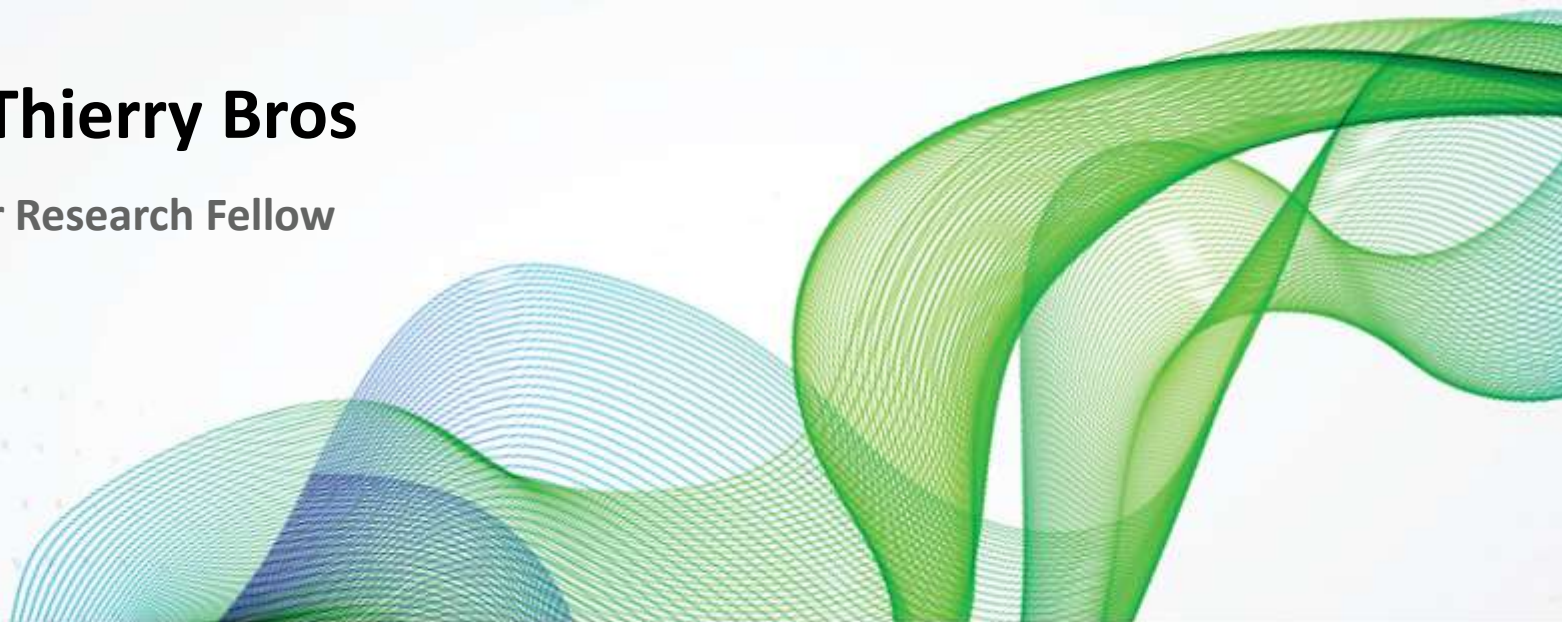


European pricing dynamics

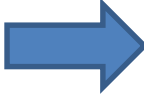

Dr. Thierry Bros

Senior Research Fellow



Flame – Amsterdam – 11 May 2017

Main steps of European gas liberalisation

- 1986: Privatisation of British Gas
 - 1996: Establishment of the Network Code (TPA) and NBP
 - 1998: Complete abolition of Centrica marketing monopoly
 - 1998: Start up of the Interconnector
 - 1999: Establishment of the Zeebrugge Hub
 - 2017: Brexit?
- 
- 
- 1998: Directive concerning common rules for the internal market (following telecom deregulation)
 - 2003: Directive concerning common rules for the internal market and repealing 1998 directive
 - 2007: Third energy package
 - 2009: Art 194 of the Lisbon Treaty, carefully crafted compromise between national sovereignty governing energy mix, exploitation of natural resources and energy taxation and a shared EU competence for other areas
 - 2015: Energy Union?

