

# ACER



Agency for the Cooperation  
of Energy Regulators

*WORKING TOWARDS A SINGLE ENERGY MARKET  
TO THE BENEFIT OF ALL EU CONSUMERS!*



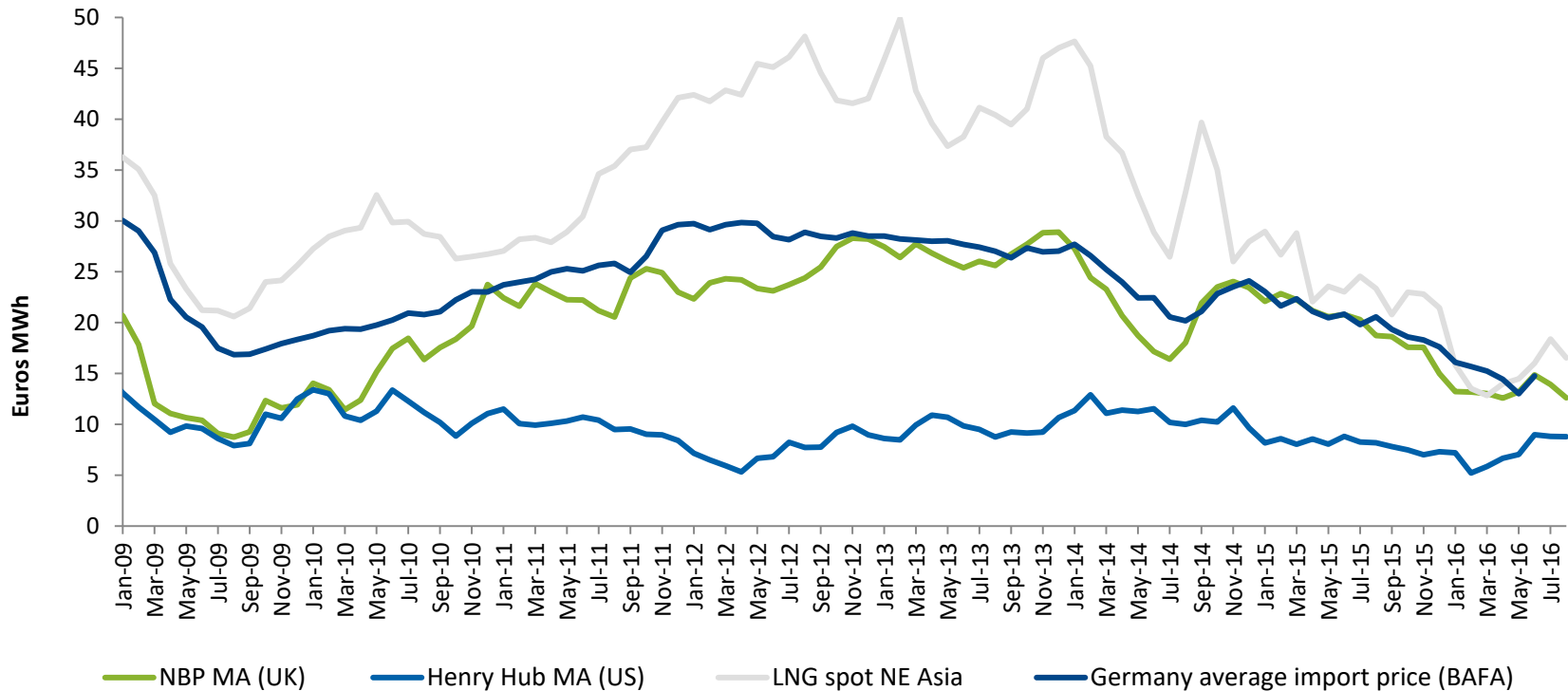
## The ever closer EU gas market and its monitoring by ACER

Dennis Hesselting – Head of Gas Department

EU-US Round Table, 26 April 2017, Arlington (VA)

