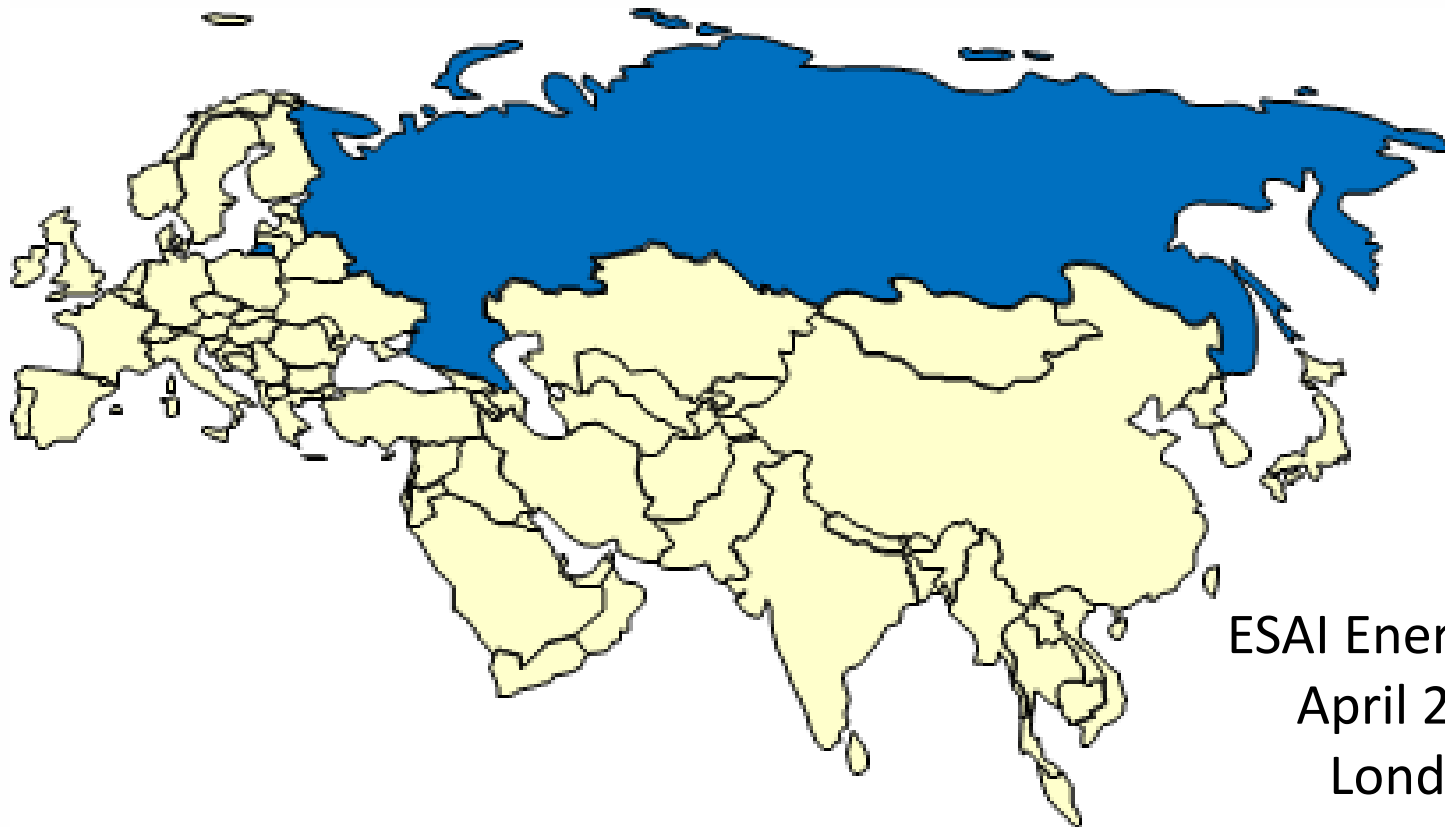


# Russia Flexes Muscles: Implications for the Oil Markets



ESAI Energy, LLC  
April 2016  
London

# ESAI Energy, LLC

- Energy Research and Forecasting Firm located just outside of Boston
- 30 years of Global Energy Market Analysis and Forecasting: Crude, Petroleum Products, Petrochemicals, E + P, Refining, Natural Gas, NGLs Alternative Fuels, Vehicle Technology, Geopolitics of Energy
- Clients include Majors, NOCs, Midstream/Logistics, Refiners, Traders, End Use Consumers, Automakers, Financial Institutions, National Governments
- ESAI Energy provides independent, holistic market analysis and does not advocate for particular groups
- Empirical Source Global Supply/Demand/Refining database by country, dating back to January 1978
- Global Expertise in Policy/Regulation, Asset Valuation, Refining/Petchem Investment feasibility, Expert Witness in Arbitration