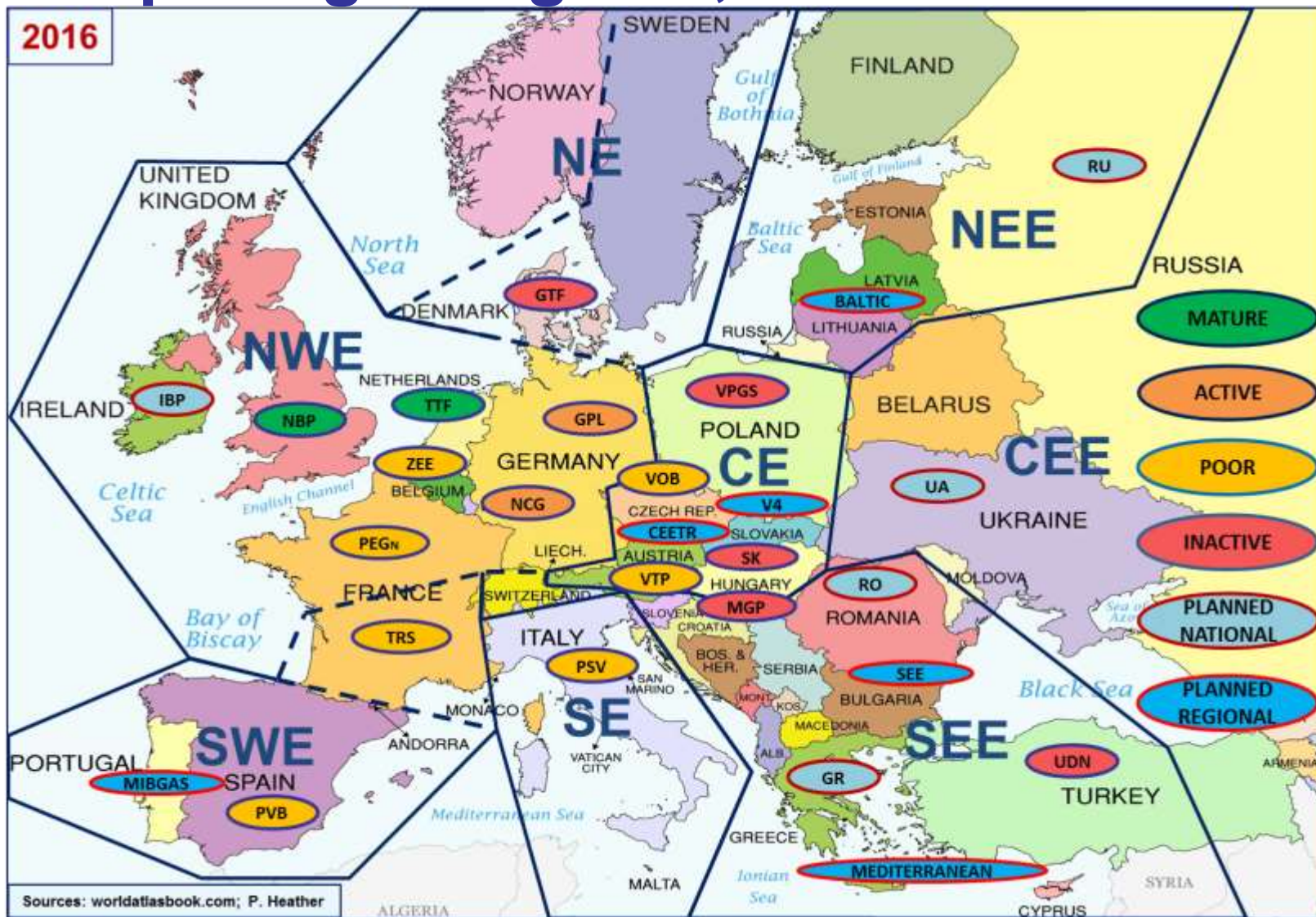


Energy Union

Dream or a reasonable ambition?

- **The biggest change since the 1951 Coal and Steel Community Treaty**
 - <http://ec.europa.eu/avservices/play.cfm?ref=I098040&videolang=EN+EN&off=1>
 - ~~Pool resources, connect infrastructures, diversify energy sources, reduce energy dependence and unite in order to strengthen EU negotiating power vis-à-vis third countries~~
- ❖ **Energy security, solidarity and trust**
 - The Commission will assess options for voluntary demand aggregation mechanisms for collective purchasing of gas during a crisis and where Member States are dependent on a single supplier
 - When the conditions are right, the EU will consider reframing the energy relationship with Russia based on a level playing field in terms of market opening, fair competition, environmental protection and safety, for the mutual benefit of both sides
- ❖ **A fully integrated energy market**
 - Citizens take ownership of the energy transition and benefit from new technologies to reduce their bills
- ❖ **Energy efficiency contributing to moderation of demand**
 - 2030 indicative target (EU level): at least 27% for improving energy efficiency (compared to projections)
 - NEW PROPOSAL (30/11/2016): binding EU-wide target of 30% for energy efficiency by 2030
- ❖ **Decarbonisation of the economy**
 - 40% cut in greenhouse gas emissions compared to 1990 levels
 - The cornerstone of Europe's climate policy is a well-functioning EU Emissions Trading System
 - Becoming the number one in renewables (27% for the share of renewable energy in the mix in 2030)
- ❖ **Research, Innovation and Competitiveness**

