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Falling crude prices and the European bitumen market

PPRS 2015

Jonathan Weston

25 February 2015

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Brief introduction to Argus Media

- Independent price reporting organisation in the commodity wholesale markets, covering crude and petroleum products, LPG, natural gas and LNG, electricity, coal, emissions, biomass, biofuels, fertilisers, metals, petrochemicals and transportation – and of course bitumen with a new report.

- Founded in 1970: today over 120 publications and around 700 employees

- Privately held by employees and the founder's family

- One of top 50 fastest growing UK registered companies (Sunday Times)

The oil price crash – where is the price floor?

Crude suppliers compete for stagnant market share

Opec's two pronged plan

The rise of Basrah Light

Bitumen's lag to heavy crude

European refining on the slide

Bitumen arbitrages and how risks can be managed

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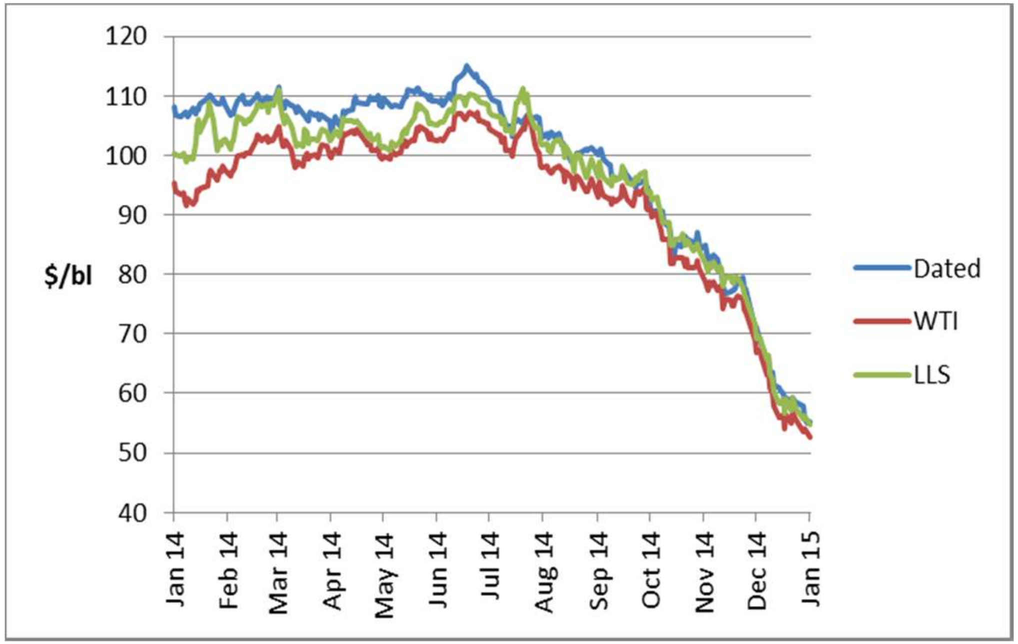
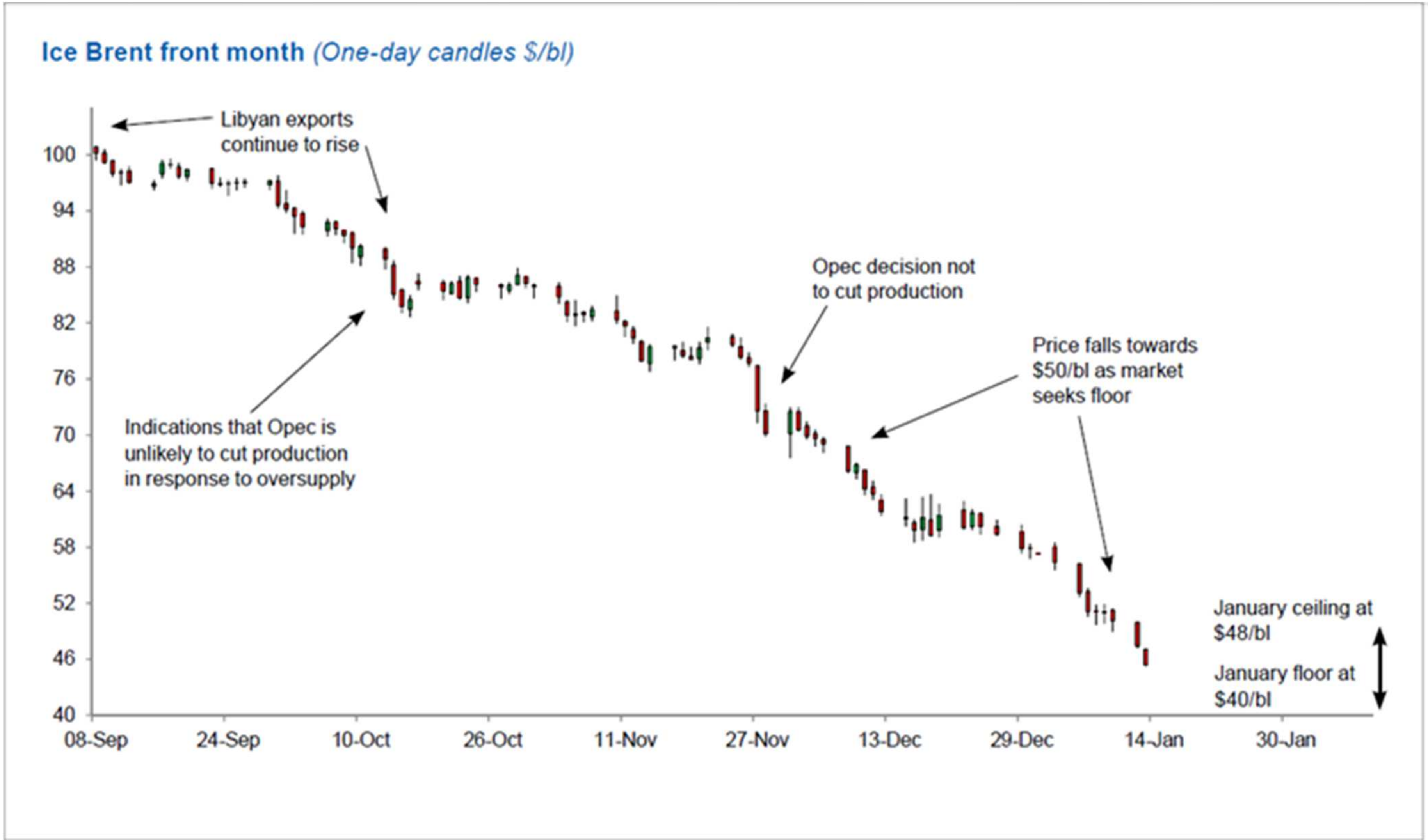
Crude market trends

- Outright crude oil prices have been in decline since mid-2014.
- US production gains, weak economic growth, Iraq and Libya able to produce despite conflicts.
- Fall accelerated after Opec's November decision to leave output targets unchanged.
- An agreement between Iran and western powers over nuclear programme could see more supply return.

