

Quo Vadis Final Report: Policy Recommendations leave the space for interpretations, thus require clarifications

Prof., Dr. Andrey Konoplyanik, Co-chair WS2 GAC;
Adviser to Director General, "Gazprom export" LLC;
Professor on International Oil & Gas Business,
Russian State Gubkin Oil and Gas University

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Points to be addressed

- 1) Quo Vadis Final Report's key messages & its Policy Recommendations
- 2) What shall be further clarified to exclude misunderstanding & to prevent wrong (inappropriate) line of action on both sides
- 3) DG ENERGY officials' public comments on Quo Vadis Final report: available and still lacking clarifications

Quo Vadis Final Report: Introduction

- Disclaimer: “The information and views set out in this report are those of the authors and **do not necessarily reflect the official opinion of the Commission...**”
 - *BUT: (i) QV report is placed on DG ENER website, prepared based on ToR from DG ENER => “we will continue to study conclusions of this report” (F.Ermacora, FROG presentation) => whether QV final report identifies the zone for searching preferred solutions (maybe for new Commission?) by DG ENER*
 - *(ii) if policy recommendations of QV (their perceptions & interpretations) are not discussed today for the sake of forward-looking transparency, tomorrow we might face not-balanced solutions*
- Authors’s statement: “Discussion papers of the **Quo Vadis project tenderers** and the subsequent **stakeholders’ feedback** collected throughout the project phase highlighted the **differences in perspective** on the functioning of the internal gas market (IGM) and hence **different perceptions of where the problems are and how they should be solved**. As the **EU gas-related legislation has not been implemented fully** and consistently across the EU and **some network code provisions**, as well as the **newly-adopted security of supply regulation** are **still awaiting implementation**, there is significant room for interpretation with regard to the impact potential of complete implementation of all legislation by 2020 on the functioning of the IGM”
 - *BUT: to narrow “dissonance between EU & RF” (K.D.Borchardt, EGC2018) – to have intensive RF-EU dialogue on the issues common to the countries of “Broader Energy Europe” => room for flexibility in interpretation means room for flexibility in implementation based on either “zero-sum-game” or “win-win” approach to be chosen by the EU side*

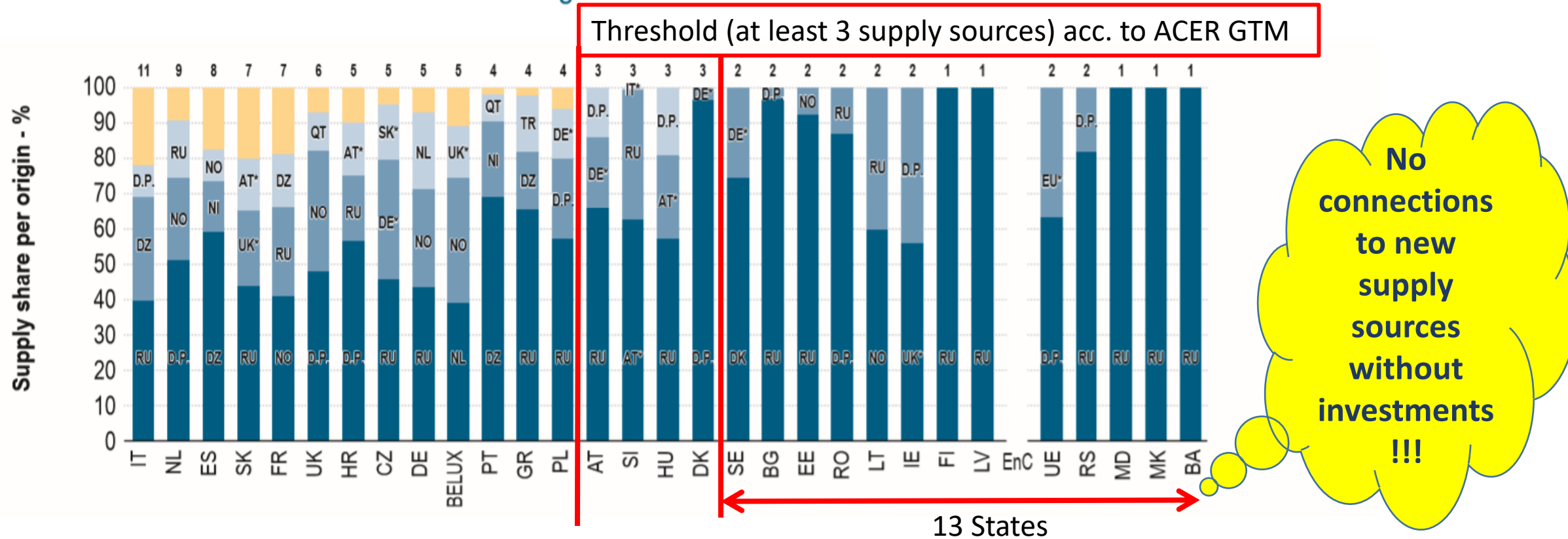
Quo Vadis Final Report: Executive Summary