European gas regions, markets and hubs

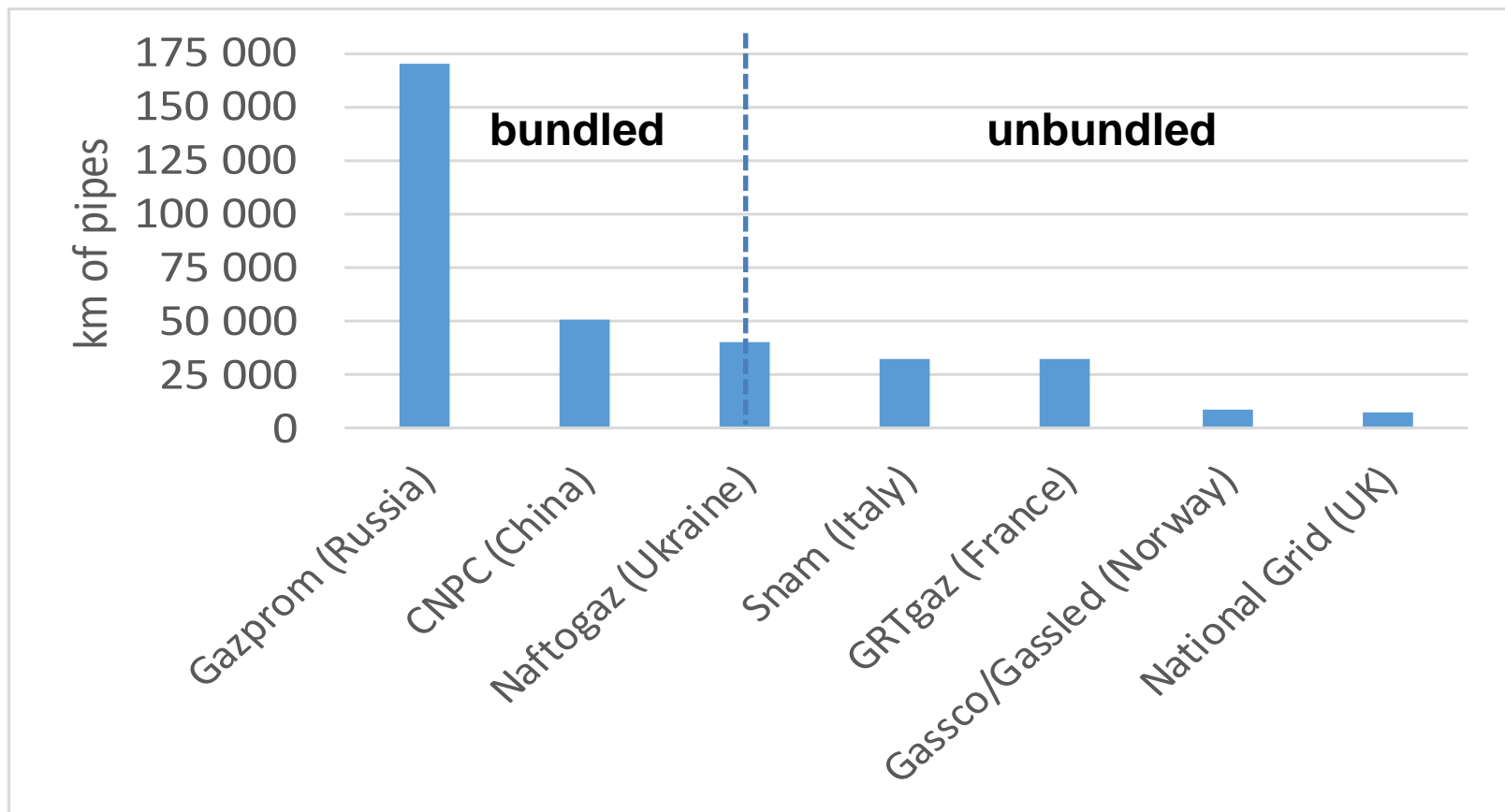


Source: Heather (forthcoming May 2017)

Not all hubs are developing in the same way or at the same speed
Only two 'mature' gas trading hubs in Europe: NBP and TTF



