

Global Gas & LNG: Ensuring a Competitive Position for the Future

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20th January 2010 • UN ECE • Geneva



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Four Key Topics

- **Are we in a Buyers' Market?**
- **A Relationship under Pressure—Gas and Oil Price Indexation**
- **Who's Afraid of a 'GASPEC'?**
- **A Fuel without a Voice—Who will Speak for Natural Gas?**



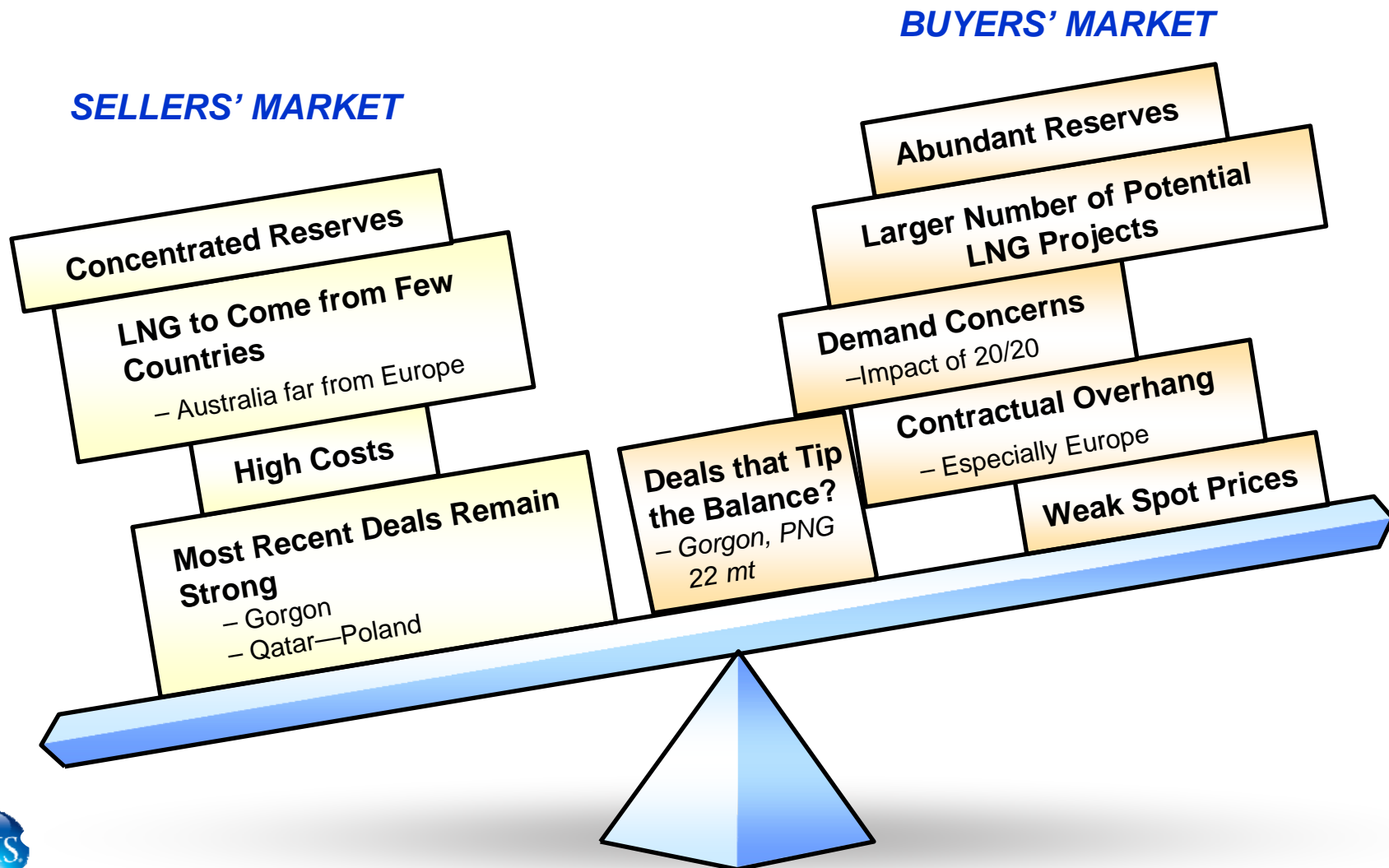
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Global Gas/LNG Status as of January 2010

