

Russia's Internal and External Transformation

Dr. Tatiana Mitrova
Head of Oil and Gas Department
Energy Research Institute of the Russian Academy of Sciences



1

THE RUSSIAN OIL AND GAS SECTOR IN THE NEW REALITY

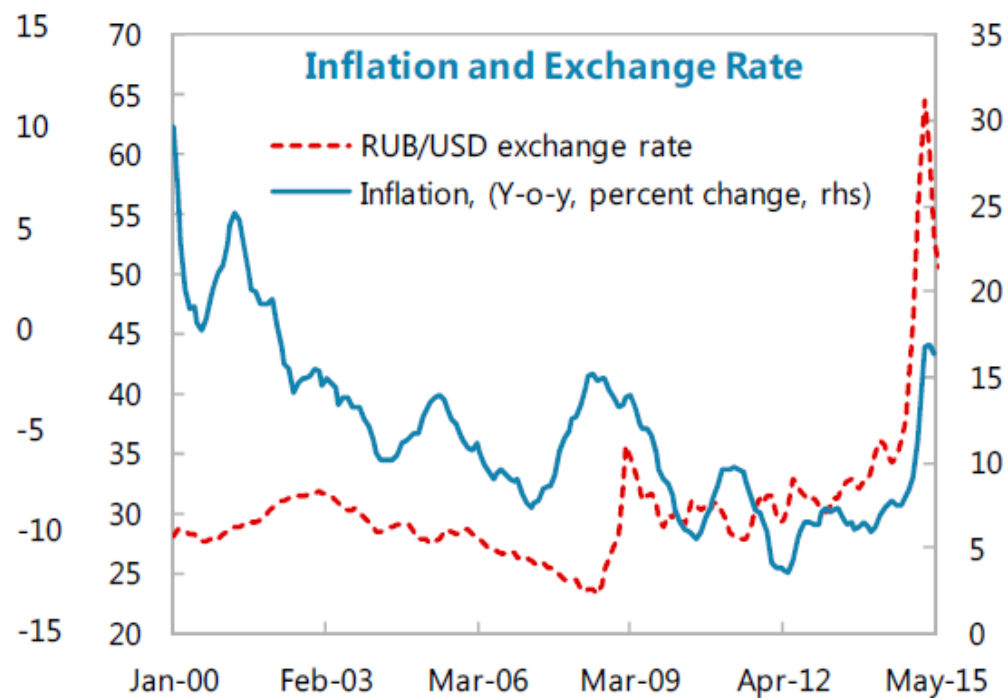
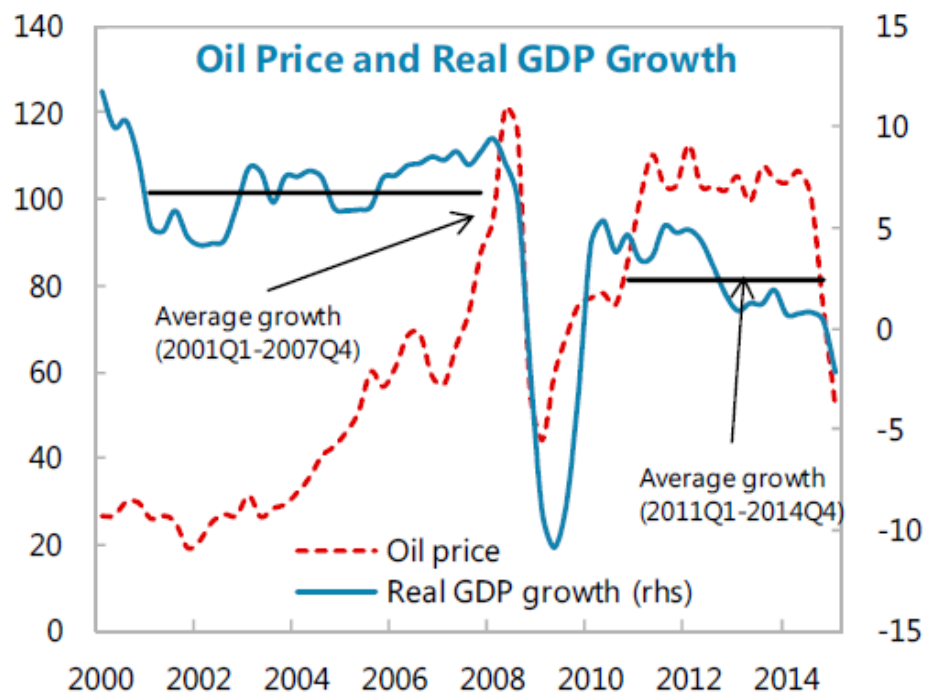
2

RUSSIAN HYDROCARBON PRODUCTION SCENARIOS UP TO 2025

3

NEW RUSSIAN OIL AND GAS EXPORT STRATEGY

Russian macroeconomic performance: negative GDP, growing inflation



Source: IMF report on Russian Federation. July 2015.

During the last two years, the Russian oil and gas sector suddenly found itself in a completely new, unfavorable environment

Global challenges:

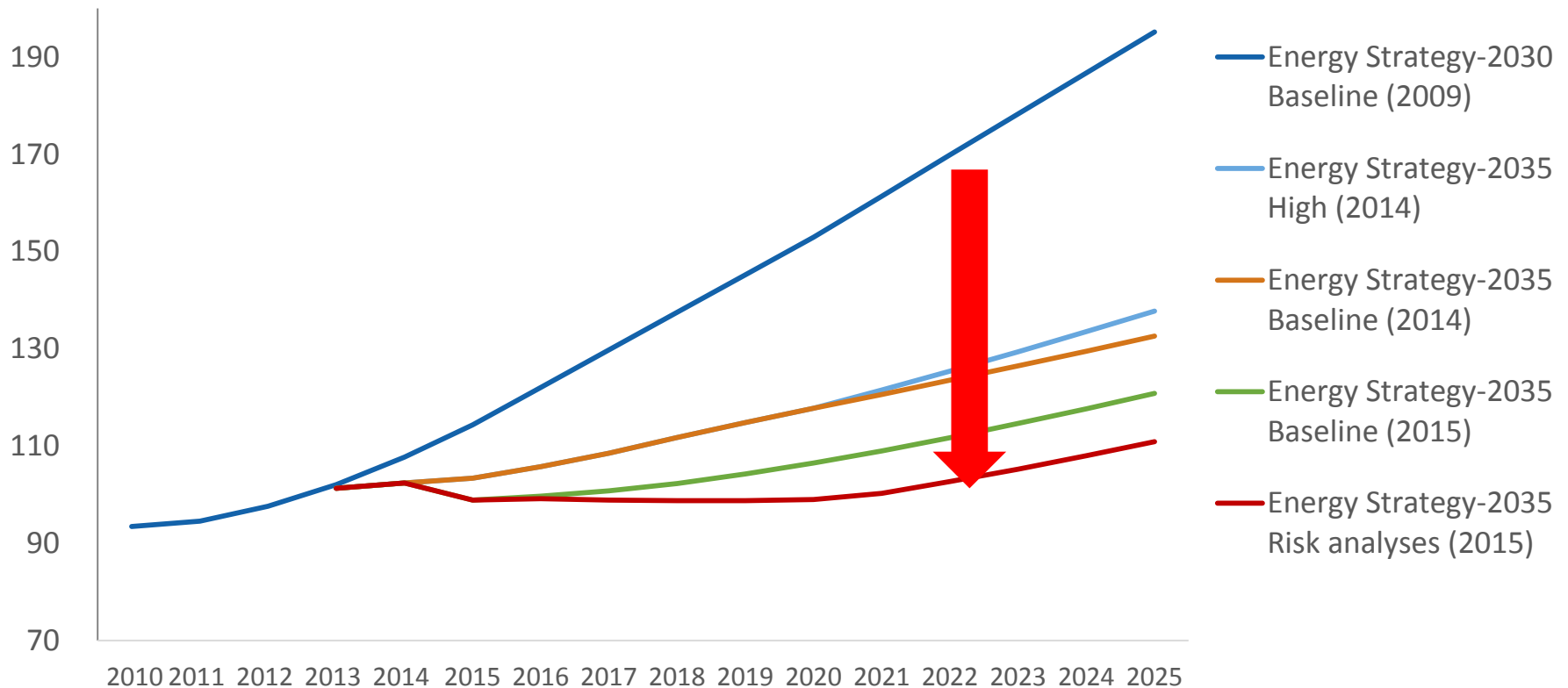
- ❑ the global economic slowdown and hydrocarbon demand stagnation in the main export markets;
- ❑ increased global supply of hydrocarbons (including the US shale revolution), aggressive competition with the other traditional and new suppliers, entering the market (like the US, Iran, Iraq, Australia, East Africa);
- ❑ the low hydrocarbon price environment, with oil and gas prices being now half of the 2010-2013 heights;
- ❑ geopolitical tensions with the West, including US and EU sanction introduced against Russia as a reaction to the annexation of Crimea