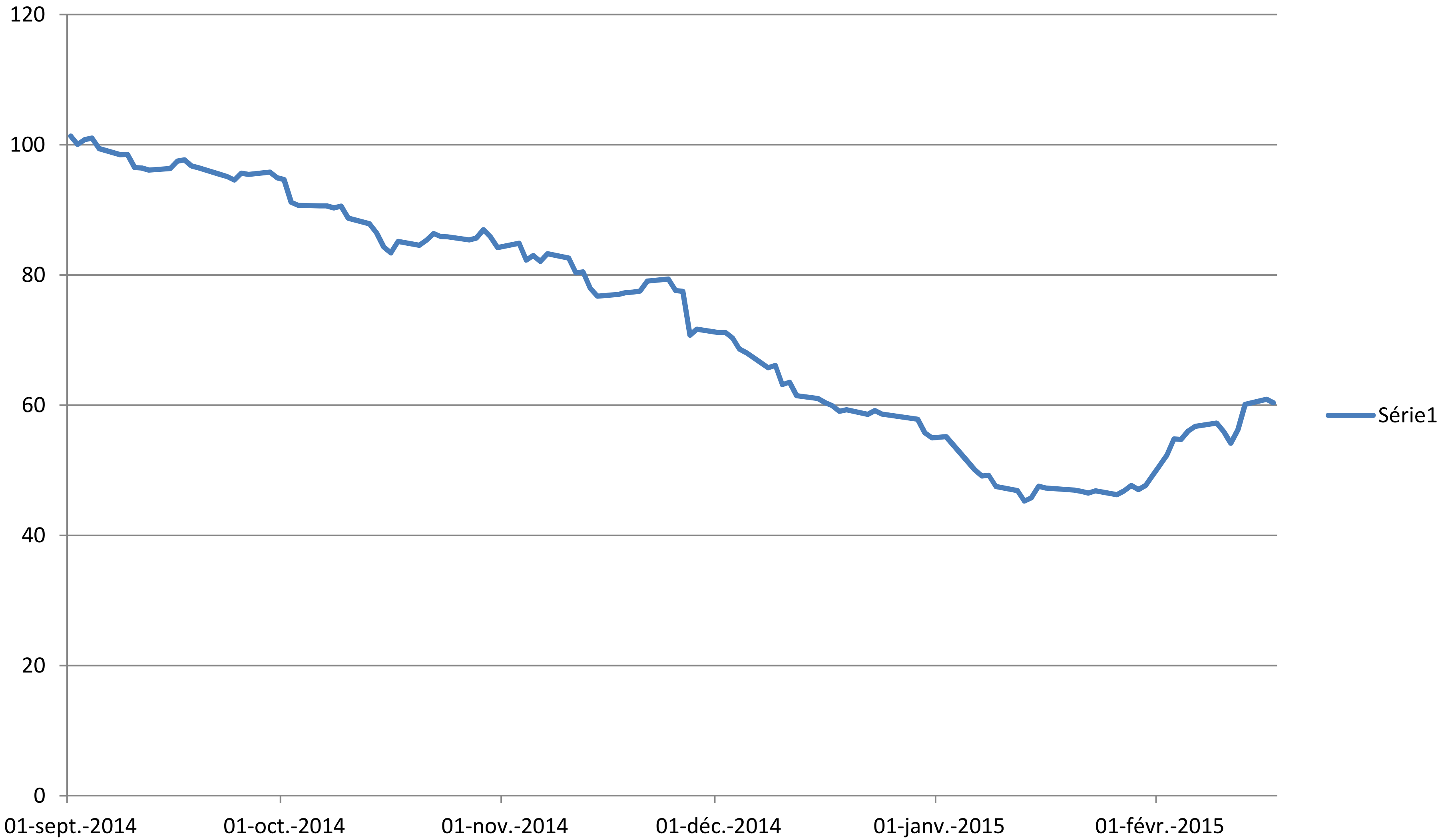


- North Sea Dated (Brent) falling more steeply than WTI and LLS, although the difference has since widened.

Where is the price floor?



- Argus North Sea Dated rebounds ($/bl)