# Production

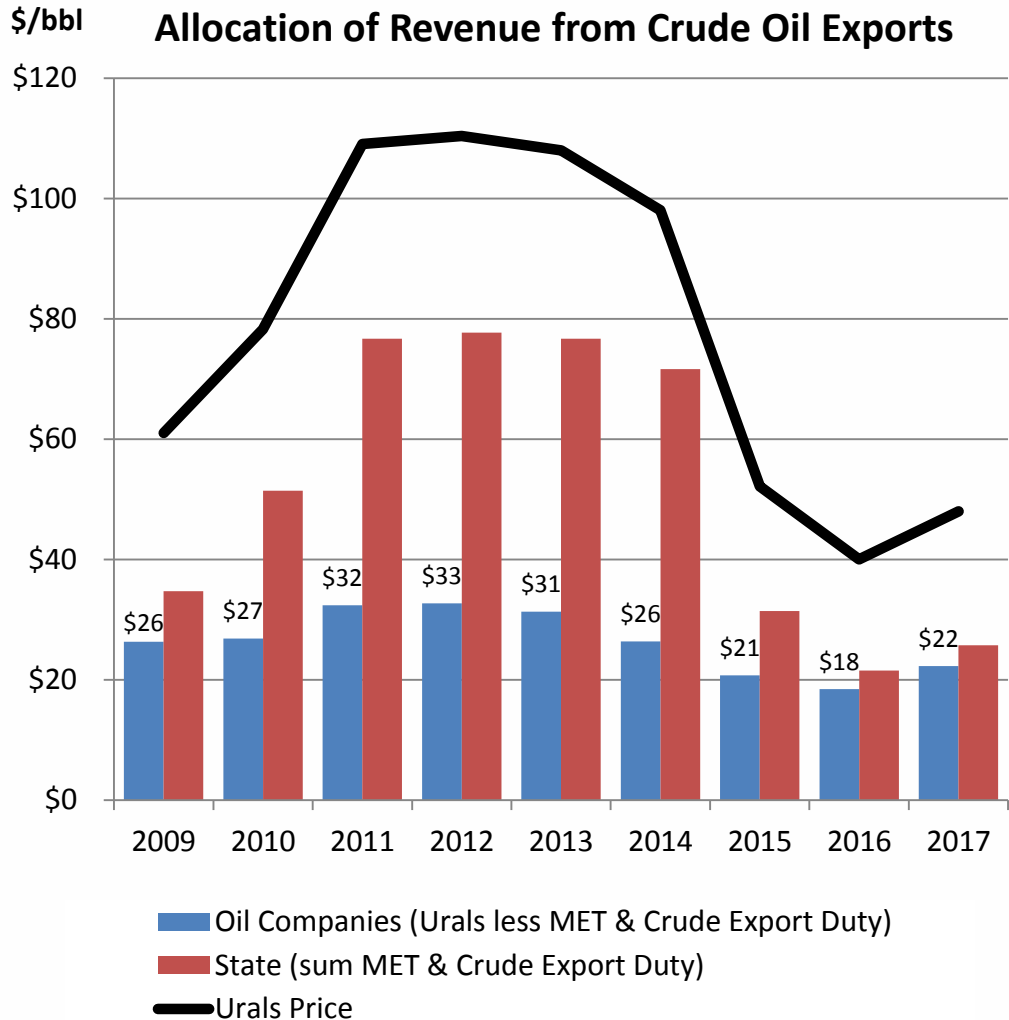
Taxes cushion impact of price changes on producer revenue

Ruble devaluation led to decrease in lifting and transport costs, has positive impact on production economics

West Siberian producer pays \$8 in lifting and transport costs, leaves \$10 to cover capital costs and profit



