Global gas markets
and the future of natural gas

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Plan for this talk

① Demand and prices
② Political economy
③ Strategic positioning
Forecasts too bullish given challenges facing gas?

Gas grows faster than coal & oil…
… driven by non-OECD Asia/China

How to secure demand?
- Prices & economic value?
- New investment?

Source: SNAM 2017 Global Gas Report

Projections and growth CAGRs
- EIA Intl Energy Outlook 2016 (2.2%)
- Shell LNG Outlook 2017 (2.0%)
- BP Statistical Reivew 2016 (1.8%)
- IEA Golden Age of Gas scenario – 2011 (1.8%)¹
- IEA - NPS 2016 (1.6%)²
Regional price divergence is the historical norm

Asia premium: 20+ years
- Imperfect competition
  + limits to arbitrage

Balance of power:
Shift to buyers post-2014

Low & stable HH price
→ US LNG exports
→ Security of supply
  (LNG vs pipeline gas)

⇒ Global convergence to Henry Hub-based pricing?

Source: IMF database – % premium (or discount) relative to EU natural gas

www.eprg.group.cam.ac.uk
UK: Carbon price floor supports coal-to-gas

Coal phase-outs now a policy objective…

- Social cost of carbon & “target-consistent” price $\approx$ $50+/t\text{CO}_2$
- Coal-to-gas switching price $\approx$ $20-30/t\text{CO}_2$

$\Rightarrow$ Carbon price floor + Good electricity market design rewards flexibility services (e.g. by gas)

Source: SNAM 2017 Global Gas Report
India: Gas/LNG squeezed out by coal & solar

No clear role for gas/LNG
- Not cost-competitive against domestic coal
- Limited policy support
- Infrastructure constraints

Skipping gas? Coal to RE
- Ambitious 175 GW target for 2022 (esp. solar)
- Large cost reductions & low auction prices

Source: International Institute for Strategic Studies (IISS) & Vivid Economics
Gas industry itself is in the midst of a transition

Strategic repositioning around natural gas

① Energy majors: oil → gas/LNG & power/RE
② Electricity companies: coal/gas → RE
③ Commodity traders: oil → LNG
④ Private equity: → “legacy” coal/gas assets
⑤ New players: → LNG export, gas E&P

⇒ Trend to large integrated or niche specialist?

Maturing LNG market “should” become less integrated
Conclusions

① Global price convergence not any time soon

② Significant downside risk in gas demand forecasts

③ Local political economy for gas/LNG in non-OECD (Asia) very different from OECD (Europe)

④ Strategic repositioning reflects companies’ different visions of the future


https://www.eprg.group.cam.ac.uk/eprg-working-paper-1711/

https://www.eprg.group.cam.ac.uk/category/working-papers-2018/