



Russian oil – challenges and possibilities

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After Russian oil production had fallen to a low of 303 million tonnes per year in 1996–8, production picked up rapidly – some years showing an increase exceeding 10 per cent – until 2004 when it reached 459 million tonnes. Among observers of the sector there had been a debate about Russia's ability to sustain the output level, sceptics arguing that the impressive growth was caused mainly by forced exploitation of existing fields with the use of new technologies, with Yukos in the forefront, and that this could not continue due to exhaustion of the fields. In fact the rate of growth fell drastically after 2004, growth continued, however, with output reaching 523 million tonnes in 2014, getting close to the record levels of the mid-1980s.

Declining recovery rate

Clearly it was possible to produce more from existing production regions, especially in West Siberia, since few major new fields have been put into production. In that sense the most alarmist prognoses have been proved wrong. The question of sustainability nevertheless remains, but the focus has shifted from volumes to revenues. The Russian oil sector may not face an imminent decline, but the cost of keeping up production is soaring. And production in West Siberia – the mainstay of Russian

oil production, with 60 per cent of total output – is now declining.

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The average size of fields that have been discovered in recent years is just a fraction of what it was in the 1980s, the composition of the reserves in the fields is more complex than in earlier ones, and many of them are located far from existing infrastructure. All this spells increasing production costs. Another indication of underlying problems is the falling recovery rate (the share of the resources in a field that will ultimately be extracted) which is now under 30 per cent. This means that two-thirds of the resources will remain in the ground. This rate of recovery is considerably lower than in other mature oil producing countries. It is also uncertain if a large share of reported reserves is commercially recoverable.

Even if Russia has enormous resources in the ground, it takes a considerable time to explore them to a level where production can start. A common estimate is that it takes between 10 and 15 years from identification of potential areas to the start of production. For many years, exploration in Russia was

neglected. Thus Russia faces the dual challenge of making exploitation of existing fields more efficient while also exploring in new areas.

Role played by taxation

Efficiency is related to framework conditions as well as to industry structure. The Russian taxation system is dysfunctional for resource management; prescribing a flat tax rate on revenues, it discourages production of the marginal resources in a field. It is easy to see that a more flexible, income-based taxation system, one which could incentivize better utilization of resources, could be designed. This is also acknowledged by the resource authorities, in principle. However, the present system, which has a purely fiscal approach, also has its merits. It is easy to administer and secures government revenues in a predictable way. A more sophisticated system would be more prone to manipulation, and the Finance Ministry fears a shortfall in tax revenues, at least in the short term. Nevertheless, the government is preparing pilot projects for income-based taxation. The most striking feature of taxation policies over the last few years, however, has been the special agreements and tax exemptions to encourage development

of new provinces. In that sense, it is fair to call the system negotiable.

Structure of energy industry

The industry structure is changing, but not in the direction one would expect given developments in the resource base. In other mature petroleum producing countries, notably the USA, a more heterogeneous resource base with smaller fields has been accompanied by a diversification of the industry structure. Not so in Russia. The share of smaller independent companies has been decreasing and production is now totally dominated by a group of vertically integrated companies, Rosneft alone accounting for 37 per cent. This concentration means that there is less flexibility and creativity in tackling small and complicated deposits, but the development is in line with Russian policy which never has attributed a special role to smaller companies, relying instead on majors – increasingly dominated by the state.

Much has been said about the opening of new regions, particularly East Siberia and the Arctic continental shelf. An important attraction of this line of thinking is that it fits with the industry structure – big projects, big companies. Proposals for developing oil in East Siberia have been put forward over many years, based on geologists' assessment of a very rich resource base. Resources are definitely there, but not in the concentrations earlier anticipated. The huge Vankor field, which started commercial production in 2009 and is expected to reach a plateau level of 25 million tonnes annually, is geographically in East Siberia, but geologically it belongs to West Siberia. Many smaller projects are under development, but the challenges are substantial, with vast distances and a harsh climate. Recent estimates downplay the potential of this region in the next few decades, estimating an annual output not above 45 million tonnes

between 2020 and 2030, up from about 35 million tonnes today. The Russian Far East may provide some 30 million tonnes, up from 14 million today, mainly from Sakhalin offshore.