Domestic challenges:

- ❑ structural economic crises aggravated by the low oil prices;
- ❑ stagnant domestic energy demand;
- ❑ frozen domestic regulated prices for gas;
- ❑ natural depletion of cheap Soviet legacy fields and the necessity to explore new hard-to-reach and expensive-to-develop oil and gas provinces;
- ❑ increasing problems with the access to financing, as domestic financial market is weak and underdeveloped and foreign capital flows are limited by the sanctions and poor investment climate;
- ❑ cuts of the investment programs in the oil and gas sector leading to slowdowns in maintenance and upgrades;
- ❑ institutional framework in the energy sector has reached critical level of inefficiency: high corporate concentration and lacking market mechanisms destroy its value.

Implications of the stagnating global demand and low prices: Russia's GDP expectations are revised downwards to nearly flat

Russian GDP dynamics, % to 2012



Sources: Economic Ministry, ERI RAS

Other implications of the stagnating global demand and low prices

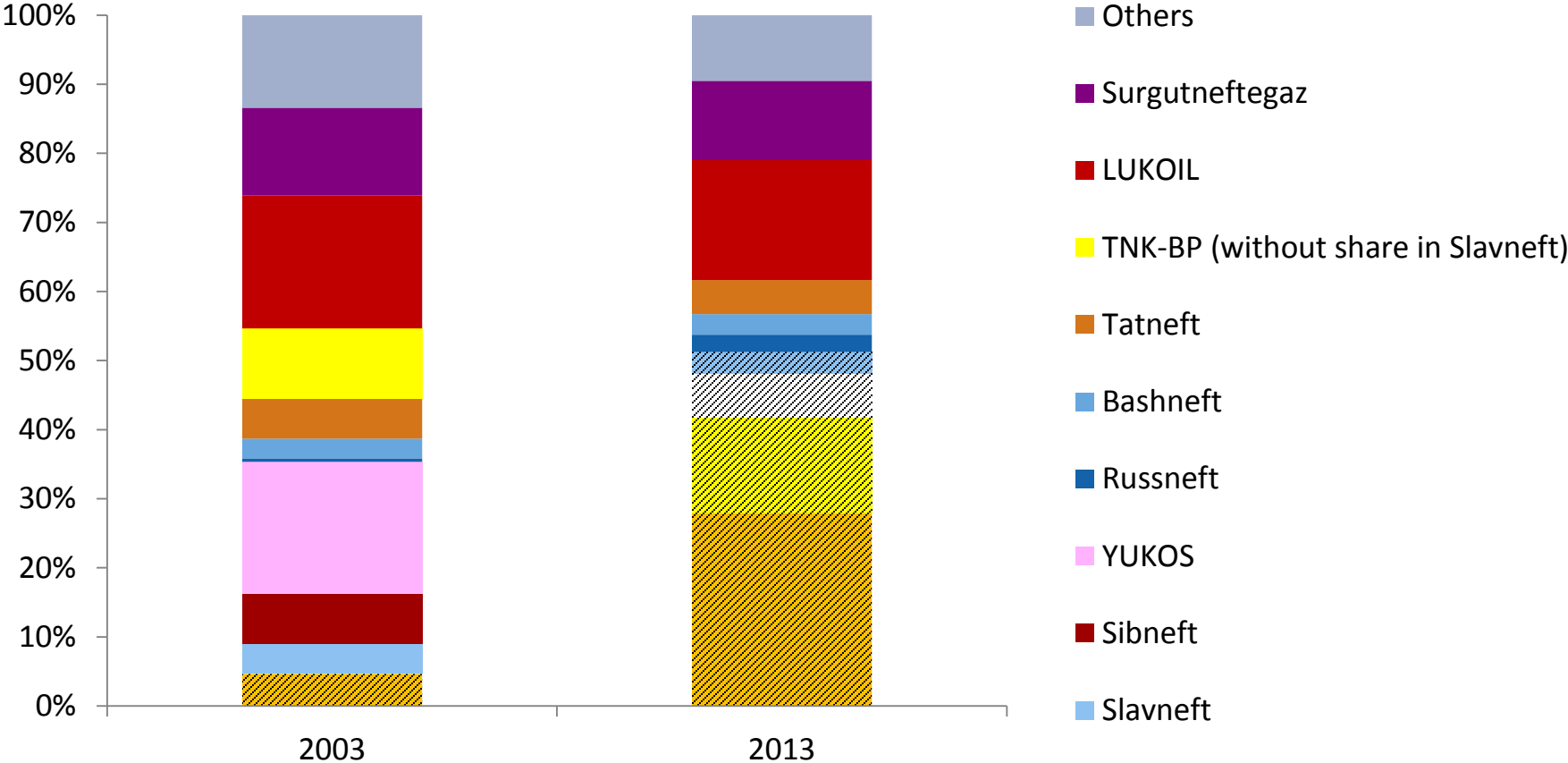
- ❑ **stagnation of the domestic demand for liquid fuels and natural gas in all consuming sectors.** Domestic gas and electricity prices are frozen. As a result, domestic market cannot be regarded as a reasonable alternative to exports.
- ❑ **state budget deficit and predictable desire of the authorities to increase taxation of the oil and gas sector,** undermining future investments and further postponing tax reform
- ❑ **low oil prices reduce financial sustainability of the Russian oil and gas companies and result into reductions of their investment plans and challenge implementation of large upstream and midstream projects,** such as Arctic offshore oil and gas development, LNG and large gas pipeline projects. The inevitable result of these cuts will be long-term reduction of the oil and gas production and processing, slowdown in the renovation of the sector`s capital assets, new technologies implementation and efficiency improvements through the whole supply chain.
- ❑ **accelerated re-orientation of the Russian oil and gas export policy towards East and increasing dependence on China.**

Sanctions: restricted access to the investments and new technologies

- ❑ **In the short-run it is mainly financial sanctions that impact Russia`s economic growth negatively via weaker investment and consumption.** Russia is now facing unprecedented challenges related to the finance availability and access to the international loans, while Russian domestic financial market is also very weak.
- ❑ Rosneft, Novatek, Transneft and Gazprom Neft were hit in a most serious way - now they face very limited access to capital, which is especially painful given their high corporate debt. **These sanctions affect not only the companies from the sanction list, but all the Russian energy companies** due to the increased costs of borrowing from the US, European and Asian markets, since the financial institutions are now very cautious when dealing with Russia.
- ❑ **Technology sanctions are less painful than financial sanctions in the short-term.** They concerns equipment which can be used for deep water and arctic oil exploration and production, as well as shale oil projects. Already many of these projects, which were under development in cooperation with the Western majors, were frozen.
- ❑ **In the longer term without Western involvement (both investments and even more importantly – technologies), Russia will not reach its production potential and even the current sanctions would have a negative impact on the oil and gas output:** post 2025 these offshore and unconventional resources were supposed to compensate for the declining production on the existing fields.
- ❑ **A lot depends on the authorization process in Europe and US, on the clarifications and rendering of the existing sanctions.**