# European and American gas hub prices are further aligning

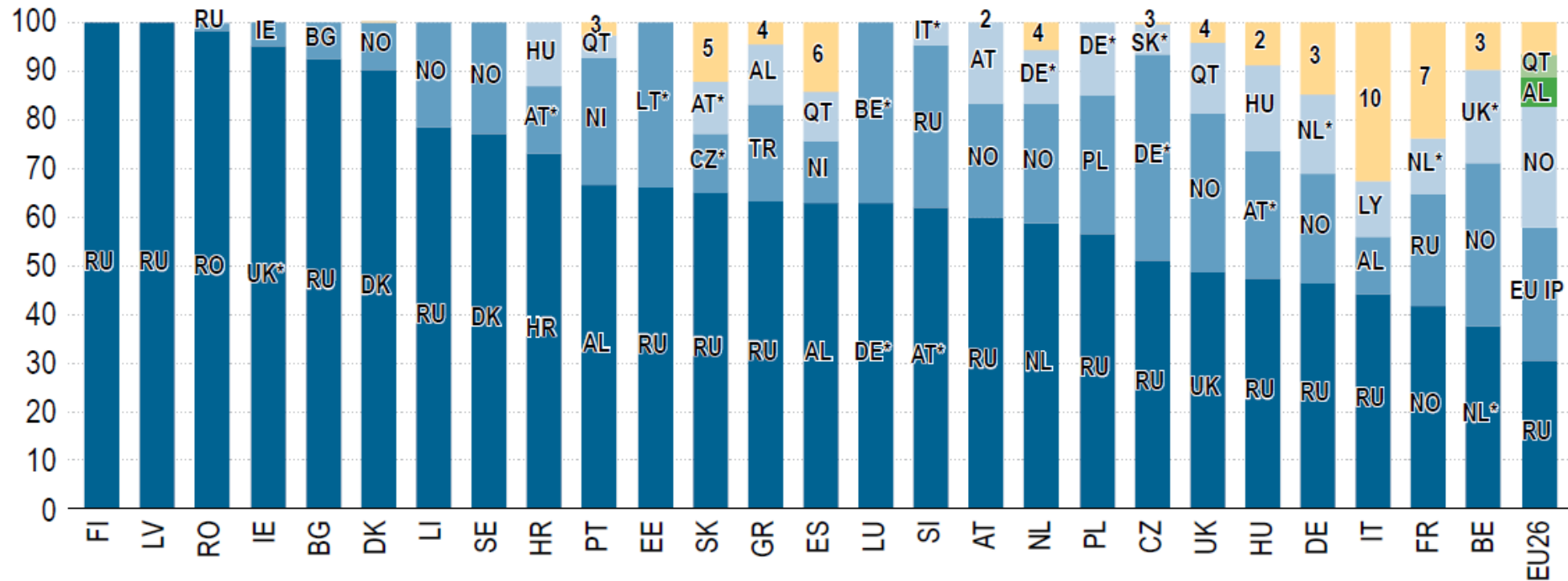
## Overview of international wholesale gas price evolution – 2009 - 2016



- EU hub prices at lowest values since last 5 years
- Prices of long-term gas contracts decreased thanks to impact of indexation components (hub elements impact and/or falling oil prices impact)
- Global LNG economics contribute to alignment

## Flexibility in gas sourcing has improved in recent years but selected MSs are still dependent on one or two sources

Estimated diversity of origins of gas supply in EU MSs (2015)



