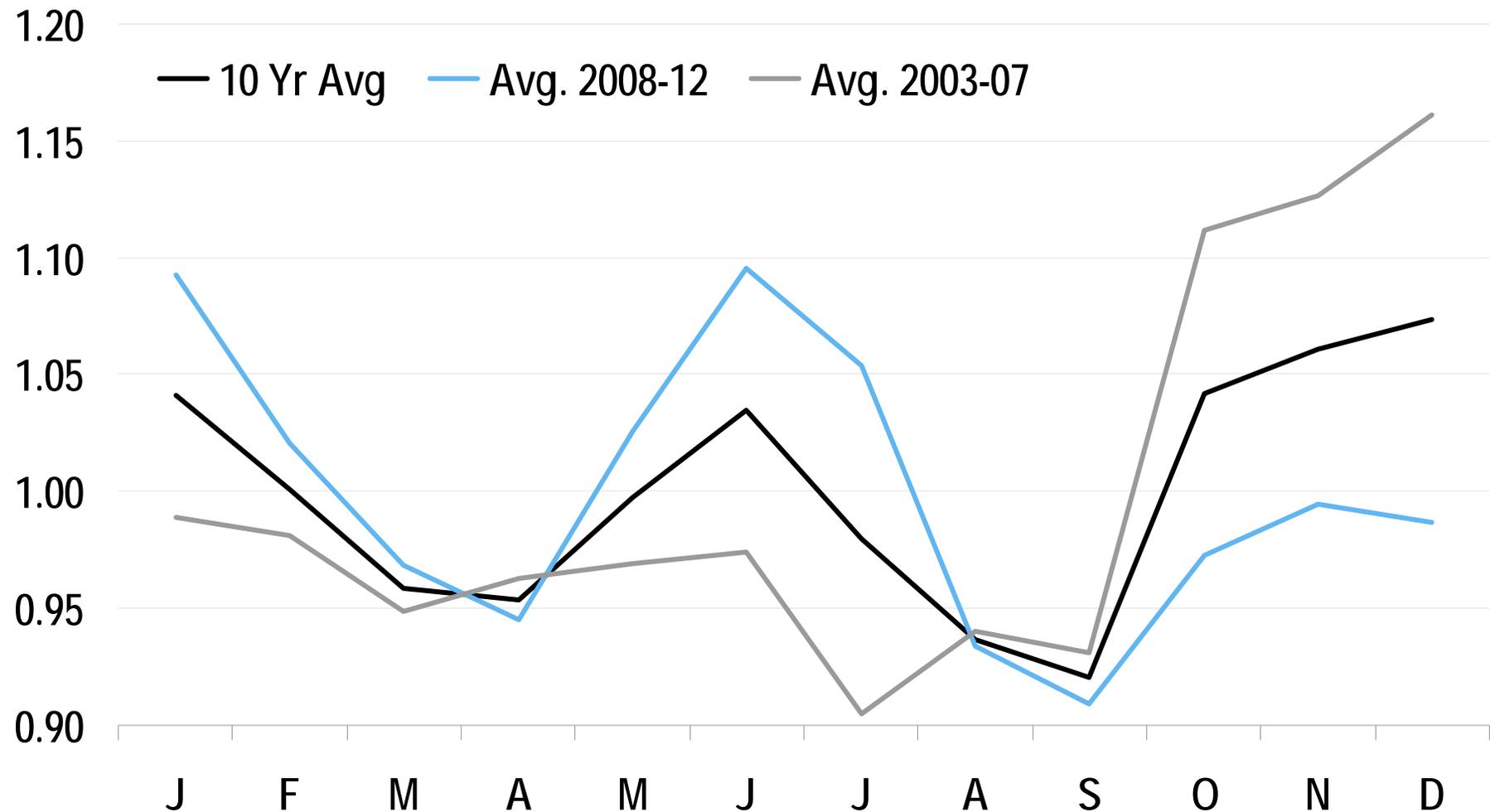
Annual & Cumulative Coal Plant Shutdowns