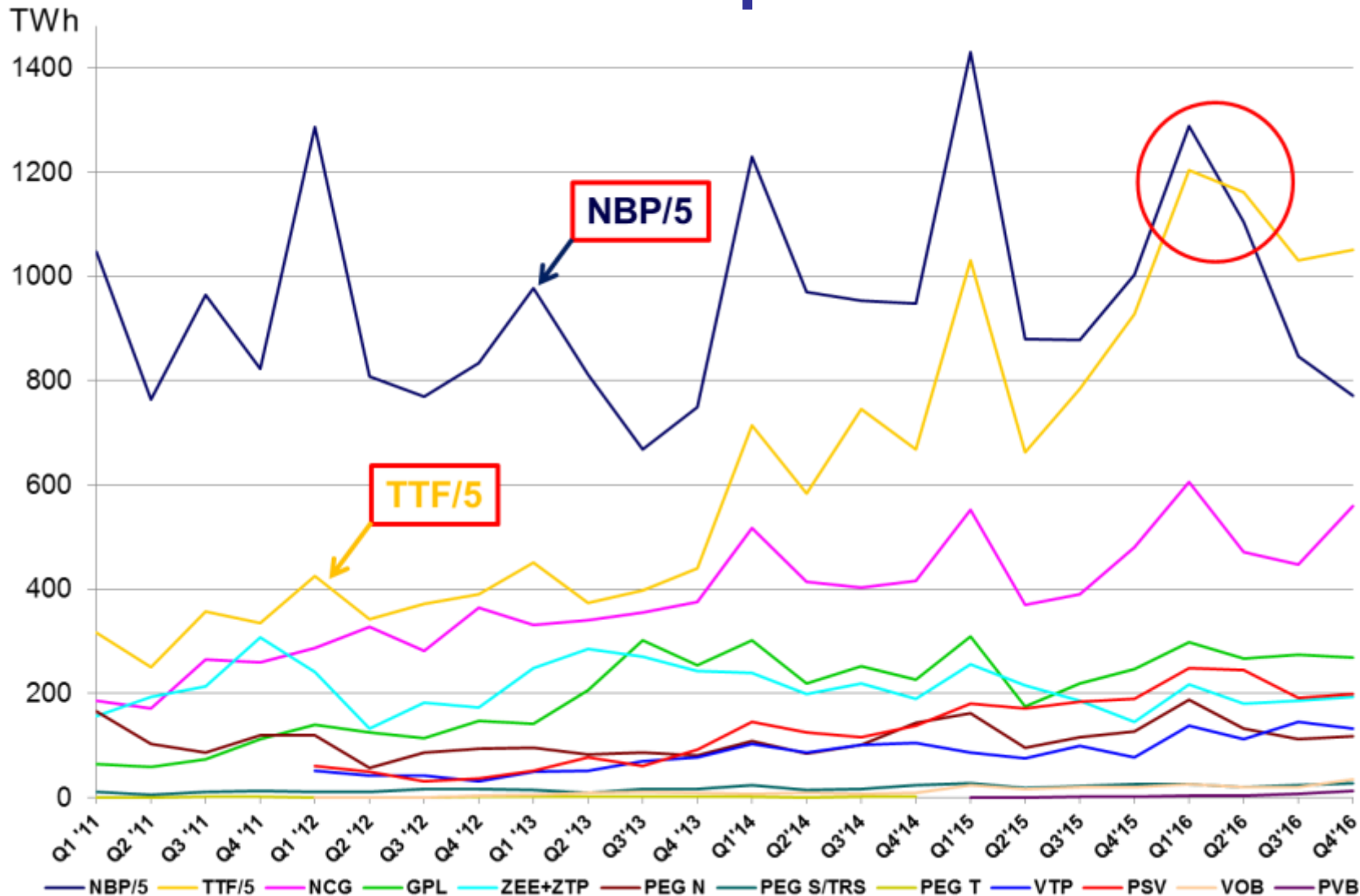
Markets become price-correlated due to network unbundling



Source: *thierrybros.com, company data*



Traded volume development: 2011 - 2016



Source: Heather (forthcoming May 2017)