- “Quo Vadis study evaluates the functioning of the European Union's internal gas market under the Third Package rules from a forward-looking perspective... ..the future performance and the international competitiveness of the EU gas market **will not only depend on a successfully completed market integration process, but even more on the EU's ability to manage its high exposure to extra-EU suppliers.**”
 - *BUT: (i) on market integration process: “learning by doing” approach while EU gas market is an integral part of Broader Energy Europe*
 - *(ii) on extra-EU suppliers: **EITHER** (if being read positively) it predetermines cooperation with external suppliers based on mutual acceptability of the decisions taken, **OR** (if being read negatively) it aims on protective measures against external suppliers from whom EU cannot diminish its dependence objectively*
- “ACER's gas target model is at present the most comprehensive concept on how the EU gas market could develop from Third Package compatible member state level gas trading zones **via a stage of voluntary, bottom-up integration process** (e.g., regional market mergers) **to a fully integrated EU gas market.** However, the **voluntary market merger process is proceeding very slowly. No provision in the Third Package guarantees this process to be ever completed.**”
 - *BUT: this means that EU IGM might not be a closed-circuit one, predetermined for zero-sum game approach, but slow voluntary bottom-up integration process paves the way for close integration within the whole gas value chain destined for EU based on win-win approach*
- “A sharp contrast to the ACER concept is the vision of a **centrally organized single EU gas market, operated by a single European TSO to ensure maximum market and operational efficiency.** However, this vision of a centrally planned and managed market **is not compatible with the political fundamentals of the European Union.**”
 - *BUT: (i) this vision of homogenous EU IGM has been the regular message from DG TREN since 2003 (f.i. explaining why transit will no more be in place in the EU, but only internal transportation)*
 - *(ii) conflict between EU “market & operational efficiency” & EU “political fundamentals” - ???*

Quo Vadis: Current market functioning perceptions

- “EU internal gas market **(IGM) has improved its functioning** in recent years. **Apart from some Central and South-East European** (CSEE) Member States, market liquidity has been improving, competition at the wholesale level is intense, wholesale prices are moderate and converging across the EU. Market pricing is gradually replacing oil product-linked pricing. **Given a moderate future gas demand outlook, the level of investment is generally sufficient in the sector.**”
 - *BUT: (i) moderate gas demand outlook, but increase in gas import due to decline of domestic production, coal & nuclear stations closure, etc.,*
 - *(ii) level of investment is insufficient, esp. in CSEE to provide technological basis for competition (infrastructure from multiple sources: diversity of infrastructure in CSEE in 2012 corresponded to same in NWE as of 1970-ies/early 1980-ies = 30-40Y time-gap & corresponding CAPEX-gap => who will pay?)*
- “...wholesale gas markets of Denmark, Belgium, the United Kingdom, the Netherlands and Germany create a single price zone.”
- “... **different trade barriers** (cross border tariffs; lack of interconnectors; physical and contractual congestion) as well as **differences in local market structure and exposure to upstream suppliers** can explain remaining wholesale price differences.”
 - *BUT: this perception (as if a non-objective one) paves the way to “positive discrimination” of non-EU suppliers (Russia first) and to regulatory proposals based on “zero-sum game” approach, instead of finding mutual beneficial solutions for all parties within Broader Energy Europe*
- “Unless any regulatory or significant tariff change comes, we expect **market segmentation to increase within the EU in the future.**”
 - *BUT: This means tariff changes that will prove new investments into equalization of infrastructure density through all EU (plus Energy Community?) area - & not their nullification within EU*

Figure 7: Estimated number and diversity of supply sources in terms of the geographical origin of the gas – 2016
EU 28 and selected EnC Contracting Parties



Source: ACER based on Eurostat, IEA, British Petroleum, NRAs and EnC Secretariat.