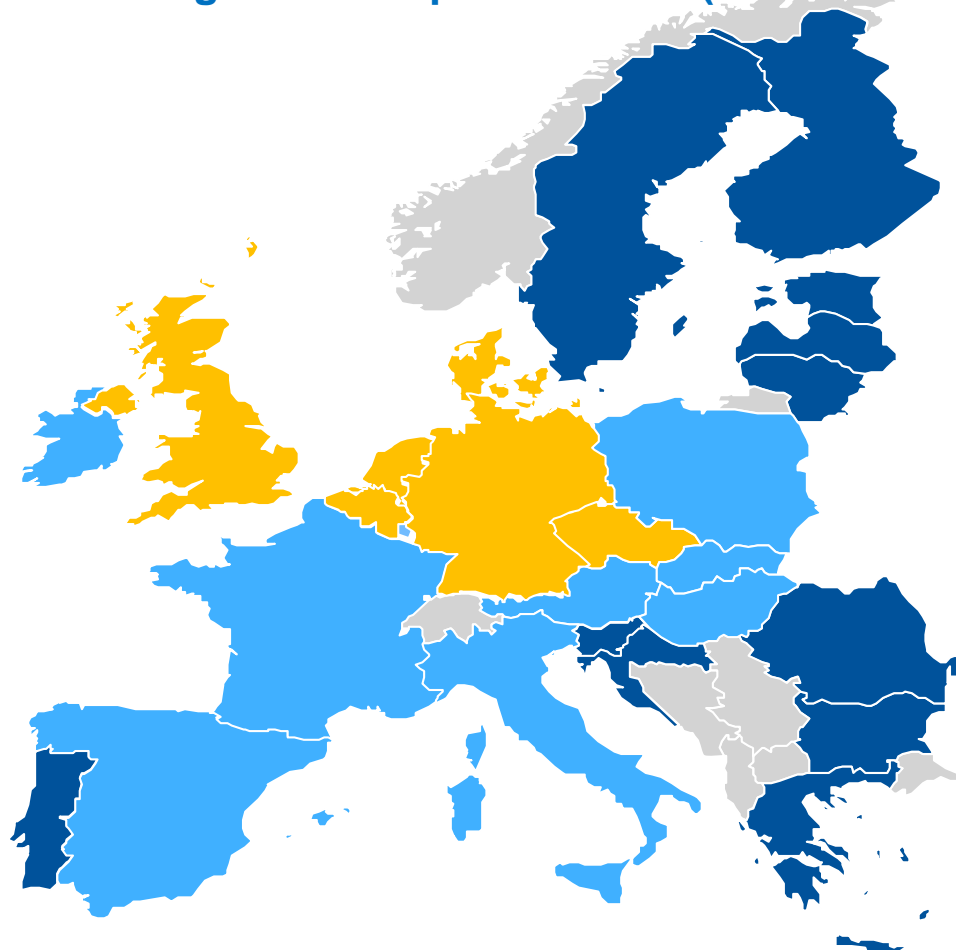
- Decreasing domestic production is further increasing dependence on external imports
- MSs with higher sourcing diversification tend to have better-functioning hubs

Note: \* refers to MSs featuring liquid organised markets from where the gas was purchased.

## Gas supply sourcing costs have been converging ...

2014 Calculated gas sourcing cost\* compared to TTF (= 23.7 €/MWh)

- ≤ 1 euro/MWh
- 1-3 euro/MWh
- >3 euro/MWh



- Price levels higher in those regions with:**
- Weaker inter-connection
  - Less competitive market frames
  - Less developed hubs

