If Russia is a petro-state, it is a rather unusual one. It exports metals, nuclear reactors, weapons systems and, in most recent years, grain, as well as hydrocarbons. Its economy is, despite its leaders’ current insistence on the need to modernize, moderately developed and diverse. It is, furthermore, an exception among major oil exporters in that most (about 60%) of its oil production is by private firms; a monopoly national oil company has not been created.

At the same time, it does have several of the traits of a petro-state. Figures for the first half of 2010 show exports of crude oil, oil products and natural gas making up 64.9% of its total merchandise exports; identified state revenues from oil and gas make up 48% of the federal budget revenue planned for 2010; in 2009 exports of oil and gas were equivalent to 15% of GDP.¹ And if private enterprise still bulks large in Russia’s oil industry, the political leaders exert plenty of influence on those private Russian oil companies, and the presence of international oil companies is restricted.

In this chapter we will consider how this semi-petro-state operates: what the role of oil and gas in the economy is, how sustainable present arrangements are, and what state policies on the hydrocarbons sector, including “modernization” plans for the whole economy, amount to.

The role of oil and gas in the Russian economy

It is commonly said that Russia’s recent growth has been driven by rising oil prices. This is true, but it is useful to explore the connection a little further. A rise in the oil price or any other price obviously cannot raise real (that is, inflation-adjusted) output levels in any direct way. What an oil-price rise does do for an oil-exporting nation is (other things equal) improve its terms of trade, giving its government, firms and households greater purchasing power over imports; it also tends to raise real incomes, so long as not all the increased hydrocarbon revenue is “sterilized” by being taxed and diverted to a sovereign wealth fund. In the absence of total sterilization domestic demand is raised, pulling in more imports but also increasing demand for domestic production. Provided the domestic economy is capable of increasing supply, domestic production will rise.

This is what happened in Russia for most of the inter-crisis period, 1998–2008. Growing capital and labour inputs and rising productivity were an important part of the story, but rising
Oil prices provided the stimulus on the demand side. The connection between changes in the oil price and changes in GDP was modified from 2004, when the government stabilization fund was set up, but it was by no means eliminated. The annual data in Figure 22.1 illustrate this link.

So far as Russia’s macro-economic dynamics are concerned, oil is the key fuel. It provides far more export revenue than does gas; and Russia’s gas export prices are (with some recent modifications, to be discussed later) based on the prices of oil products, under the terms of long-term gas supply contracts. In 2009 Russia was the world’s largest producer of oil and the second largest producer of natural gas. At just over 10mbpd it accounted for a little over one-eighth of world output of crude oil. Its gas output of 527.5bn cubic metres (bcm) amounted to 17.6% of the global total, just behind the USA’s 20.1%. In tons of oil equivalent, Russian oil and gas production levels are closely similar. But Russia utilised nearly three-quarters of its gas production domestically and only one-quarter of its oil output. In 2009 gas accounted for 55% of Russia’s domestic energy usage, compared with just under 20% for oil. One reason for this is that gas is the leading fuel for Russian power stations. Far more oil than gas, accordingly, goes to export. The gap between oil production and consumption is illustrated in Figure 22.2.

In recent times Russia’s foreign earnings from oil have been of the order of four times those from gas. It is the non-fungible nature of gas supplied through pipelines, not the scale of Russian gas exports, which makes Russian gas a far more sensitive energy security issue than Russian oil (see Chapter 25).

It can be seen that the output of oil grew more rapidly in 1999–2004 than subsequently. In the earlier period a number of businessmen from the financial sector moved into the oil industry, taking over assets and establishing particularly dynamic oil firms: Yukos, Sibneft and TNK. They brought in western oil-services companies as contractors to boost extraction rates, rationalized their businesses and secured an acceleration of petroleum output. Surgutneftegaz

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**Figure 22.1** Russia: GDP and the oil price 1998–2010

*Sources: Average unit value of crude oil exports outside the CIS from the Central Bank of Russia.*
and Lukoil, also private but still run by Soviet-era managers and former officials, exhibited less dynamism but, in the case of Lukoil, a greater propensity to invest long-term in exploration and the development of new fields.