Shifting domestic institutional framework: In the medium term, the share of the private companies will probably further decrease, as state-controlled giants are bolstered by the special state support

Oil production in Russia by company, 2003 and 2013

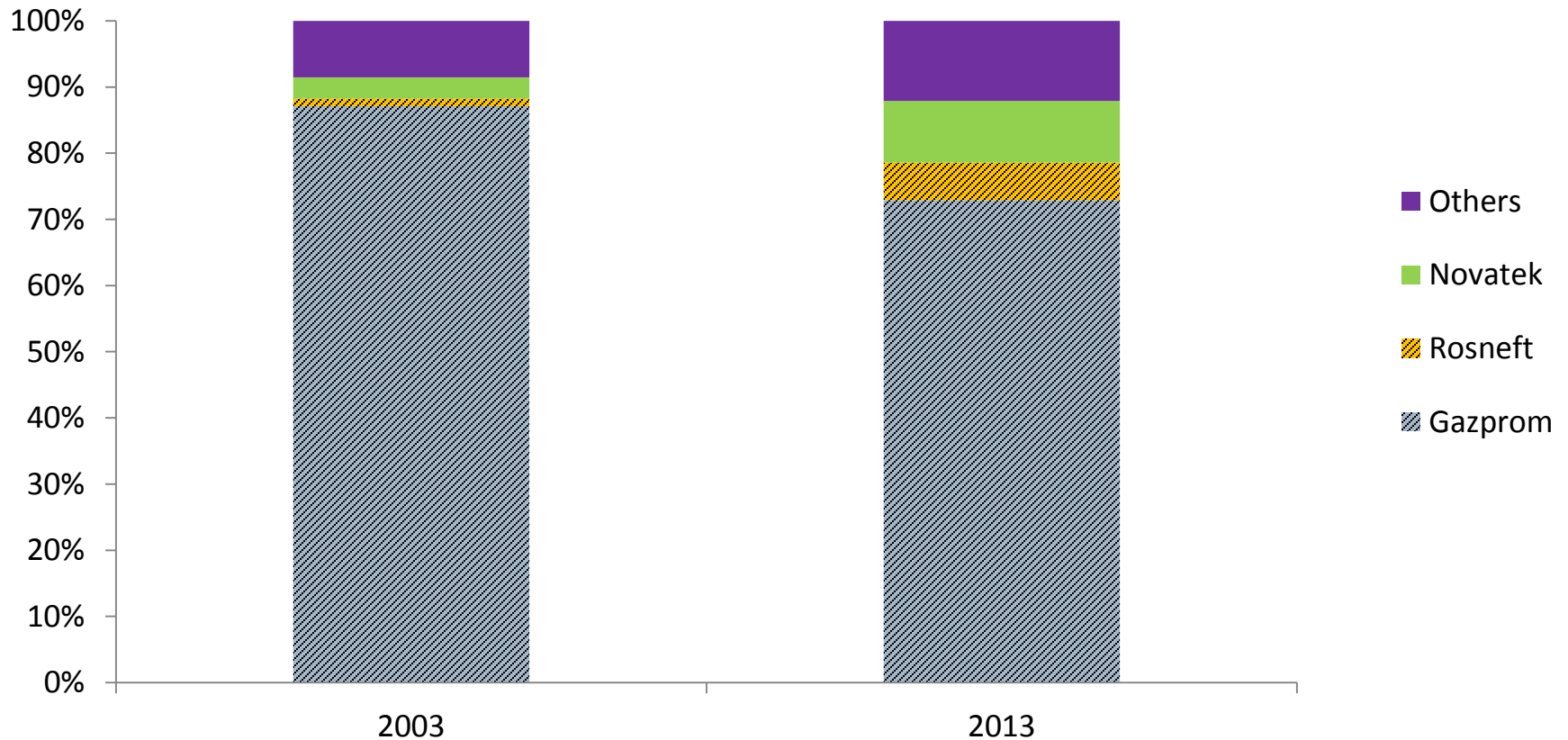


Key issues: tax reform is postponed again

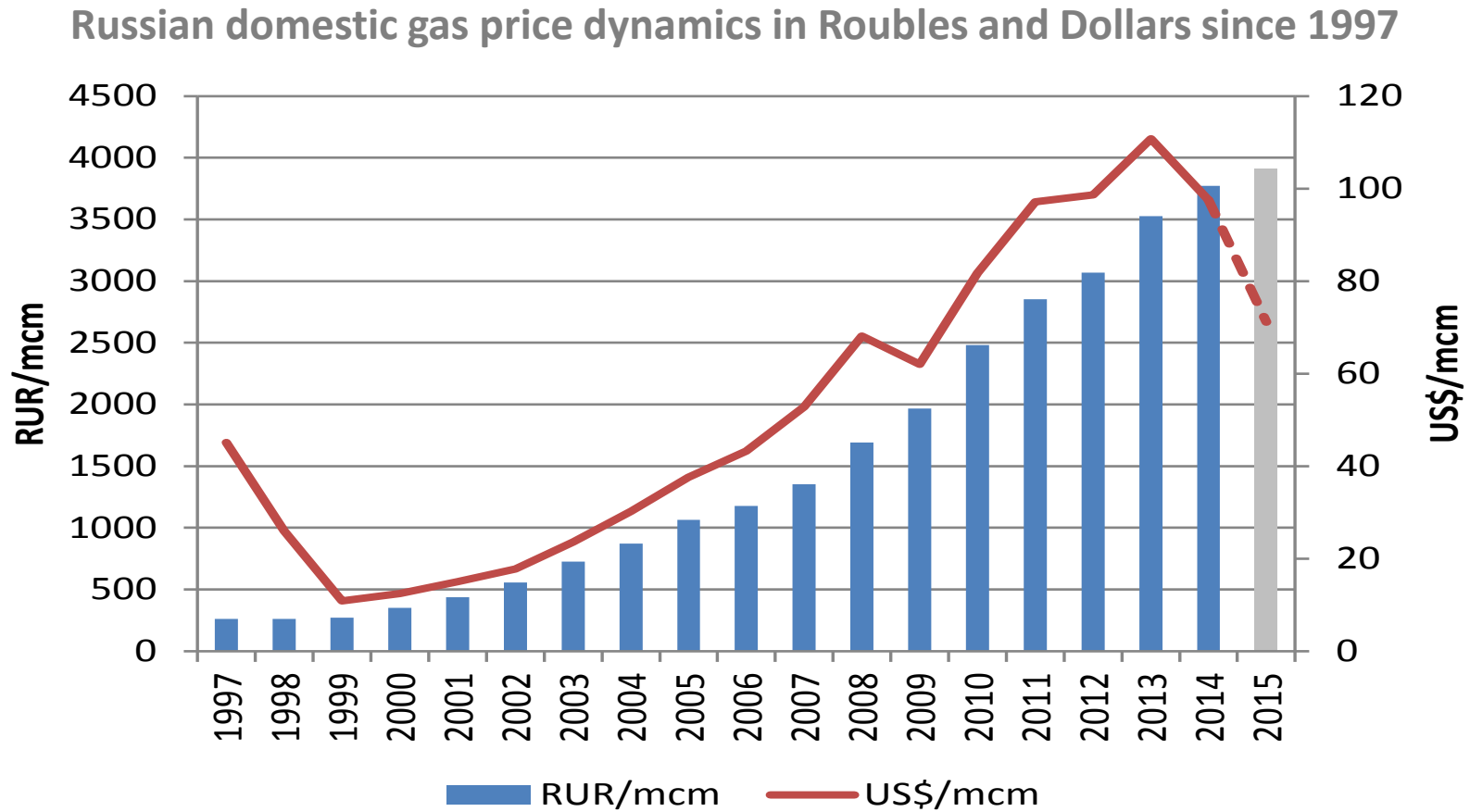
- ❑ The tax reform has been under discussion for at least a decade, as the current system of volume-based taxation creates no incentives at all for any modernization and for the development of smaller fields, hard-to-recover and unconventional oil.
- ❑ Oil companies suggest that the current system that takes away incomes of oil companies by taxing their revenues should be replaced with taxation of profits. However, the Finance Ministry is strongly opposing to this approach. In October 2015 at the Presidential Commission, it managed to postpone the reform until 2017. The Energy Ministry and oil producers were promoting an idea to carry out at least an experiment at a number of projects by taxing their financial results, but now even this step is questioned.
- ❑ Instead of changes in the fiscal approach, the sector encountered a Tax Maneuver adopted on the 14th of November 2014 that somewhat altered the rules of the game but absolutely did not amend the approach towards fiscal regulations in the oil industry. It includes a gradual reduction in the rate of export duties coupled with an increase in the basic rate of the Mineral Extraction tax in line with the Eurasian Economic Union synchronization process.
- ❑ In summer 2015 President Putin instructed the government “to work on channeling to the budget additional revenues of export companies, which they received thanks to the ruble devaluation”. An additional tax will be imposed by maintaining export duties at 42% in 2016, though it was previously planned to lower them to 36% in 2016 under the Tax Maneuver. Most likely the direct impact of this tax change is relatively minor, but the overall uncertainty of the taxation regime and fear of further tax changes definitely will further hurt investment.