CIBC Commodities Strategy, Reuters

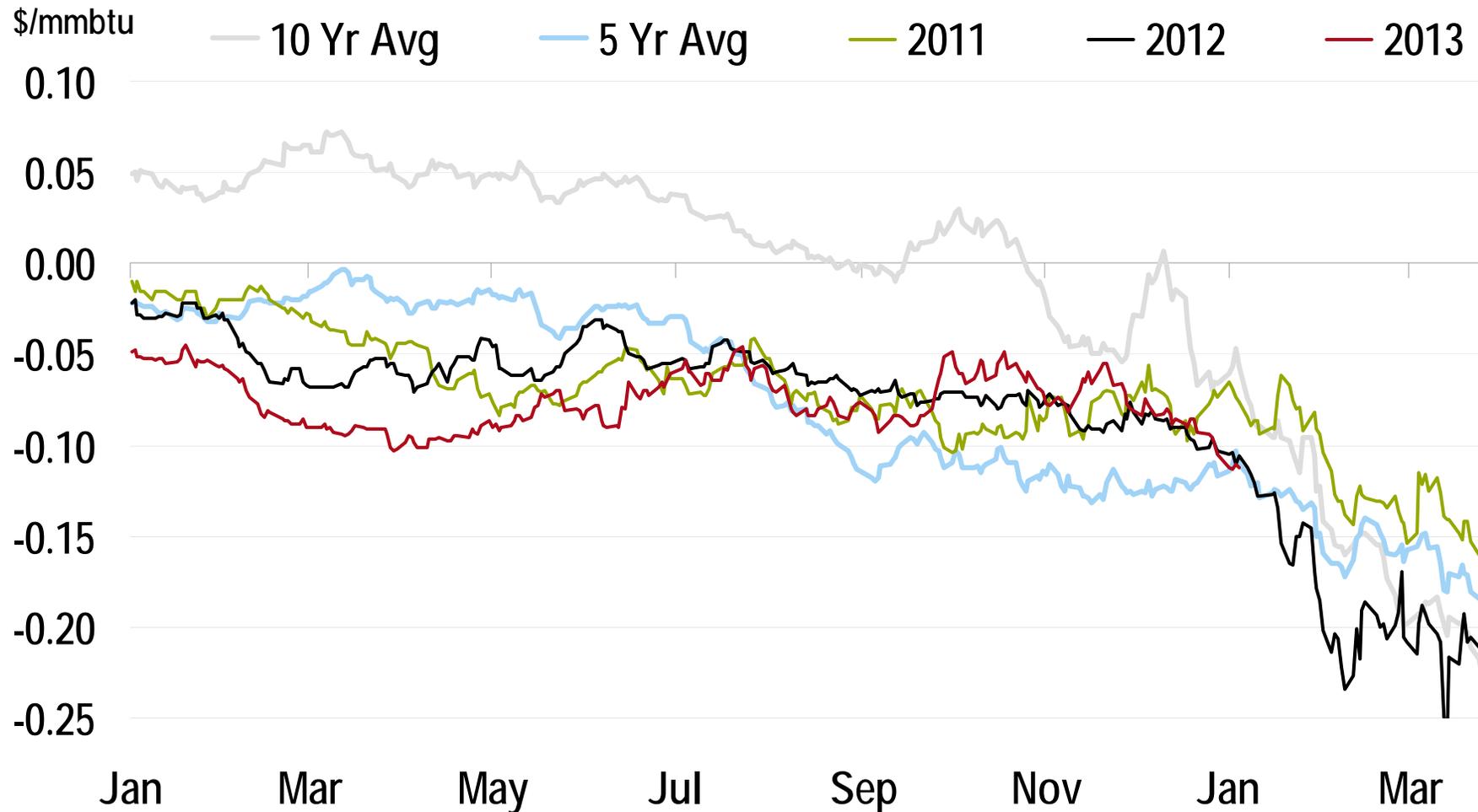
Summer Gas Price Peaks Get More Pronounced

