Oil indexation versus hub based gas pricing

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Hub pricing is expanding in Europe

European consumption: 523 bcm in 2016, 14% of global gas consumption

Source: IGU Wholesale Gas Price Survey 2017
Long term contracts are changing

Gazprom: 58 renegotiations in 6 years
- Contract length decreasing
- Take-or-pay moratorium
- Hub indexation features in the price formulas

Statoil: contract prices indexed to European hubs (e.g. in France to PEG)

Sonatrach: contract prices renegotiated and indexed (e.g. in Italy to PSV)

Mitrova (2015)
Why is that happening?

**Demand side**
- Economic crisis
  - 10% demand drop in Europe in 2008
  - Slow recovery
- Energy transition
  - RES in heat and in power generation
  - Energy Efficiency
  - Future role of gas is uncertain
- Retail liberalization

**Supply side**
- LTCs
  - take–or–pay clauses: surplus gas triggers liquidity on hubs
- US shale gas
  - indirect and direct effects
- Japan
  - After Fukushima invested in Australian gas upstream
European hubs are developing

• Volumes traded on hubs dramatically increased since 2011

• Prices converge
The future of long term contracts

- Taking long term commitment on the wholesale market is getting difficult in Europe, as final consumers are not keen on taking long term commitments.

- Reasons for LTCs to remain:
  - Hedging against spot price volatility (over a 1-2 year timespan)
  - Supporting large investment (upstream, pipeline, LNG terminal)
As TOP obligations and LTC capacity contracts are phased out:

• spot prices will be more reflective of potentially very different demand and supply conditions

• regional prices might diverge again, because of tariffs and physical congestion:
  ▶ EU Markets with access to global LNG markets may import global LNG price dynamics
  ▶ EU Markets with no access to LNG markets may be exposed to market power exploitation.
LNG may become the marginal source of gas to Europe

TTF prices and Dutch supply structure, February 2018

Source: REKK figure based on ENTSOG Transparency Platform and PEGAS
Global LNG markets are driven by Asian demand

Source: REKK figure based on GIIGNL 2004-2017
... Japanese market price is the dominant price signal, which is driven by oil indexation.
but global prices tend to converge to US prices, which are not oil indexed …


Figure 17. International comparison of wholesale gas prices

US LNG: HH +
Asian LNG: oil based

Sources: Platts, Thomson-Reuters, BAFA
Wrap-up

• In Europe, oil price indexation has been associated with long term contracting; retail liberalisation threatens sustainability of both

• Whether (and for how long) oil indexation will be imported via the dynamics of the global LNG market depends on the impact of US gas pricing on the LNG market

• In any case, the future hedging requirements and risk-taking logic for the players in the EU market will be fundamentally different from what we have experienced so far.
Thank you for your attention

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