Production economics are viable



# Production

Production in chart reflects 4 mln b/d West Siberian output, 35% Russia total

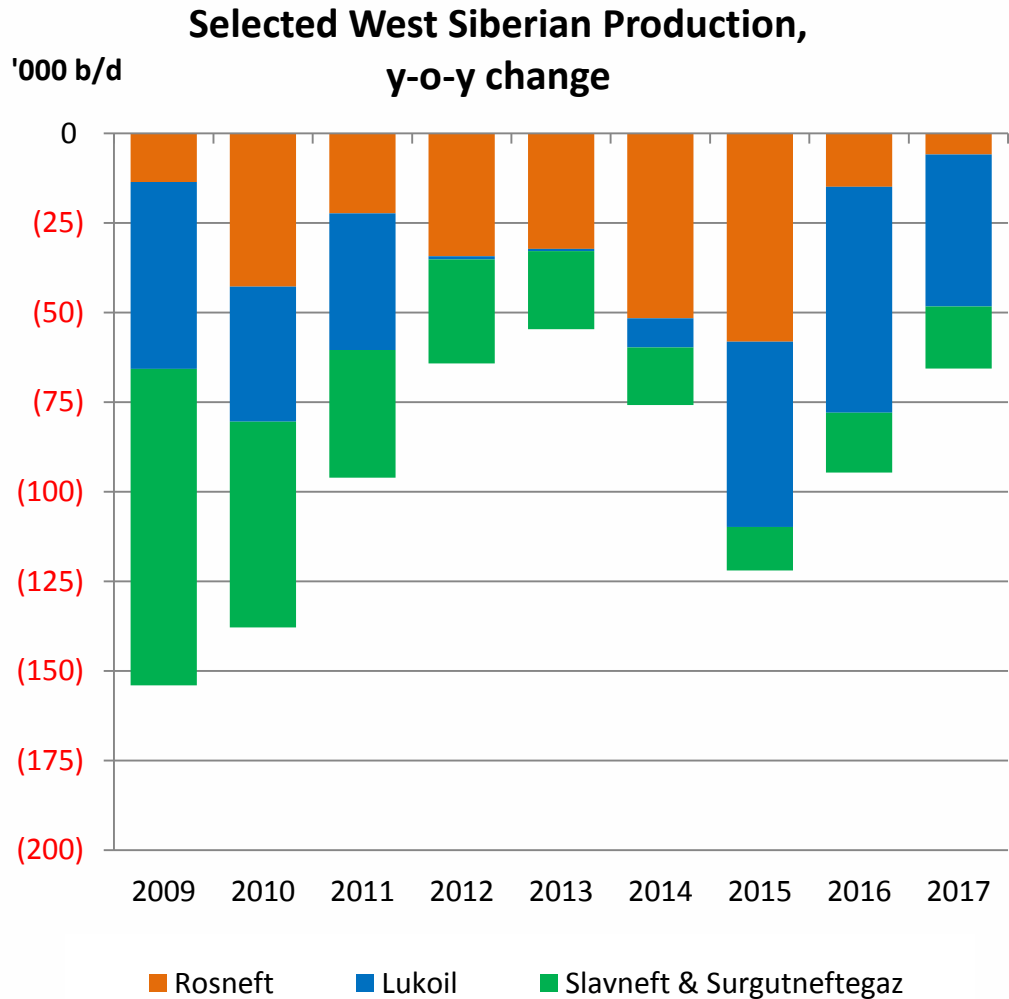
Rosneft: Yuganskneftegaz halted declines and plans growth, Samotlor decline has decelerated

Slavneft & SNG: Decline rates are slower than historically

Lukoil: Response to low prices is accelerated declines at mature fields



**No production collapse:** Rosneft & state intent on sustaining output despite weaker economics



# Production

2009-2013: Growth concentrated at high profile projects like Vankor linked to ESPO Pipeline (900,000 b/d in 5 yrs)

Recent & anticipated growth more scattered and less high profile

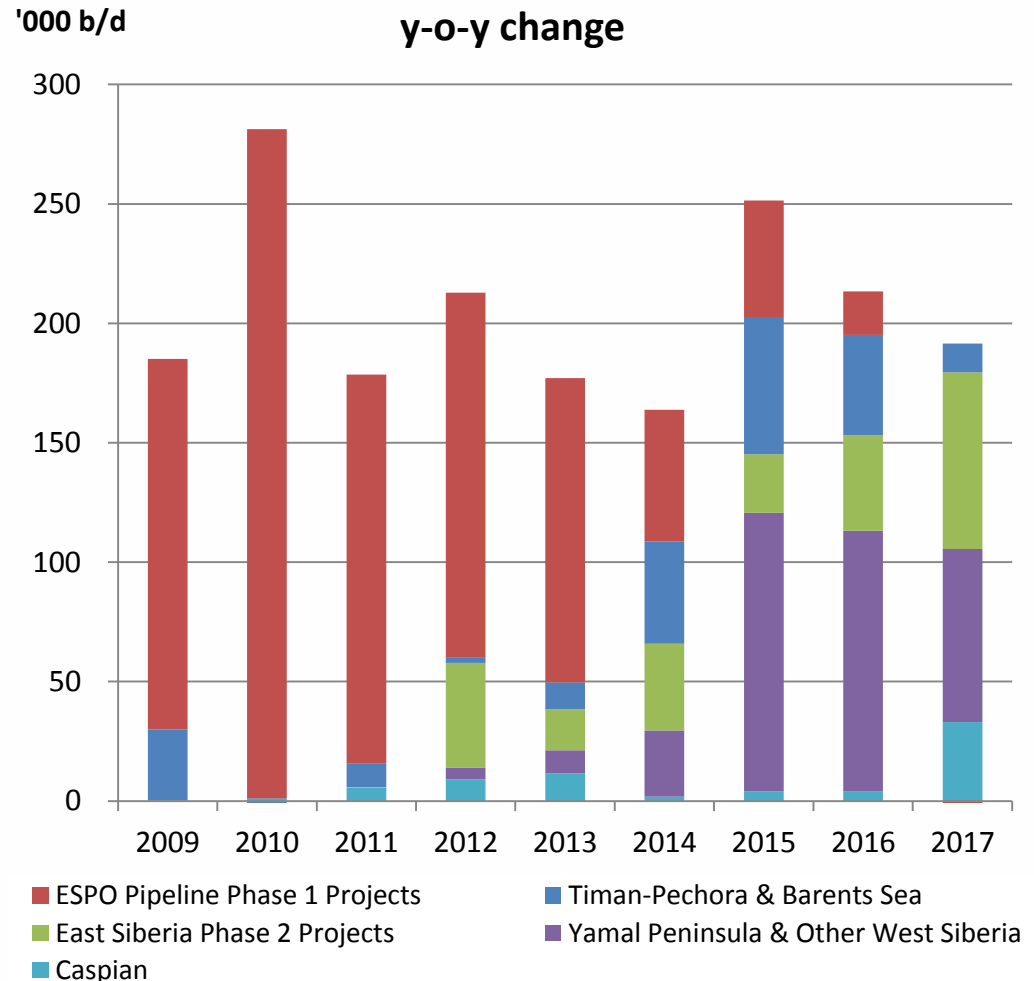
End-2016: Zapolyare-Purpe-Samotlor pipeline links enable production growth at key fields

