## S iberian Curse

How Communist Planners Left Russia Out in the Cold

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## Foreword

This book takes something everyone knows about Russia—it is very big and a lot of it is very cold—and makes of that commonplace the basis of path-breaking analysis that should be of considerable utility to the people who govern Russia today.

Rumination on Russian "reform" has become something of a cottage industry in the United States over the last decade. Few books on the subject get much below the surface to look at the hidden forces—the deep structural dynamics—of what is under way in that vast, complex, and immensely important country. This book by Fiona Hill and Clifford Gaddy, senior fellows at Brookings, does just that. It explains why Russia has had so much difficulty breaking free of its Soviet past. Bringing together pioneering research in politics and economics, *The Siberian Curse* poses a provocative question: Can Russia actually achieve the goals it has set for itself, given the persistence of economic habits and structures it inherited from the U.S.S.R.? Fiona and Cliff suggest that even the most comprehensive and targeted reforms may be doomed unless there is

an active and conscious effort to face up to—and correct—the mistakes of the Soviet past.

The Siberian Curse uses the tools of economic statistics and economic geography, as well as historical analysis looking back over several centuries, to argue that what traditionally has been perceived as one of Russia's major strengths—its enormous size—is in fact its greatest weakness. Russia's size gave successive Soviet governments the excuse to blunder on an unprecedented and monumental scale. For almost seventy years, communist planners forced people and economic activity out into the vast, resource-rich territory of Siberia—through the GULAG prison labor system and later costly incentive schemes—to colonize, urbanize, and industrialize this last great, but inhospitably cold, frontier. This massive relocation of population and industry into Siberia's icy wastes burdened Russia with enormous problems associated with the costs of transportation over great distances and of keeping warm, or just staying alive, in conditions of great cold.

Fiona and Cliff explain why and how the dislocation of population and the accompanying misallocation of resources have impeded the development of a market economy and fully functioning democracy in Russia. People, cities, and factories languish in places communist planners (and the GULAG) put them, not where market forces and free choice would have attracted them. They also help us understand why this fundamental problem was not rectified, or even recognized, by a series of post-Soviet Russian governments in the 1990s, and why it is likely to persist given the difficulties of effecting a mass migration back out of Siberia toward warmer western regions of Russia.

The only way for Russia to rid itself of the economic burdens of maintaining huge populations in some of the coldest inhabited places on the planet is to turn to the West—not just in theory but in practice. And the West means Europe: Russian leaders must fully embrace the idea of a "European Russia"—a Russia in which population and economic activity are concentrated west of the Ural Mountains, close to Europe and its markets. That means Moscow has to support and facilitate the desires of the population to move away from Siberia and encourage people to move from Siberia's largest cities, not just from its most remote towns and villages.

The challenges facing the Russian leadership in this regard are daunting. There is no historical precedent for the shrinkage of cities on the scale that will be required in Russia. As a result, changing Russia's economic geography will be a costly and wrenching process, even if it will eventually put Russia on a sustainable path of development.

Fiona and Cliff emphasize that Russian leaders are not faced with a black-and-white choice: develop Siberia or reject it and cast it off. Russia can

and should exploit the resources of Siberia. But it has to do so by reducing the dependency on huge fixed pools of labor. Siberia's resources can contribute to Russia's future prosperity, and the regional economy can one day be viable, but not if the Russian government persists in trying to maintain the cities and industries that communist planners left for it out in the cold.

In keeping with our growing emphasis on multidisciplinary research and cross-program collaboration within Brookings, and collaboration with outside partners, *The Siberian Curse* is inspired by, and draws on research from, a number of centers and scholars not previously presented to a broader audience, as well as original research by Fiona and Cliff. Scholars at the Brookings Institution's Center on Social and Economic Dynamics, employing the pioneering agent-based computer modeling techniques that are the hallmark of the center's research activities, a Russian-American team of economics at Pennsylvania State University, researchers at Moscow's New Economic School, and World Bank experts, among others, were all actively involved in the research project that produced this book.

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## The Great Errors

As observers have looked at reform in Russia over the decade since the collapse of the USSR, they have assumed that if the old system that produced the wrong results in the past is now changed, the new system will produce the right results in the future. Unfortunately, to be able to put a new system in place, countries in transition must not only dismantle the old system and replace it with a new one; they must also rectify the consequences of operating under the old system for a long period of time. In the case of Russia, the time frame was especially long. For more than seventy years after the Russian Revolution, the Soviet centrally planned economic system produced a certain set of outcomes, which became part of Russian history, society, and political culture.