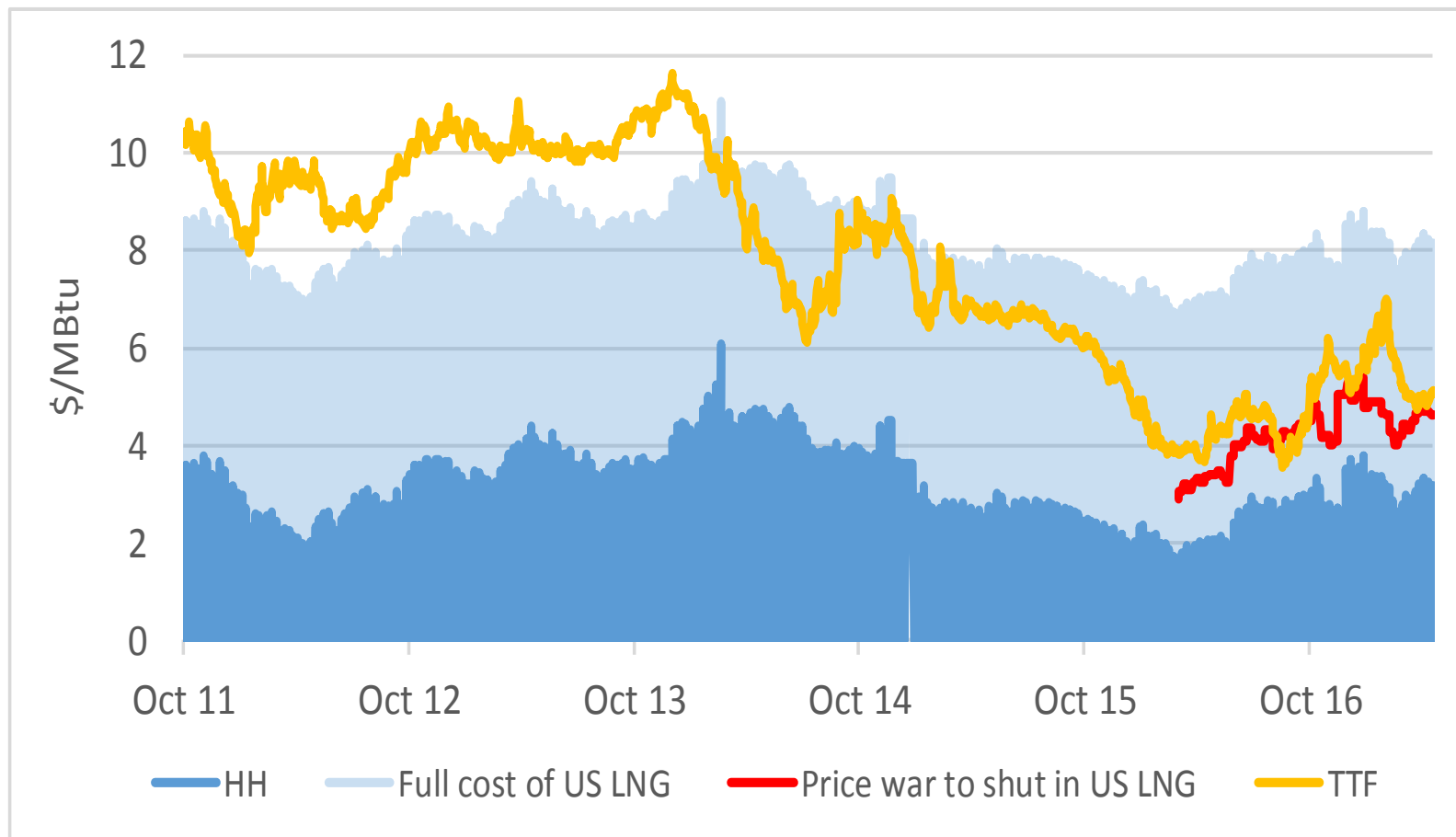
TTF has seen phenomenal rise in activity since 2014; NBP has been losing volume to TTF since then, especially risk management; TTF now largest hub

2 major gas shocks with completely different outcomes

		Event	Results
1991	Oil	Build-up to Gulf War	IEA strategic stocks release
2005	Oil	Hurricanes Katrina & Rita in US Gulf of Mexico	IEA strategic stocks release
2011	Oil	Libya: disruption of supplies	IEA strategic stocks release
2011	Gas	Fukushima: 7% of global LNG rerouted to Japan	Market answer: higher prices
2015	Gas	Groningen cap: loss of 9% of European demand	Market answer: lower prices