This rapid growth was short-lived. The subsequent slowdown was brought about by a number of developments: the arrest of Mikhail Khodorkovskii, the main owner of Yukos, and the subsequent acquisition of most Yukos assets by the state-controlled oil firm, Rosneft; Gazprom’s acquisition of Sibneft; an increase in taxes on the industry, and perhaps also some diminution of the scope for rapid output increases from established fields. Incentives to boost production were certainly weakened. That includes the incentive to invest long-term, since the Yukos affair damaged the already-weak confidence in property rights. Subsequently, there is some evidence that the rules of the game may have stabilized, but politicians’ leverage over private oil companies is a fact of Russian business life.5

The sensitivity of Russian GDP to world oil prices probably reflects more than a narrow price-income-demand-production set of links. The year-on-year decline in GDP in 2009 was substantially greater for Russia than for other oil producers (see Figure 22.3). Yet the fall in oil prices was, for practical purposes, the same for all of them. One hypothesis is that Russian and foreign businesspeople, aware of the weakness of property rights in Russia and of the unusual scope for political interference in business, have an asymmetric perception of Russian country risk: they attach a low weight to it when the oil price is rising and a suddenly much higher weight when the oil price falls. Thus the oil-price signal is, in the case of Russia, unusually amplified. There is some evidence for this in the scale and timing of capital outflows and the unusually large role of inventory declines in Russia’s recession.

One other feature of the Russian hydrocarbon economy is the divorce between export and domestic prices. This has considerable consequences. Both oil and gas are exported at prices well above the domestic price, with export duties forming a wedge between the two price levels. The export of both fuels is in the hands of state monopolies: Transneft for oil and
Gazprom for gas. In principle, the volumes of hydrocarbons exports could be stepped up considerably, because domestic energy usage is highly inefficient.

Figure 22.4 shows Russia’s energy efficiency alongside that of a number of other countries, including other oil exporters (Saudi Arabia and Venezuela), another ex-communist country (the Czech Republic), another northerly country (Canada), a highly intensive user of motor vehicles (the USA) and the United Kingdom. The comparison suggests, quite simply, that Russia uses energy in an exceptionally inefficient fashion. A substantial rise in the domestic prices of oil, gas and electricity would, on the face of it, stimulate major reductions in domestic energy usage; at all events, the scope for such reductions is enormous. Therefore, given time for adjustment, Russia has the potential to export substantially more oil and gas even if its output of hydrocarbons were to stagnate.

The sustainability of Russia’s ‘energy power’

Russia derives considerable influence in the world from its role as a major energy supplier. That influence is likely to remain strong for the foreseeable future. The influence is regional, not global: the bulk of Russia’s oil and gas exports go to Europe. It is derived from gas rather than oil, despite the much greater scale of oil exports. This is because oil is fungible: supplies from any one source can readily be substituted by supplies from other sources; in contrast, most gas trading in Europe is by pipelines whose sources and destinations are fixed, and is based on long-term, ‘take or pay’ contracts.

Over the next decade or so, hydrocarbon prices are widely expected to remain high by historical standards, in both a real (that is, relative to other goods) and a nominal sense. There are good reasons for this prognosis. The international oil companies now have only limited access to reserves and have been opting to boost dividends rather than long-term investment. Many of
the national oil companies are inclined to regard oil and gas underground as sound, appreciating assets, and are in no rush to raise rates of exploitation. Offshore, including Arctic, hydrocarbon deposits are there to be developed but will be relatively costly and, in the Arctic, politically contentious. Alternative energy sources will not play a large role for some time.

To that extent, external conditions are likely to favour a continuation of Russian energy power. At the same time there are a number of influences or potential influences that could tend to erode it.

