Possible future of Russian and CIS oil production

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Oil output in Russia: where we are and where we could have been

Average daily crude oil production in Russia, million barrels a day

Source: Oil & Capital, Institute of Energy Policy estimate
If not the political interference, Russian crude oil output could have reached 10 million barrels a day already.
Shift in investments in 2003-2004: from domestic production development to foreign countries

Capital investments of the Russian oil producing companies in 2000-2004

Source: RosStat
What’s the reason behind slowdown of crude oil production growth?

• Hostile ownership changes

• Increase of oil export taxes in 2004

• Ban over private oil pipeline Western Siberia-Murmansk and remaining oil export pipeline bottleneck

• Speculation on ‘barbaric production practices’

• The Yukos case
Average daily oil production by companies, % to September 2004

Source: Oil & Capital
How may the Russian crude oil output behave in the short term future?

- Lukoil, SurgutNG, TNK-BP will probably continue moderate climbing
- SamaraNG, Tomskneft, Sibneft will continue to fall
- These two trends will most likely counterweight each other
- YuganskNG is luckily keeping good shape due to continuity of production enhancement practices started by previous owners
- Remaining assets of Rosneft (without YuganskNG and Severnaya Neft), Slavneft, Gazprom, Tatneft, Bashneft and Russneft will show no significant growth

- **The resulting picture allows to forecast nearly zero growth in the Russian oil industry in the upcoming 10-12 months**
Structural changes: share of the state’s control clearly grows. Who’s next?

The structure of Russian crude production

2003
- State-dominated companies: 12%
- Private companies: 88%

End of 2005
- State-dominated companies: 35%
- SurgutNG: 14%
- Private companies: 51%

End of 2006?
- State-dominated companies: 67%
- Private companies: 33%

- It’s clear that Gazprom is not demonstrating the ability to efficiently manage Sibneft. In fact, including Sibneft in Gazprom was initially a temporary solution, Gazprom was simply used as a ‘money bag’

- Sibneft and SurgutNG are managed by the people from the same clan. It is reasonable to expect that they may be prepared for the merger

- The ‘Big Three’ conglomerate establishment is possible, but Rosneft again appears to resist, like in the case of merger with Gazprom

- TNK-BP: so far, it seems that the ruling clan is too busy with consolidating and restructuring of already controlled assets...
Where are the largest Russian oil reserves located?

Distribution of Russian proved oil reserves by provinces, bln barrels

- Western Siberia: 50
- Timano-Pechora: 5
- Volga-Urals: 10
- Eastern Siberia: 3
- Far East: 2

Western Siberia will remain the most important Russian oil producing region for decades.

Source: Oil & Gas Journal
Eastern Siberia: not a very large new province

Forecast for crude production on Eastern Siberian fields, million metric tons a year

Source: Russian Ministry of Economic Development and Trade
The general strategic crossroads of the Russian oil policy

Brownfield age is expiring

Future of the oil & gas sector depends on greenfield development

New era requires new oil sector policies
Are Russian oil policies adequate to the new greenfield era?

- Green fields obviously require tax incentives
- Particularly long-term and capital consuming projects require restoration of adequate PSA regime

- State does not always make the most efficient development decisions
- Debt burden complicates new investment
- Corruption and non-transparency increase costs and threaten projects’ efficiency
- Russian financial system is not ready to provide long-term financing for capital consuming and risky projects as development of the new greenfield areas requires
- Russian companies do not possess the necessary technologies

Under present policies, successful development of new greenfield areas is questionable
Sakhalin oil & gas field development: typical hostage of out-of-time approaches

- Abolishment of PSAs in 2003
- Current tough taxation regime is not favorable for potential investors in Sakhalin, and only minor changes are being considered
- Reluctance to foreign direct investment and preferences given to ‘national champions’ (Rosneft, Gazprom), that are incapable of investing necessary long-term capital and technologies in Sakhalin projects
- As a result, only development of Sakhalin-1 and Sakhalin-2 projects, led by private foreign investors, is showing some progress
- **The development of Sakhalin-3-7 projects is delayed for an undetermined period**
Russian oil export pipeline infrastructure: the bottleneck continues to exist

Structure of Russian oil exports (including transit), mtoe

- **The Baltic:** shallow waters, icing, Danish straits’ marine traffic limitations
- **Druzhba:** a limited continental market with unfavorable pricing environment
- **The Black Sea:** Bosphorus traffic limitations
- **Other directions** are simply underdeveloped

