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Four scenarios on natural gas market developments in Europe and what they mean for Russia

Geopolitics of Natural Gas Conference
Rice University’s Baker Institute, 21 February 2014
A primer on European gas markets

Size of major gas markets, 2012

US: 720 bcm
EU-28: 450 bcm
China: 145 bcm

Source: BP 2013
A primer on European gas markets

Sources of gas supplies EU-27, 2012

- Russia: 33%
- Norway: 24%
- Algeria: 19%
- Qatar: 7%
- Domestic: 8%
- Other: 9%

Source: Eurostat 2012
A primer on European gas markets

Russian gas exports by destination, 2012

Source: EIA
Key domestic elements driving European gas market developments within near future

- **EU ‘market making’ agenda**
  - 3 ‘Energy Packages’
  - Gas sector next battle ground

- **EU decarbonization agenda**
  - 20-20-20 goals
  - Roadmap 2050

- **Tensions between EU and MS levels of gas production governance**
  - Security vs. environmental agenda
  - Resource sovereignty agenda
Key domestic elements driving European gas market developments within near future
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- EU ‘market making’ agenda
  - 3 ‘Energy Packages’
  - Level playing field

- EU decarbonization agenda
  - 20-20-20 goals
  - Roadmap 2050

- Tensions between EU and MS levels of gas production governance
  - Security vs. environmental agenda
  - Resource sovereignty agenda

- Economic crisis
Four possible scenarios

Main level of upstream governance

<table>
<thead>
<tr>
<th>EU</th>
<th>National</th>
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<td>Equal or weaker</td>
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<td>Stronger</td>
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Decarbonization policies

Indigenous supply impact

Foster
Four possible scenarios

- **Rule Taker**
  - EU: Equal or weaker
  - National: Equal or weaker

- **Come & Play**
  - EU: Stronger
  - National: Stronger

- **Green Maverick**
  - EU: Slow down
  - National: Stronger

- **Gas Power**
  - EU: Slow down
  - National: Equal or weaker

Main level of upstream governance

Decarbonization policies
What do these scenarios mean for Russian gas?

- *Rule taker* the only positive scenario for Russia.

- All other scenarios imply either stagnant demand for Russian gas or serious threats to incumbent business model or both

- *Russia’s risk: possibly a golden age of gas, but not at the conditions they would like to see*
What do these scenarios mean for Russian gas?

- Three out of four scenarios imply either shrinking demand for Russian gas or serious threats to its business model or both

- *Rule taker* the only positive scenario for Russia

- *Green Maverick*: Russia supplies a still important European import market, but this market shifts attention away from fossils

- *Come & Play*: Russia competes with other foreign gas producers on market shares. European gas market becomes depoliticized

- *Gas power*: Russia faces Come & Play scenario coupled with reduced European demand

- *Russia’s risk: a golden age of some one else’s gas*
The Eurasian gas market ties EU and Russia together

Source: Eurogas
LNG in Europe

Regasification capacity in Europe (bcm/y)

LNG terminals’ storage capacity in Europe (Mcm LNG)

Source: GLE MAP & GLE INVESTMENT DATABASE

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EU Commission drives low carbon and liberalization policies

First strategic review

Green Paper
European Energy Policy
Action Plan Energy Efficiency

Second Strategic Review Energy Action Plan

Third Internal Energy Market Package

Energy Programme for Recovery (EEPR)

Energy Strategy 2020
Energy Infrastructure Package
Regulation on security of gas supply

Communications external energy policy

Roadmap 2050
Energy Efficiency Plan

2006
Jan

2007
Nov

2008
Dez

2008
June

2009
July

2009
Nov

2010
Nov

2011
EU import dependence is considered high

Import dependency* (all energy commodities)

* net imports divided by sum of gross inland energy consumption plus bunkers

Source: Eurostat

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Europe’s energy supply challenges center on gas

Pipeline exports & imports (bcm/y)
- Pipeline exports
- Pipeline imports

LNG exports & imports (bcm/y)
- LNG exports
- LNG imports

Source: BP 2011
How does Europe play out?
How does Europe play out?

Environment
- High environmental standards
- Access to water and disposal of used water an issue
- Strong environmental movements

Regulation
- Ownership of subsoil resources (state not private)
- Land access/drilling rights difficult due to high population density
- Fiscal regimes for unconventional gas production lacking

Economics
- Availability of (pipeline) infrastructure
- Availability of business in energy service sector
- High European well costs

Still, U.S. developments have great impact on European markets

Source: SG Cross Asset Research, Platts, Reuters
A primer on European gas markets

Market size and imports, select EU countries, 2012

Market size, bcm

Imports
Domestic production

Sources: BP 2013; Eurostat 2012