During the last decade the gas sector started to see increasing competition, which notably is mainly driven by Rosneft, but market reforms are not likely to happen any time soon

Gas production in Russia by company, 2003 and 2014



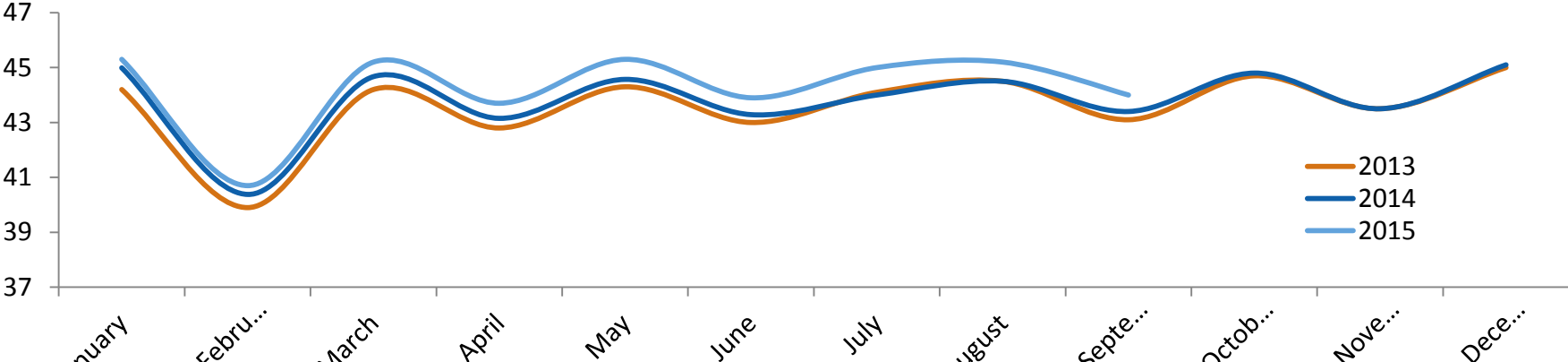
Key issues: gas prices are frozen again



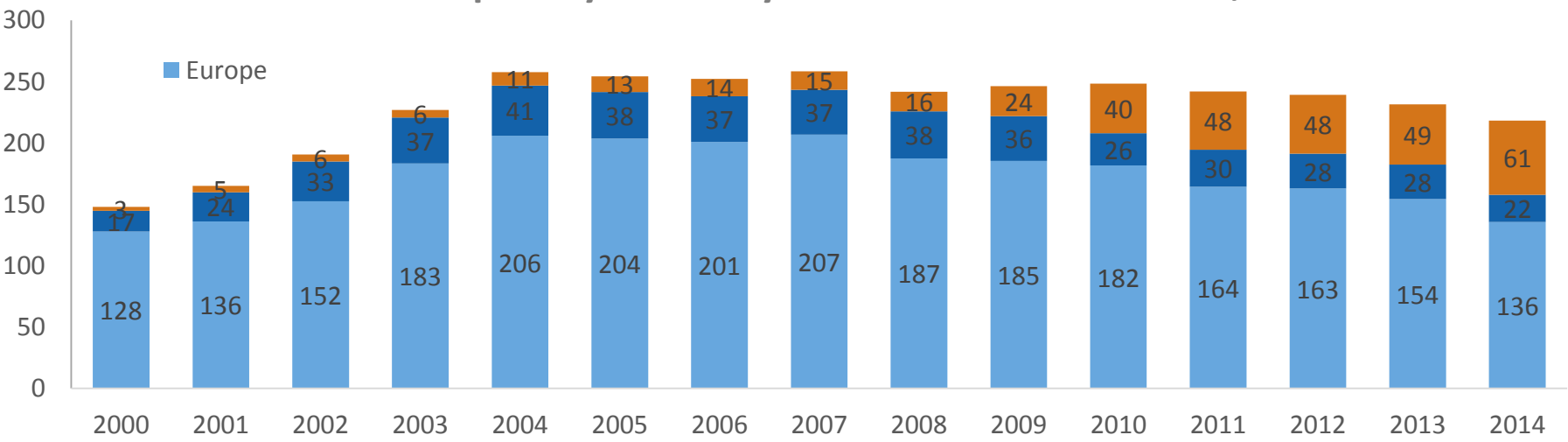
Source: Mitrova, Henderson, 2015.