Note: D.P means domestic production. Yellow means 'other sources'. The asterisk refers to MSs with liquid organised markets where the gas has been purchased. For UA, the "EU" label origin corresponds to purchases from EU companies. These are deemed to comprise mostly Russian but also Norwegian gas geographical origin. At Denmark, D.P. share also includes the Norwegian off-shore fields connected to the Danish network.

Source: ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Gas Markets in 2016. Gas Wholesale Markets Volume. October 2017, p.

High upstream market concentration: US as a model?

LT capacity booking by non-EU producers as a threat?

- “The price premium that **EU wholesale customers have been paying over US prices in the last decade** is largely related to the **concentrated nature of the EU gas upstream** sector, including extra-EU gas suppliers”.
 - *BUT: (i) whether the US gas market can be a right model (archetype) for Continental Europe from the start?*
 - *(ii) US global gas price discount in the last decade is the result of “US Shale (Gas) Revolution” within UIS being (till 2016) an energy island; such Revolution cannot be repeated elsewhere in the world;*
- “...efficiency of the IGM ... has to be evaluated in this broader context.”
 - *BUT: if the perceived aim is incorrect, whether the ways to reach it are appropriate? Maybe it is from this improperly-posed problem follows that non-EU suppliers (Russia) are considered the major barrier to reach the perceived aim, and not the fault character of the perceived aim per se (to consider Continental Europe the same as US in gas)*
- (CAM NC) “in its present form is unable to effectively address the risk of market foreclosure by long-term capacity bookings. The **first large scale application of CAM NC logic (*)** on capacity auction with new capacities provided **a stark example of potential market foreclosure by long-term capacity bookings by an extra-EU producer.**”
 - *BUT: (i) first ever CAM NC INC cycle is not yet over (2017-2019),*
 - *(ii) the key task to exclude foreclosure is who will pay for new to be build (and not yet booked) transportation capacity to be reserved for short-term future unknown (if any at all) shippers; options:*
 - *Long-term shippers? No go... for non-EU producers (still an open question in CAM NC INC)*
 - *EU-controlled IFI (EBRD, EIB) – Russian side proposal, not supported by the EU side when CAM NC INC was drafted*
 - *Existing quotas for short-term shippers = 20 & 10%, proposed to be increased to 50% both for existing & new capacity (see QV Combined Capacity-Commodity Release Scenario) => who will pay for the rest???*

(*) The CAM incremental capacity rules are applicable officially only as of 16 March 2017

Whether US gas market can be a right model (archetype) for Continental Europe due to objective reasons?

| Will Gas Follow Oil to Become a (Global) Commodity? | | | | | | |
|---|---|---|--|---|---|--|
| North America and United Kingdom | | | | Continental Europe and Japan / Korea | | |
| <div>➤ development based on own resources, no initial dependence on imports</div> | | | <div>VS.</div> | <div>➤ high import dependence from the start</div> | | |
| <div>➤ supply based on small to medium sized gas fields</div> | | | | <div>➤ supply based on imports from giant / super giant fields</div> | | |
| <div>➤ standardised rent taking development decision by private players</div> | | | | <div>➤ rent maximisation of exporting countries development decision by exporting country</div> | | |
| <div>➤ demand elasticity from gas to power generation</div> | | | | <div>➤ limited demand elasticity</div> | | |
| <div>➤ gas-gas competition but price path for gas still tracks oil prices</div> | | | | <div>➤ oil prices as reference in price formula</div> | | |
| | | | Linkages | | | |
| market restructuring as of 1980s | | | ⇒ model for reform | market restructuring as of late 1990s | | |
| North America | | UK | LNG trade | Continental EU | | Japan/Korea |
| Hubs created by industry, churn 100, many players, high LNG absorption potential. | ⇔ | NBP created by regulation, churn 15 to 10, many players, limited absorption of LNG. | no LNG Hub but LNG as price transmitter ⇔ | few industry hubs, churn <10, few strong players, dominance LTCs. | ⇔ | no hub so far, few strong players, dominance LTCs. |

Source: Putting a Price on energy. International Pricing Mechanisms for Oil and Gas. // Energy Charter Secretariat, 2007, p.102

Important note: The study was circulated among the ECT Contracting Parties & Signatories before being published (through corresponding state agencies authorized within ECT process) to consider their objections &/or disagreements on the substance of the material and conclusions presented in the study. No such objections &/or disagreements were received except minor technical clarifications for few cases.