Tax breaks and Rosneft ownership boost prospects for many projects



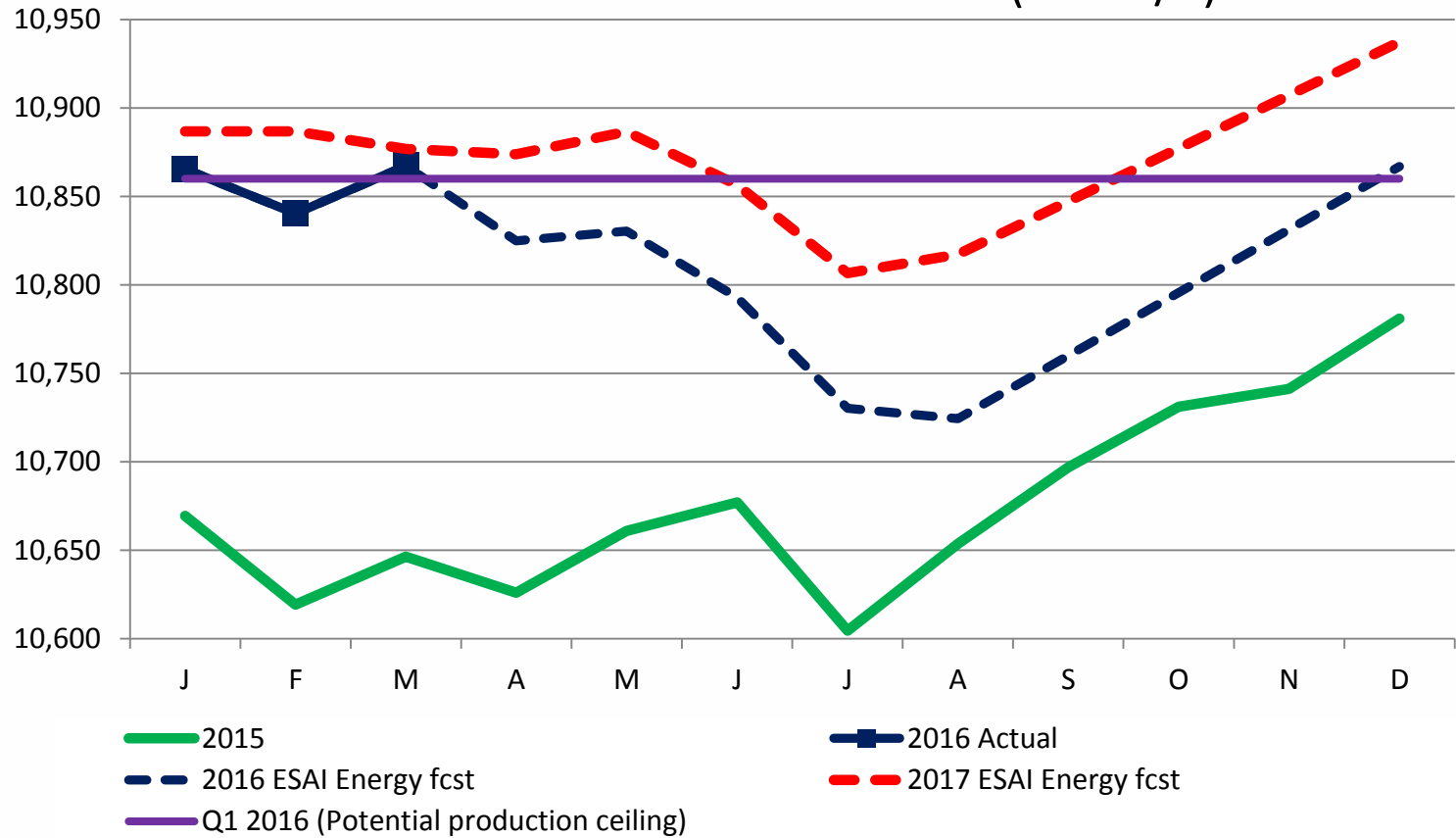
**Plenty of New Growth**

**Selected New Production by Region, y-o-y change**



# Production

Crude & Condensate Production ('000 b/d)

