Russia's unfulfilled potential*

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Russia is in many ways a unique case, with a relatively mediocre ranking of 49, well below the rank of countries such as Chile (29), Malaysia (34), and Poland (40), which share broadly similar levels of income per capita (see Tables 6 and 8). Russia has a solid human capital endowment, reflecting decades of investment in education in science and technology. If, as noted earlier, Latin America has a grand total of three Nobel Laureates in science, there are at least ten Russian Nobel Laureates in physics alone. And had Alfred Nobel created a category for mathematics, there is little doubt that Russian mathematicians would have been awarded many prizes, perhaps more than any other nation. At the same time, however, it is a country where there is a huge gap between the stock of resources spent in past decades to foster contributions to knowledge, on the one hand, and, on the other, the kind of output that we would normally recognize today as reflecting achievements in scientific innovation, such as, for instance, patent registration or the presence of identifiable Russian brands in manufactured exports. Soviet technology was able to send the first man into space; it made significant advances in nuclear energy technology; but the context of the Cold War and the inefficiencies of central planning misdirected vast resources to the military-industrial complex, at huge cost in terms of living standards. By the time the Soviet Union collapsed in 1991, it was producing large nuclear submarines, MIG aircraft, and other weapons (sold on credit to its allies in the developing world), but not many consumer goods, and few, if any, manufactured goods with even minimal presence in the global economy. The 1990s witnessed a disorderly transition to a sort of market economy which involved redeployment of labor from the military-industrial complex and other heavy and inefficient industries to the private non-defense sector, particularly light manufacturing, services, and other industries long neglected under the state planning system.

A difficult business environment

There are several factors that help explain the persistence of this gap between its relatively solid educational base and Russia's notable absence among international innovators. First and foremost, 18 years into its transition, Russia has still not established a particularly nurturing business environment. In fact, a case can be made that in some areas, such as levels of corruption, the property rights climate, the lack of independence of the courts, the general level of transparency in the public sector, and in the relations between the government and the business community—what the OECD calls "framework conditions" but which fundamentally refer to the stability and efficiency of the institutions that underpin the market economy—Russia is worse off today than it was five years ago.

This is certainly made unambiguously clear from the good governance indicators compiled by the World Bank and used in the institutional environment pillar of the ICI, as well as by Russia's embarrassingly low rankings in Transparency International's *Corruptions Perceptions Index*—147 among 180 countries in 2008, a drop of 61 positions since 2003.[1] Russia's deteriorating property rights climate, including for intellectual property, is particularly noteworthy—piracy is rampant in Russia—and perhaps more than any other indicator suggests the severe obstacles which at present exist for the creation of an institutional framework that will encourage innovation.

The high incidence of crime and corruption (ranging from "visits" from tax and fire inspectors to politically motivated expropriations by the state) remains a heavy burden on businesses, imposing heavy costs on them, and, therefore, undermining the ability of Russian companies to compete abroad.[2] Accounting and auditing standards are weak, raising yet another set of concerns about the investment climate. Increasing restraints on freedom of the press highlight the risks for the abuse of power, and the difficulties for civil society to emerge as a constructive counterweight to the growing power of the state. The World Bank's Doing Business Report (which provides the indicators that go into the regulatory and legal framework pillar of the ICI) paints a rather uncharitable picture of bureaucracy and red tape in Russia: from rigid labor-market laws and mind-numbing obstacles to the obtaining of licenses—it takes 54 procedures and an average of 704 days to obtain one, at a cost of close to 3,800 percent of income per capita—to difficulties in the payment of taxes and to impediments to international trade. Trading across borders is so laden with red tape in Russia that the country ranks 155th among 181 countries in this particular indicator of the Doing Business Report. This is a particularly perturbing indicator, given the need to encourage exports other than resource-based commodities, on which the Russian economy is totally dependent. According to the OECD, the share of high-value added goods in manufacturing exports from Russia to OECD countries is less than 1 percent and is even lower (0.2 percent) in the case of ICT goods. (In Taiwan, in contrast, close to 50 percent of manufactured exports are high-tech exports). Figure 5 presents the ICI's top priorities for policy reform in Russia.