Slow growth in Europe means a correspondingly modest growth in energy demand, so far as Russia is concerned. Asian markets are in better shape and offer faster growth, but re-adjusting Russia’s energy system to serve them is a slow process. In the summer of 2010 the Russian section of the East Siberia-Pacific (VSTO in its Russian acronym) oil pipeline was completed. That brings a capacity to deliver about 600,000 barrels of oil per day to the Chinese border, or somewhat under a quarter of expected Russian deliveries to Europe in 2010.6 Gas supplies eastwards are also being developed, but not rapidly. The Shell-Mitsui-Mitsubishi project on Sakhalin, Sakhalin 2, is delivering liquefied natural gas (LNG) to Japan and Mexico.7 Negotiations over energy supplies to China have been prolonged and difficult. China seems determined to avoid having Russia as a supplier on a scale that would yield influence.8 So far as gas is concerned, Gazprom has postponed the development of the Kovykta field, which might have been a major source of supply to China; priority is now being given by the Ministry of Energy to building the Altai gas pipeline, which would supply 30bcm per year to China from West Siberian fields from some point between 2015 and 2018. But Turkmenistan already has an agreement to supply a larger amount to China, perhaps from as early as 2011.9 Russia looks to be stuck with Europe as its main energy market for some time to come.

Meanwhile there are developments in the gas market globally that Gazprom and, presumably, the Russian leadership do not welcome. One is the development of LNG, which can

![Figure 22.4 Energy efficiency: Russia and selected other nations, 2007](https://example.com/figure22.4.png)

**Figure 22.4 Energy efficiency: Russia and selected other nations, 2007**

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lend itself rather better than pipeline delivery to the creation of spot markets in gas. As liquefaction plants and terminals are put in place, Europe has become more open to competition between alternative sources of supply of gas. In 2010 this forced Gazprom to accept changes in its contracts; these allowed customers to obtain somewhat lower prices for Russian gas than would have followed from the price formulae in the original long-run supply contracts. Russia has been slow to develop LNG. It owes its only established LNG capacities entirely to projects financed and managed by foreign companies (Sakhalin 2). In 2009 its LNG exports were 3.6% of its total gas exports, while for the world as a whole the figure was 27.7%.10

Another development involves shale and other ‘unconventional’ gas. Shale gas production has developed fast in North America, transforming gas markets there and pushing some third-party supplies towards Europe. It remains to be seen whether there will be further rapid growth of shale gas production in the USA and Canada, and whether there can be similar rapid growth in some parts of Europe. Meanwhile, developments so far have not suited Russian interests.

Sustainability in the ultimate sense of the preservation of available reserves is barely an issue so far as Russian policy is concerned. Hydrocarbon reserves in Eastern Siberia and offshore are not fully explored but are certainly large. Their development may be costly, but they are comfortably there. A major expansion of nuclear power is planned: its timescale is over-ambitious but there is no reason to think that it will not be completed eventually. And there is another reserve still to be tapped, in the extravagantly wasteful domestic usage of energy. The partial privatization of the electricity supply industry has created pressure for higher electricity prices as foreign firms with generating assets in Russia and contractual undertakings to expand and update their capacity seek to secure a return on their investments.

Sustainability in another sense is more of an issue. Can Russia continue to thrive economically while remaining so dependent on oil and gas exports? It is to this question and the policy issues connected with it that the next section is devoted.

**Russian policies and policy options**

Liberal critics of the present Russian economic order, from the late Yegor Gaidar to Andrei Illarionov, have argued that high oil prices damage Russia in the long term by reducing the incentive to reform. The Russian government understandably prefers to have its cake and eat it, too: it plans for ‘modernization’ in the sense of economic diversification into high-tech activities from IT to pharmaceuticals; it also plans for the further long-term expansion of the hydrocarbons sector. Radical economic liberalization, let alone political liberalization, is not on its agenda.

In the medium term Russia obviously benefits from its oil and gas export earnings, for reasons set out above. In the long run, however, the disadvantages could outweigh the gains. Russia appears to cope particularly badly with the volatility of raw material prices, as we have noted. Whether Russia has been significantly affected by ‘Dutch Disease’ is disputed.11 There is some evidence that it has.12 However, it can be argued that much, perhaps even most, of the real appreciation of the rouble can be accounted for by the Balassa-Samuelson effect, in which any emerging economy is likely to experience a convergence of its exchange rate from below purchasing power parity towards that parity, that is, for its currency to become less undervalued over time.