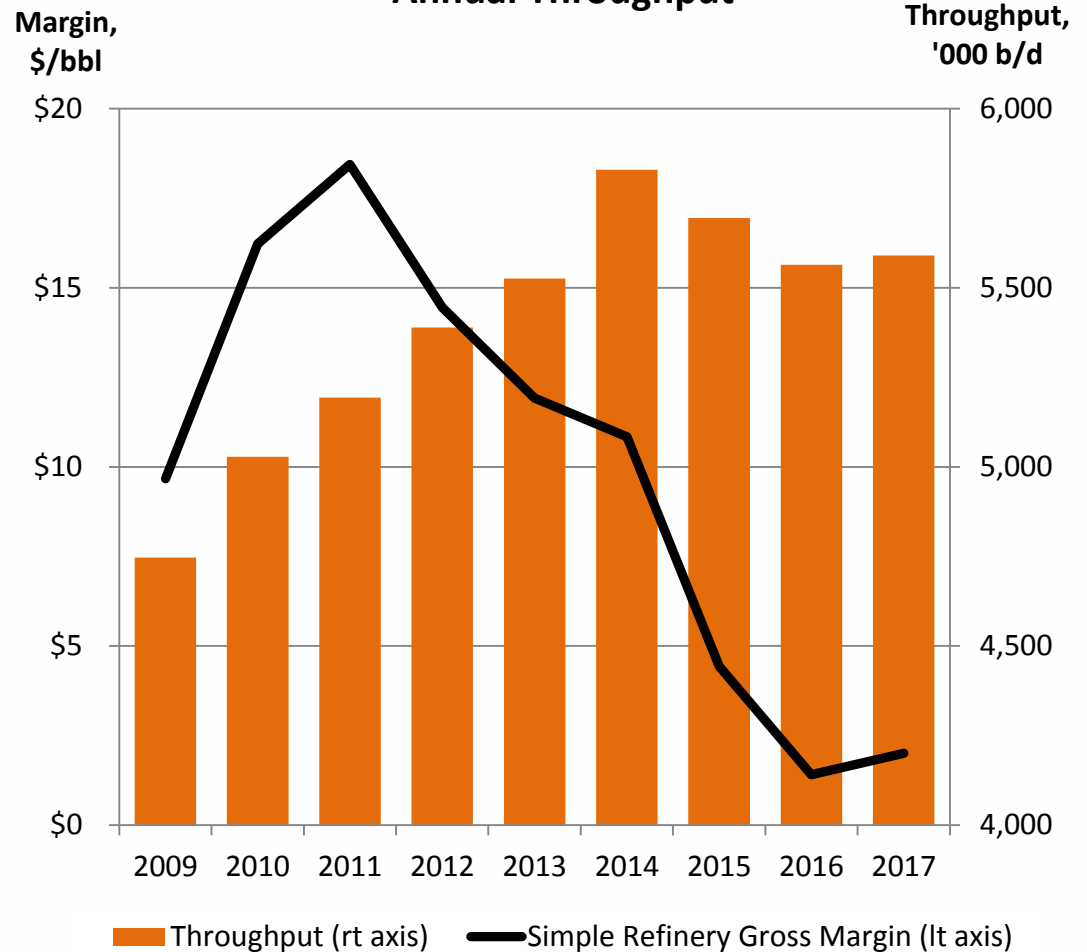


2016-2017: Annual increases of 135,000 b/d and 60,000 b/d

2016 annual output will fall short of ceiling discussed in context of production freeze