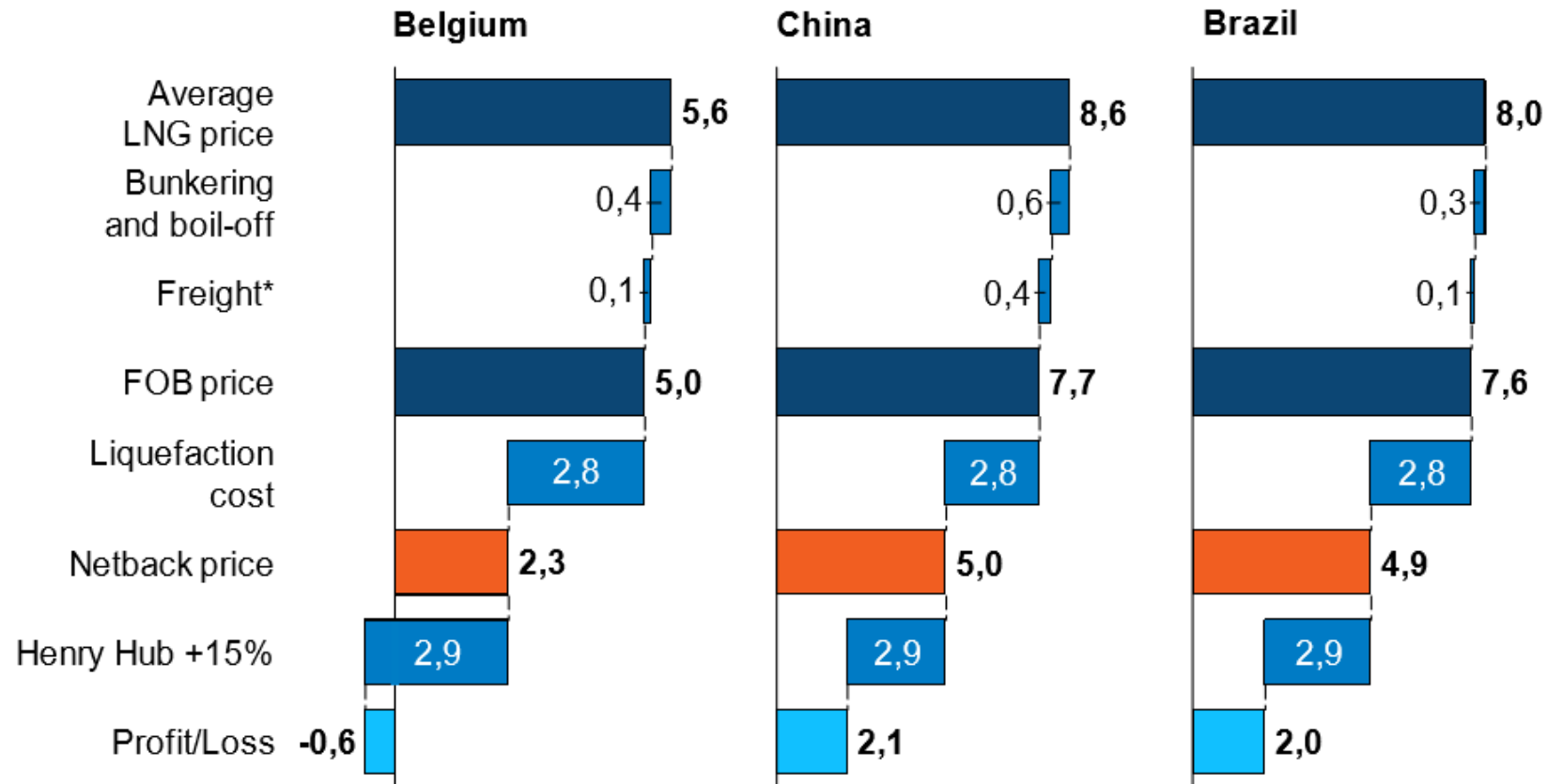
Cross-border tariffs as trade barriers: pancaking as a “major issue”?