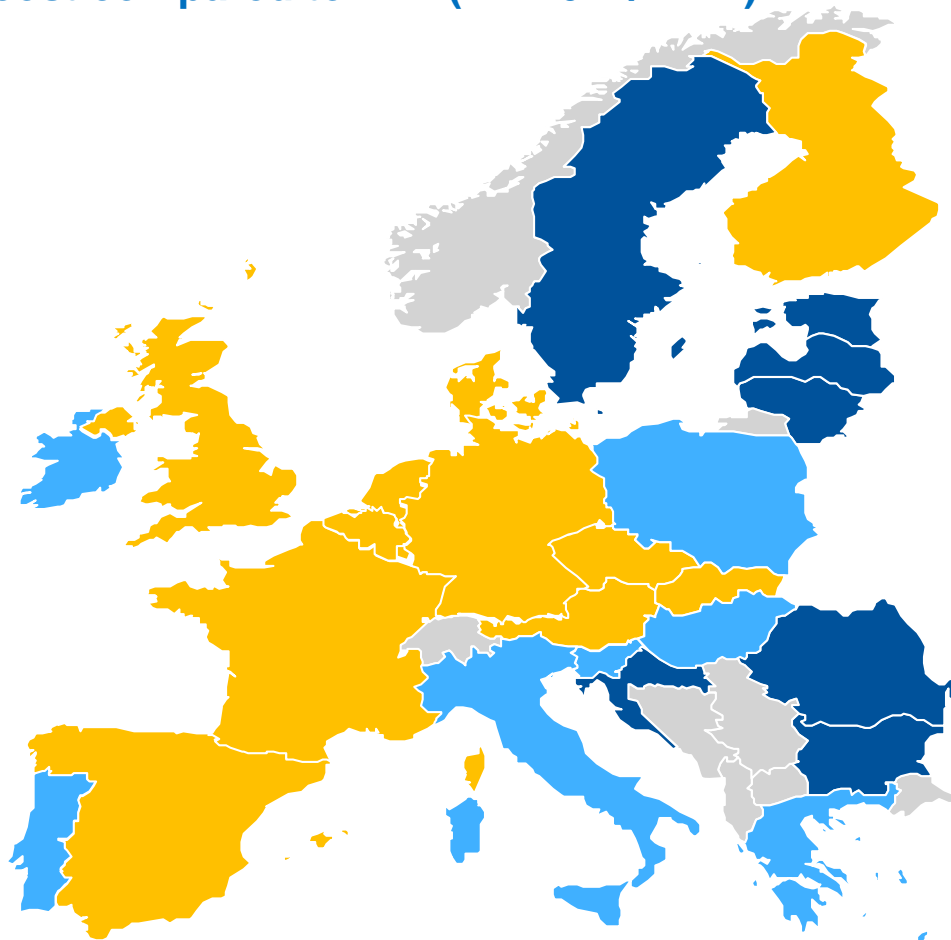
Note: Suppliers' sourcing costs assessment based on a weighted basket of border import and diverse hub product prices. For some countries sourcing of own production occurs at lower cost than the imports (e.g. HR, RO)

## ... 2015 saw further convergence, indicative of further market integration

### 2015 Calculated gas sourcing cost compared to TTF (= 21.0 €/MWh)

- ≤ 1 euro/MWh
- 1-3 euro/MWh
- >3 euro/MWh

- Influence of lower oil price and gas oversupply
- Impact of reverse-flows
- Hub functioning
- Improved LNG competitiveness



Note: Suppliers' sourcing costs assessment based on a weighted basket of border import and diverse hub product prices. For some countries sourcing of own production occurs at lower cost than the imports (e.g. HR, RO)

# EU market is heterogeneous when it comes to hub development with NPB and TTF in the lead

## A ranking of EU hubs based on 2015 monitoring results

### Established hubs

**Broad liquidity**

**Sizeable forward markets** which contribute to supply hedging

**Price reference for other EU hubs** and for long-term contracts indexation



### Advanced hubs

**High liquidity**

More reliant on spot products and balancing operations

Progress on supply hedging role but relatively **lower longer-term products liquidity levels** results in weaker price risk management role