- **Short-term Surplus—The “Triple Whammy”**
 - Aftermath of the ‘Great Recession’
 - Unconventional gas revolution in North America
 - LNG supply surge
- **Long-term Reappraisal—The End of the Sellers’ Market, but not the Start of a Buyers’ Market**
 - The end of the ‘investment hiatus’ (Gorgon, PNG, CSG-to-LNG)
 - North American unconventional change the equation
 - All LNG eyes on Australia



Sellers' versus Buyers' Market



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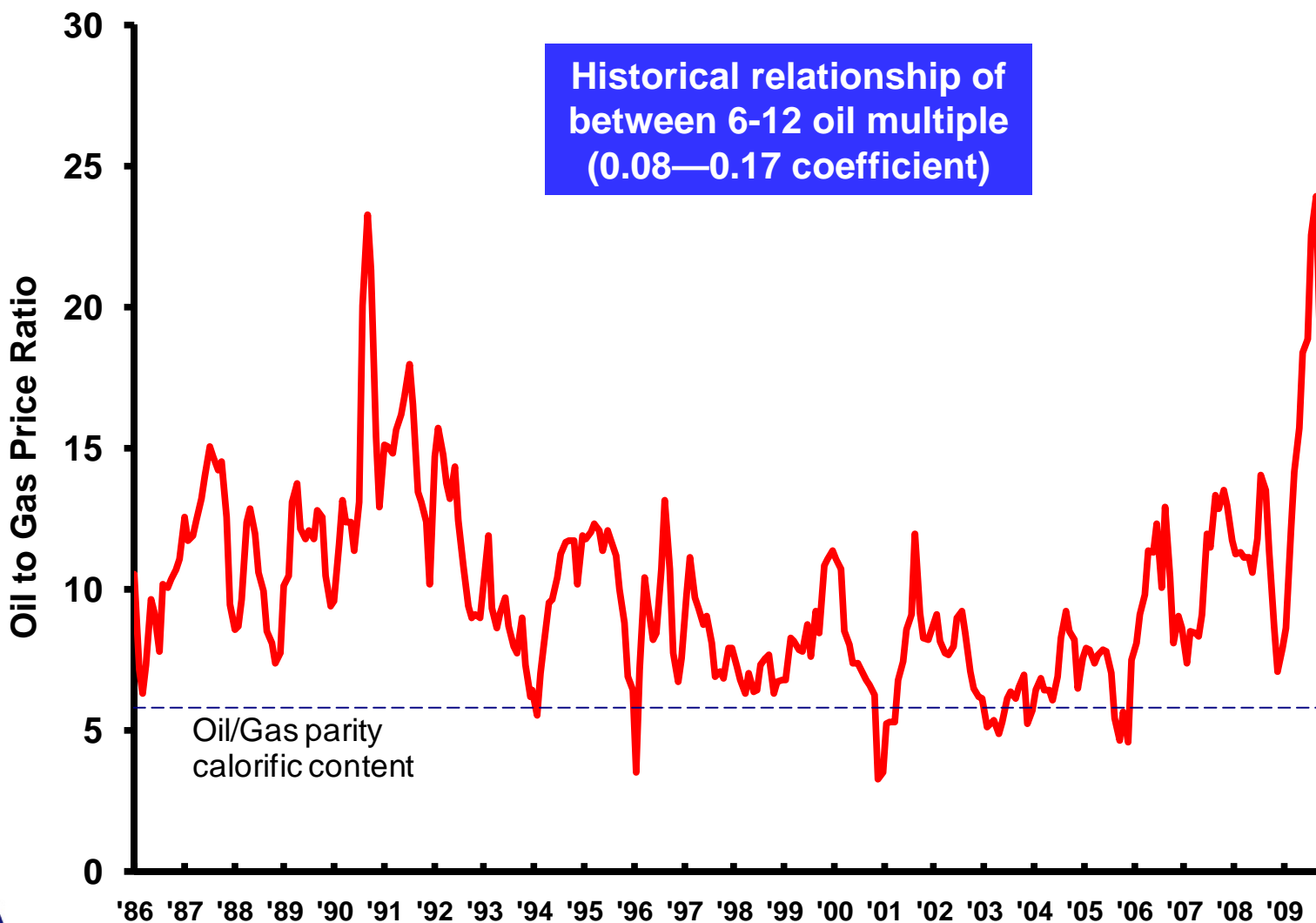
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Oil and Spot Gas Price Relationship