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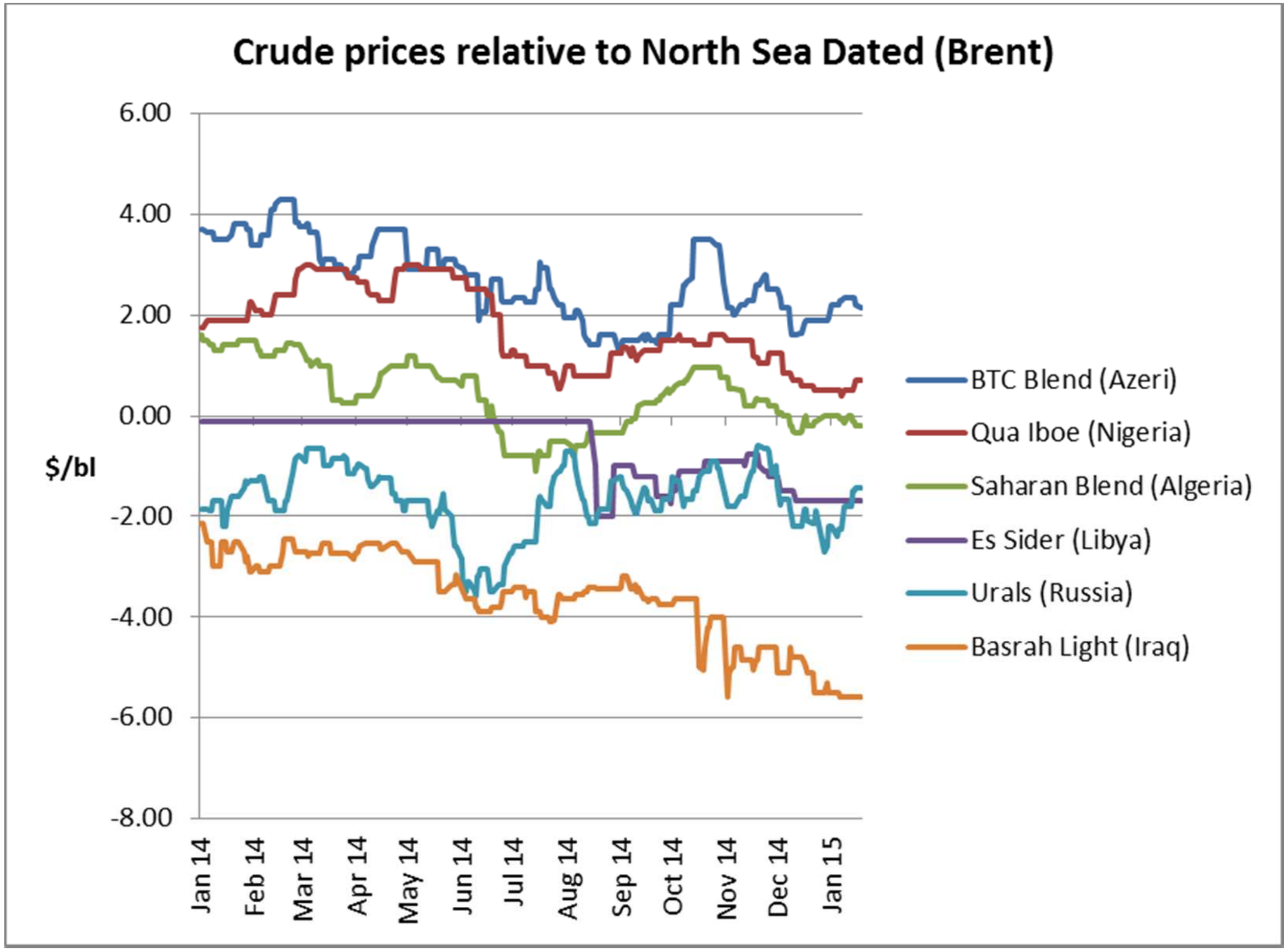
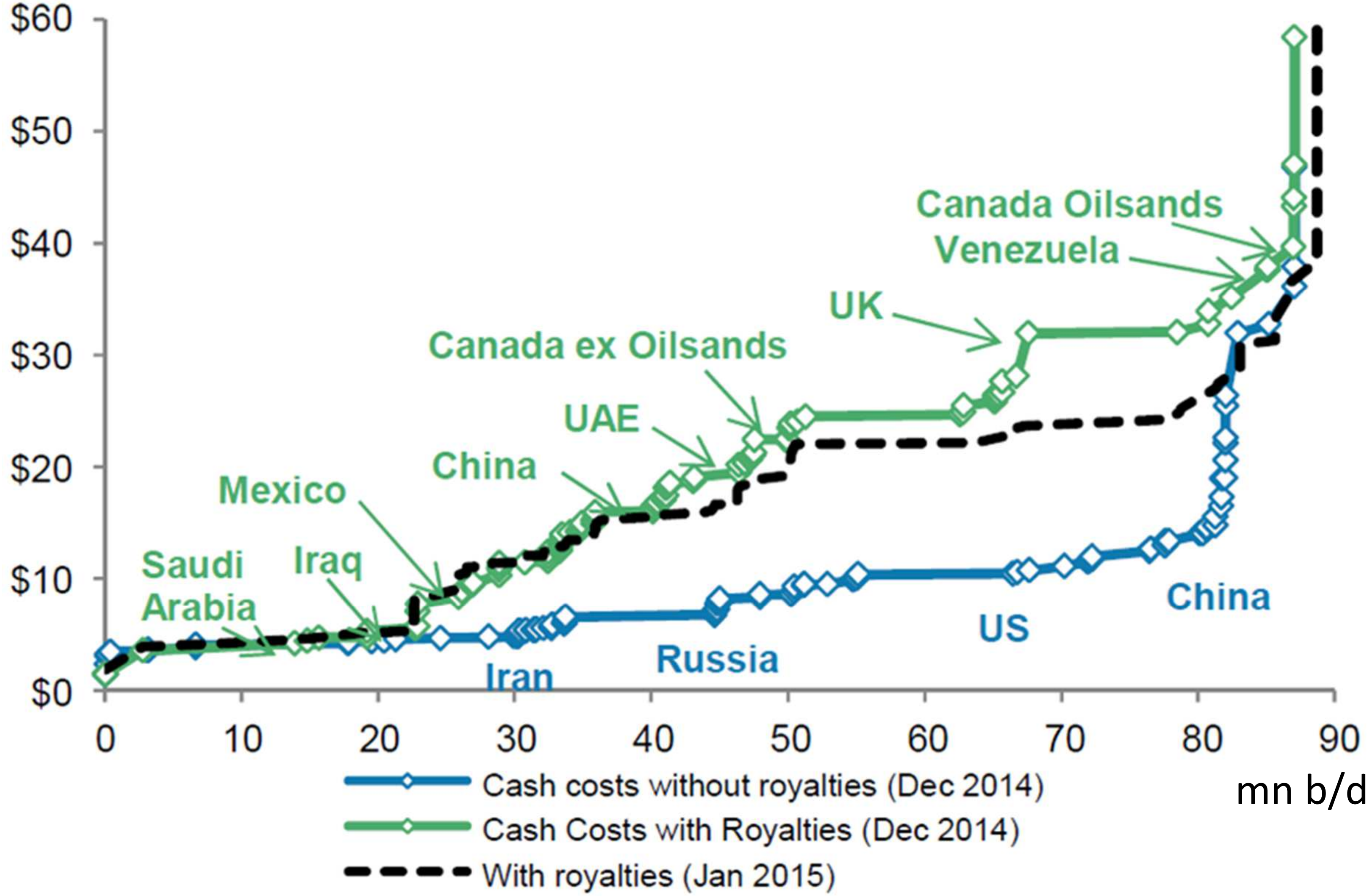
Suppliers compete for stagnant demand

- EU oil producers plus Norway are close to refining centres.
- Other sources discount despite benchmark falls to compete.
- Those like Nigeria previously dependent on the US are hard hit.
- Russian Urals has managed to buck the general trend by diverting some supply to east.



Production costs put much output at risk



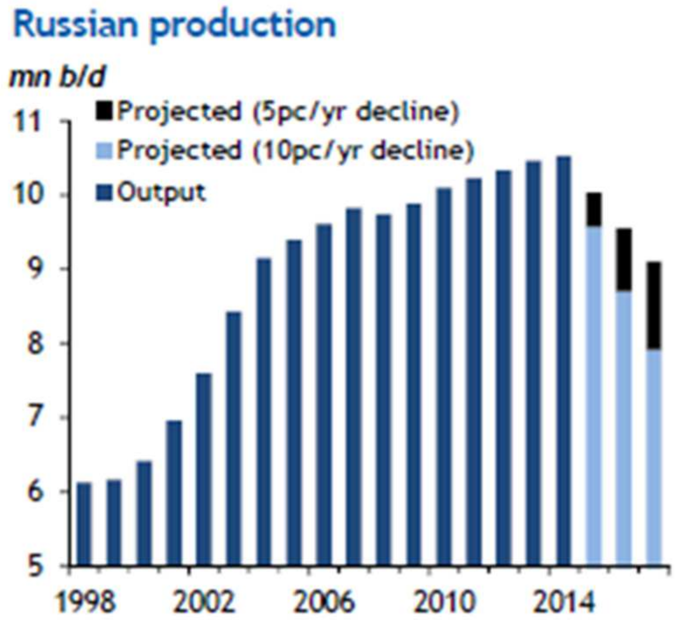
Source: Morgan Stanley

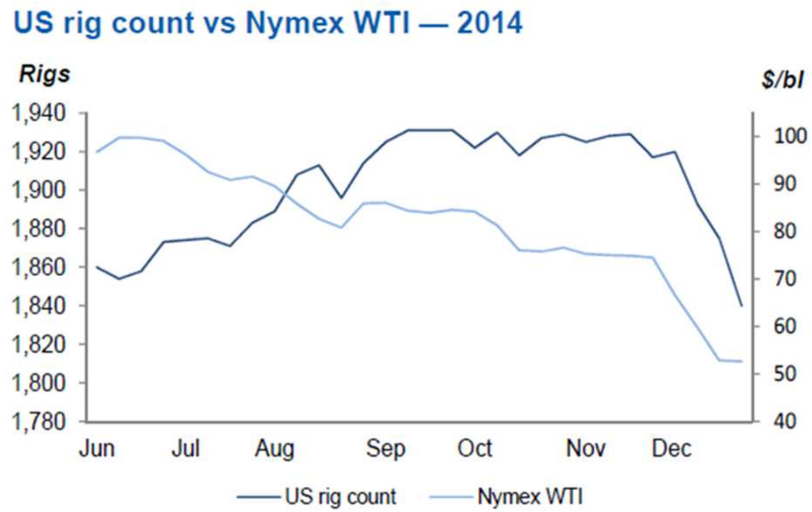
Opec – two pronged plan

- Opec's decision to leave output unchanged is intended to stimulate demand growth **and** put higher cost producers out of business.

- Any effect on demand is muted by high taxes in some regions, subsidies in others while Russia's economic downturn is severely trimming demand there.