Status quo: oil production and exports

Monthly oil production in Russia in 2013, 2014 and 2015, mln. tonnes

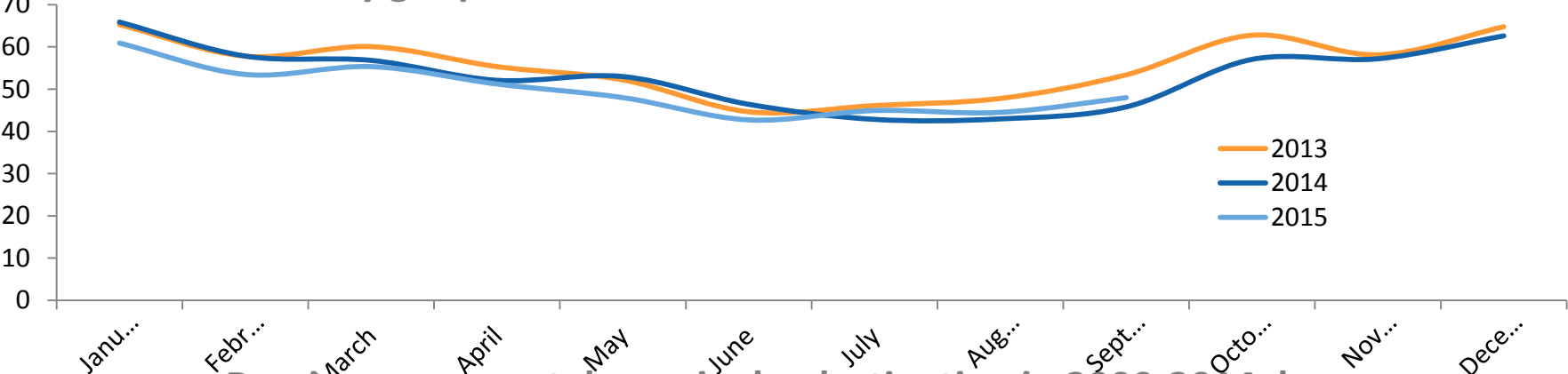


Russian crude oil export dynamics by destination in 2000-2014, mln tonnes

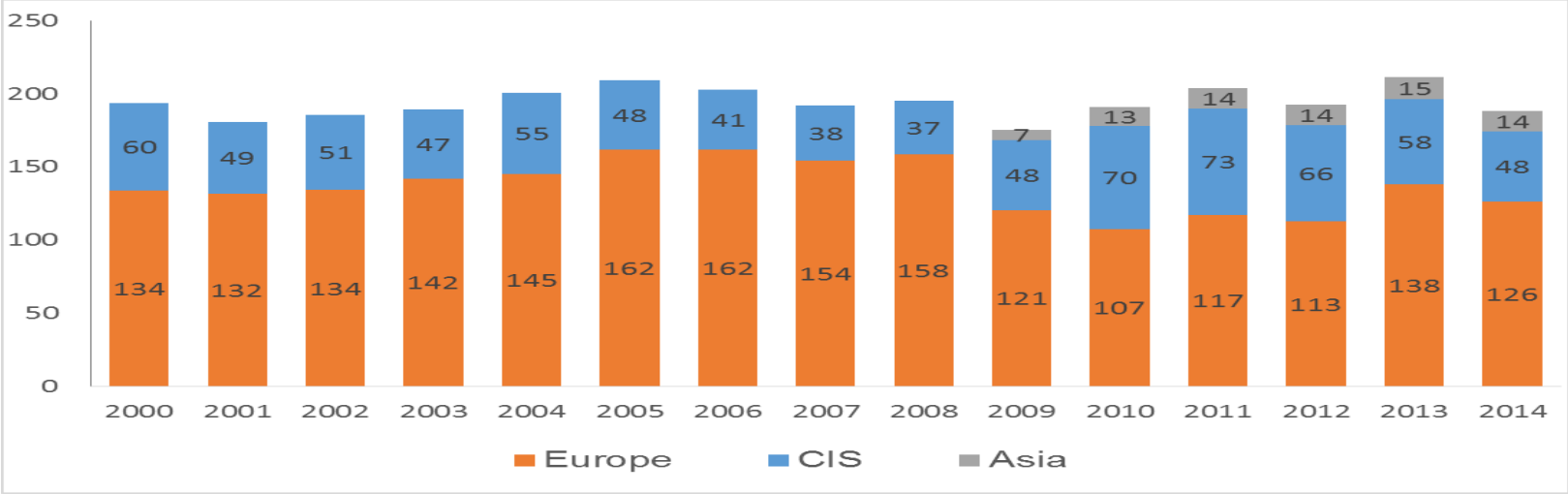


Status quo: gas production and exports

Monthly gas production in Russia in 2013, 2014 and 2015, bcm



Russian gas export dynamics by destination in 2000-2014, bcm



1

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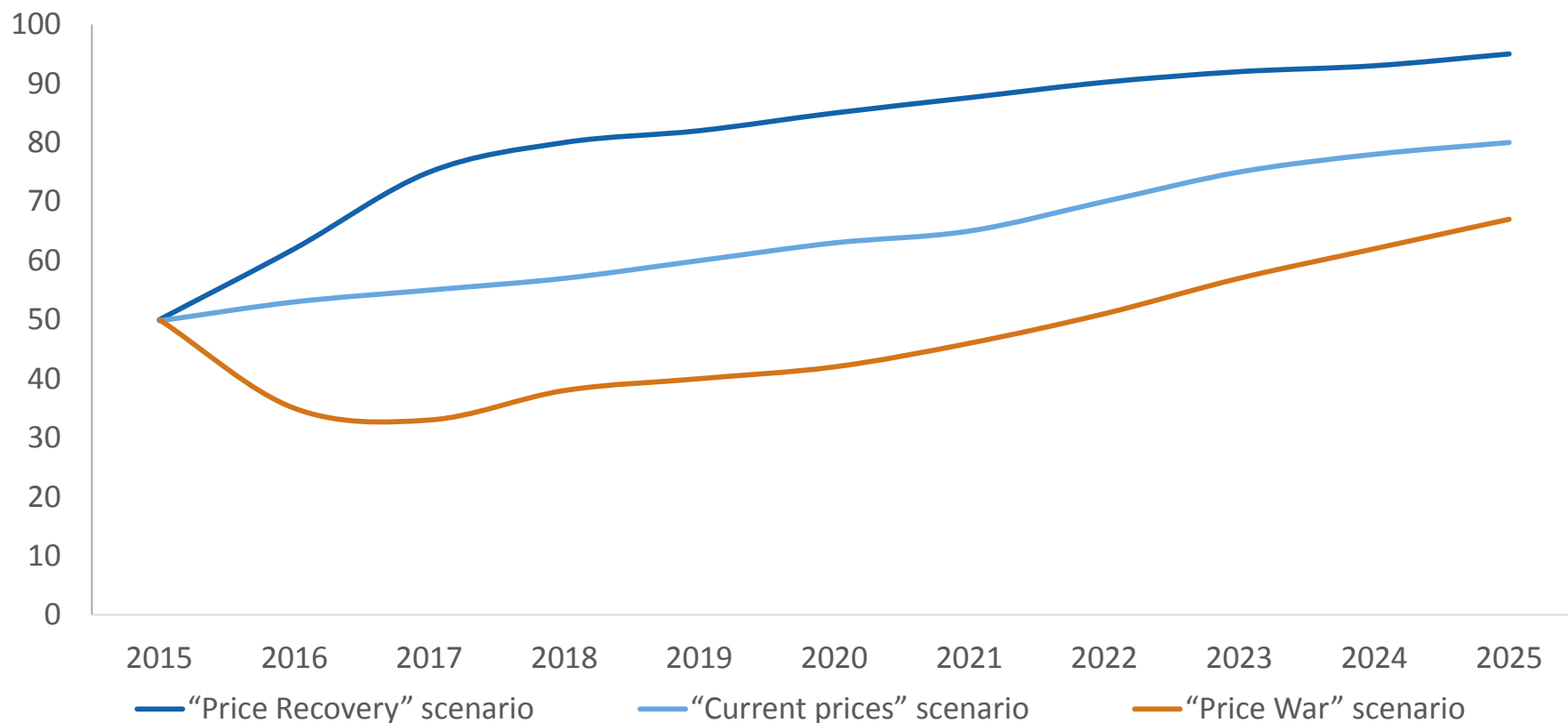
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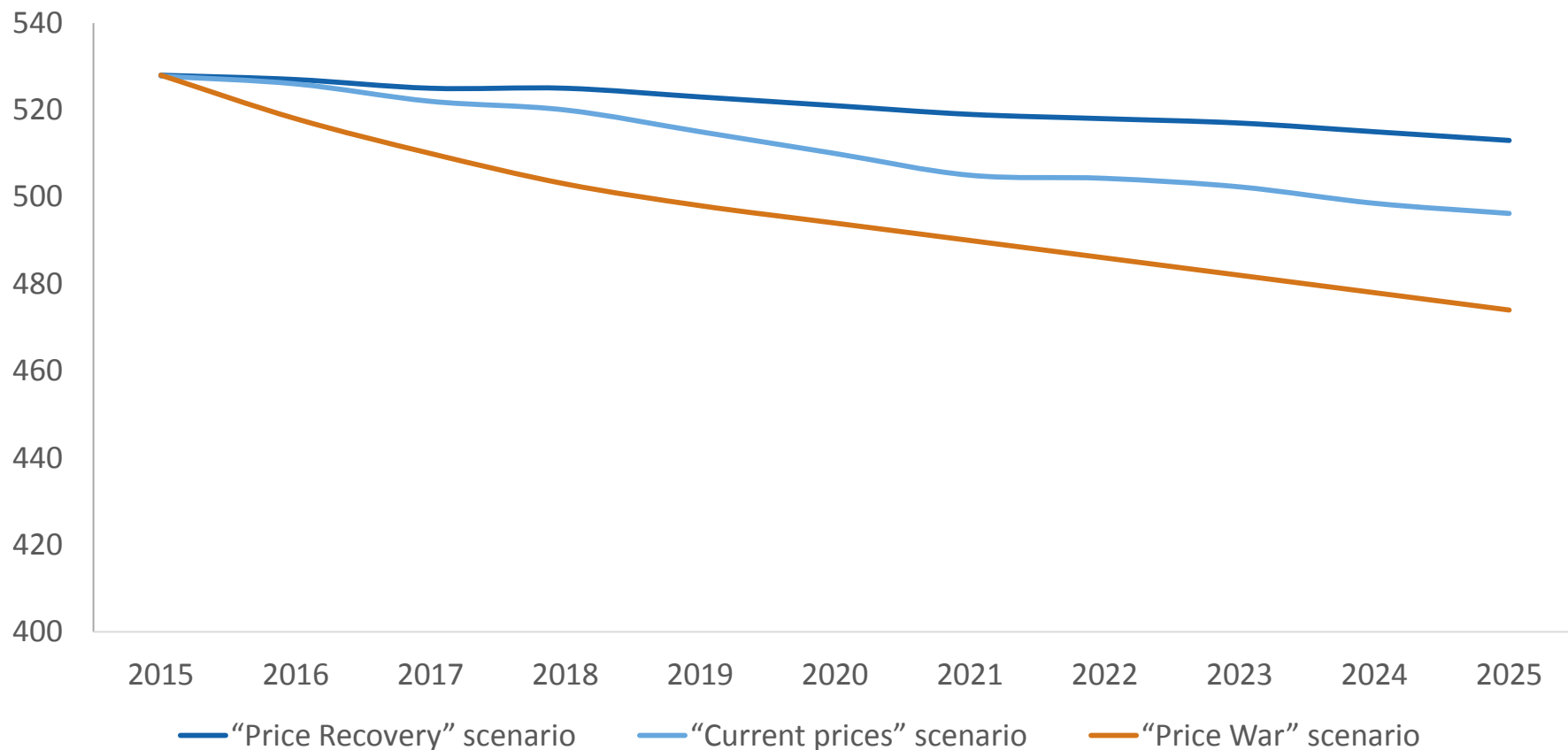
Three scenarios were regarded, which are covering more or less the whole range of the realistic price projections