WTI to Henry Hub Price Ratio

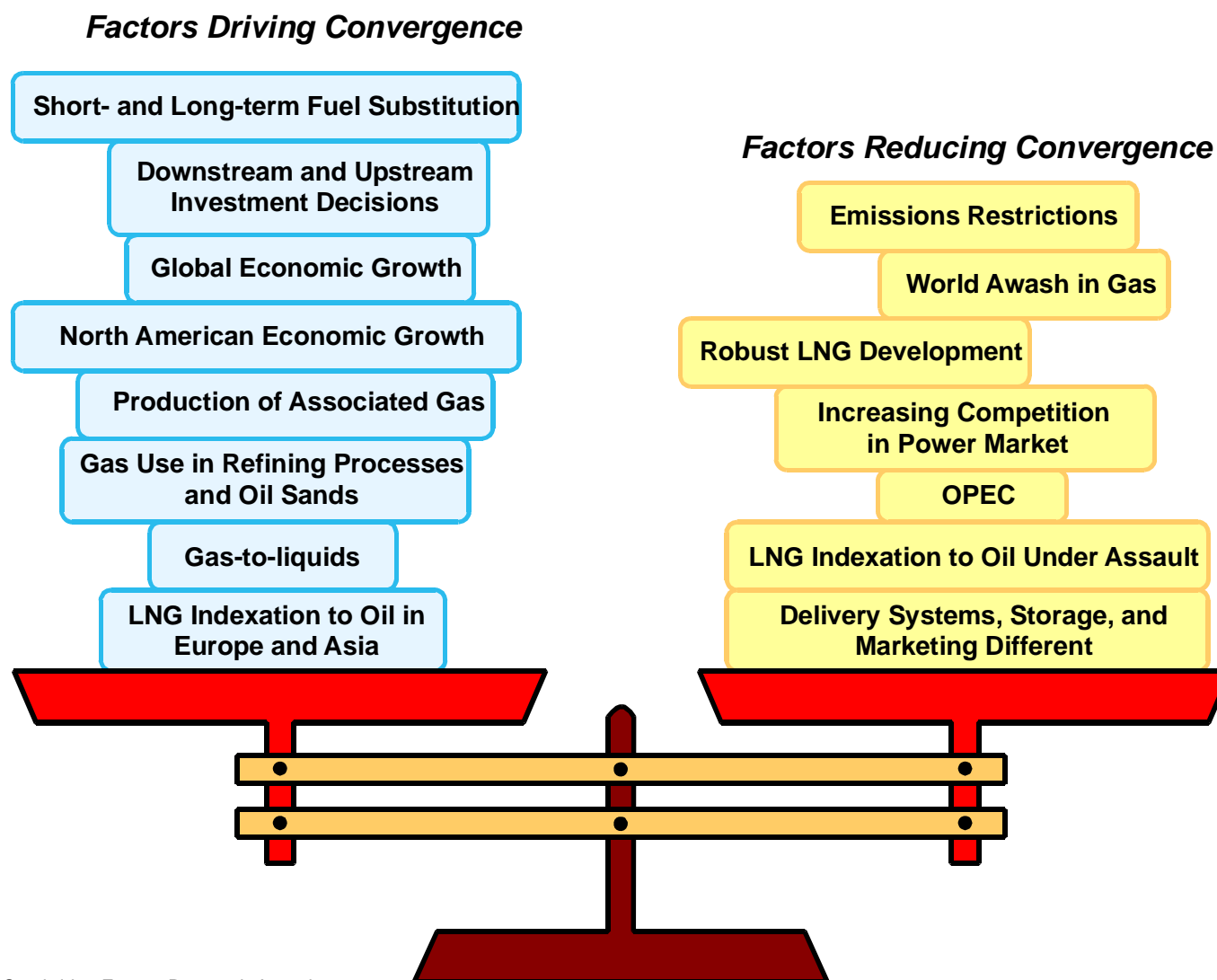


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Gas-Oil Price Convergence