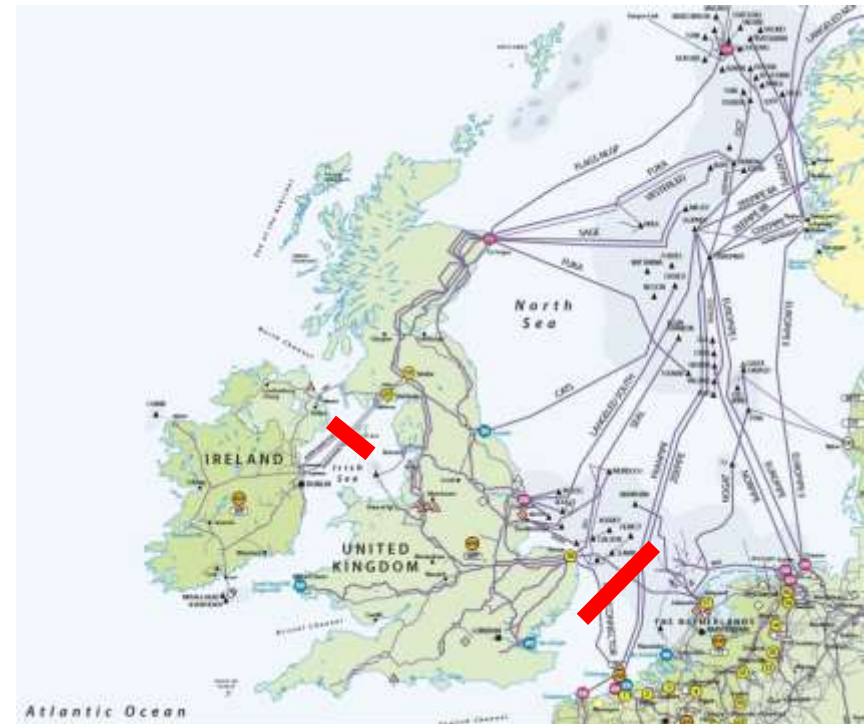
US LNG vs Russian pipe



Source: Argus, thierrybros.com

Brexit's impact on gas markets

- Policy
 - ❖ For SoS, UK needs to reshape its energy diplomacy
- Regulatory
 - ❖ 3 EU-UK interconnectors?
- Markets
 - ❖ NBP premium and volatility to increase versus TTF
 - ❖ Independent trading houses, Norway and LNG producers could take advantage of the increased NBP premium & volatility vs TTF



Source: *ENTSOG, thierrybros.com*

Brexit timing: a lengthy uncertainty

H1 17

- **Triggering article 50 by the UK – 29 March 2017**
- Negotiations guidelines adopted by the European Council – 29 April 2017
- Commission presented to the Council a recommendation to open the negotiations – 3 May 2017
- Council will authorise the start of the negotiations by adopting a set of negotiating directives

Q4 18 – Q1 19

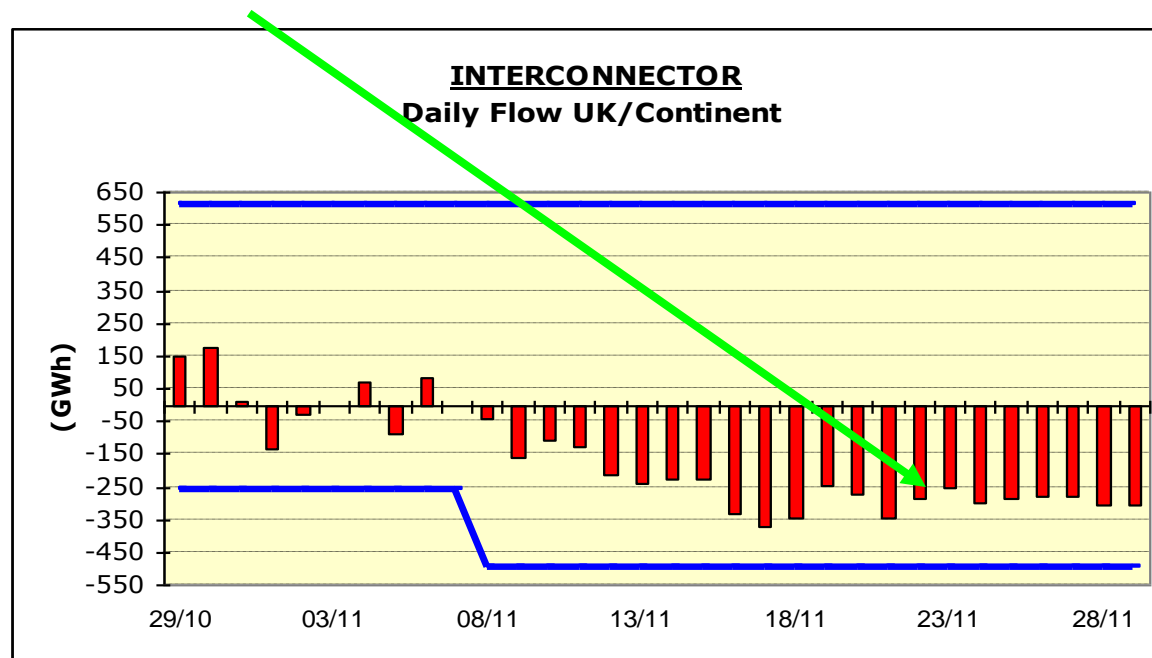
- Union negotiator will present an agreement proposal to the Council and the European Parliament, taking into account the framework of the future relationship of the UK with the EU
- European Parliament must give its consent, by a simple majority vote (incl. UK Members of the European Parliament)
- Council will conclude the agreement, by a vote of strong qualified majority
- UK must also ratify the agreement according to its own constitutional arrangements