Oil price scenarios (Brent, \$/bbl)



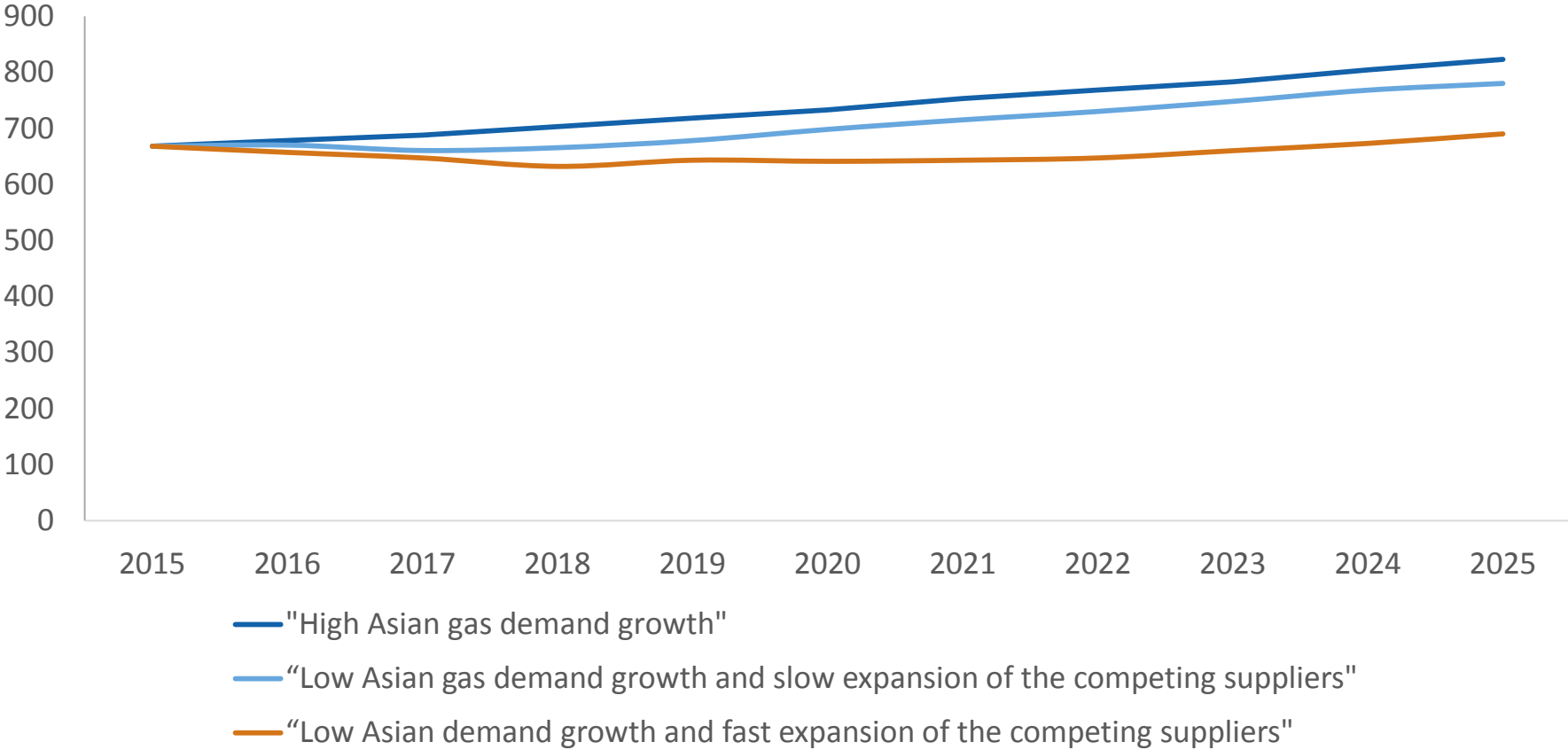
In all three scenarios Russian crude oil and gas condensate production is expected to decrease, but at a different rate

Russian oil production outlook , mln. tonnes



Russian gas production is constraint by the demand and limited infrastructure to transport gas to the East