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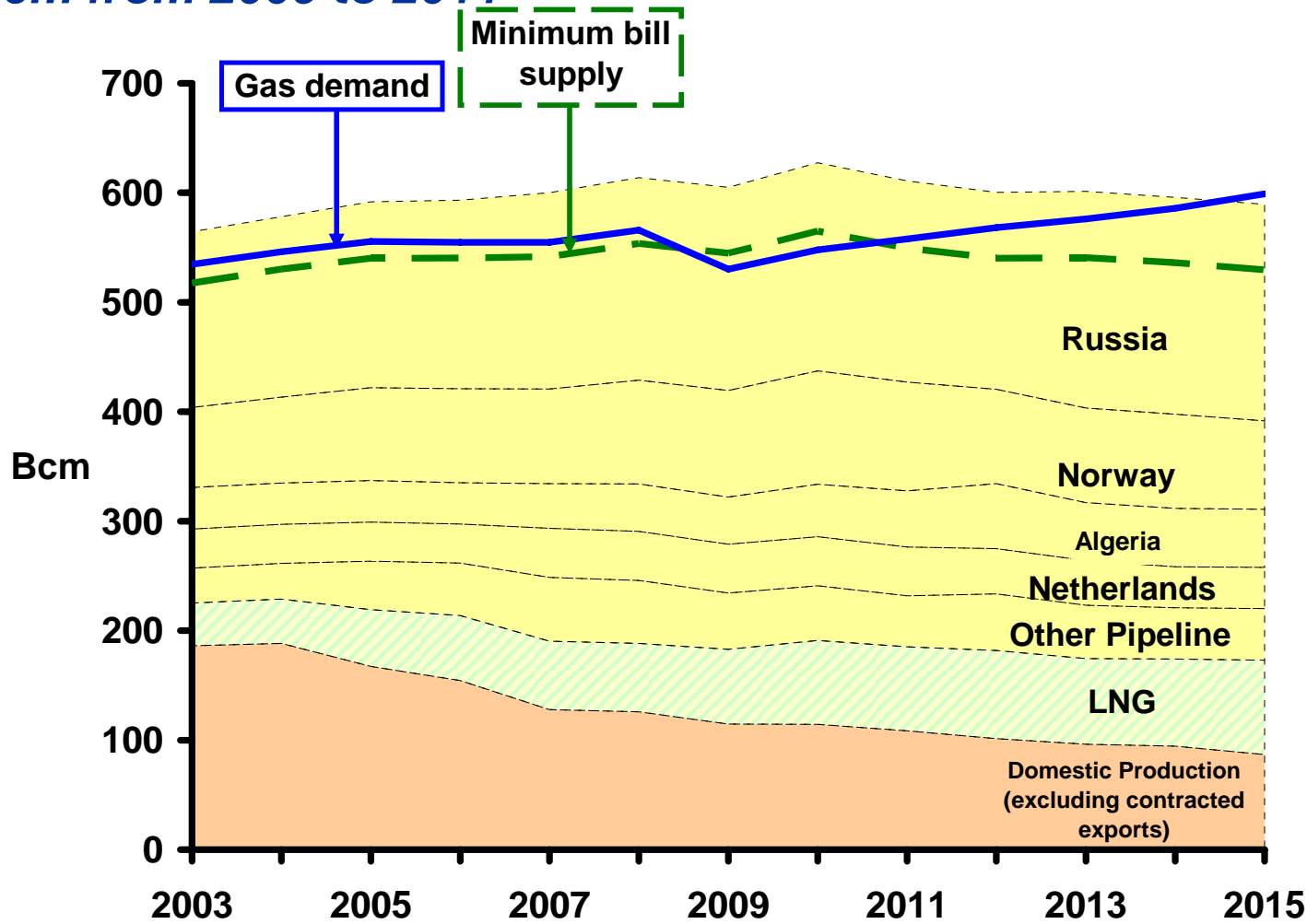
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Europe—Contractually Oversupplied