Most Russian liberal critics see Russia’s natural-resource dependence as damaging for other reasons: chiefly, because swelling oil and gas revenues make the status quo comfortable and reduce the pressure on the political leadership to change anything. This is plausible.

Two American economists, Clifford Gaddy and Barry Ickes, argue that Russia’s problem with natural resources is not dependence; specializing in oil, gas and metals exports could work
out well for the Russian population even in the long term. The problem, rather, is that the Russian political and economic system is addicted to the wasteful use of natural-resource rents. This wasteful use includes higher-than-necessary extraction costs, subsidized domestic energy prices, corrupt side-payments and tax revenues that are inefficiently used. This misuse of energy rents, Gaddy and Ickes argue, props up a ‘legacy’ sector of inefficient, Soviet-era enterprises.

This interpretation is compatible with the more general liberal contention that plentiful oil-and-gas revenues stave off reform. It is perhaps too focused on the notion that propping up dinosaur enterprises is the key weakness of Russia’s political economy. All producers, whether they have their origins in the Soviet era or are de novo or restructured businesses, receive energy subsidies; excessive extraction cost is not a benefit to other sectors; budget spending on industrial support is modest, and the weakness of competition in the Russian economy is to do above all with cronyism and the ability of incumbent firms to call in political favours in order to undermine rivals. Meanwhile the structure of the Russian economy has, after all, altered substantially since the fall of communism; inefficient, Soviet-era enterprises have closed or shrunk, even if they could have shrunk faster. And it is not clear how the Gaddy and Ickes ‘addiction’, whatever its dimensions, would be cured short of a comprehensive liberalization of the Russian economy and polity.

The general point remains: a large, inefficient but highly prosperous hydrocarbons sector probably is not a helpful ingredient in Russia’s long-term development. Current Russian policy, however, assumes that the future will be much like the present, without any major increase in either economic or political competition, but with a programme of state-led, top-down diversification added.

**Russia’s long-term plans for the energy sector**

In November 2009 the Russian government approved an energy strategy to the year 2030. It replaces an earlier document covering the period to 2020, and is comprehensive in its coverage.

The broad outlines of the strategy are summarized in Table 22.1. Output of oil is projected to grow very slowly indeed, output of gas a little faster. Coal, a lesser but significant contributor to Russian energy supply, grows more briskly than either oil and gas, while other energy sources, projected to grow at 2.9% per year over the 22-year period, exhibit the most rapid expansion. This last projection is based mainly on an ambitious nuclear programme, in which nuclear generating capacity more than doubles over the period.

Consumption of the main fuels is also projected to rise at modest rates: slightly more slowly than production in the case of gas and more rapidly in the case of oil. Imports, hitherto chiefly of gas from Central Asia, rise a little, and the net effect is that exports (including re-exports) of gas are expected to grow rather modestly and, on this author’s interpolation of data, to decline very slightly in the case of oil. Total energy exports, consisting of crude oil, oil products, natural gas, coal and (on a very small scale) electricity, are projected as growing at less than half a percentage point a year over 22 years.

The predictive value of projections such as these is low. What they reveal is not the future but the attitudes and assumptions of the state’s officials. Clearly, those officials do not see Russia getting out of the energy export business. They anticipate considerable energy saving over time in domestic consumption. They count on a modest increase in gas imports from Central Asia; and they expect East Siberian gas development to roar ahead: from an output of 4 bcm in 2008 to 45–65 bcm annually by about 2030, together with an almost equally rapid expansion in the Russian Far East.
The capital cost of these plans is high. In US dollars at 2007 prices, the investment estimated for the extraction, transportation and storage of gas over the whole period 2009–30 is $565–90bn, and the corresponding figure for oil is $609–25bn. The hydrocarbons investment total happens to be approximately equal to Russia’s GDP in 2009, so one can envisage the oil and gas investment required, in very round numbers, as of the order of 4% of base-year GDP in each of 21 years. This is not an outrageous or manifestly unachievable investment programme but it does suggest two things: that there is a strong commitment to remaining an ‘energy power’, and that there will be powerful incentives to try to attract serious amounts of inward foreign direct investment as part of the sector’s development.

