Overview of the Recent Trends

In 2017, about 17 Tcf of dry natural gas or more than 60% was produced from shale resources.

Source: EIA & IHS data
New Roads

Direction of travel of US LNG exports

U.S. exports of liquefied natural gas
billion cubic feet per day

Asia

mericas

Europe

other

South Korea

China

Japan

other

Mexico

Portugal

Turkey

Spain

other

Within Gulf of Mexico
Main directions: East Mexico
Total volume exported: 1.98MT/9%

1 Data accumulated for the last 18 months (January 2017 to June 2018)
Source: LNGFlow
Looking into the Future

- What threatens Russian exports and therewith profits comprising a lion share of the country’s budget?
- How can Russia maintain and possibly strengthen its position on energy markets?
- Does Russia have enough capital to invest into supply and infrastructure?
- What are the long-term scenarios: how Russia’s relationship with EU and Asia may change (with the increasing U.S. supplies)?
Many countries explore their own unconventional resources to improve status quo; Exporters’ capabilities and importers’ preferences for energy continue changing:

- Germany retires coal & nuclear,
- China wants grow non-coal and non-oil energy,
- Africa brings new resources;
- U.S. becomes exporter

How can Russia ensure future stability and sustainability in its trade, export profits, and investments?

Sources: International Monetary Fund; A.T. Kearney analysis

Source: U.S. Energy Information Administration, based on Russian export statistics and partner country import statistics, Global Trade Tracker
**Bakken/Three Forks**

For presentation or publication, reference: Bureau of Economic Geology TORA Project

http://www.beg.utexas.edu/research/programs/shale

### Original In-Place

- **Gas**: 3150 Tcf
- **Oil**: 450 Bbbl

### Technical Recoverable

- **Gas**: ~25%
- **Oil**: <10%

### Production to date

- **Gas**: <3%
- **Oil**: <2%

### Horizontal wells to date

- **Gas**: ~90,000
- **Oil**: ~500,000

### Future wells (base case)

- **Gas**: ~
- **Oil**: ~

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*For presentation or publication, reference: Bureau of Economic Geology TORA Project*

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Summary

- Russia makes relation-specific investments to keep its partners
  - New pipelines, LNG, and supply contracts with China
  - Increased flexibility in pricing at the EU markets
  - Diversification: oil, ng, nuclear with South America and Asia
  ⇒ Russia ensures a stable profit flow and expansion of the market if prices go low creating a portfolio of options

- Russia keeps a close look at the U.S. exports but even more so on domestic demand growth
  - LNG perceived as the price determining resource