- The more likely outcome is that as upstream investment wanes and new drilling for US shale slows, non-Opec supply growth will take a hit, particularly in Russia.



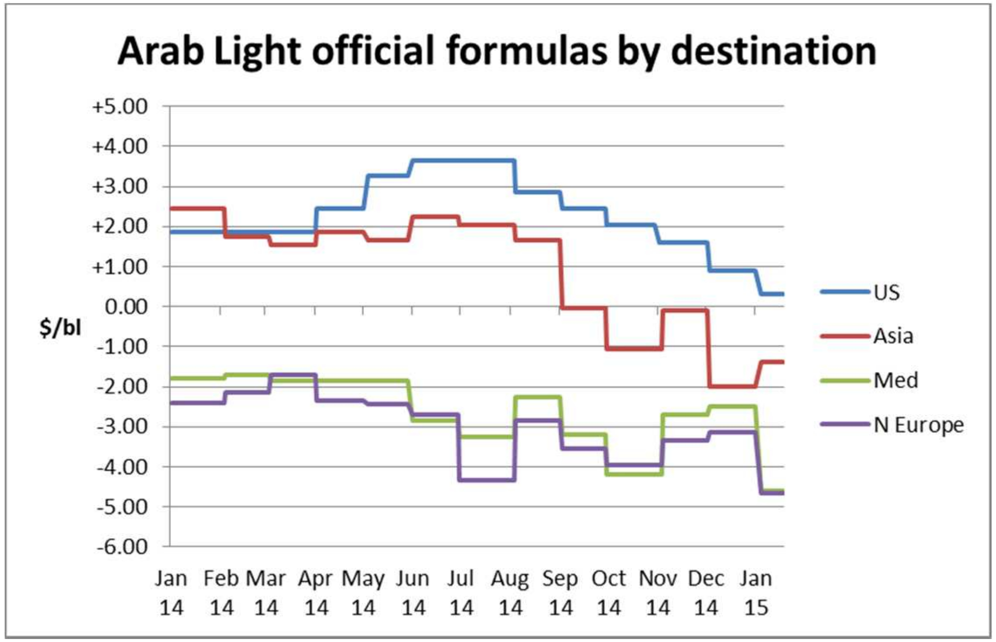


Saudis discount to hang on to market share

- With production costs of as little as $5/bl, the Saudis can weather a long period of low prices.

- Other Opec members and non-Opec producers may be forced to curtail output.

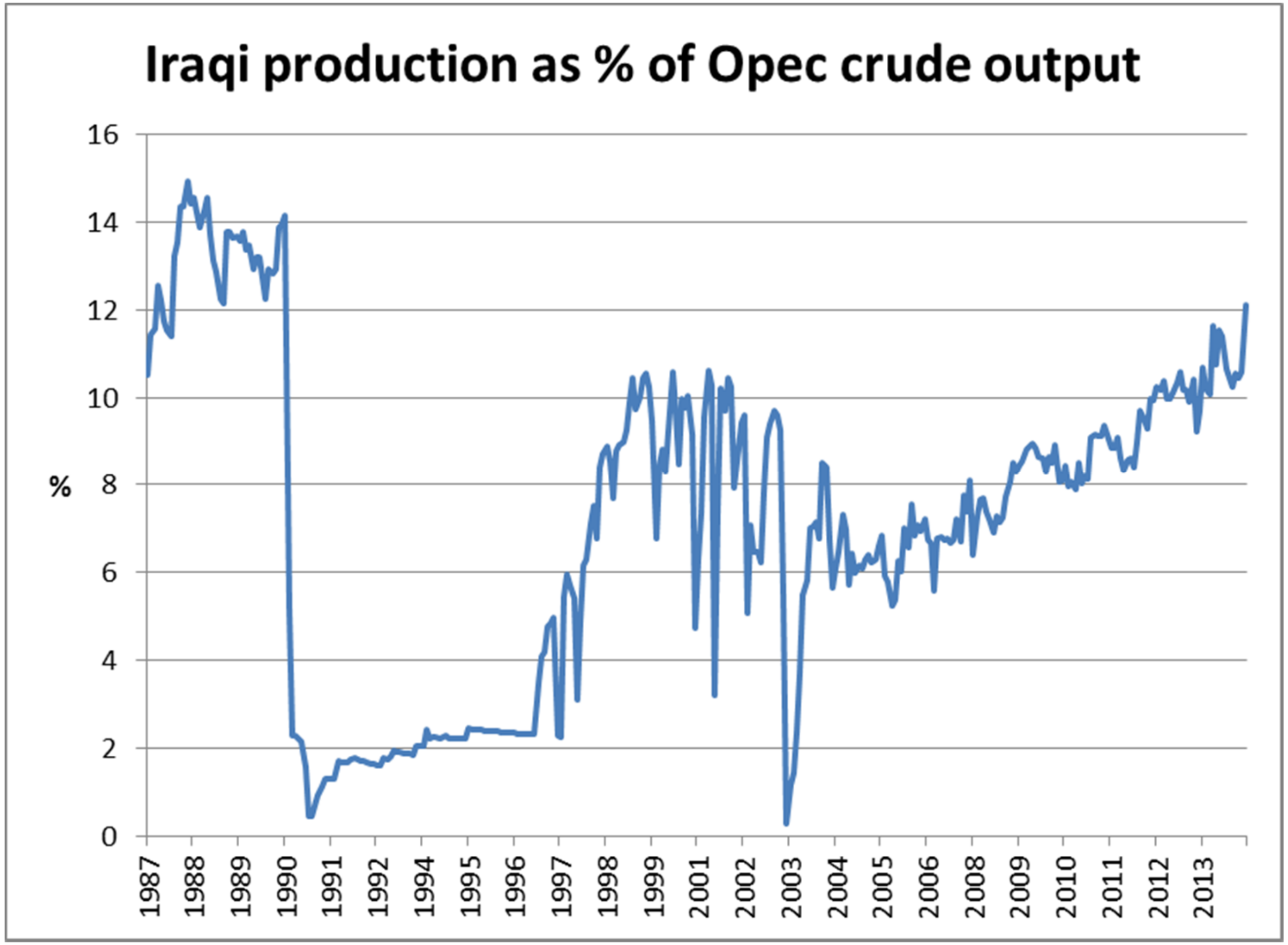
- US domestic shale oil production breaks even in a range from $35-80/bl – around half could become unprofitable with extended period under $55/bl.