# Exports

Gross Refining Margin of Simple Refinery & Annual Throughput



Until 2014: High refining margins stimulated throughput

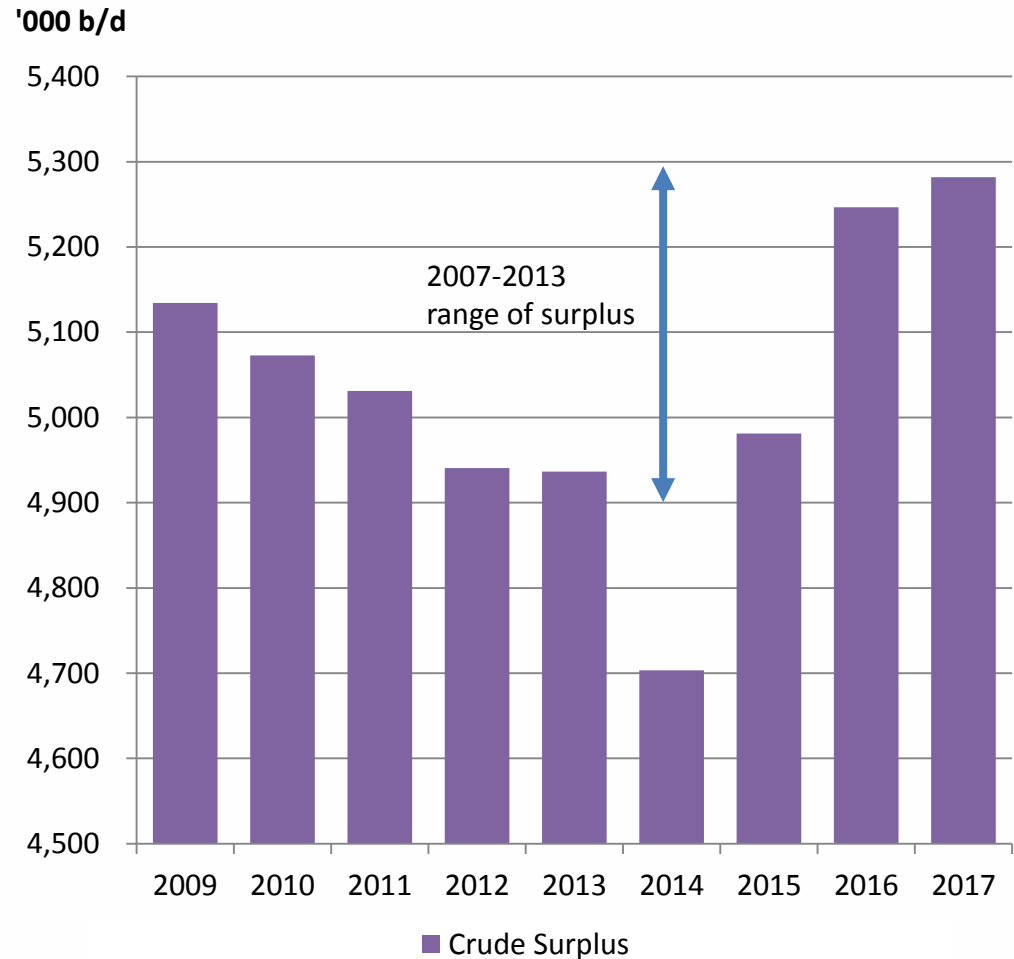
From 2015: Low crude price and export duty revisions weakened refining profitability, throughput

# Exports

Until 2014: Throughput grew with production, kept **exports stable**

From 2015: Low crude price and export duty revisions weakened refining profitability, **exports increase**