Russian gas production outlook, bcm



1

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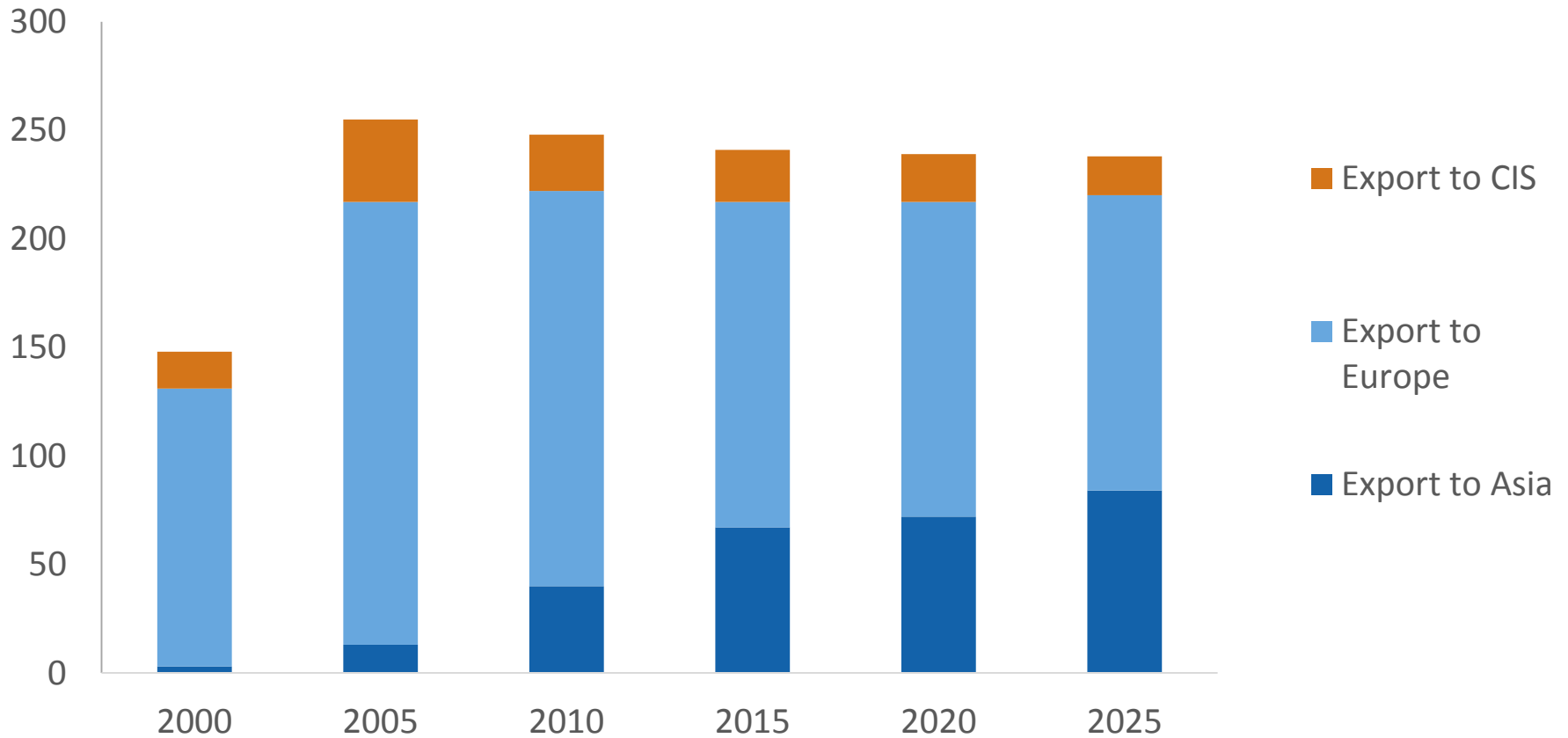
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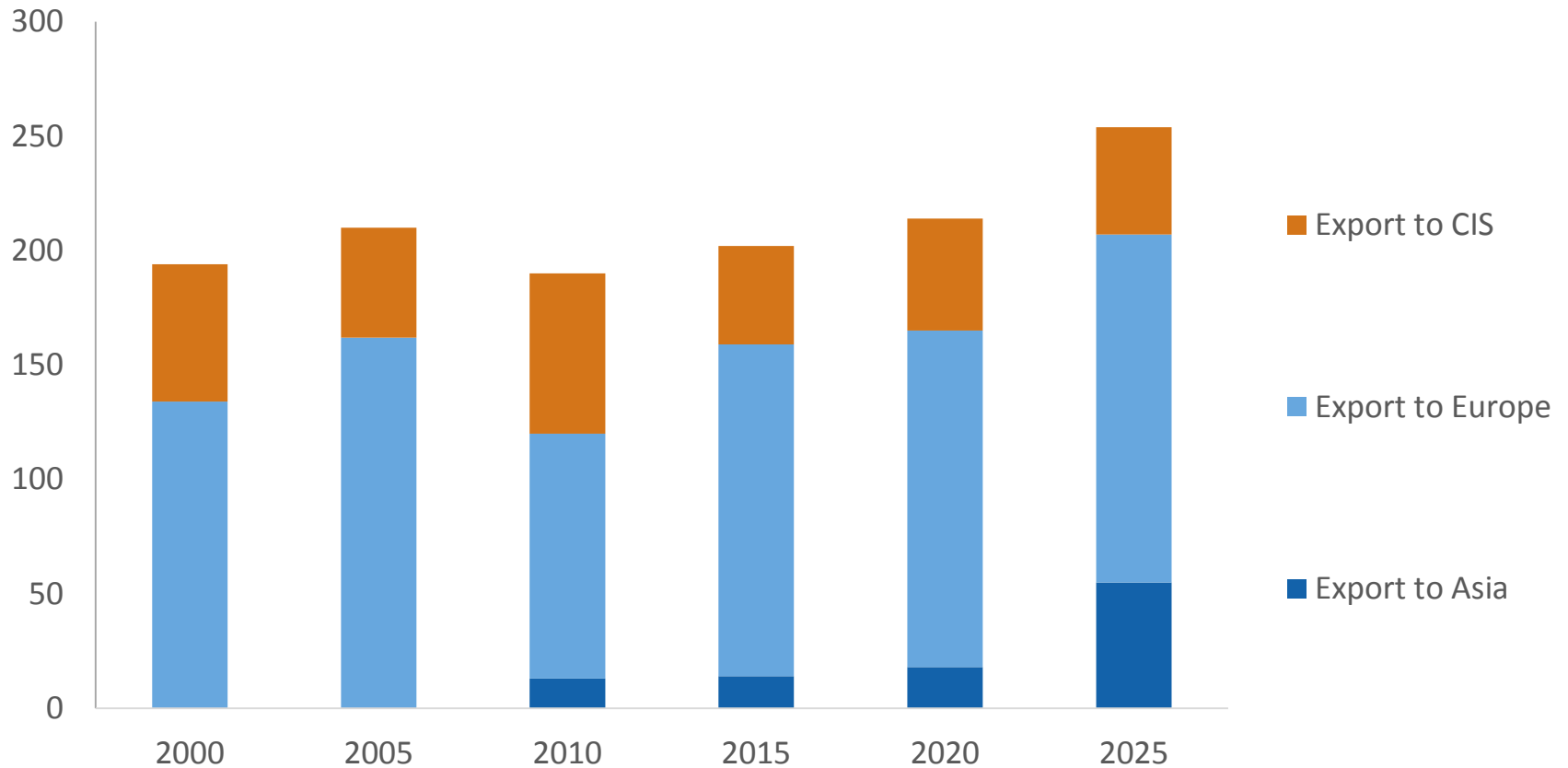
First stage: adaptation and severe competition in Europe, second stage – further expansion to Asia