One of these outcomes was a peculiar and unique economic geography that continues to define Russia and puts it completely out of step with the requirements of a market economy irrespective of system change. Today, despite the abolition of central planning, Russia still has a nonmarket distribution of labor and capital across its territory. People and factories languish in places communist planners put 2 The great errors

them—not where market forces would have attracted them. Russia cannot build a competitive market economy and a normal democratic society on this basis.

Another specific outcome of the Soviet system is the development of Siberia. In this instance, the freedom of the market was deliberately defied and perversely turned on its head by the use of the GULAG prison-camp system in order to conquer and industrialize Siberia's vast territory. Beginning in the 1930s, slave labor built factories and cities and operated industries in some of the harshest and most forbidding places on the planet, where the state could not otherwise have persuaded its citizens to go en masse on a permanent basis. In the 1960s and 1970s, leaders in Moscow decided to launch giant industrial projects in Siberia. Planners sought to create permanent pools of labor to exploit the region's rich natural resources, to produce a more even spread of industry and population across the Russian Federation, and to conquer, tame, and settle Siberia's vast and distant wilderness areas. This time, new workers were lured to Siberia with higher wages and other amenities rather than coerced there and enslaved—at great (but hidden) cost to the state. Today's Siberia is the economic legacy and the embodiment of the GULAG and of communist planning.

Thanks to the industrialization and mass settlement of Siberia, at the beginning of the twenty-first century and a new era in Russia's economic and political development, Russia's population is scattered across a vast land mass in cities and towns with few physical connections between them. Inadequate road, rail, air, and other communication links hobble efforts to promote interregional trade and to develop markets. One-third of the population has the added burden of living and working in particularly inhospitable climatic conditions. About one-tenth live and work in almost impossibly cold and large cities in Siberia, places where average January temperatures range from -15 to -45 degrees Celsius (+5 to -49 degrees Fahrenheit).\* Given their locations, these cities (as they did in the Soviet period) depend heavily on central government subsidies for fuel and food; they also rely on preferential transportation tariffs. Costs of living are as much as four times as high as elsewhere in the Russian Federation, while costs of industrial production are sometimes higher still. The cities and their inhabitants are cut off from domestic and international markets. Russia is, as a result of its old centrally planned system, more burdened with

<sup>\*</sup> In the remainder of this book, we will cite temperatures only according to the Celsius (centigrade) scale. A Celsius to Fahrenheit temperature conversion chart is in appendix A.

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problems and costs associated with its territorial size and the cold than any other large state or country in northern latitudes, like the United States, Canada, or the Scandinavian countries.

From the perspective of today's market-economy imperative, looking back over Russia's history reveals that misallocation was the dominant characteristic of the Soviet period. Resources (including human resources) were misused from the point of view of economic efficiency. The system produced the wrong things. Its factories produced them in the wrong way. It educated its people with the wrong skills. Worst of all, communist planners put factories, machines, and people in the wrong places. For a country with so much territory, especially territory in remote and cold places, location matters a great deal. Not only did Russia suffer from the irrationality of central planning for more than seventy years, but Russia's vast territorial expanse offered latitude for a system of misallocation to make mistakes on a huge and unprecedented scale. Had the Bolshevik Revolution taken place instead in a country as small and contained as, say, Japan, the damage could not have been as great. While central planning would still have distorted the economy, it would not, and could not, have distorted it as much in terms of locational decisions. In Russia, Siberia gave the Bolsheviks great room for error. Towns and cities grew to huge size in places they would never have developed under the influence of free-market forces.

Of course, the Bolsheviks inherited Siberia and the rest of Russia's vast territories from the tsars. It was the tsars who, over the course of five centuries, made Russia the world's largest country—a state defined by its physical geography, with a national identity rooted in the idea of territorial expansion and size ("gathering the Russian lands"). It was also the tsars who first pushed people out into Siberia and planted the seeds of cities on the farthest frontiers of the state to establish and affirm Russian sovereignty. But it was the Bolsheviks—the Soviets and their central planners—not the tsars, who shaped modern Russia's economic geography. Where the tsars had placed forts, villages, and towns in Siberia, the Soviets built cities of over a million. Where the tsars exiled thousands of prisoners to Siberia, the Bolsheviks and Soviets deployed millions of labor camp inmates to build factories, mines, and railways, as well as cities. The tsars bequeathed to the Bolsheviks a huge swathe of the world's coldest territory. The Bolsheviks chose to defy the forces of both nature and the market in developing it. Soviet planning subsequently gave modern Russia a supremely distorted economic geography with a huge portion of the bequest (cities, factories, and people) lost in the distance and cold of Siberia. It was a costly gift that can neither be easily maintained nor adapted to the market.

