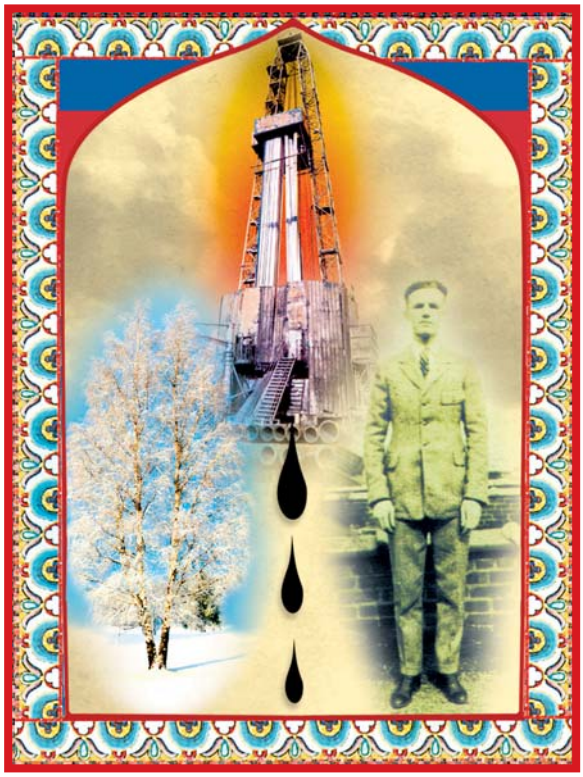
AN IMPOSSIBLE TRINITY?: RESOURCES, SPACE AND PEOPLE



Ben Fishman

RUSSIA'S FUTURE DEPENDS ON HOW IT MANAGES ITS RESOURCES, ITS SPACE AND ITS PEOPLE.

BY CLIFFORD G. GADDY

The suddenness with which Russia has re-emerged as a global political and economic power has stunned observers. This time, its power rests not on tanks and nuclear missiles but on oil and gas. Russia has become a critical supplier of energy to a world whose demand is growing rapidly. At the same time, thanks to soaring prices for these commodities, both the Russian state and its big corporations have turned into financial powerhouses. Is Russia's newfound power only temporary, or will it last?

High world oil prices are likely to continue to bolster Russia's wealth, strength and confidence in the short to medium term, but there are questions about the longer term. Russia has yet to adequately address fundamental problems left behind by decades of Soviet mismanagement of its economy. Some of these problems directly affect the future of Russia's energy wealth. The oil and gas of the future lie in the vast, cold expanses of the eastern part of the country. In the earlier phase of energy wealth — the 1970s and early 1980s — Soviet economic planners committed great mistakes by misdeveloping and overpopulating Siberia. To avoid repeating the same mistakes, Russian policymakers today need a comprehensive view to tackle the dual challenges of resource management and Siberian development. The issue is all the more important because today Russia faces a shortage of one asset that it has in the past possessed in abundance — human beings.

The increase in wealth flowing into Russia from oil and gas is staggering.

It is therefore worth examining Russia's future in terms of how it deals with the challenge of managing its resources, its space and its people.

Resource Plenty

The benefits of abundant oil and gas reserves are easy to see. These resources turned Russia from a virtually bankrupt country after its 1998 financial crisis into one with real financial leverage today. The increase in wealth flowing into Russia from oil and gas is staggering. Consider the income from one component alone — crude oil exports. Revenues from foreign sales of crude in the four quarters prior to now-President Vladimir Putin's appointment as prime minister in August 1999 were $14 billion. For the most recent four quarters, the corresponding number is over $150 billion. (By comparison, in 1999 Russia's total GDP in dollar terms was only $200 billion.)

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The growth in the total market value of Russia's oil and gas is even more impressive. Figure 1 (p. 34) shows the value of these commodities produced on the territory of the present-day Russian Federation from 1970 to the present.

It is important to distinguish between the physical quantities of oil and gas Russia produces and exports, and the wealth generated from them. The wealth is due mainly to the increase in world prices: in the case of oil, from under $10 a barrel to over $60. The price increase overshadows the levels of physical production. The output of oil grew strongly from 1999 through 2003; but since then, as shown in Figure 2 (p. 34), growth rates have dropped sharply.