Inward foreign direct investment (IFDI), excluding mergers and acquisitions which create no additional capital, is currently about one-sixth of Russian capital formation, as Table 22.2 illustrates. The share of that IFDI going into all extractive industries, when Russian-controlled funds from tax havens are excluded, is about one-eighth, as the calculations in Table 22.3 show. The implication is that foreign investment currently plays a modest role in the hydrocarbons sector. If the ambitious oil and gas investment programme foreseen for the next two decades is to be implemented, there is likely to be pressure on Russian policy-makers to reduce the restrictions, impediments and disincentives that limit foreign involvement in the sector at present. The pressure will be all the greater because there will be a need for leading-edge (mostly foreign) technology to develop offshore deposits.

### Table 22.1 Russian government projections of production, domestic consumption, import and export of main fuels, annual totals in mn tons of standard fuel, 2008 actual and 2030 projected

<table>
<thead>
<tr>
<th>Sources &amp; uses of main fuels</th>
<th>RF Energy Strategy to 2030</th>
<th>implied % change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008A</td>
<td>2030 low</td>
</tr>
<tr>
<td>Prodn Oil</td>
<td>694</td>
<td>758</td>
</tr>
<tr>
<td>Gas</td>
<td>761</td>
<td>1018</td>
</tr>
<tr>
<td>Coal non–fuel</td>
<td>222</td>
<td>282</td>
</tr>
<tr>
<td></td>
<td>126</td>
<td>219</td>
</tr>
<tr>
<td>Total</td>
<td>1803</td>
<td>2276</td>
</tr>
<tr>
<td>to reserves</td>
<td>–10</td>
<td>–3</td>
</tr>
<tr>
<td>Imports</td>
<td>83</td>
<td>86</td>
</tr>
<tr>
<td>total supply</td>
<td>1876</td>
<td>2359</td>
</tr>
<tr>
<td>dom cons</td>
<td>991</td>
<td>1375</td>
</tr>
<tr>
<td>o/w Gas</td>
<td>526</td>
<td>656</td>
</tr>
<tr>
<td>Oil</td>
<td>187</td>
<td>309</td>
</tr>
<tr>
<td>Exports</td>
<td>883</td>
<td>985</td>
</tr>
<tr>
<td>o/w Gas</td>
<td>281</td>
<td>423</td>
</tr>
<tr>
<td>Oil</td>
<td>482*</td>
<td>415**</td>
</tr>
</tbody>
</table>

Notes: high output projection less high consumption projection can lead to lower export projections; * derived from www.customs.ru; ** interpolated from the strategy document on assumption of zero imports; Conversion rates to standard fuel (sf): 1 ton oil = 1.43 t sf; 1000 cm3 gas = 1.15 t sf; 1 t coal = 0.65 t sf. Non–fuel = Nuc + Hydro + Other. Source: derived from EnergeticheskayastrategiyaRossiina period do 2030 goda, 2009; World Bank (http://data.worldbank.org/indicator/EG.GDP.PUSE.KO.PP.KD, accessed 13 September 2010).
Diversifying the economy

I observed at the beginning of this chapter that Russia is a good deal more than a hole-in-the-ground economy. Still, the political leaders have been insisting with some vehemence lately that the economy must be ‘modernized’. Complaining about Russia’s ‘de-industrialization’ and its becoming a ‘raw materials appendage of the West’ has been a staple part of Russian political rhetoric for several years. It is part nostalgia for the might of the Soviet past and part resentment at what is perceived as a role suitable only for a backward country. The fact is that even under the old order Soviet manufacturers were never able to sell anything much on competitive markets beyond weapons systems. That is routinely overlooked.

On the other hand, if there is after all something in the view that reliance on oil and gas exports will not serve Russia well in the long term, then diversification should be beneficial. The question is whether the present Russian economic order is favourable to diversifying and ‘modernizing’ the economy.