Russian crude oil export forecast, million tonnes



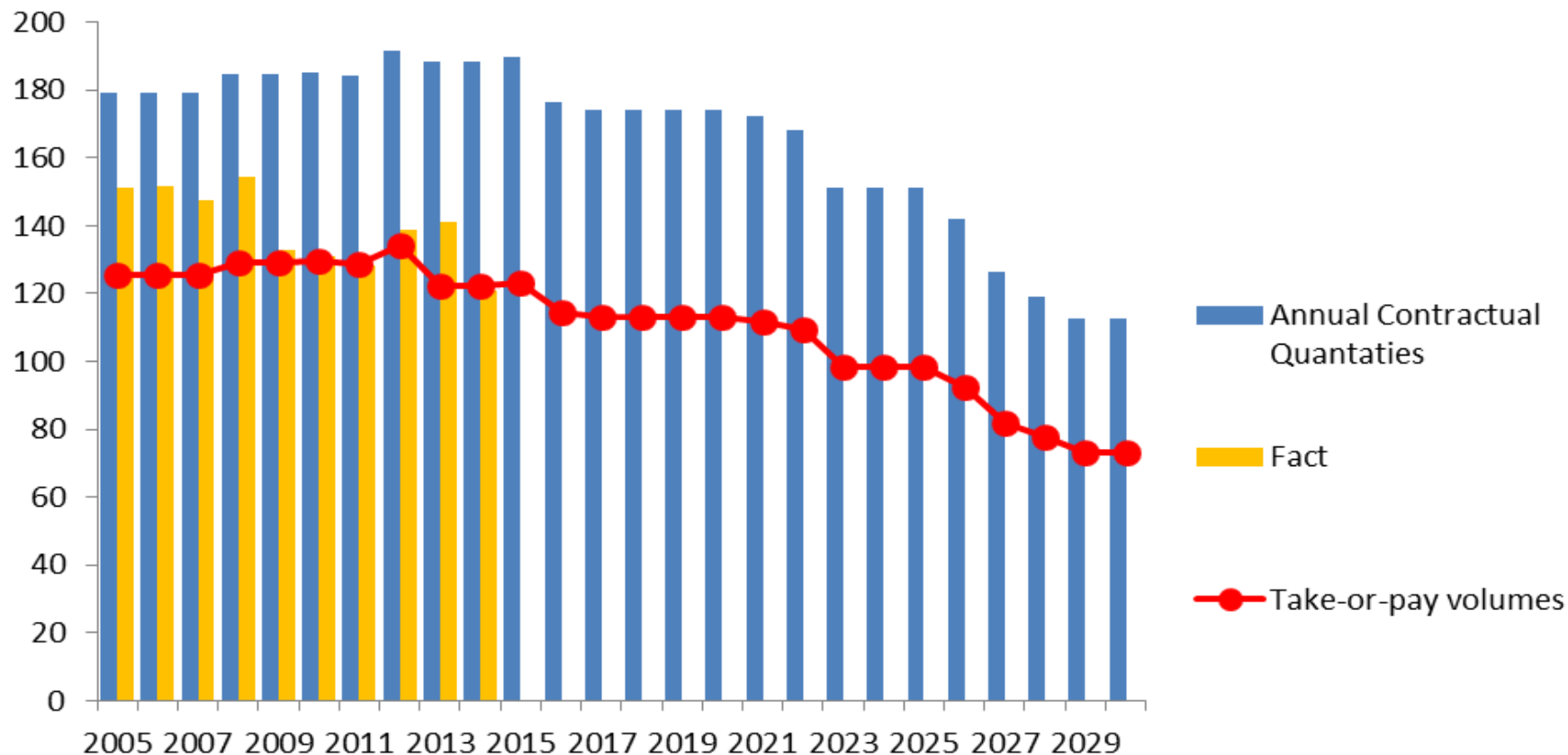
There will be some diversification of supplies towards Asia, but they will still be far below European export volumes

Russian natural gas export forecast, bcm



Export to Europe: existing long-term contracts guarantee stable sales volumes for Russia until at least 2022

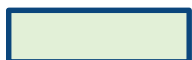
Contract volumes and supply volumes of Russian gas to Europe. bcm



Sources: Cedigaz, NEXANT, Russian Custom Service, ERI RAS.

Pipeline contraction plans are a sort of an endless improvisation, driven by the geopolitical desire to terminate Ukrainian transit, but the final decision will depend largely on the OPAL issue solution

	No Nord Stream expansion	Nord Stream-3	Nord Stream-3 and 4
No Turkish Stream	Transit through Ukraine ~ 60 bcma	Transit through Ukraine ~ 30 bcma	Transit through Ukraine 5-10 bcm
Turkish Stream 1	Transit through Ukraine ~ 45 bcma	Transit through Ukraine ~ 20 bcma	No transit through Ukraine if NS is completely utilized, otherwise limited Ukraine transit
Turkish Stream 1 and 2	Transit through Ukraine ~ 30 bcma	No transit through Ukraine if NS is fully used, otherwise limited Ukraine transit	No transit through Ukraine
Turkish Stream 1,2,3	Transit through Ukraine ~ 10-15 bcma	No transit through Ukraine	No transit through Ukraine
Turkish Stream 1,2,3,4	No transit through Ukraine	No transit through Ukraine	No transit through Ukraine



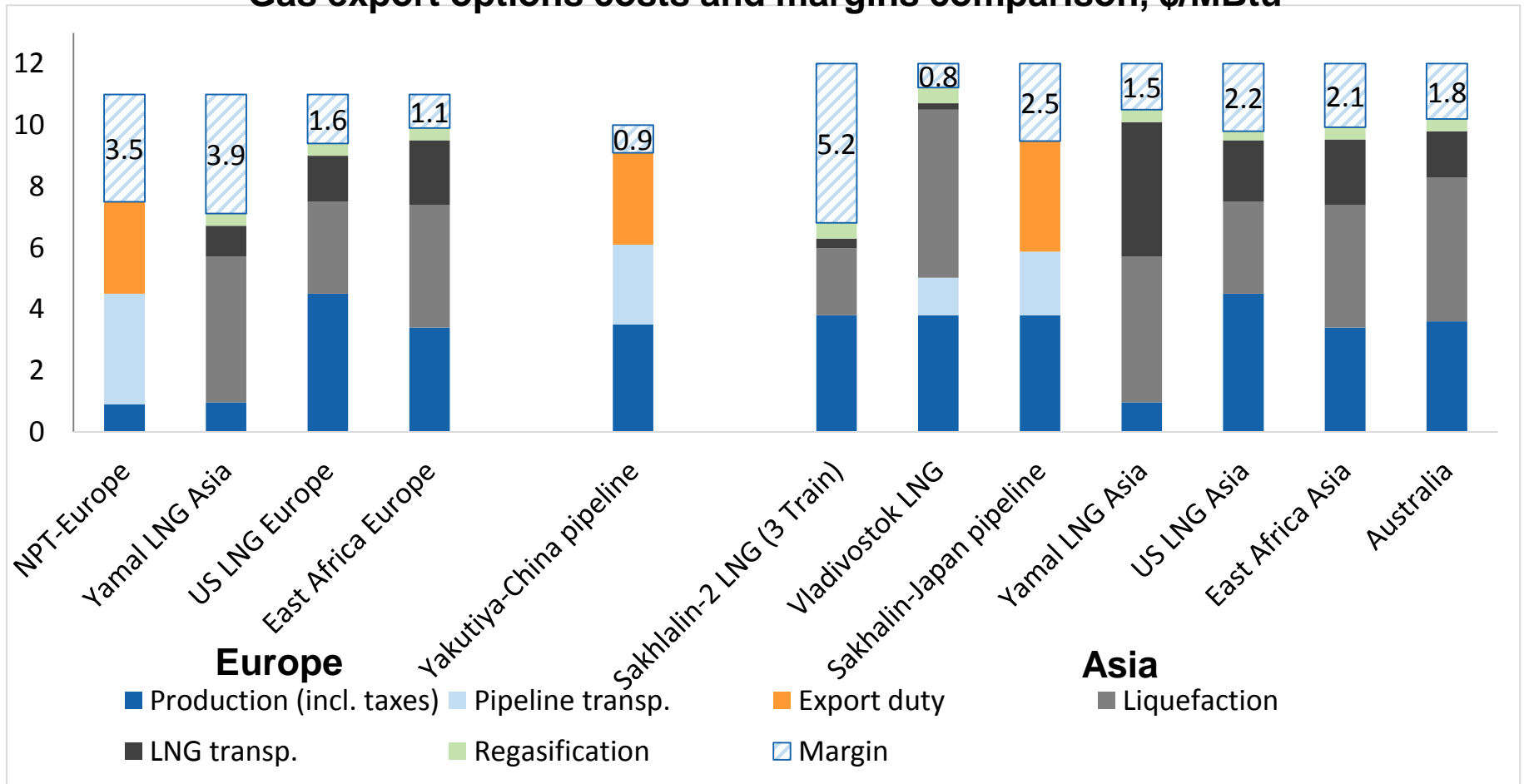
Higher probability



Lower probability

Global competition is increasing, but Russian pipeline gas export options are looking quite competitive

Gas export options costs and margins comparison, \$/MBtu



Source: ERI RAS