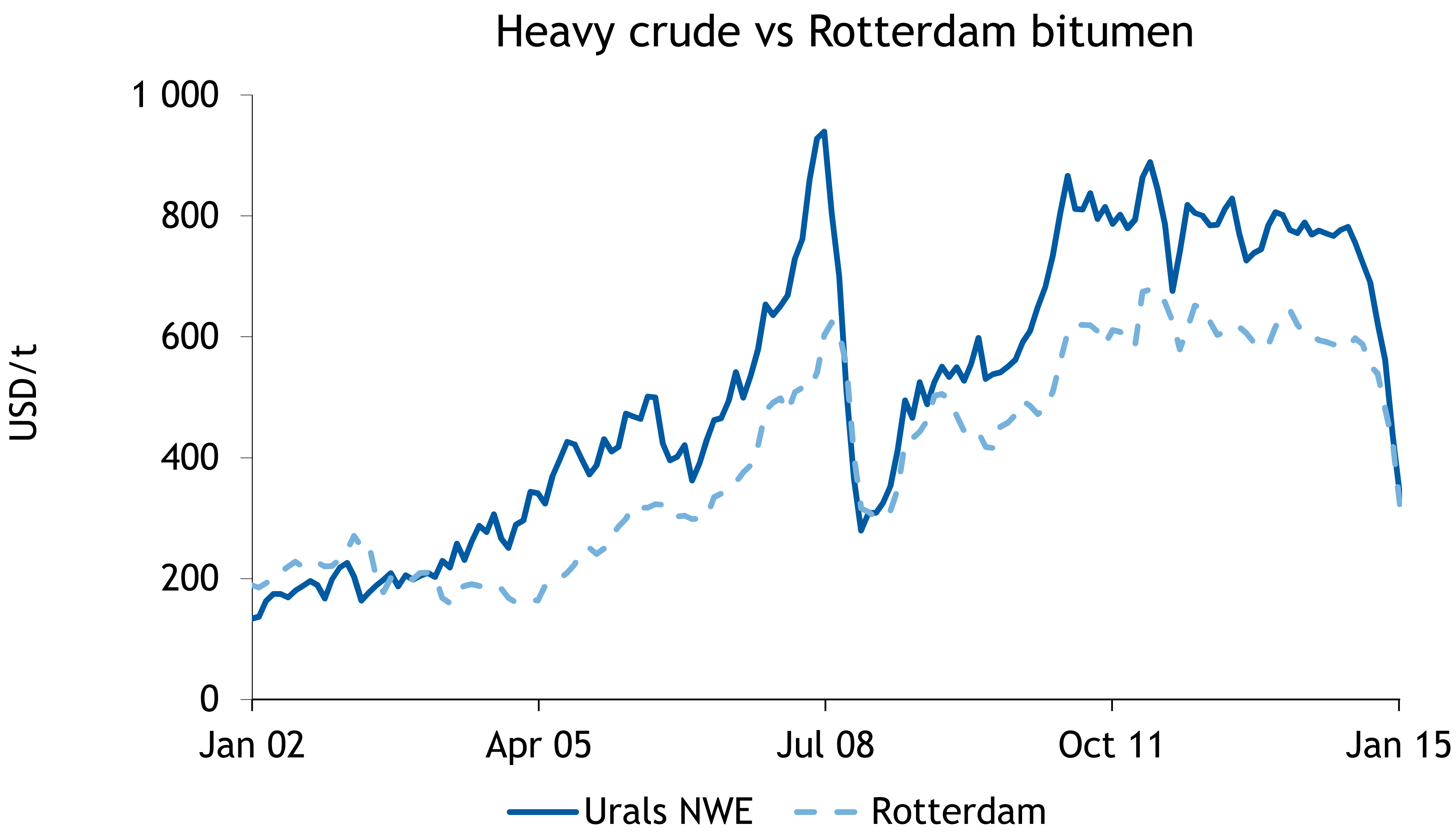
- NB. these formulas are measured against different benchmarks: to US vs Argus Sour Crude Index (ASCI), to Europe and Med vs ICE Brent futures weighted average, to Asia vs Dubai/Oman average

The rise of Basrah Light

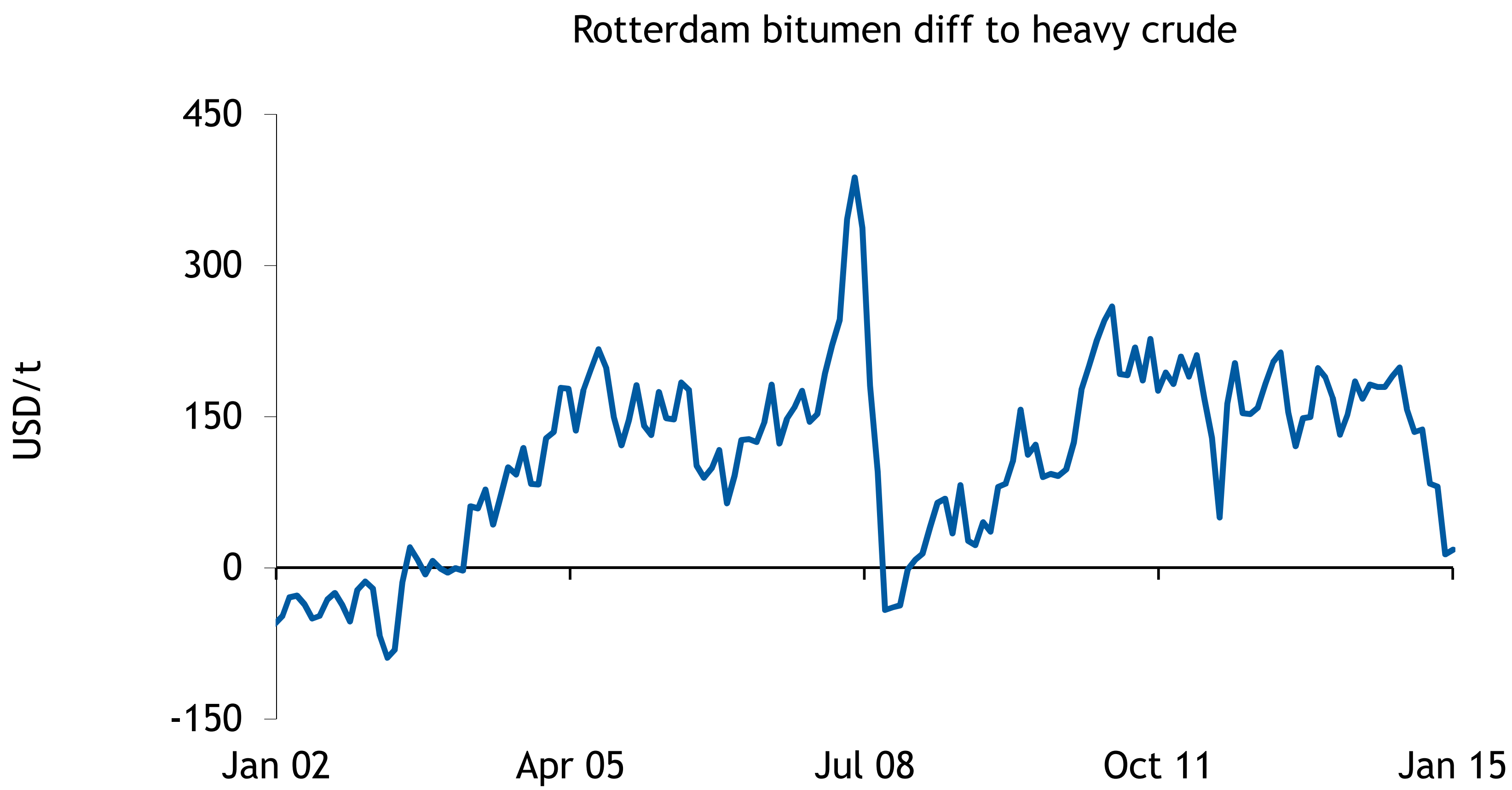
- Iraqi Basrah Light production has reached a post-Saddam high: 3.3mn b/d in Feb.
- Production continues to surge despite conflict in country.
- Kurdish authorities have come to an agreement with Iraq's Somo to market more crude via Ceyhan.



Crude volatility and bitumen price reaction



The bitumen lag to heavy crude



European refining on the slide

- More than 1.5mn b/d of refining capacity has closed in the past five years. 30% of French refining gone.
- European capacity currently over 15mn b/d. Total oil demand forecast to remain around 14.1mn b/d in 2015/16.
- More efficient engines, biofuels substitution, increasing cheap imports from the US, the Middle East and India.