Modernizing, in the sense in which President Medvedev and Prime Minister Putin use the term, means moving to a position where Russia is a substantial net exporter of high-tech products and its reliance on oil and gas is reduced. There are three reasons why this will be extremely difficult to bring about in the foreseeable future.

The first is that Russian science is in poor shape. Its status has declined as funding and relative pay have fallen. Many scientists have left the country and there is a shortage of young recruits to

Table 22.2 Scale of Russia’s total fixed Investment, equipment investment, equipment imports, and IFDI creating new capital, 2008, US$ billiona

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fixed investment</td>
<td>385.4</td>
</tr>
<tr>
<td>Equipment investment</td>
<td>138.4</td>
</tr>
<tr>
<td>Equipment imports</td>
<td>106.2</td>
</tr>
<tr>
<td>IFDI</td>
<td></td>
</tr>
<tr>
<td>New capital formation</td>
<td>59.7</td>
</tr>
</tbody>
</table>

*aRuble figures converted at annual average exchange rate of R24.9 = $1. Equipment imports exclude cars but not trucks; adjusted IFDI excludes mergers and acquisitions and ‘other capital.’
Sources: Compiled by the author from European Commission, website, n.d. [http://ec.europa.eu/economy_fi

Table 22.3 Sectoral composition of Russia’s IFDI, 2009, percenta

<table>
<thead>
<tr>
<th>Sector</th>
<th>All countries</th>
<th>Cyprus</th>
<th>Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>0.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extractive industries</td>
<td>20</td>
<td>3.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Manufacturing and electrical</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport and communications</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Servicesb</td>
<td>44</td>
<td>12.9</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*aWith some notes on selective countries of origin.
bServices here include financial and property.
Source: Rosstat and author calculations.

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research in the hard sciences. In the five years 2005–9 inclusive, the origins of the global total of scientific papers were: Brazil 2.1%, Russia 2.6%, India 8.4% and China 2.9%.18 In the Times Higher Education 2010–11 ranking of the world’s top 200 universities there is no Russian institution included, yet China has five in the list, not counting Hong Kong institutions, Egypt has one and Turkey has two. Moscow University is said to be just outside the top 200, but the same applies to three Brazilian universities.19 Of the total of patent applications filed outside the country of residence of the first-listed applicant in 2007, Russia was responsible for 0.14%. This is marginally better than Brazil’s 0.13% but below India’s 0.48% or China’s 0.90%.20

The second reason is that the structure of the Russian economy makes a leap to high technology difficult. One way of looking at economic development is to track a nation’s journey through ‘product space’. Global commodity trade, classified into 775 products at the 4-digit level of the commodity classification, can be mapped according to the ‘proximity’ between pairs of products. Proximity between products A and B is a measure of the likelihood that a country that is a net exporter of A will also be a net exporter of B. When this is done, the ‘forest’ of products is seen as an expanse of more or less dense clusters with gaps between them. Historically, it appears, countries develop their net exports by moving through the product space from one cluster of products to another cluster that is close by. Oil and gas appear as a cluster that is associated with high per capita GDP but is comparatively remote from the densely-connected cluster of highly sophisticated goods.21

Another way of looking at this question of structure is less abstract. The leading branches of Russian industry are not, broadly speaking, the kinds of industries that have a high demand for research and development (R & D). Anatolii Chubais, the head of the state corporation for nanotechnology, Rosnanotekh, pointed this out to President Medvedev in February 2010, at a meeting of the presidential Commission on Modernization and Technical Development. Russian R & D spending by companies, he said, had barely increased since the mid-1990s, and was well below that seen in China. Of total Russian R & D spending, around 70% was from the state budget.22 This is an unhealthy situation. Companies are more strongly motivated than the state to turn research into commercially successful innovation. And the Russian state is particularly corrupt and ineffective.