Russian Crude Balance





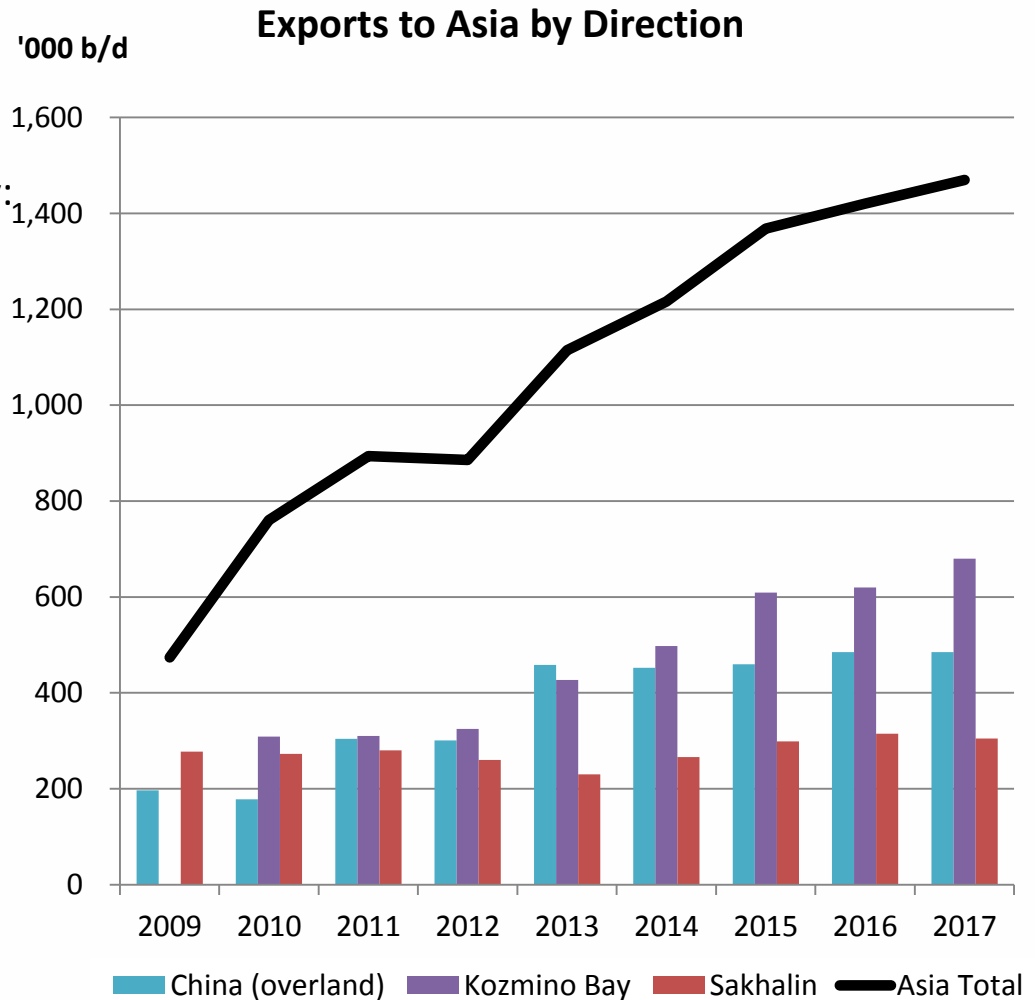
# Exports

## Asian Exports

ESPO Blend exports from Kozmino Bay: capacity increases 120,000 b/d to 730,000 b/d by end 2017, only significant addition to export capacity

Almost no increase in overland deliveries to China in 2017/2015

Asia total to increase from 1.37 mln b/d in 2015 to 1.47 mln b/d in 2017



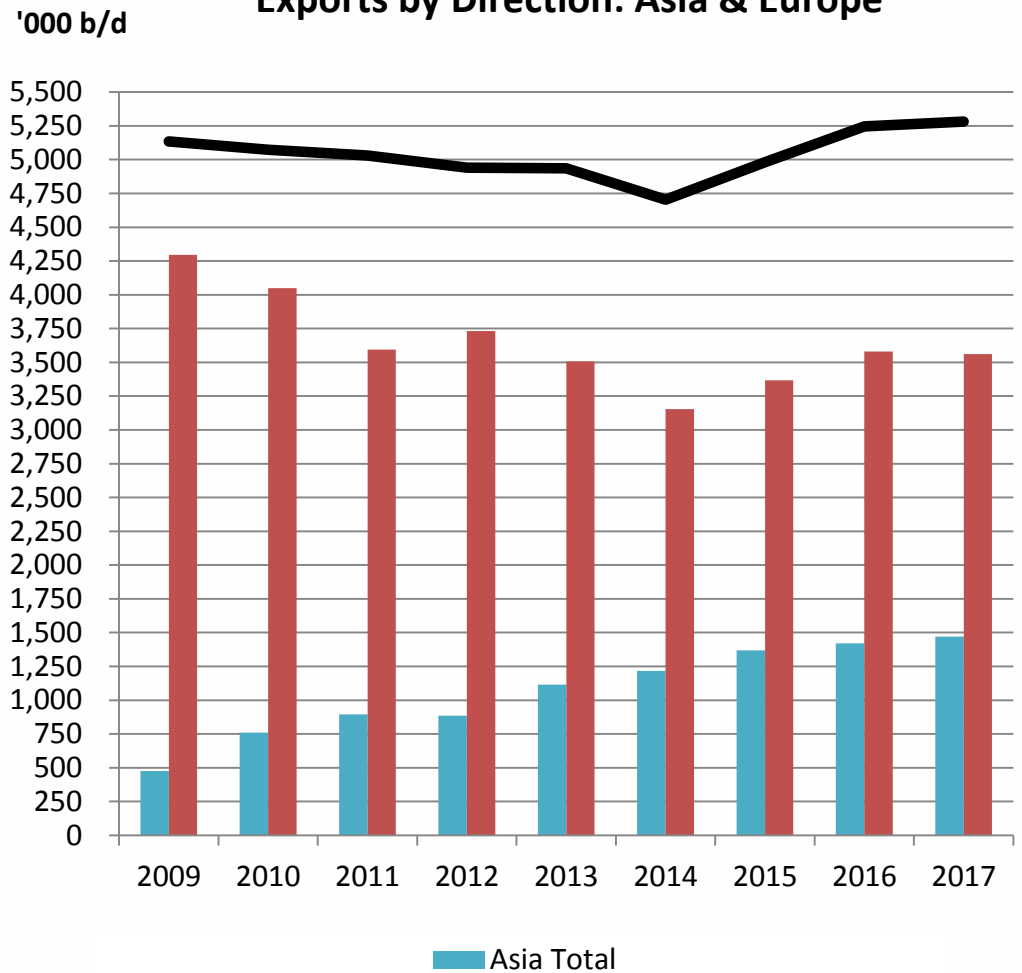
# Exports

## Asia-Europe Split

2014: Shift to Asia and smaller surplus caused big withdrawal of exports from Europe