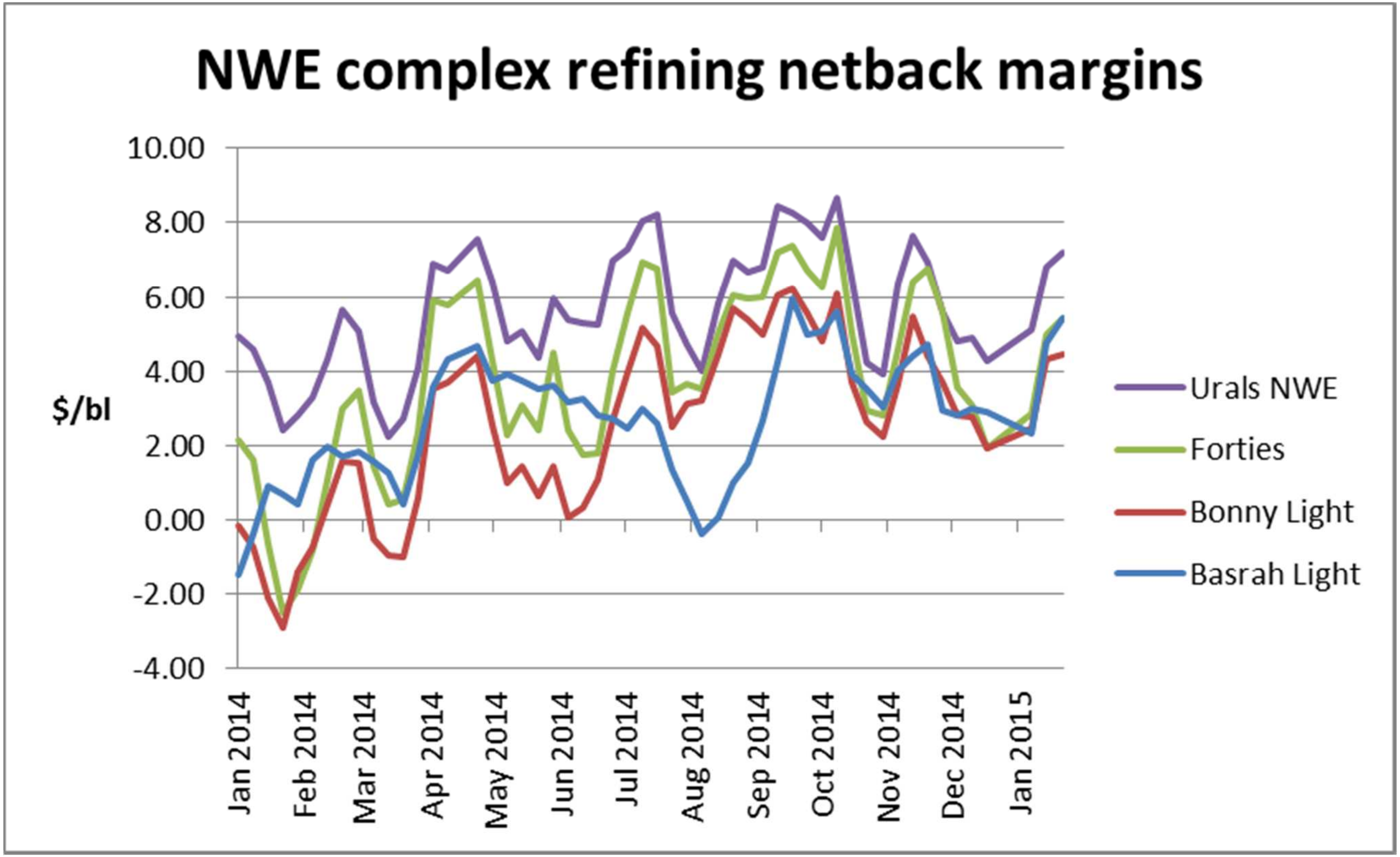
European refinery shutdowns *'000 b/d*

Operator	Refinery	Region	Capacity	Closed
Petroplus	Teesside	NWE	117	Mar 09
Total	Dunkirk	NWE	156	Aug 09
ConocoPhillips	Wilhelmshaven	NWE	260	Sep 10
Lukoil	Odessa	Black Sea	56	Oct 10
OMV	Arpechim	Black Sea	70	Mar 11
Tamoil	Cremona	Mediterranean	90	Apr 11
Petroplus	Reichstett	Mediterranean	82	Apr 11
LyondellBasel	Berre l'Etang	Mediterranean	82	Dec 11
Petroplus	Coryton	NWE	180	Jun 12
TotalErg	Rome	Mediterranean	82	Sep 12
ExxonMobil	Fawley	NWE	40*	Sep 12
Petroplus	Petit Couronne	NWE	146	Dec 12
Total	Gonfreville	NWE	111*	Mar 13
Shell	Hamburg-Harburg	NWE	50*	Mar 13
Eni	Venice	Mediterranean	80	Jul 13
Mol	Mantova	Mediterranean	55	Jan 14
Total shutdowns			**1,657**	

**capacity reduction*

- Also 135,000 b/d Milford Haven closed in November after sale to Klesch fell through.
- Libya's Tamoil may temporarily close its 72,000 b/d Swiss Collombey plant by end March.
- Croatia's Ina has halted runs at its 44,000 b/d Sisak refinery, but may restart.

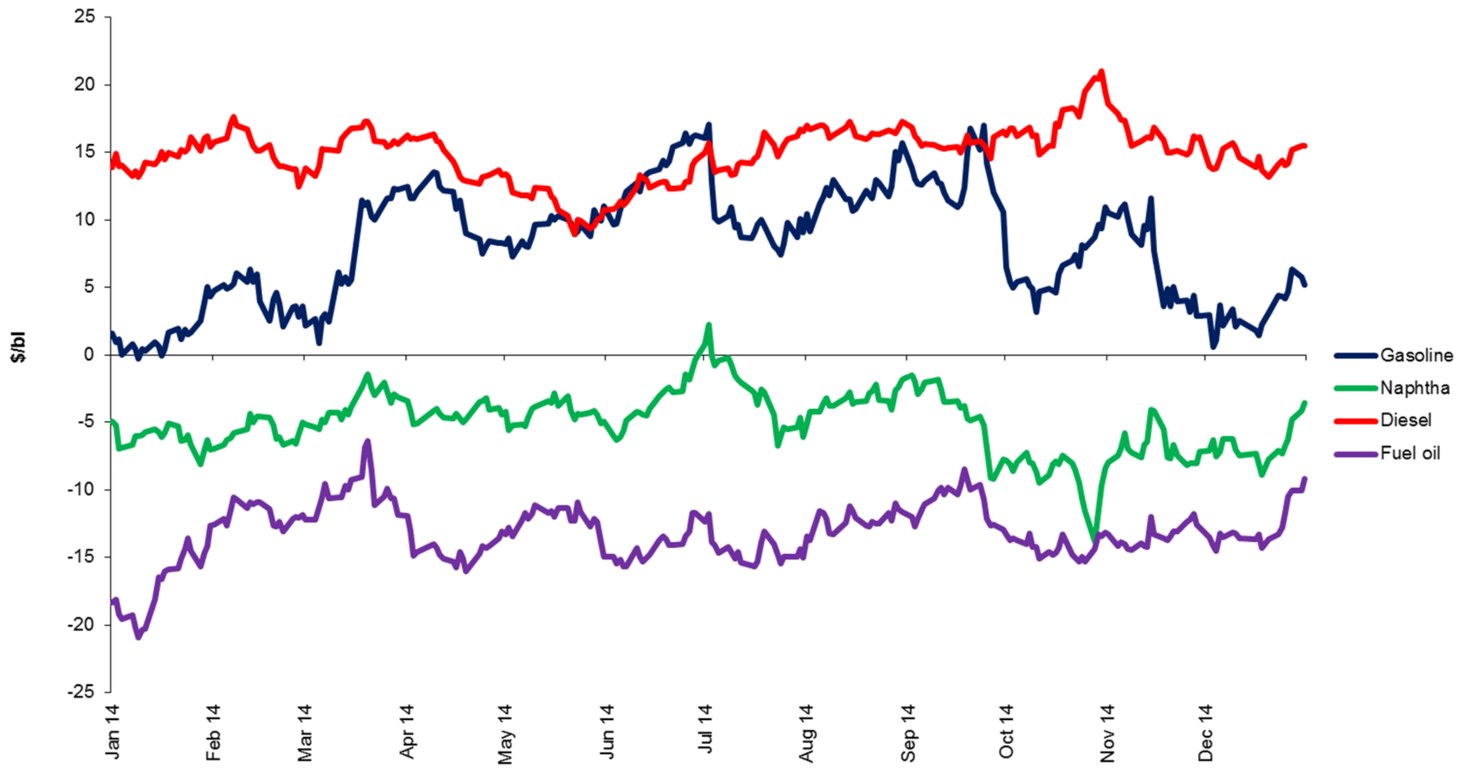
Falling crude prices offer better margins



