

Russian Refining Industry

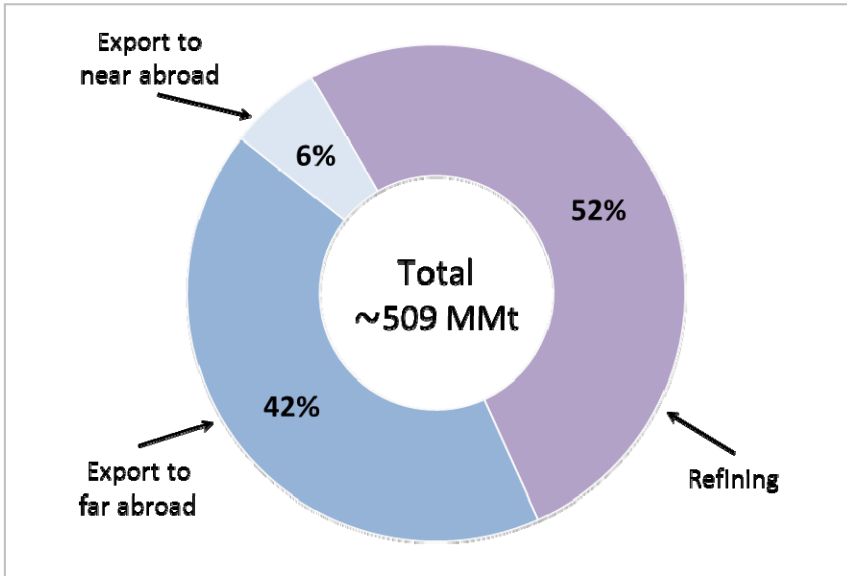
January 2012



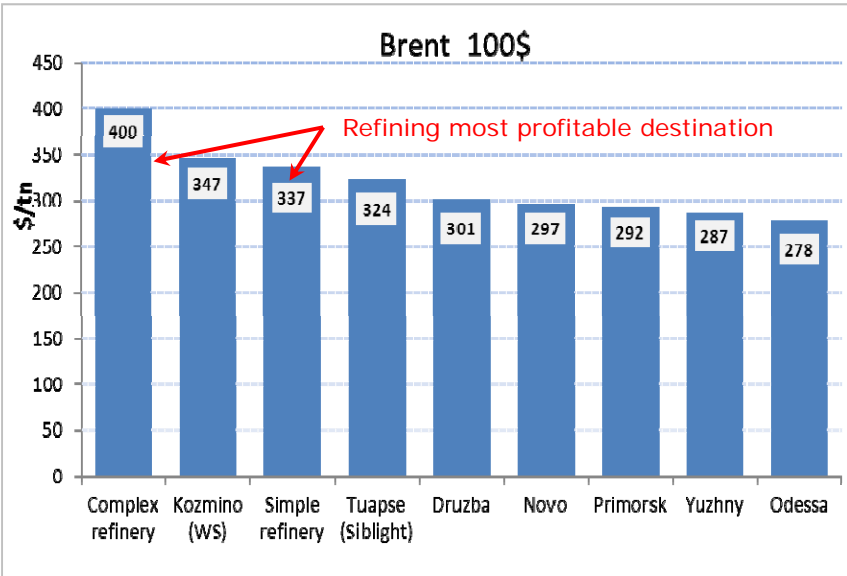
Russian Oil Market Balance



Russia crude balance 2011



Typical Crude Netbacks

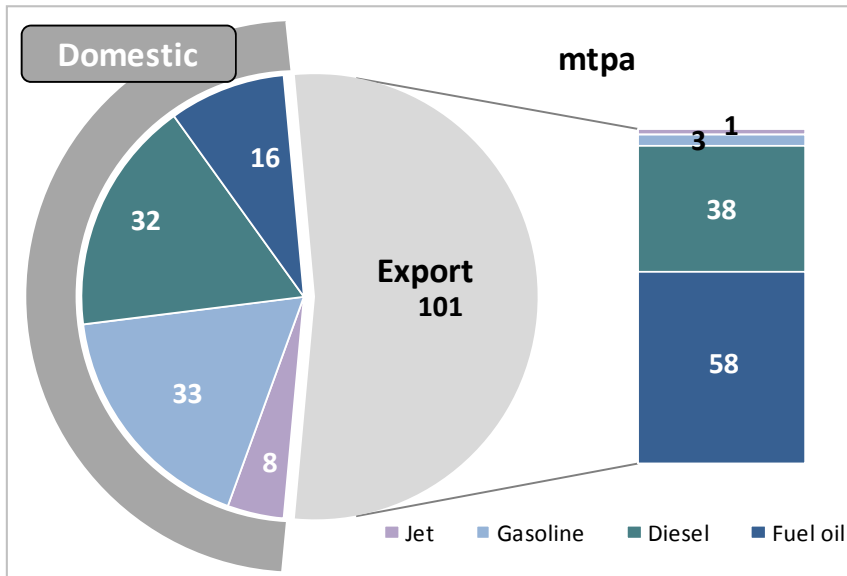


- In Russia, roughly 50% of crude is refined and 50% exported.
- Due to high netbacks the throughput via refinery is optimised. However, this is partly limited by Transneft complex system.
- Transneft export is also growing and becoming more diversified (ESPO)