### Emerging hubs

**Improving liquidity from a lower base** taking advantage of enhanced interconnectivity

Liquidity partially driven by market obligations imposed on incumbents

**Still significant reliance on long-term contracts**

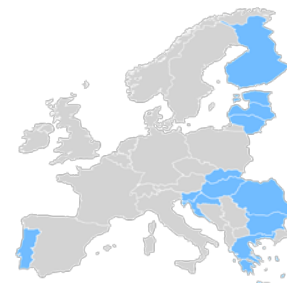


### Illiquid hubs

**Reliance chiefly on long-term contracts**

**Embryonic** organised market places

Absence of an entry-exit system in some markets



**Henry Hub of the USA is the most liquid gas hub in the world**

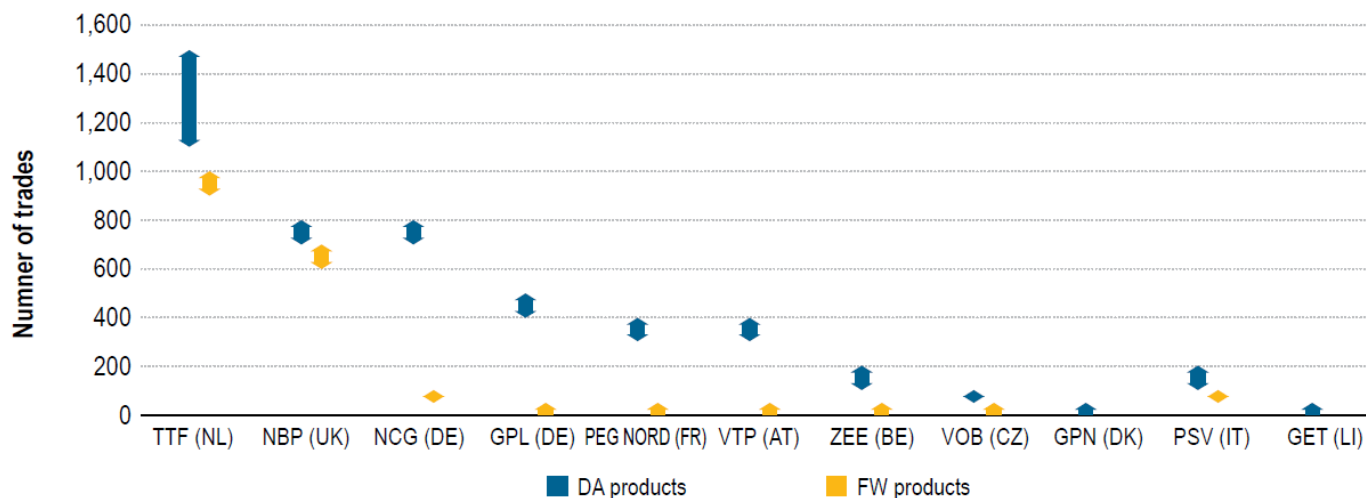
# TTF and NBP are the leading hubs in the EU in size and depth

## Evidence

- Larger number of trades
- Highest volume traded
- Tighter bid ask spreads for forward products
- Lower trade concentration levels
- Larger order book volumes
- Longer order book horizons

## Illustration

### Number of executed trades (daily average) for DA and FW products in selected hubs for November 2015–April 2016



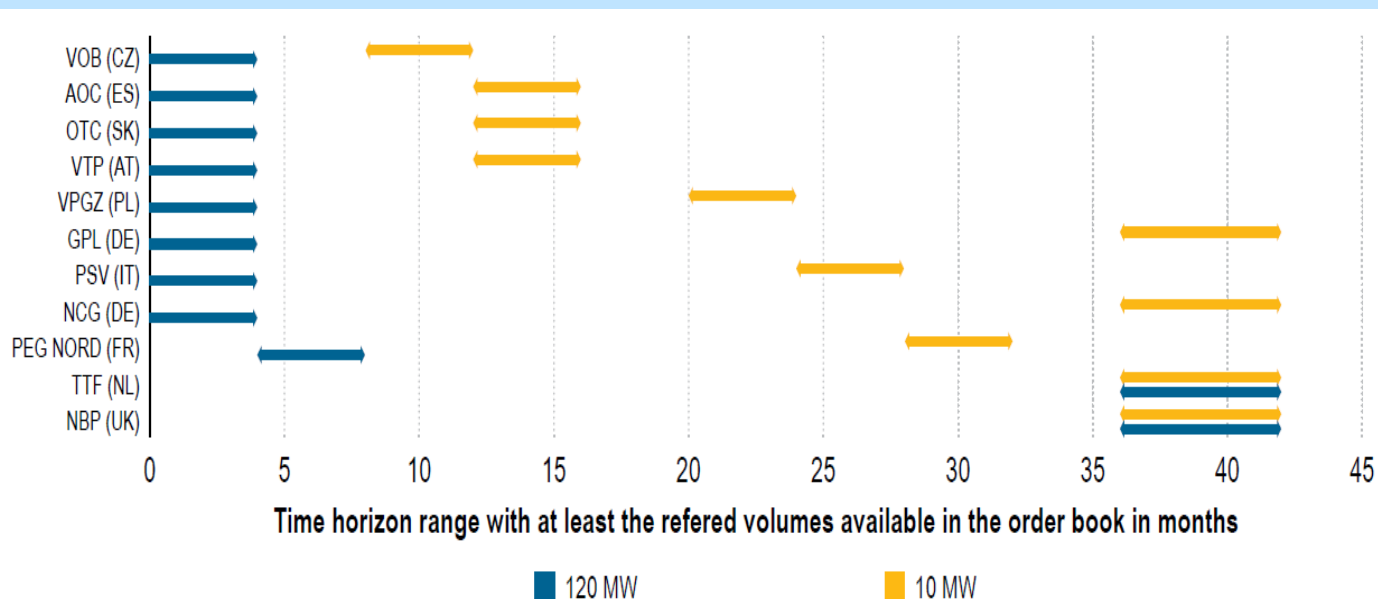
# TTF and NBP are the hubs the largest sizeable forward markets