Arctic fields

The Arctic – and especially the offshore – has been touted as being Russia's resource base in the twenty-first century. Geological indications of huge resources in big concentrations would seem to offer an attractive solution to Russia's search for new production capacity. Geological surveys have been carried out from the 1970s and some exploration drilling from the 1980s, but the region has only really been promoted in policy documents since 2000. Nevertheless, development has been slow. Whereas reference is often made to a total of 70 billion tonnes of oil equivalent on the Russian continental shelf, only 10 per cent of this has actually been discovered. The biggest concentrations are in the Barents and Kara Seas, and most of this is natural gas. One important reason for the slow development is that the Arctic offshore has a more pressing need for cooperation with foreign companies than the traditional onshore areas. This fact collides with a perception among Russian policy makers that the region is strategically important, and that it is especially important to keep activities tightly under Russian control. This view was reflected in the 2008 legislation which granted a monopoly on offshore operations to the state-dominated Rosneft and Gazprom, which was followed by generous licensing of offshore acreage to the same companies. But both Rosneft and Gazprom were busy onshore and had little or no offshore experience. They were not inclined to take big risks launching costly Arctic projects, despite exhortations from the Ministry of Natural Resources, which has a responsibility for resource development. With monopoly positions enshrined in law they could

safely regard the Arctic offshore as a longer-term option. However, political pressure to see some developments offshore increased, and a formula was eventually found making it attractive for foreign companies to take minority positions in joint ventures with the Russian licence holder – in practice, Rosneft.

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Collaboration with foreign companies

Recent Russian offshore licensing practice involves huge areas, rather than selected blocks as the custom is elsewhere, and leaves resources management to the licence holder. Rosneft has set out to explore these licence areas with the help of foreign companies.

The first deal was made between Rosneft and BP for a licence area in the Kara Sea, but this fell apart due to the conflict between BP and its partners in TNK-BP, and the project was taken over by ExxonMobil. The final agreement was only signed in April 2012 after then Prime Minister Putin had promised substantial tax concessions (which were written into law in the autumn of 2013). Shortly after that, Rosneft signed deals with ENI to explore and subsequently develop resources in the southern part of the previously disputed area with Norway in the Barents Sea; a few weeks later, a similar agreement was made with Statoil for the northern part, as well as for three blocks in the Okhotsk Sea. In 2013 the agreement with ExxonMobil was extended to include licences further east in the Kara Sea as well as in the Laptev and Chukchi Seas. Altogether, about 850,000 square kilometres of Russian Arctic offshore acreage is now included in these cooperation agreements, 760,000 with ExxonMobil



alone. The deals offer Rosneft a free ride for a few years, since the foreign partner will cover all the costs in the geological prospecting phase (seismics) and for a certain number of exploration wells.

Future investment priorities

A strange interdependence has emerged. Russia has admitted that it is very dependent on foreign companies for development of the Arctic offshore. The foreign companies which have been invited in are contributing vast sums, but will be dependent on the investment priorities of Rosneft, and Russia, if discoveries are made.

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But what could those priorities be? Russia’s dependence on oil revenues is already very high and is likely to increase with the ongoing political turmoil, with its reverberations for the economy. The outlook for gas exports is bleaker than before and the promise of a broad modernization of the economy, as envisaged by former President Medvedev, does not look imminent. In such circumstances, Russia may no longer be able to afford to choose high-cost projects – attractive for political and prestige reasons – when higher state revenues could be secured by reforming resource management policies and consumption. The political problem is that large-scale reform – which would imply more competition and transparency – could threaten the present Russian power structure, with its close connections to the giants in the energy sector. While the economic

logic points in the direction of reform, the tense international situation is also used as an argument by others, such as Igor Sechin, for the opposite. This would mean more centralization, more limitations on foreign investors, and an even more dominant role for Sechin’s company, Rosneft. Although a few years of economic decline could change this, it seems that Sechin’s arguments are carrying the day so far. This could mean that large offshore projects are postponed while Rosneft concentrates on lower-hanging fruits, including perhaps some unconventional oil. Radical reforms, with the creation of new policies and institutions that both satisfy political interests and produce better economic results, are not on the horizon.

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