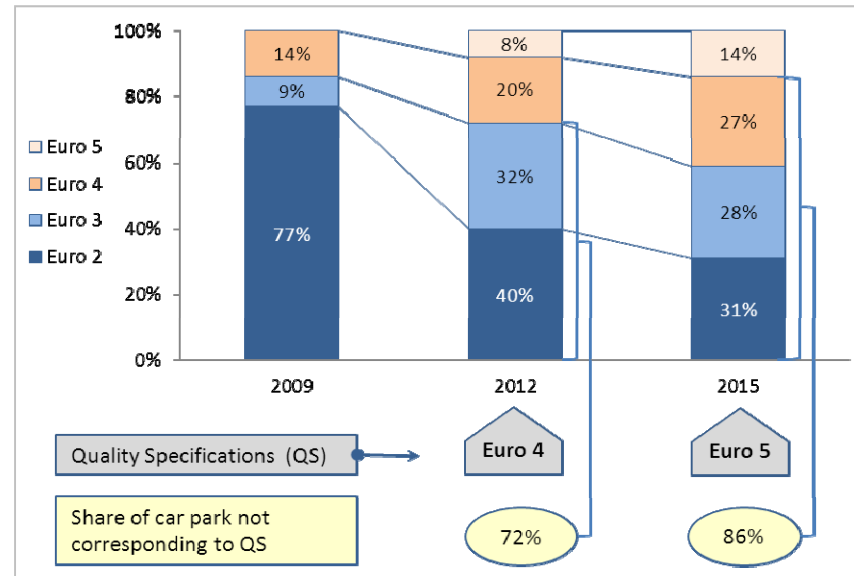
Quality Specifications



Russian key products balances 2010



Gasoline demand by grades in RF

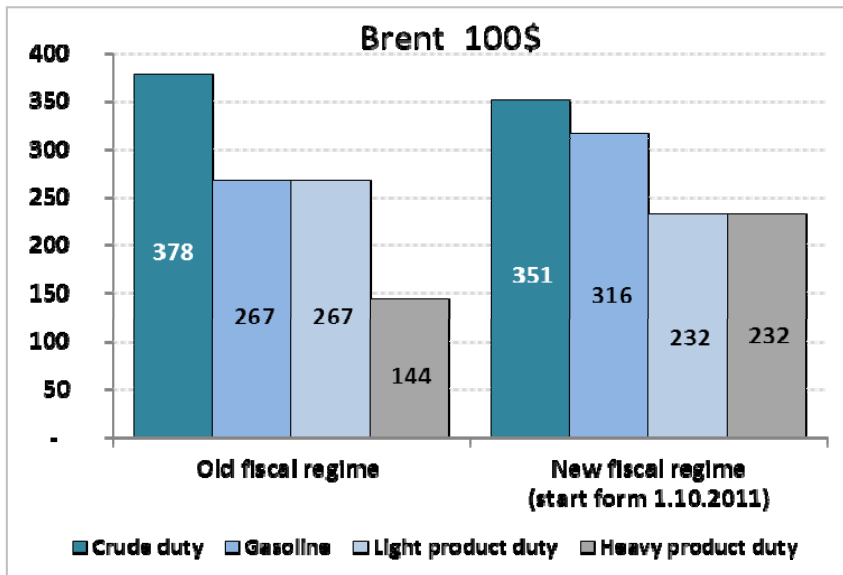


- Russia is not only long crude but also fuel oil and diesel. It consumes roughly 50% of produced diesel and only 20% of produced fuel oil.
- There is a big misbalance between engine requirements up to 2020 due to old car existence and the desire of the regulators to impose Euro 4 and 5 specifications.