Russia is not likely to resume strong output growth. It is estimated that the country invests only half as much in its oil and gas sectors as would be needed to sustain expansion of production over the longer term. For consumers throughout the world, the trend is disturbing. The price of oil that we all pay is determined by global supply and demand. Over the past few years, Russia's increased production has been the most important addition to the world pool of oil. (In fact, it almost exactly matched the increase in demand from China, the fastest-growing consumer country.) Without Russia, world oil prices would have been even higher.

A fundamental question is whether the country is able, and whether it wants, to keep producing more. There are voices inside Russia that now argue explicitly that the country should *not* continue to expand production of oil. It is better to keep this precious resource in the ground, they say, as it will only become more valuable as time passes.

But even if Russia does attempt to expand production, it will face challenges of a qualitatively new dimension. The increased oil pumped between 1999 and 2006 has been largely so-called "old oil" — that is, oil that had been left in the ground in mature fields. These are fields mainly in Western Siberia where infrastructure was already in place. The oil itself was there for a combination of reasons. In the 1980s, desperate to pump as much oil as possible as quickly as possible, the Soviet oil industry followed a strict "skim the cream" approach. Taking only the easy oil, they left all the rest in the

ground. At the same time, they employed such destructive practices in their haste that the wells were considered ruined. Industry insiders questioned whether the remaining oil could ever be lifted. Meanwhile, during the chaos of the post-Soviet Russian economy of the early 1990s, there was no effort to return to those wells to recover the bypassed oil. Output on the territory of the Russian Federation plummeted from a Soviet-era peak of 562 million tons per year (11.2 million barrels per day) to barely 300 million tons a year (6 mbd) in 1999.

Spatial misallocation is an often-underappreciated feature of the Soviet system.

At the end of the decade, however, two circumstances changed the situation dramatically. First, the steady rise in world oil prices made even hard-to-lift oil more attractive. Second, substantial parts of the oil industry had been put in the hands of new, private owners — the so-called oligarchs — whose more entrepreneurial outlook allowed them to re-examine the status of the old oil. New technology, it turned out, was available internationally that made it possible to lift oil from the "ruined" wells. Output rose year after year, reaching 480 million tons (9.6 mbd) in 2006. But with the good news came bad. With most of the bypassed oil now recovered, the question is, "where now?" Oil producers in Russia will now have to shift increasingly to new fields and new regions. The new oil, like most of the old, will be in Siberia, but *where* in Siberia? As in its previous oil boom, Russia is faced with critical decisions about Siberian development.