Europe’s refineries produce the wrong products

- Refineries were configured to maximise gasoline output.
- Lower taxes for diesel in past decade and a half have shifted the European vehicle fleet to diesel.
- Costly upgrades have kept many refineries in operation.
- But imported diesel is still often cheaper, and surplus of gasoline increasingly hard to sell.

Crack spreads for key refined products in NWE (values versus Dated)

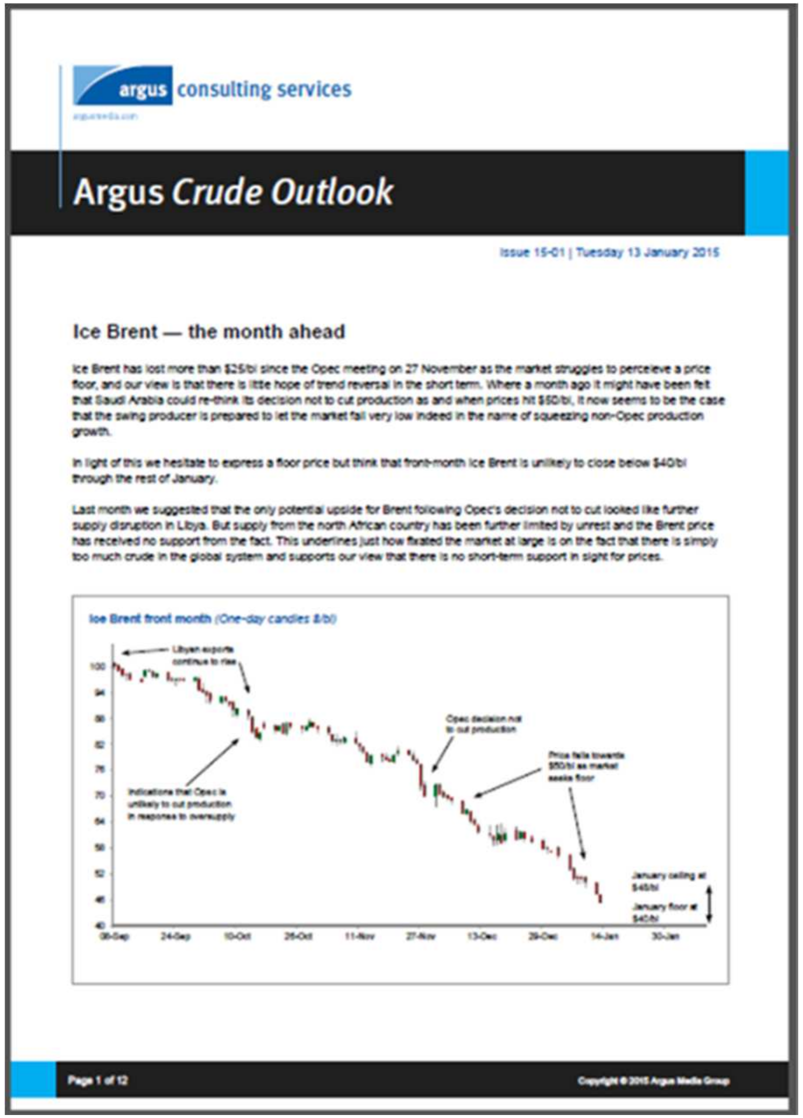


Risk can be anticipated & managed

- Argus is working with the industry to introduce tools to manage price risk on individual grades.

- These could include CFD contracts for CPC, Forties Blend, ESPO and others according to demand.

- Also we are forecasting not just the headline grades but regional markers including Bonny Light and Urals.



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Argus *Crude Outlook*

Issue 15-01 | Tuesday 13 January 2015

Ice Brent — the month ahead

Ice Brent has lost more than $25/bl since the Opec meeting on 27 November as the market struggles to perceieve a price floor, and our view is that there is little hope of trend reversal in the short term. Where a month ago it might have been felt that Saudi Arabia could re-think its decision not to cut production as and when prices hit $50/bl, it now seems to be the case that the swing producer is prepared to let the market fall very low indeed in the name of squeezing non-Opec production growth.

In light of this we hesitate to express a floor price but think that front-month Ice Brent is unlikely to close below $40/bl through the rest of January.

Last month we suggested that the only potential upside for Brent following Opec's decision not to cut looked like further supply disruption in Libya. But supply from the north African country has been further limited by unrest and the Brent price has received no support from the fact. This underlines just how fixated the market at large is on the fact that there is simply too much crude in the global system and supports our view that there is no short-term support in sight for prices.