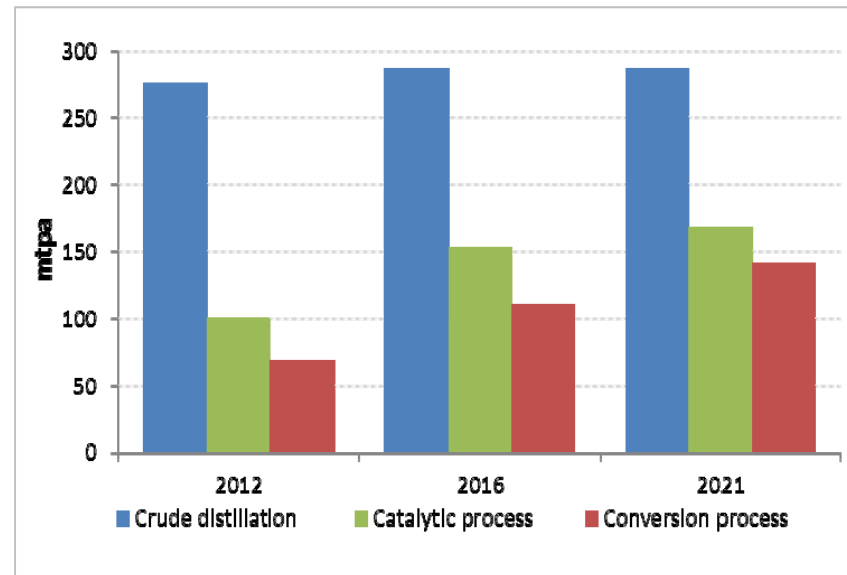
Fiscal Regime



Fiscal regime in Russia



Conversion capacity of Russian refineries

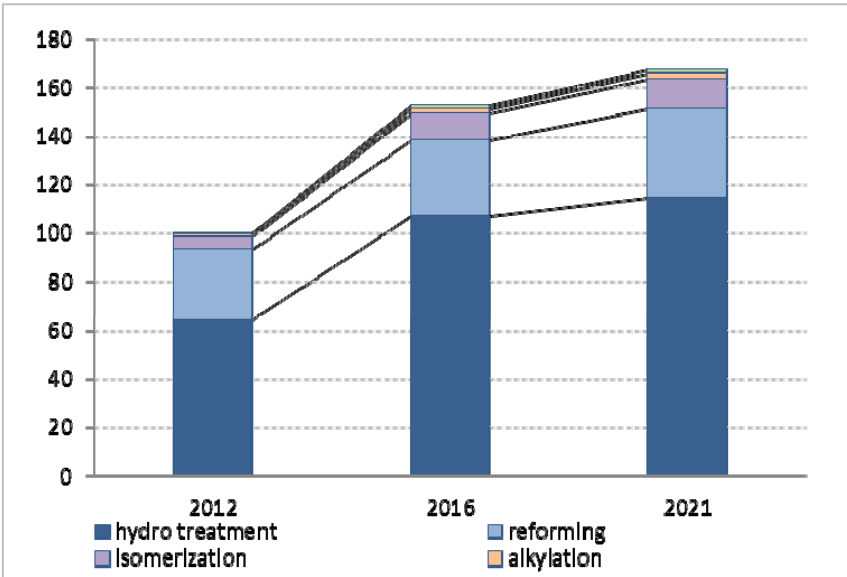


- A new policy was introduced in October 2011 to push oil companies to invest into refinery upgrades.
- This translates into the equalization of dark/light duty at 66% with the exception of gasoline at 90% of crude duty.
- This reduced refining netbacks however these are still better than crude export channel.