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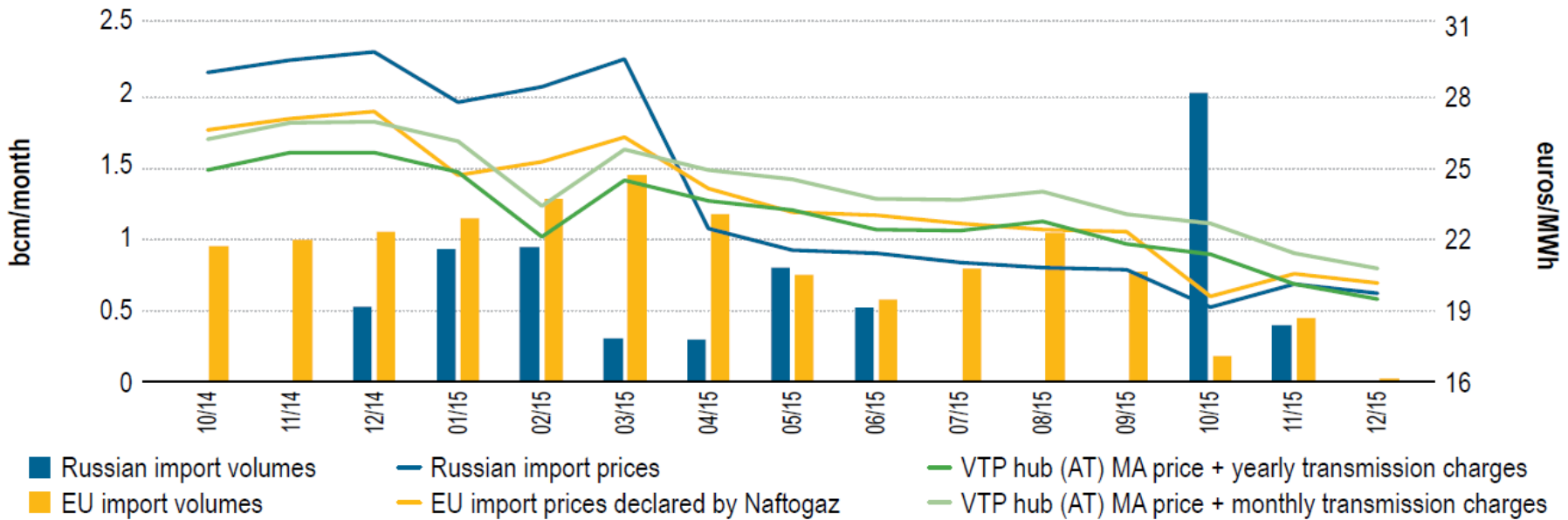
### Order book horizon in ranges of months for bids for forward products for different blocks of MWs – November 2015 - April 2016





# European internal gas market model is also of relevance to Energy Community countries

## Gas origin and assessed import prices for Ukraine during 2015 (euros/MWh)



**Reverse flow capabilities on EU outer borders and hub development allows Ukraine to tap into a second hub based gas source**