2015-2016: Bigger surplus & small growth of Asian exports results in higher outflows from Europe

Exports by Direction: Asia & Europe



# Exports

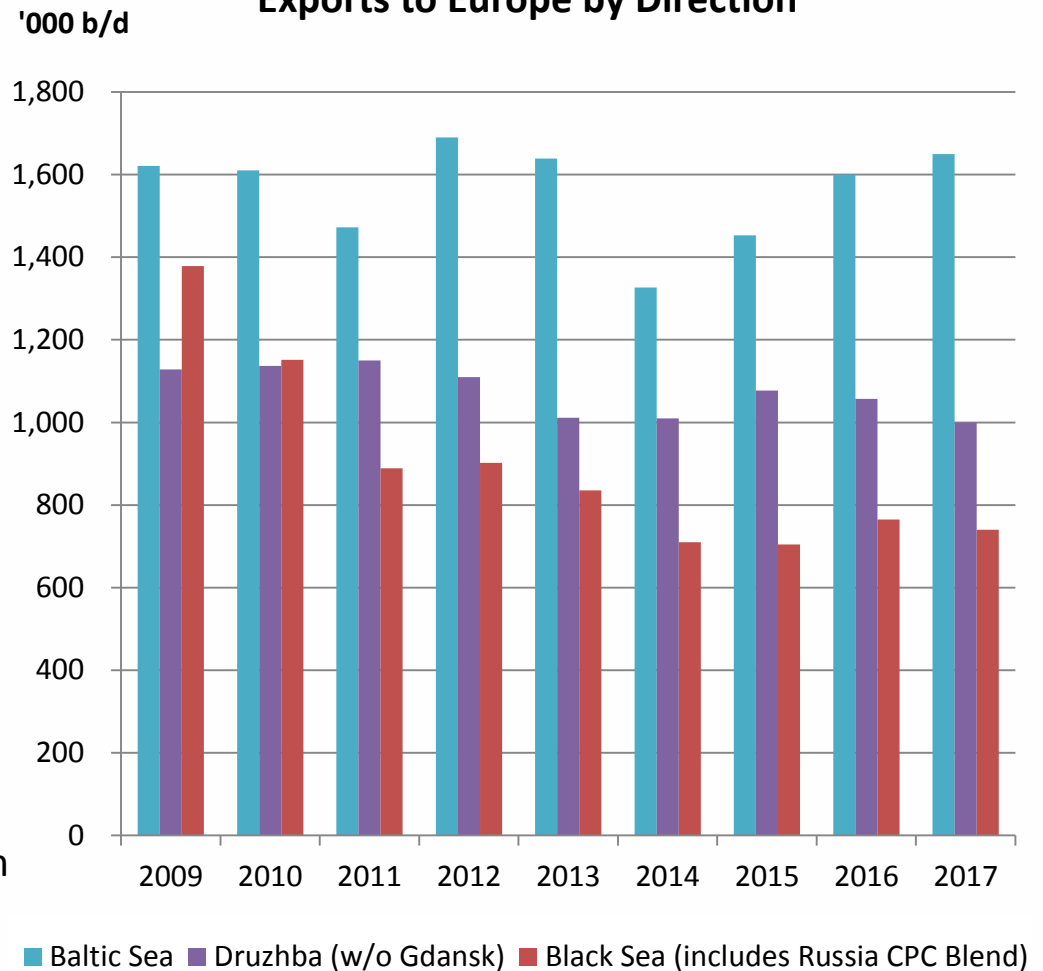
## Europe Exports

Baltic Pipeline System: 2<sup>nd</sup> priority after Asia, more than 2 million b/d capacity – exports to recover to 1.6 million b/d or more

Pipeline: No dramatic decrease in Druzhba to Central Europe. Recovery of crude deliveries to Ukraine unlikely.

Black Sea: Once Russia's main seaborne export route. Volume to stabilize at 700,000 b/d with shift from Urals to CPC Blend

Exports to Europe by Direction



# Oil Trade with Europe

- Crude Oil trade with Europe
- Positioned to retain market share in Northwest Europe, less so in Med
- Intermediate products – less fuel oil exports but some VGO
- Competition in clean product markets
- Continued clean diesel exports, watch out for gasoline exports

# Thank you!

# Questions?

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