Annual Avg. Price = 1



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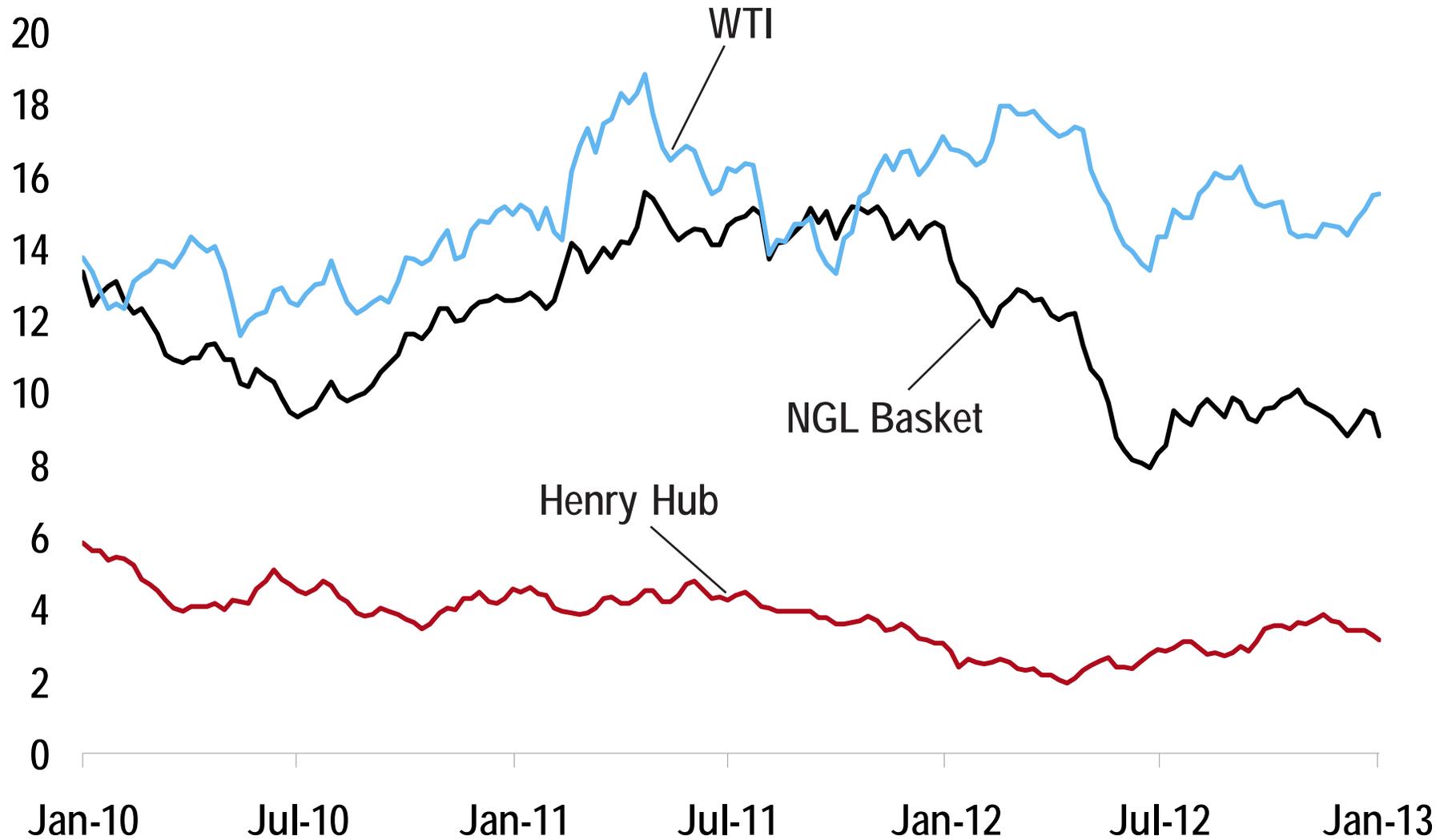
Apr-Jun Spread Starts Out Overpriced