IHS CERA estimate cumulative oversupply to be approximately 35 Bcm from 2009 to 2011



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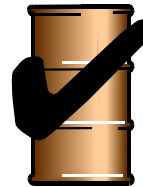
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Can the Oil Link for Continental Europe Gas Supplies Survive?

IHS CERA estimates the cost to producers of the 2009–12 oversupply to be approximately €10bn. A breakdown in the oil link, however, could cost over €100bn over the same period.



- Four years of contractual oversupply puts clear pressure on the oil-link
- Large volumes of LNG released from Asia and North America may target Europe
- Ongoing structural changes designed to support increased spot trading
- Short-term financial pressure on buyers to renegotiate contracts and existing pricing mechanism



- Strong institutional support from both sellers and buyers
- Liquidity on Continental spot markets remains limited
- Limited downstream competition
- Financial incentive in short term, but gas-linked prices not necessarily lower than oil-linked



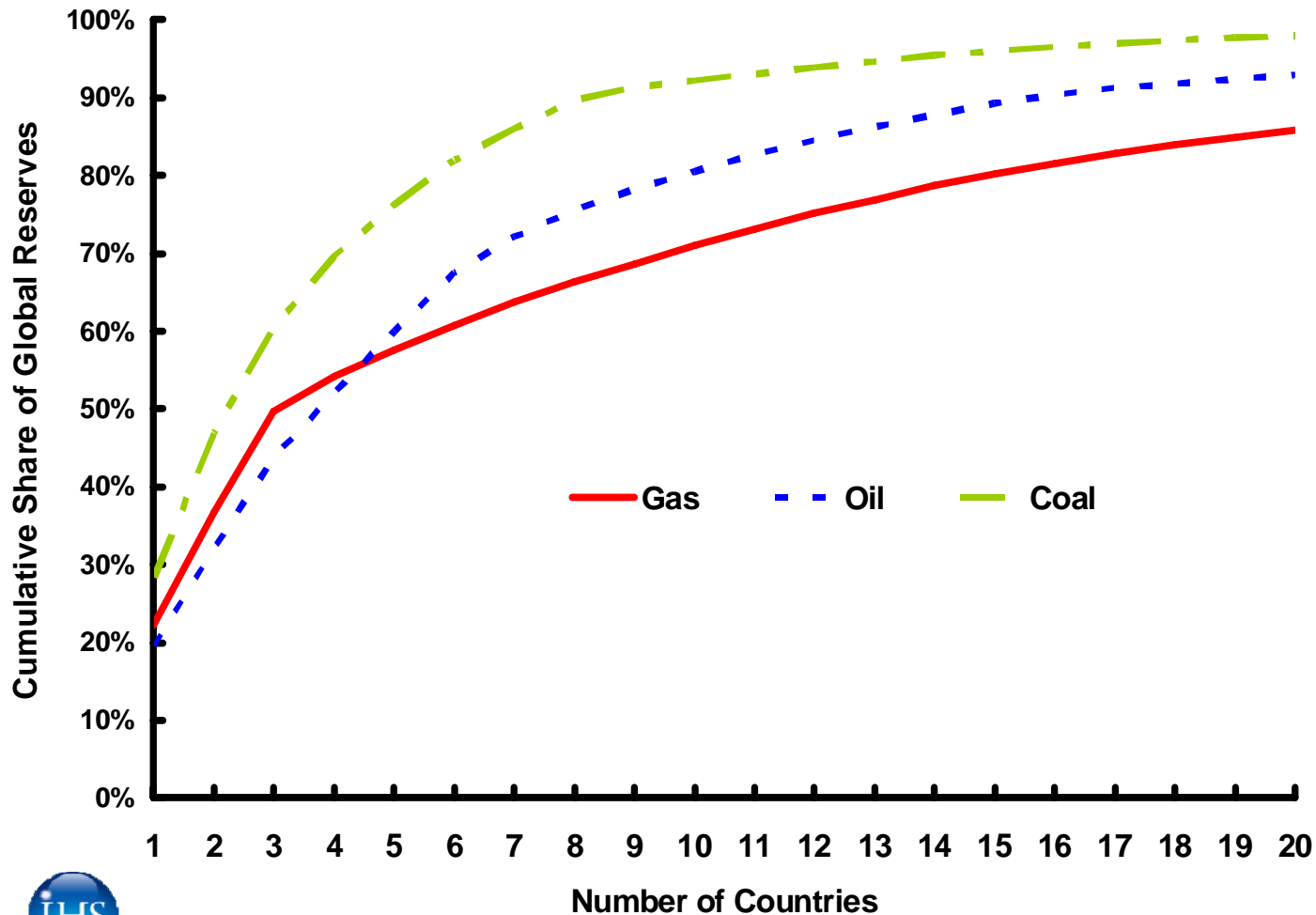
Alternative outcome — Prices rebased, but oil link remains