- “**National entry–exit systems... enhance market segmentation** rather than market integration”
 - *BUT: such EU IGM architecture was the choice of EU legislators & endeavor of TEP demiurges since 2003*
- “...**tariff ‘pancaking’** ... have an effect of **trade barriers** within the EU”
 - *BUT: this is “domino effect” of the choice of EU legislators & TEP demiurges*
- “Neither the **market merger process** nor the Tariffs Network Code (**TAR NC**) **implementation** process **seem sufficient** in addressing the pancaking issue”
 - *BUT: (i) as for shortcomings in efficiencies, tariff “pancaking” is a major issue (K.D.Borchardt, EGC2018). Is it really so?*
 - *(ii) if so, does this mean that the regulatory reform in EU IGM is thus inescapable?*
 - *(iii) if so, - Fourth EU Energy package? QV as a ToR for new Commission for Fourth Energy Package? Though (K.D.Borchardt at EGC2018): “Please do not take QV as a proposed concept for next market design proposal...”*

Proposed alternative regulatory scenarios and their evaluation (1)

- If upstream market concentration remains at the current level ... **competitive pressure on dominant pipeline suppliers remains the key regulatory option** to mitigate its negative consequences. **LNG** and **inter-fuel competition by renewable resources** have such a potential.
 - *BUT: (i) what is real barrier to competition in EU (CSEE): lack of available / technical infrastructure to provide multiple choice & to correspond GTM requirements (internal EU **economic** issue), OR dominant pipeline non-EU suppliers (perceived external **political** threat)?*
 - *(ii) LNG has a potential if EU prices went up and/or Russian gas is blocked at the entry to EU (QV scenario 5):*
 - *(a) today EU is not-attractive for LNG with EU gas price level even in NWE compared to other worldwide regions (provement: low utilization rate of LNG import regaz capacities) +*
 - *(b) not enough pipeline capacities from LNG regaz terminals exist to inside EU where Russian delivery points are historically located =>*
 - *(c) currently Russian pipe gas wins competition with global LNG (same vision: S.Dale, BP Chief Economist), BUT: “The idea that the US can export LNG to Europe at the expense of Russian pipeline exports appears to be too alluring for senior US officials to drop” (Editorial: Trump on the Offensive // NGW Magazine, 2018, Volume 3, Issue 8)*
 - *(iii) RES won competition with pipe gas when oil price was high and due to massive state subsidies; now RES subsidies to go down (they have played its historic role for RES start-up & acceleration) though this has initiated a wave of investment disputes (& ECT-based arbitration tribunals) with EU MSs of RES-investors from EU MSs*
- **Tariff Reform Scenarios with uniform tariff increase and with harmonized EU entry tariffs.** In this case, within-EU IP tariffs are set to zero so that the revenue neutrality of this change for each TSO is ensured by a **simultaneous tariff increases at remaining entry and /or exit points**. The proposed institution to ensure revenue neutrality is a newly founded **TSO Compensation Fund** (TCF).
 - *BUT: clear “zero-sum game” approach to the detriment of non-EU gas suppliers (discussed at 24th WS2)*
- **Market Merger Scenarios**
 - *BUT: Same as above*

Economics of US LNG exports



Note: similar results were presented in publications / studies by S.Komlev, M.Nechaeva (Gazprom export), T.Mitrova (Skolkovo), V.Kulagin (В.Кулагин (Institute Energy Research, RAS), V.Ermakov (Higher School Economics), Jinsok Sung, A.Konoplyanik (Gubkin University), J.Henderson et al (OIES), Th.Bros (f.Societe Generale), M.-A.Eyl-Mazzega (IFRI/f.IEA) et al (IEA), etc.