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This book uses economic statistics, economic geography, and history to describe the extent to which people in Russia live and work in the wrong (distant and cold) places and to examine the implications of this for the modern Russian economy. Reviewing the history of Russian territorial expansion and the conquest and development of Siberia, the book outlines when and how this misallocation of resources happened. It explains why market mechanisms alone were not able to rectify economic distortions in the 1990s and why these distortions are likely to persist in the immediate future—given desires at all levels of the Russian government to redevelop and repopulate Siberia, and the fact that Russia's size and ideas of battling the elements continue to define the modern state. Finally, the book considers ways in which the Russian government might be able to address some of the distortions by rethinking the relationship between Russia, its economy, and its territory, especially Siberia.

This last point is especially important. Because the spatial misallocation was on such a massive scale, and went on for so long, it has actually become part of Russia's profile. Russia continues to be defined by its size. In spite of all its upheavals, including the loss of territories associated with the Soviet Union and the Russian Empire, Russia remains the world's biggest country. The discrepancy between its sheer size and its economic potential continues to draw the attention of even the most renowned economists and radical reformers in Russia as well as international observers. Consider, for example, this formulation attributed by Russian journalists to Andrey Illarionov, President Putin's economic adviser, in a December 2002 presentation on Russia's persistent economic difficulties and the prospects for growth:

Today the way Russia looks on the map of the world is as follows: it occupies 11.5 percent of the world's territory, it has 2.32 percent of the global population total, and its share of world gross domestic product (GDP) is 1.79 percent in terms of purchasing power parity and 1.1 percent at market exchange rates. The unavoidable conclusion here is a cruel one. Human history has no precedent of a gap this wide between "territorial power" and economic "insignificance" holding for any extended length of time.<sup>1</sup>

We argue in this book that trying to tie GDP to territory is precisely the wrong way to think about Russia and its economic development. Instead, we should first remember that economies are "big" not because of their territorial expanse or quantity of raw materials, or even because of the amounts of physical output. Economic size is a matter of the *quality* of the output as measured by *value created*. Today's "big" economies are big because of the number

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of transactions that take place within them. Since the time of Adam Smith, we have known that the rate of value creation depends on the degree of specialization of the economy and the intensity and complexity of exchange within it. In this context, Russia is a large economy, but only as measured in the numbers of plants, machines, and the physical quantity of other inputs. The central issue to be resolved in the Russian economy is, therefore, how to put those inputs to their highest-value uses. To accomplish this, Russia needs *not* to try to bring its population, purchasing power, GDP, or any other economic index into line with its territorial size, but to concentrate people and resources within that territory.

In essence, to become competitive economically and to achieve sustainable growth, Russia needs to "shrink." It must contract not its territory (its physical geography), but its economic geography. "Being big" is a serious impediment to development unless distances can be reduced and connections between population centers and markets can increase. Shrinking distance and increasing connections has been the consistent trend in other large countries over the course of their histories. Responding to market forces, the United States, Australia, and Canada, for example, have concentrated and connected their populations within their own vast territories much more than Russia. For the purposes of both economic productivity and good governance, this gives them a distinct advantage over Russia.

Russia's greatest dilemma today is that it must connect an economy that is both physically vast in size and terribly misdeveloped. This is a costly endeavor, and it is also likely to be inefficient once accomplished if connections are pursued within the framework of Russia's current economic geography. Reconnecting the Russian economy is not simply a question of refurbishing and upgrading the existing systems of road, rail, and air transportation, or of constructing new infrastructure and creating new means of communications. This will simply improve the connections between existing towns, cities, and enterprises—especially those in Siberia—which should never even have been located where they are in the first place. New infrastructure will, at high cost, have made places more livable where, from an economic point of view, few should live. As a result, the Russian government and the population will have forgone alternatives that are better.

In the final analysis, if Russia is to "shrink"—contract its economic geography, concentrate its population, and ultimately connect its economy—then *mobility* is the key to the future. Modern economies are characterized by mobility of factors of production. Today the world is becoming more mobile as people seek new and better opportunities for themselves and their families. This means that people in Russia need to move to warmer, more productive

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places, closer to markets and away from the cold, distant cities placed by the GULAG and communist planners in Siberia. Unfortunately, the dominant trend in Russia's imperial and Soviet history has been to constrain as well as direct the movement of population. Today, although the legal right to move is enshrined in the new Russian constitution, Russians are still not really free to relocate to places where they would like to live and work. Residence restrictions in cities like Moscow, resource constraints, poorly developed job and housing markets, and the absence of social safety nets all work against personal mobility, while the Russian government also attempts to direct investment to target locations of its choosing. Ensuring mobility, not just changing the system, will be the major challenge for Russia in the coming decades.