Who's Afraid of a 'GASPEC'?

- **OPEC plays role of 'GASPEC' by default**
- **The question is less whether a GASPEC will form—more whether gas-oil price delinkage will break it**
- **If oil price linkage broke, the pressure on producers to find a mechanism to manage supply would be great**
- **Any threat of cartelisation is now weak given shale in North America**
- **Geopolitics—not cartelisation—is the real concern**



Market Concentration of Hydrocarbon Reserves



- Coal is concentrated but abundant
- Is gas more or less concentrated than oil? It depends....
- ...conventional gas is heavily concentrated in the Big Three—thereafter widely distributed
- Gas remains less explored than oil



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Note: Reserves are based on 2P estimates.

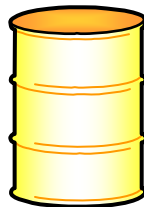
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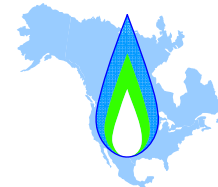
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Energy Market Equilibrium— Who will manage a global gas market?

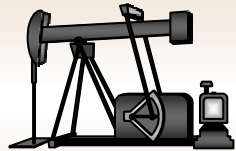
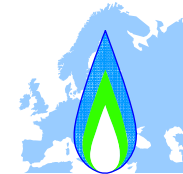
Oil Markets



North American Gas



European Gas



UPSTREAM

**Swing Supply
(Saudi Arabia/
OPEC)**

**Drilling
Response**

**Swing Supply
(Groningen/
UK Southern North Sea)**



DOWNSTREAM

**Strategic Stocks
(SPR)**

**Commercial Storage
Gas-Coal Switching**

Contract Flexibility

• Who/what will maintain price equilibrium in the global gas market?



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A Fuel Without a Voice

Who will speak for Gas?

- **In North America ‘clean coal’ has lobbied more actively than gas**
 - Waxman–Markey Bill
- **In Europe, many gas companies have become power companies**
 - Less interest in promoting natural gas
- **In emerging markets, downstream gas is often part of the National Oil Companies**
 - China, Brazil, Thailand
- **Several international oil companies have disbanded their Gas & Power Groups**
- **Russia and Qatar increasingly represent the ‘face’ of global gas**



If you have any questions about this presentation or IHS CERA in general, please feel free to contact

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