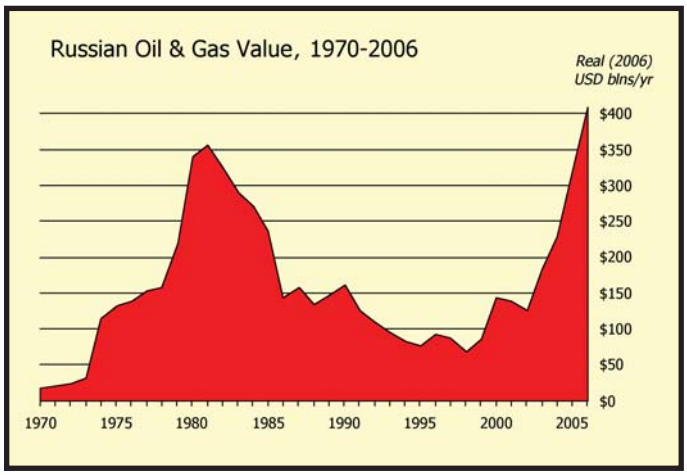

Figure 1

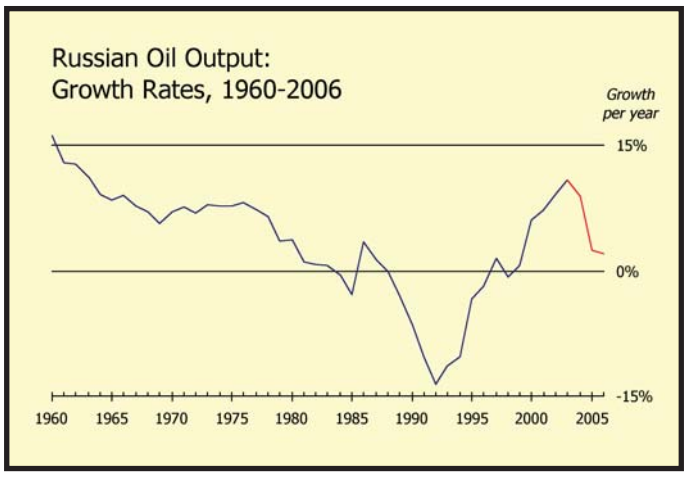

Figure 2

The Challenge of Vast Spaces

Siberia represents a real boon in the form of resource wealth. However, it does have great associated costs — costs that rise at an increasing rate the further east one moves. The first component of the increased costs comes from the climate. Cold temperatures add extra costs to all economic activity. In a normal market economy, these costs are weighed against the benefits. Patterns of population settlement and location of industrial activity evolve accordingly. The Soviet economic system, however, largely ignored the issue of cost. Far too many people and too much manufacturing industry were moved to Siberia. As a result, Russia was made "economically colder" than it needed to be. (My colleague Fiona Hill and I discuss the cost to the Russian economy of the overdevelopment and misdevelopment of the region in *The Siberian Curse*.)

The cold is not the only disadvantage of Siberia. Remoteness, or distance, is also important. Distance is the most basic obstacle to all economic interaction in market economies. Transportation costs are only part of the problem. When potential exchange partners are separated from one another physically, they are less likely to know about each other, to know what goods and services are available or needed. They are less likely to know each other's reputation. They are less likely to share the same social networks. Therefore, the busi-

nesses that produce, buy and sell in Siberia all have to overcome the obstacle of distance.

Spatial misallocation is an often-underappreciated feature of the Soviet system. One way to recognize this is to imagine a counterfactual: suppose that the Bolshevik Revolution had taken place not in Russia but in Japan. Central planning under a "Japanese Stalin" would have done great damage to the economy. But it would not have caused as much spatial misallocation, simply because it would have had much less "room for error." Spatial misallocation may well be the most difficult part of the Soviet legacy to overcome, as decades of mistakes have to be corrected.

Has there been any corrective shift in the post-Soviet period? After the collapse of the command-administrative system of economic management in the early 1990s, free-market forces in Russia began rectifying the mistakes of the Soviet era. People migrated out of the coldest and most remote regions. However, that self-adjustment came to a halt in 1999, a development illustrated in Figure 3 above.

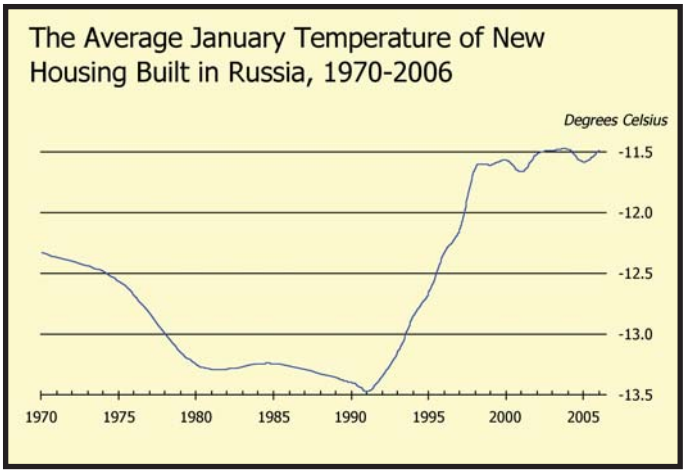

Figure 3

The index plotted on the chart is the average January "temperature per square meter" of new housing. It takes into account both the volume of new housing built

in various regions of Russia and the average January temperature of those regions. (If relatively more housing is built in warmer regions, the index rises, and vice versa.) That index rose by two full degrees Celsius between 1991 and 1999. It has since remained flat, and there are signs that the trend may even be reversing. Plans for Siberian development and repopulation are back on the national agenda. In June 2006 President Putin announced a new migration program designed to attract ethnic Russians from abroad to return to Russia in order to repopulate Siberia and the East.

The shrinking of Russia's population is inevitable. Even radical measures will not be able to prevent it.