Source: Institute of Energy Policy
The importance of Murmansk pipeline idea: a chance for Russia to escape the paradigm of being primarily a European oil supplier

- A perfect chance to establish new massive oil export channel to the U.S. market
- Shortest route from Western Siberia, which would still remain major Russian oil production region for decades ahead
- The only deepwater and non-freezing coastal area in European Russia
- Could have been commenced in 2006 to support Western Siberian production growth

- But the Russian authorities were reluctant to the idea to allow private capital to build and control a first-class export infrastructure like that
- Oil pipeline monopoly Transneft also did not want competitors to appear
- After all, the idea was limited to purely regional Timano-Pechora projects (Varandei, Indiga)
- Eastern Siberian pipeline does not help to resolve the export pipeline bottleneck problem for Western Siberia at all
East Siberian pipeline: no help to Western Siberian exports

- Taishet-Nakhodka pipeline project can hardly help the additional export of oil from West Siberia: the cost of oil transportation to the Pacific will range from $6.4/bbl (the official rate of TransNeft) to $10/bbl (our estimate).

- Due to project difficulties, it appears that after building a first line to Skovorodino (0.6 mbd) the project will rely on railroad exports to China and further construction may be suspended.

- This assumption is supported by the fact that there’s obviously not enough oil production potential in Eastern Siberia, the total production hardly exceeds 0.6 mbd by 2015.

- Sources of project’s financing are yet unclear, and neither of the oil producing companies had officially made any commitments to supply the oil through the pipeline.
New approaches to oil production taxation: [too small] a step in the right direction

<table>
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<tr>
<th>Decided by Government</th>
<th>Still no decision</th>
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<td>Tax discounts for depleted fields</td>
<td>Changes in progressive export taxation</td>
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| • Discounts are too small  
• Tax administration mechanism is unclear  
• Discounts for greenfields do not apply to Timano Pechora and the offshore fields in the final version of the draft law submitted to the Duma | • Key issue influencing the economics of oil exports  
• The solution is firmly opposed by Minfin |
| Tax exemptions for greenfield provinces | Changes in petroleum products taxes (domestic market excises, etc.) |
| • Amendments may die away in several years (when they actually would have to start to apply) | • Tax administration is, again, key challenge  
• The only real change might be the return to excise collection from refineries, which is a huge step back for the industry |
Progressive oil export taxation: high oil prices are not visible for companies

Share of the extraction tax and export duties in the export price of oil, 2004-2006, $/bbl

Source: Federal Taxation Service of Russia, Russian Government resolutions
Central Asian and Caspian oil exports: temporarily locked in ‘pipeline trap’

- 90% of Kazakh and 30% of Azeri oil exports are currently running through Russian territory
- Russian use of transit monopoly as a tool in competition imposes severe political constraints on the expansion of the Central Asian and Caspian oil exports:
  - resistance to the expansion of the Caspian Pipeline Consortium
  - last year’s withdrawal of Transneft from the contract with KazMunaiGaz related to supply of Kazakh oil to Mazeikiu Nafta
- Bosphorus bottleneck adds up more infrastructure constraints for the Central Asian and Caspian oil exporters in terms of further increase of exports
- New pipelines (BTC, Atasu-Alashankou) start to get commenced, but broader diversification will take time
The Caspian division dispute: no end in sight

• Iran had been consistently reluctant to finding the compromise solution

• This is unlikely to change unless a more responsible government will come to power in Iran

• Bilateral agreement approach chosen by Russia almost excludes the possibility of a successful return to the five-nation treaty format

• This will seriously complicate both further exploration and development of oil reserves in the Azeri and Turkmen areas of the Caspian sea, as well as construction of trans-Caspian pipelines
Brief conclusions

- Oil production growth era in Russia is over. This is not due to the ‘plateau’ yet, but is driven by economic policy constraints.
- Constraints remain, so the production will be more or less flat in the upcoming months.
- Asset redistribution will, in the upcoming period, concentrate around regrouping of companies already linked to the state.
- New taxation ideas are positive but rather ‘symbolic’.
- Eastern Siberia’s input to the industry’s development is probably overestimated – this is not an oil region.
- **Like the rest of Russia, oil sector is switching from investment and development model to a rent-seeking model and cyclical redistribution of control.**
- Development of Central Asian and Caspian oil resources may be delayed due to infrastructure and political constraints.