After leaving

- “To succeed, we need to devote the first phase of negotiations exclusively to reaching an agreement on the principles of the exit” Michel Barnier at the plenary session of the European Parliament (5 April 2017)
- “Bilateral agreements between the UK and one or more remaining EU countries, would be in breach of the EU Treaties” EU Parliament
- **Intergovernmental agreements (UK-IR, UK-BE & UK-NL) to be renegotiate. As one or as 3?**

Remember pre-markets time?

- On the 22nd November 2005, at 170 p/th only 58 % of the Interconnector “reverse” capacity was used



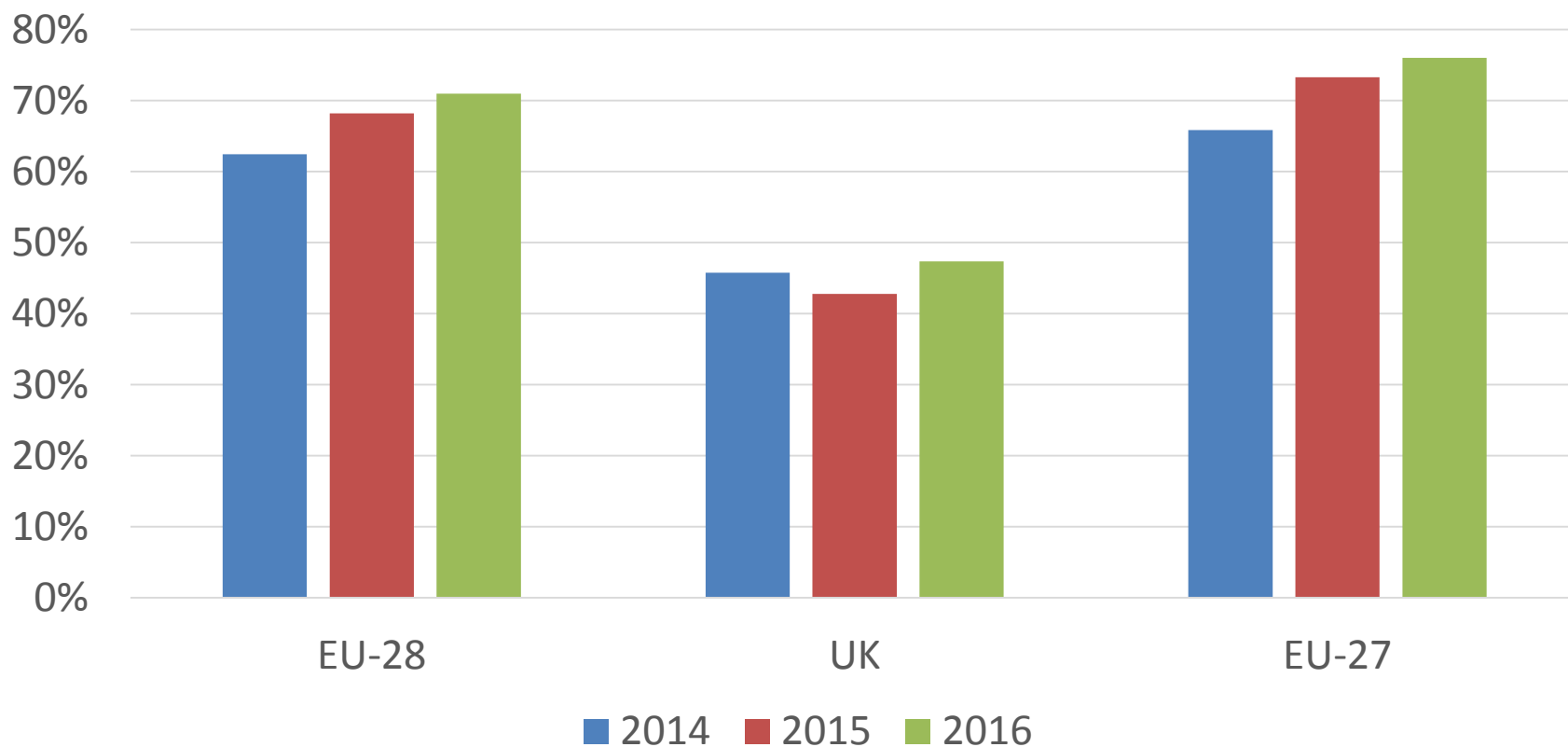
Source : thierrybros.com, IUK

- Licence obligations prevented Continental European gas companies to release gas at the beginning of Winter