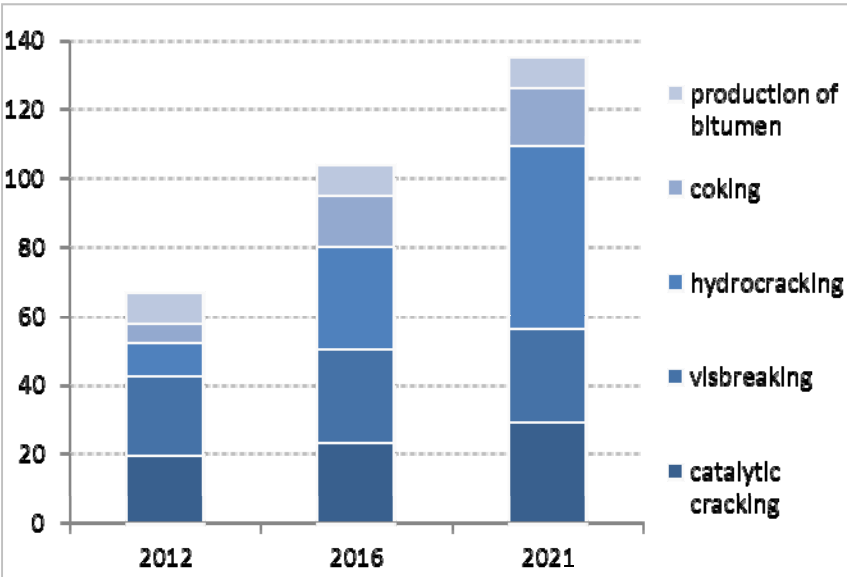
Modernization of Russian refineries



Capacity of catalytic process, mtpa



Capacity of conversion process, mtpa

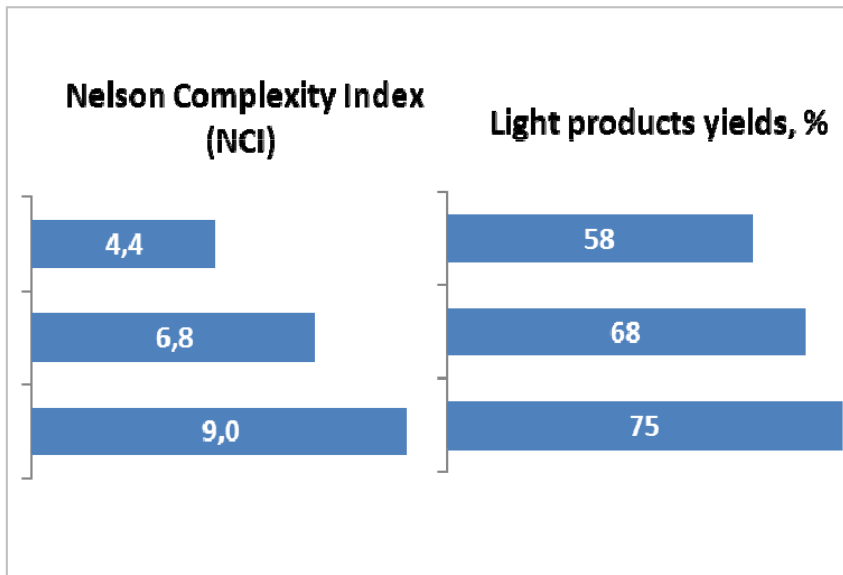


- The Russian oil companies have all signed up with the regulators to a modernisation program up to 2015.
- As a combination of this commitment and further investment incentivisation due to new duty policy, we forecast that the total capacity of conversion process will be multiply twofold by 2021.

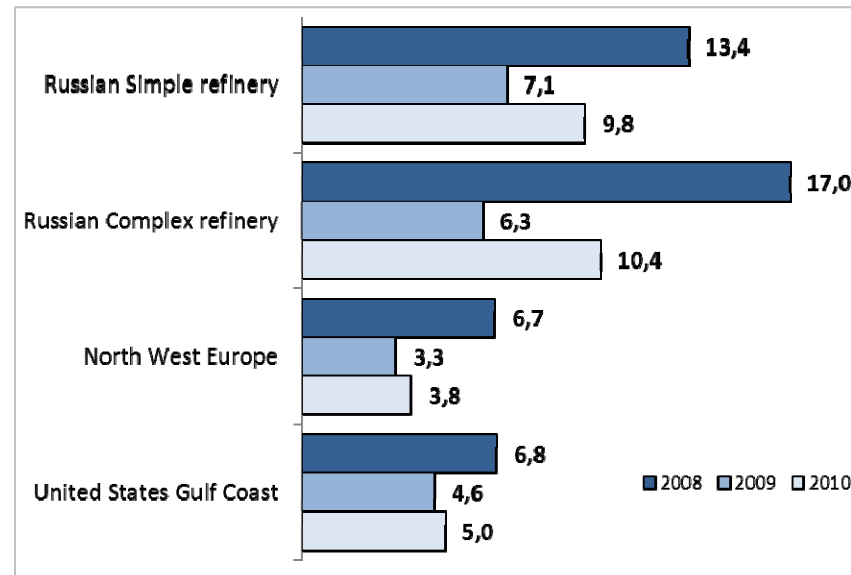
Competitiveness of Russian refinery Industry



Functional efficiency



Refining Margins \$/bbl



- Compared with western refining configuration, most of Russian refineries lag considerably behind in term of complexity index.
- This lack of inherent competitiveness is still largely compensated by the duty subsidies system when looking at refining margin.

Main obstacle facing the Russian refining industry to adapt their configuration to match western competitors



Although the Russian refining industry faces some key structural obstacles:

- A bureaucratic legislation e.g. compulsory turnaround every 2 years,
- Cumbersome management layers i.e. typical more than 9 layers between head of refinery and lowest shop worker,
- Culture of fear inhibiting employee to take personal accountability
- Corruption in procurement process
- Lack of quality of domestic equipment manufacturing supplier
- Lack of quality contractors
- Lack of proper safety behaviours,
- Lack of proper infrastructure i.e. electricity, road,...

The future is brighter than expected thanks to a still very good generic educational system and a very talented young future top managers benefiting from a double education i.e. top Russian university coupled with western MBA