CIBC Commodities Strategy

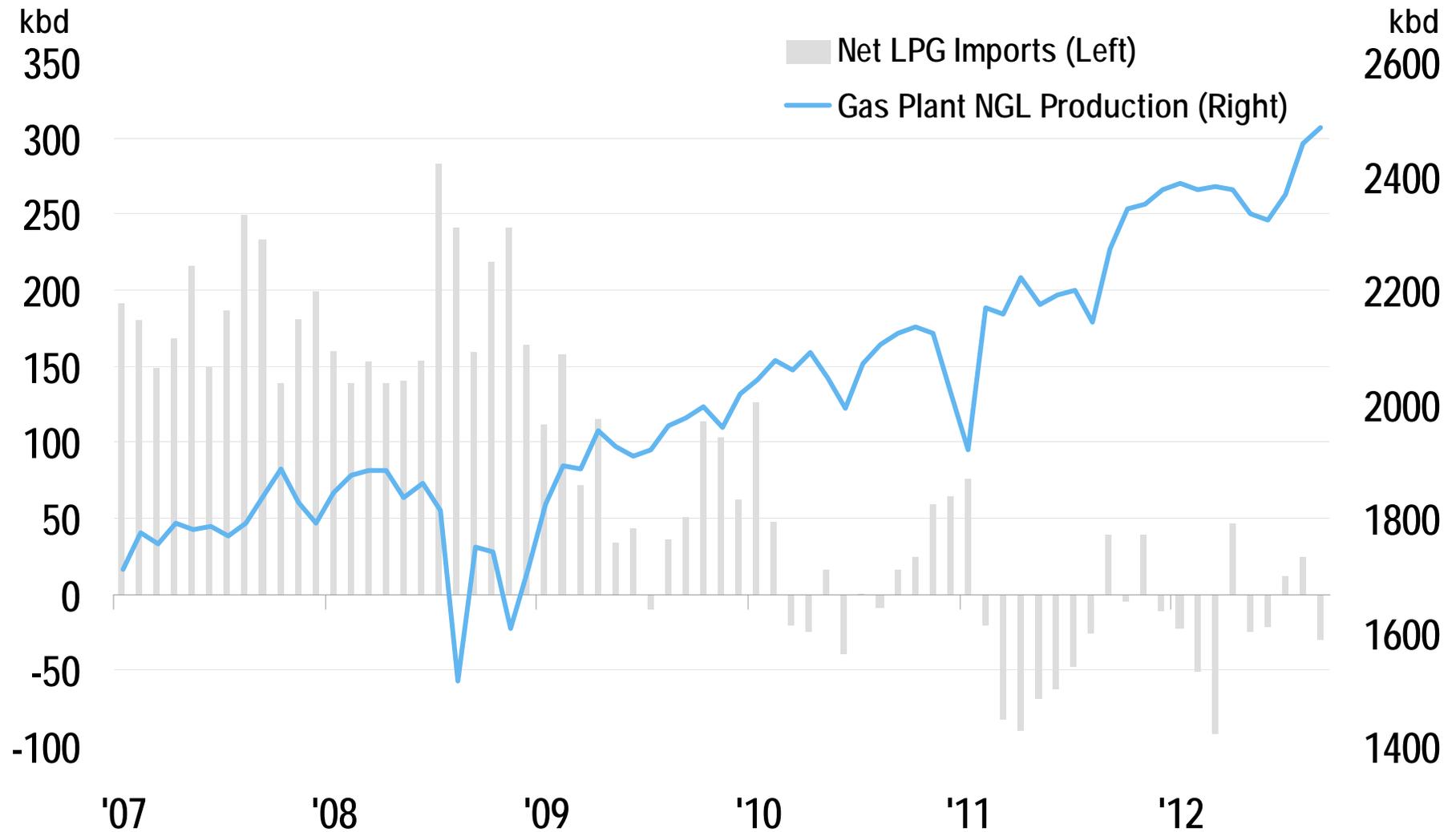
Is the Liquids Subsidy At Risk...?

\$/MMBtu



CIBC Commodities Strategy, EIA

US Now a Net Exporter Of NGLs



CIBC Commodities Strategy, EIA

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