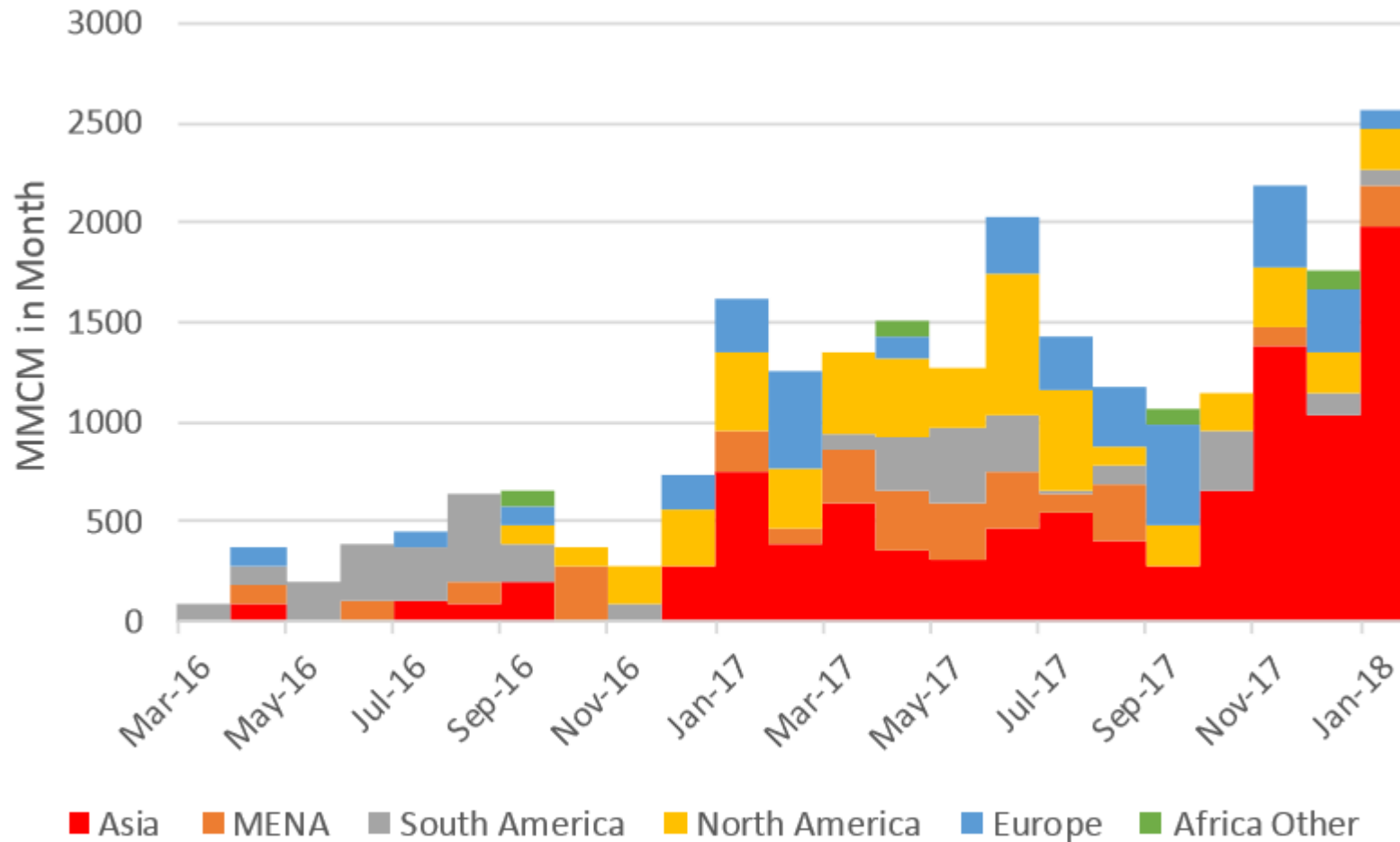
Note: export netback is calculated as an average selling price of LNG to the final market less transportation and liquefaction costs.