Brexit's impact: foreign dependency

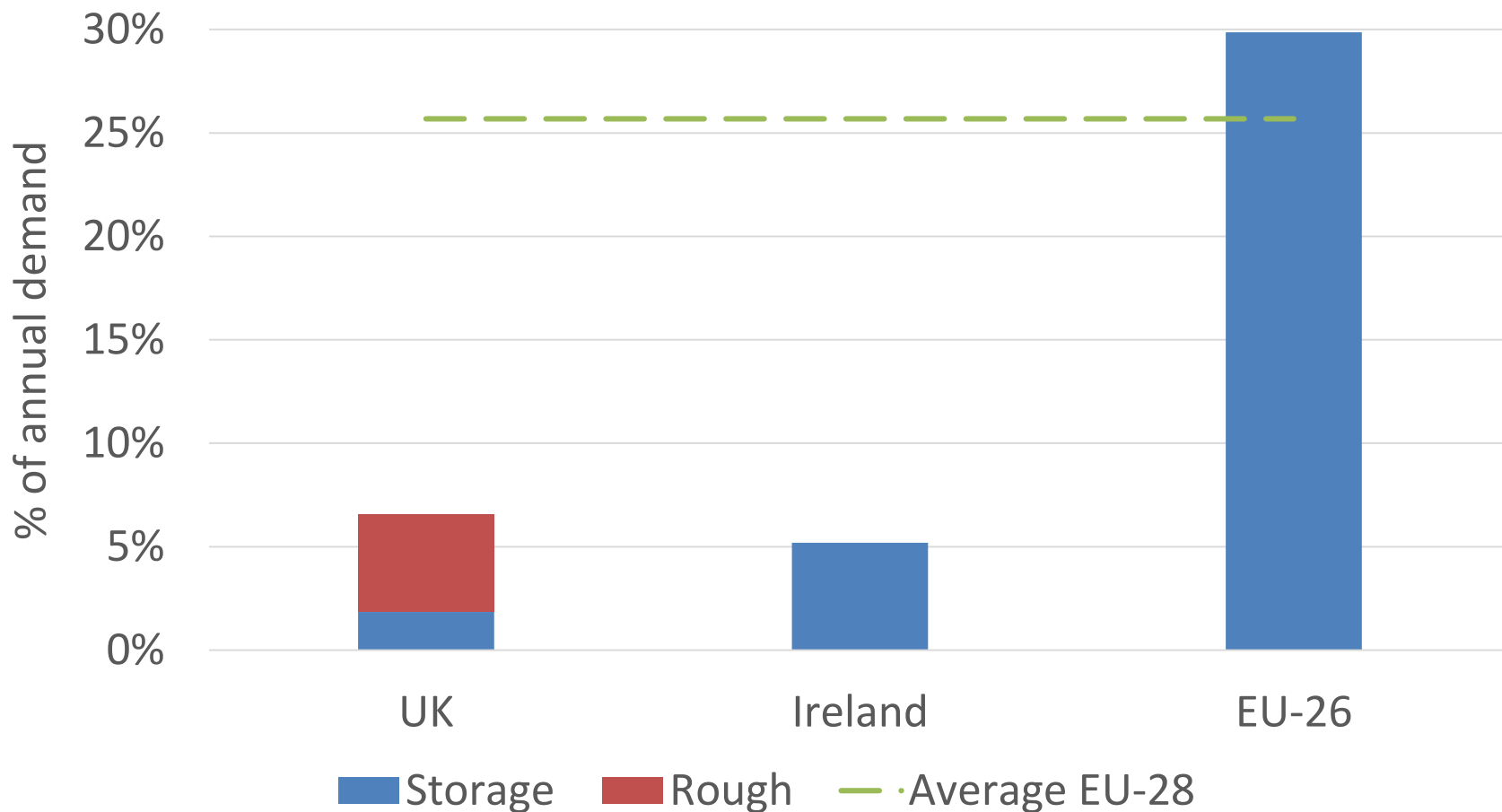
Foreign dependency pre and post-Brexit



Source: JODI, thierrybros.com



Brexit's impact: storage



Source: GIE, Eurogas, thierrybros.com



Thank you



Source: Gazprom, thierrybros.com