The third reason for scepticism about rapid diversification into ‘advanced’ lines of production is the character of the Russian business environment. In the 2010 World Bank ranking of 183 countries for ‘ease of doing business’, covering 2008–9, Russia came 120th.23 Studies of Russian productivity levels repeatedly draw attention to the weakness of competition as a malign influence on progress.24 We shall come back to this subject in the concluding section.

Much of the debate in Russia about modernization is political. Liberal critics of the Putin regime assert that only a free market, providing scope and incentives for firms to adopt new products and processes, can generate a process of genuine modernization, and that in turn requires political liberalization. Defenders of the regime deploy arguments about Russia’s lack of readiness for competitive politics25 and examples of state-led modernizing that range from South Korea in the 1960s to the contribution of US defence research spending to the creation of the internet.

Modernization strategies are formulated by both a presidential (Medvedev) and governmental (Putin) commission. The former is behind plans to create a research and innovation enclave at Skolkovo, near Moscow, referred to as Russia’s Silicon Valley. Anatolii Chubais, the head of Rosnanotekh, is a leading architect of the scheme. It is a public-private joint venture. Viktor Veksel’berg, the boss and main owner of the Renova group, has taken on a coordinating role. Foreign investors, including US venture capital funds, have been wooed. Cisco Systems, Siemens and some other foreign companies have pledged funds to the project. Renova has recently
gained control of two Swiss high-tech firms, Oerlikon and Sulzer, and that provides one channel by which technology can be transferred from West to East. It is therefore inaccurate to caricature the project as akin to Soviet-era science cities such as Akademgorodok. It is state-led but with considerable scope for private initiative.

The problem remains that unpredictable state interference, insecure property rights and corrupt links between state and business bedevil any attempt to improve Russian economic performance. That includes state-led campaigns to ‘modernize’ or diversify the economy.

Conclusions: oil, politics and the Putinist system

I observed at the beginning of this chapter that Russia, unlike other major oil-exporters, has not brought all oil production under a single national oil company, and indeed has a majority of its oil production coming from the private sector. This contrasts not only with Middle Eastern oil exporters like Saudi Arabia but also with such developed-country exporters of hydrocarbons as Norway. Given Russian and Soviet history, this is remarkable.

There is a line of argument about state control of oil and gas production that runs, in brief summary, as follows. The extraction and processing of oil and natural gas is an activity with great economies of scale, so that oil companies are likely to be large and, in any one country, few in number. Their market power, together with the widespread notion of subsoil resources as in some sense ‘national’, calls for state regulation in some shape or form. Regulation in a state with strong and reasonably sophisticated institutions could be conducted at arm’s length with private oil companies as the subjects of regulation. In states with a weak rule of law and a poorly-functioning state administrative machine, the risk of collusion and state capture by the private oil firms is high, and direct state ownership may be more effective. That, at least, provides one rationale for the establishment of national-monopoly state oil companies.

After the Russian state’s attack on Yukos, it was reasonable enough to suppose that the Russian state would, step by step, take over the whole industry. When Gazprom acquired Sibur, that conjecture looked all the more plausible. However, the process has stopped there. Gazprom continues to control some 85% of natural gas production, plus all gas export pipelines and all gas storage, while the state-controlled Rosneft is the largest single Russian oil company, thanks to its acquisition of Yukos assets. But Lukoil, TNK-BP and Surgutneftegaz remain the next largest oil producers; together with other private firms they account for around three-fifths of oil production. This has seemed, over the past four years, to be a tolerably stable situation.

It is my contention, elaborated more fully elsewhere, that the informal, often corrupt, links between political power and private business in Russia allow leading politicians to derive personal wealth and/or economic influence in their dealings with private oil companies just as readily as they could through state entities. They have no particular incentive to nationalize the whole industry.

The owners of private Russian oil companies typically are individuals or a very small group of co-owners, operating through offshore holding companies and needing at all times to keep on the right side of the political leadership. It is as though the state remains the real owner while the ostensible owners are mere tenants who could be evicted from their property at any time.