Ice Brent front month *(One-day candles $/bl)*

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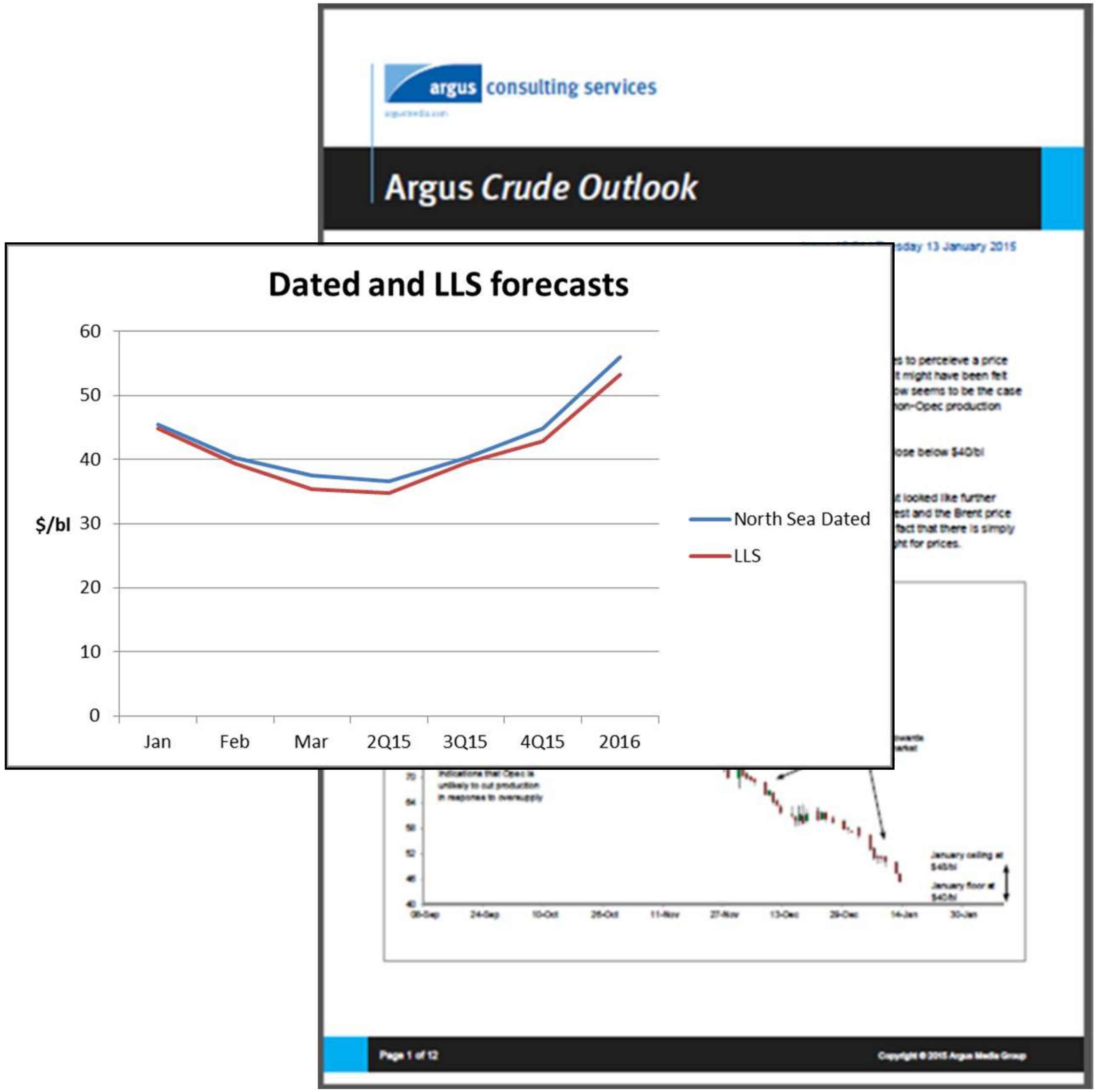

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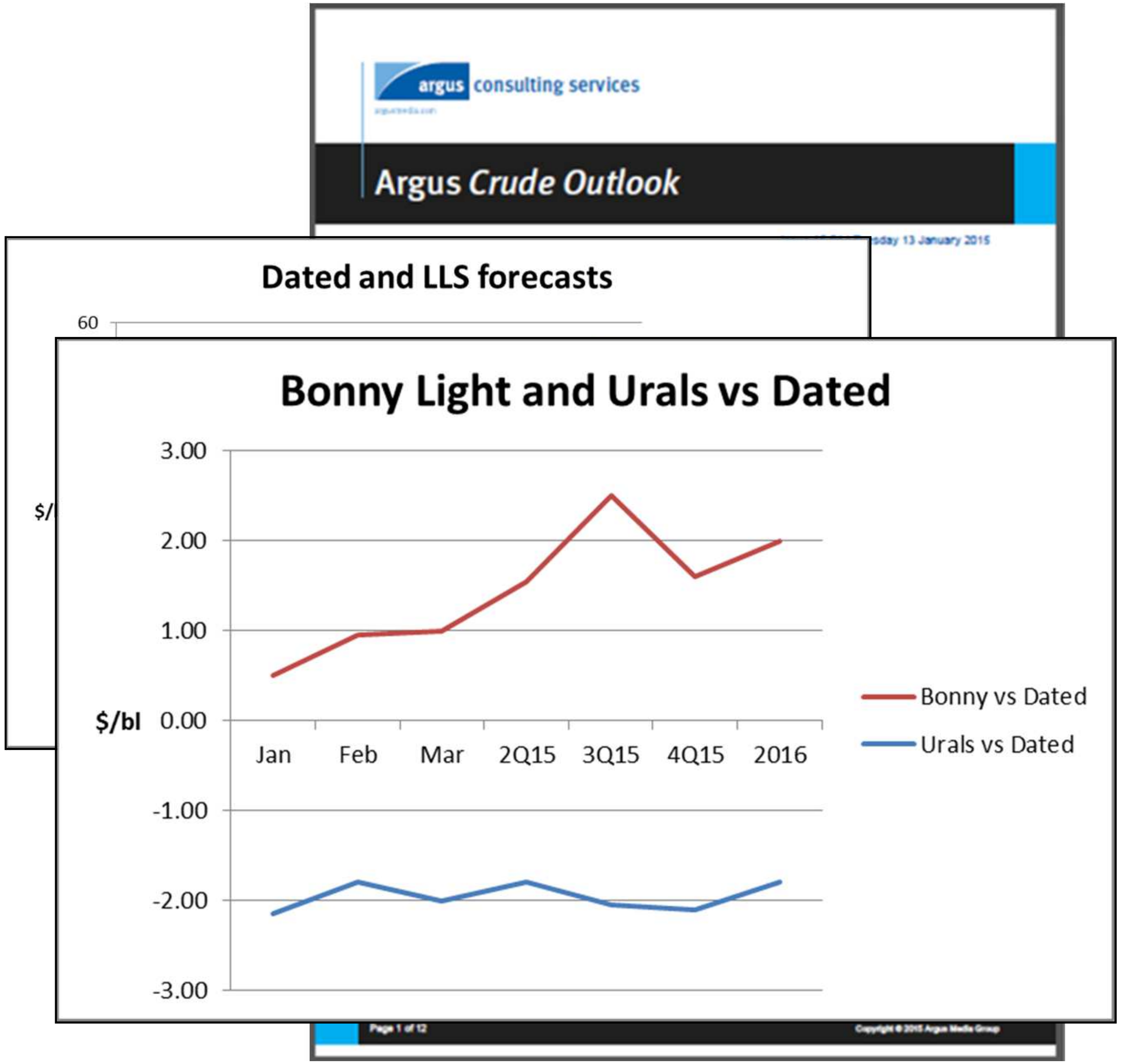

In conclusion

Arbitrage opportunities are expected to increase

- Global bitumen supply is adequate even though there is less bitumen production from fewer refineries.
- Rebounding crude prices expected to support EU bitumen by 30-50 euro/t from March onwards when seasonal demand also picks up.
- Supply and demand variations within countries in the global bitumen market has created arbitrage opportunities for participants that have the capability to move bitumen volumes
- Bitumen volumes are moving longer distances with new arbitrages ie Med to Lat am (Chile) and Med to New Zealand.
- Importing countries now have a variety of import options.
- Shipping bitumen over longer distances requires larger vessels.
- Arbitrage opportunities and trade opportunities are expected to increase as bitumen demand increases with GDP growth as most developed countries exit recession and transportation budgets are stretched further following crude price declines.

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