What explains the change since 1999? This, of course, is the year Putin came to power (appointed as prime minister in August and then tapped as acting president at year's end). It is tempting to conclude that the renewed emphasis on Siberian development is simply a reflection of Putin's policy preferences. There is, however, a more fundamental factor, one suggested by Figure 1. Misallocation is costly. During the 1990s Russia simply could not afford to keep pumping money into the east. People therefore moved away and less housing was built. This also implies that to the extent that mistakes of the Soviet past were corrected in the 1990s, it may not have been because the old policies were recognized as wrong. It was only because the government could not afford to continue them. Since the 1999 oil boom, Russia again has had the physical and financial resources to misallocate. And of course, the space is still there. This time around, though, the really scarce factor is labor — people.

People

The main parameters of Russia's demographic crisis are well-known. The population is shrinking rapidly. On average, 840,000 more Russians have died than were born each year since 1993. See Figure 4 (p. 38).

There are only three ways to correct this: (1) increase births; (2) decrease deaths; (3) increase net immigration. The Russian government is aware of all three approaches, but has focused its policies on the first and third options. However, the second option is actually the most important for Russia. Why? Because it is most directly concerned with the quality of the country's human capital. The most significant aspect of Russia's death rate is that it is young men who die in such great numbers. Russian males of prime working age — 25 to 55 years old — are dying at rates more than four times higher than American men and seven to 11 times higher than Scandinavian, Dutch and Japanese men in that age range. Russian 26-year-old men die at the same rate as Swedish or Japanese 56-year-old males. Figure 5 (p. 38) shows that the problem is getting worse.

The shrinking of Russia's population is inevitable. Even radical measures will not be able to prevent it. One logical conclusion is that people — the country's human capital — need to be regarded as a very precious asset. Clearly, this would dictate much more attention to the health of the population. (Russia's rampant alcoholism problem is a major reason for the high death rates among men.) Also, human capital needs to be located geographically where it can be most productive. Mobility should be facilitated to the greatest extent possible. But instead of becoming more mobile, Russians have become less so. Each year only one-third or one-fourth as many Russians move to a new city as do Americans or Canadians, and the rate of internal migration has declined by nearly 40 percent since 1992. In an economy that needs much more dynamism, this is not a good sign.

Unfortunately, to the extent that mobility is encouraged in Russia today, it is in the wrong direction. If people are valuable, then moving more people to the east — as the government wants — is particularly wasteful. Instead, the goal ought to be to use as few people as possible to develop the resources of Siberia. The strong new policy statements by Russia's leadership to "repopulate the East" are alarming. Such statements typically include phrases such as: "Fewer than 5 percent of Russia's population live in the region, which occupies 36 percent of the country's territory." In fact, if one makes an international comparison, one sees that Siberia and the Russian Far East are not underpopulated. Rather, they are vastly overpopulated.

Compare East Siberia and the Russian Far East with Alaska in terms of their relative shares of population and territory for Russia and the United States. If Alaska had

been populated according to the Soviet model, it would not have 650,000 residents, as it actually has today, but nine million! Conversely, if East Siberia and the Russian Far East had followed the American pattern, they would have barely one million residents combined instead of their current 15 million.

Siberia and its resources need to be developed as efficiently as possible.

Similarly erroneous is the argument that because Russia's East is so thinly populated and China's neighboring regions are densely populated, Russia risks being overrun by the Chinese. All evidence says that the natural tendency is for economic activity to concentrate, not disperse. People are not like a fluid or a gas: they do not flow to fill a vacuum. The Chinese immigrants in Russia — who, in general, are far fewer than some of the alarmist estimates — follow the laws of economics, not physics. They are not attracted to empty spaces in Siberia. They are attracted to cities where they find Russians with whom they can trade.

What to Do?

How then might one formulate a sensible policy for Russia's future development that adequately manages its resources, its space and its people? This is a broad and complex question. But the general principle is clear. Siberia and its resources need to be developed as efficiently as possible; e.g., to produce the greatest amount of oil, gas and other resources with the least possible financial and human costs.