Occasionally, tensions arising from this awkward relationship become manifest. German Gref, a former minister of the economy and latterly the chief executive of Sberbank and, among other things a member of the board of Lukoil, said at Davos in 2010 that since the Yukos affair, ‘the main issue on Lukoil’s agenda has been not development but self-preservation.’ The second-rank oil company Russneft was subjected in 2007 to the standard array of administrative
pressures: new claims of back-tax due, accusations of breaches of environmental regulations, threats of the withdrawal of operating licences, until its owner, Mikhail Gutseriev, sold up and fled to London. In 2010 he returned to Russia and resumed partial control of Russneft.28

Speculation over just who was aiming to do just what in this saga has been endless. The bottom line is that the owner of an oil company had that company first separated from him and then in part returned to him by a variety of state actions whose rationale and ultimate objective remain obscure.

The oil business in Russia is sui generis. It is mainly private and has made fortunes for a number of tycoons. As an industry it boomed in the early 2000s but is now expected to grow only slowly in the next two decades. The state’s involvement is often opaque and informal. International oil companies have been kept at arm’s length, with BP’s 50:50 TNK-BP joint venture a special case. The state envisages both heavy, continuing investment in oil and gas in the future and at the same time a programme of diversification. The prospects for the latter are not good. At the same time requirements of both finance and technology create strong pressures for a more co-operative relationship with international oil companies in the future.

Notes
1 These numbers are derived as follows: trade data from the Central Bank of Russia (www.cbr.ru); budget data from the Ministry of Finance’s Economic Expert Group Ekonomicheskii obzor (www.eeg.ru); GDP from Rosstat (www.gks.ru), all accessed 13 September 2010. Total state revenue includes sub-national budgets as well as the federal budget, so the share in all public revenue of taxes and duties on oil and gas is less than 48%. On the other hand, profits taxes on oil firms are not included in the total.
3 Ibid. The fact that Russia also imports and re-exports substantial amounts of Central Asian gas complicates the picture a little.
4 BP, op. cit. These are shares of a total that excludes wood, peat, wind, geothermal and solar energy sources.
6 Oxford Analytica Daily Brief, 30 August 2010. Deliveries were scheduled, at the time of writing, to start in November 2010 (Natal’ya Kostenko, ‘Rossiya podklyuchit Kitayu nef’ti i gaz,’ Vedomosti, 27 September 2010).
7 Routine and shameless use of state administrative power has enabled Gazprom to install itself as a controlling stakeholder in Sakhalin 2, but the project was implemented by Shell and its Japanese partners.
9 Oxford Analytica Daily Brief, 24 August 2010. On 23 September Gazprom agreed with China’s CNPC a set of conditions for future gas supply, but the price issue was still unresolved; at best, a contract could be signed in mid-2011 and gas deliveries could flow from 2015 (Kostenko, op. cit.).
11 Dutch Disease, a term coined by The Economist in 1977, refers to exchange-rate effects from an increase in price or quantity of a nation’s oil and gas (and, in principle, other staple natural-resource exports) that strengthens the exchange rate of its currency to the point where the international competitiveness of its other industries is damaged.
Philip Hanson

15 ES-2030, annex 4, p. 6.
17 ES-2030, annex 4, pp. 5–6.
23 www.doingbusiness.org/economyrankings/
25 Vladislav Surkov, a deputy head of the Presidential Administration and one of the cleverest defenders of Putinism, has said that social and political liberalization is indeed desirable but must be gradual; for the time being, Russia needs a ‘consolidated state’, Maksim Glikin and Natal’ya Kostenko, ‘<Chudo vozmozhno > > – Vladislav Surkov, perviy zamrukovoditel’ya administratsii prezidenta, zampredsedat’ya kommissii po modernizatsii’, Vedomosti, 15 February 2010. On the Grani.ru website on the same day, Yevgenii Yasin, the doyen of Russian liberal economists, was quoted as saying that a ‘consolidated state’ reminded him of Mussolini and Franco. That exchange captures the flavour of the debate.
27 www.moneycontrol.com/news/business/davos-fear-uncertainty-casts-pall-over-russian-business_439096.html, posted 1 February 2010. The fact is that Lukoil has developed new fields, so the claim is exaggerated; but it is not without foundation.