Figure 4. Changes in netback factors of US LNG delivery by country in 2016, \$/MMBtu

Source: EIA, FERC, VYGON Consulting

Source: M. Belova and E. Kolbikova. US LNG Competition Evaluation and Export Prospects. - Oil, Gas & Energy Law Intelligence (OGEL), Vol. 15 - issue 4, November 2017, p.7

Destination markets for US LNG, 2016 and 2017



Platts Monthly LNG Data Service

Source: Howard Rogers. Panama Canal and LNG: Congestion Ahead? – OIES, Oxford Energy Insight: 33, April 2018, p.10

Proposed alternative regulatory scenarios and their evaluation (2)

- **The Combined Capacity-Commodity Release Scenario (CCCRS)** proposes a simultaneous increase **up to 50% in the share of short-term transmission capacities for both existing and new infrastructure**, and an obligation for **gas producers/importers to sell at least 50% of their gas at the nearest Virtual Trading Point (VTP) to their entry into the transmission grid on EU territory**
 - *BUT: (i) quotas:*
 - (a) it were long debates when CAM NC INC has been drafted on who shall finance transportation quotas for future unknown (if any) short-term shippers;
 - (b) increase of short-term quota from 10/20 to 50/50% for existing/new capacities makes at least creation of new capacities non-financeable (non-bankable);
 - (c) this can only be explained by the (at least questionable) perception that “the level of investment is generally sufficient in the sector”;
 - (d) this seems to be based on historical perception from 2009/2010 calculations that EU pipeline capacity utilization is 70% only, thus new investments are not needed
 - *(ii) selling points:*
 - (a) long-standing EGMM proposal (“Energy Journal”, IAEE, 2016, № 37);
 - (b) means forced redistribution of business from non-EU producers/suppliers in favour of EU intermediaries?
 - (c) what about free choice of contracting parties to chose their counterparts (if in a free market economy)?;
 - (d) TEP provides opportunity to deliver gas to consumers bypassing VTP (“trade vs delivery” debate at WS2)
- **The Extra-EU upstream – EU Downstream Strategic Partnership Concept** - the **EU and Russia** enter into a **mutually beneficial agreement to integrate their gas markets in a fundamental way**.
 - *BUT: Standard EU external policy – export of EU acquis; whether such approach leads to balanced solution?*
- The quantitative welfare analyses ... European Gas Market Model (EGMM).
 - *BUT: EGMM has been strongly criticized by market players as inappropriate instrument (its shortcomings are even explained in QV Final Report/Executive Summary) => defective instrument cannot provide trustworthy results to be taken for policy guidance => Nevertheless: QV “Policy recommendations” ...?*

Quo Vadis Policy Recommendations

- ...to increase the share of **existing technical capacity** that TSOs are obliged to set aside and offer for auctioning for **yearly or shorter durations to 50% or more**. The same approach of increasing the share of **yearly or shorter durations from 10% to 50%** should also be considered **for incremental capacity** within the EU ...
- **Consider the full implementation of the Combined Capacity-Commodity Release Scenario...**
- **Consider the implementation of the Tariff Reform Scenario** after further refining the design and implementation conditions of it as presented in the study
- **Include the concept of a potential Strategic Partnership – and the corresponding liberalization of the Russian gas sector – on the agenda of future EU-Russia energy dialogue and negotiation process on Nord Stream 2 or DG Competition cases with the objective to promote a competitive EU gas upstream sector.**

DG ENERGY officials on Quo Vadis (QV)

- **K.D.Borchardt (at EGC2018 29.01.2018):**

- “QV is only a study and will remain so... QV – not results to go... Please do not take QV as a proposed concept for next market design proposal...
- TEP implementation to be done... Internal market functions well... Some problems, of course (SEE, CEE) “where we fight with legacy contracts which prevents us from full implementation of TEP”... Price convergence in place in NWE only...
- Struggling with import dependence and market concentration in upstream market... Where are shortcomings in efficiencies (tariff “pancaking” as a major issue) & how to deal with them? How successful are the QV ideas (KDB expressed his skepticism on them) & whether they are timely (KDB intends through transparency rules to receive more information & experiences on existing rules)?
- CCCRS: something to think further...

- **F.Ermacora (at FROG presentation 24.04.2018):**

- QV shows that competition in gas in EU-West is higher than in EU-East. What prevents competition: maybe different transportation tariffs within the EU? Maybe behavior of dominant suppliers from the third countries? QV presents some recipes to fight against such occurrences and in the coming months “we will continue to study conclusions of this report”
- Further clarifications on QV Policy recommendations & DG ENERGY line of actions are welcome/needed...

Thank you for your attention!

www.konoplyanik.ru
andrey@konoplyanik.ru
a.konoplyanik@gazpromexport.com

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