This is not the way things work today. In Russia's current political economy, companies in the resource sectors are expected, even compelled, to keep costs high. High costs mean more orders for local industries and, in turn, more jobs. Even private companies have to play this game because they do not have secure property

rights. Their property rights are conditional on good relations with federal and regional political officials. Companies "invest" in good relations by meeting the informal demands of officials to spend money locally. Not only Russian companies, but foreign companies as well, are expected to follow this model.

Another factor that is going to drive up costs is the attempt to move the focus of oil and gas production away from West Siberia to new regions of East Siberia. West Siberia has huge amounts of oil that have yet to be developed. It is premature to shift investment from there to the east. Owing to the burden of extra cold and distance, costs now and for years to come will be higher in East Siberia than in West Siberia. Then, one needs to factor in the massive expense of building from scratch new infrastructure for production, transport and settlement in the virtually untouched east.

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A further advantage of West Siberia is that it is more conducive to a pluralist, competitive — and therefore more cost-efficient — model of resource development. Because the basic infrastructure is already in place, West Siberia can accommodate a greater number of small operators in addition to the big companies. Small operators are suited for risk-taking and innovation. (Significantly, the U.S. has over 20,000 operating companies in its oil industry, and Canada has several thousand. Russia — which produces nearly twice as much crude oil as the U.S. — has only 150.) Development in East Siberia and the Russian Far East, in contrast, would require truly large-scale investments, big operators and heavy state involvement.

To sum up: the Siberian challenge includes within it the challenges of managing resources and people. Russia needs to achieve efficient, clean and humane development of the resources located on this vast territory. "Efficient" means to determine and implement an optimal current depletion rate and an optimal rate of investment for expanding the resource base for sustainable future growth. "Clean" entails policies that protect the sensitive environment of Siberia and the Far East. "Humane" requires decent treatment of people, Russia's most precious asset. Those who wish to relocate to the west — whether now or later, when they retire — must be encouraged and assisted in doing so. Those — at least those of working age — who choose to remain or those who may move there need to be sure that Siberia is the place where they can be most productive. And, in return for their truly productive contributions, they deserve to be adequately compensated.

The three challenges of space, resources and people interact. They must be addressed at the same time and with recognition of their interdependence. ■

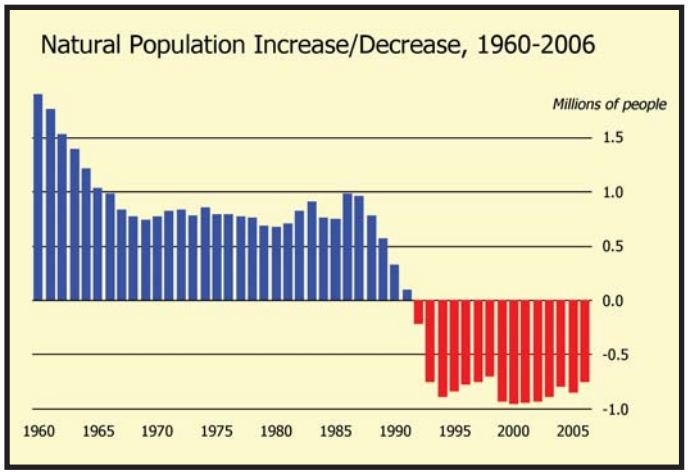

Figure 4

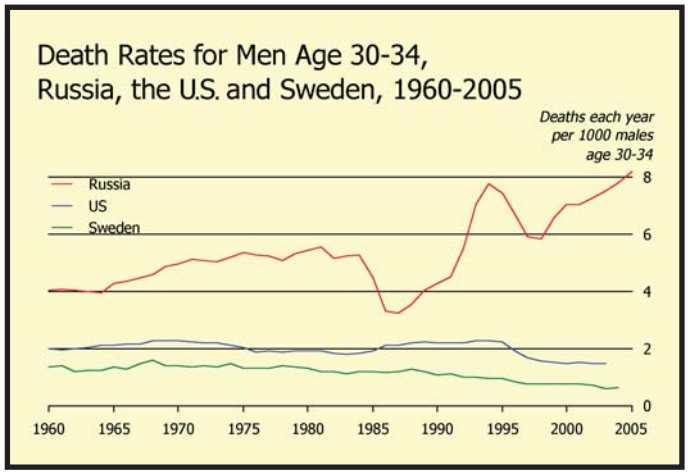

Figure 5