Innovation policies

These extremely unfavorable business environment conditions have had a number of undesirable repercussions. The country is a major exporter of talent. Not surprisingly, capable Russian researchers with a modicum of ambition emigrate at the first available opportunity. There is no significant engagement between the scientific community and the business world. The sort of collaboration and interaction between institutions of higher education and the enterprise sector which have been so instrumental in the development of a vibrant ICT industry in Israel and Taiwan is largely absent in Russia. State funding for research and development to institutions of higher education accounts for less than 5 percent of total state funding to such institutions. This, in turn, means that state funding to science does not play the catalytic role that it has played in other countries to spur innovation. Instead, as noted by the OECD, the emphasis on "institution-based financing tends to protect incumbents and creates few incentives to increase efficiency, productivity or innovation. On the contrary, since much funding is 'cost-based' and allocated with reference to employment levels and fixed assets, greater efficiency could lead to loss of funding" (Gianella and Tompson, 2009, p. 20).

The government has attempted to steer policies in the direction of better support for R&D, with the aim of encouraging the emergence of a culture of innovation. It is aware that while levels of overall R&D spending are not low by emerging market standards, such spending remains unduly concentrated on a few sectors, and consists overwhelmingly of state funding, in sharp contrast with other countries, where much of R&D spending comes from the private sector. One way in which a better balance could be achieved in this area would be to phase out fiscal disincentives to enterprise R&D spending through accelerated write-offs. A law passed in June of 2005 on Special Economic Zones was intended to contribute to diversification of Russia's industrial structure and to stimulate innovation. Unfortunately, Russia does not have a good history with such special zones, although they have been a staple of Russian structural reforms since the 1990s. In the specific case of the 2005 law, we are skeptical that it will have the desirable effects—particularly in terms of attracting foreign investment, as Taiwan and Israel have been brilliantly successful in doing—given that "disputes concerning the creation and operation of SEZs are to be settled in Russian courts under Russian law" (Gianella and Tompson, p. 27). In the absence of mechanisms of international arbitration, it is unlikely that foreign investors may want to expose themselves to the lack of independence and arbitrariness of Russian judges and courts and, more generally, to the primitive, opaque nature of the Russian legal system.

Low ICT penetration

Finally, Russia does not do as well as might be expected in the ICI because, with the exception of mobile telephony, it does not have particularly impressive penetration rates for the latest technologies. Even in the area of personal computers—where notable progress has been made in recent years in terms of expanding their use in businesses and households—PC use per 100 inhabitants is about 13.3, putting Russia in 56th place in the world, slightly worse than its rank of 52 in 2006, and broadly in the middle among the 131 economies covered in the ICI. Similar results hold for Internet use: improvements with respect to the recent past, but absolute levels that are not high enough to put Russia above its 64th place in the world.

Other weaknesses undermining innovation potential

Other factors are likely to complicate the authorities' attempts at boosting innovation capacity over the medium term: first is the weakening of a culture of meritocracy in the public sector, with many senior positions in government now going to people with links to the security establishment, who increasingly—and presumably without the required qualifications—find themselves running large state enterprises in the energy and other sectors; second, the return to old authoritarian traditions which sit uncomfortably with the openness and willingness to "challenge the system" that are so common in successful cases of innovation; third is the country's long-term demographic trends, which foresee a rapidly aging and declining population, limiting the role of the labor force as an engine of economic growth in coming years; finally, an ambivalent attitude toward foreign direct investment, which is welcomed one day, but quickly followed by "renegotiations" of previously agreed contracts with foreign partners, all of this accompanied by the return of old fashioned ideas about "strategic sectors" which should remain under state control. This has led to a marked increase in the presence of the state in the energy and raw materials sectors. Furthermore, the 2008–2009 financial crisis is projected to result in something close to a 10 percent drop in GDP growth in 2009, and a massive widening of the budget deficit, creating a likely setback for the government's efforts to do more in this critically important area. The sum total of the above suggests that Russia is a classic case of unfulfilled potential—a giant still playing in the little leagues.

[1] In fact, between 2003 and 2008, Russia has been one of the world's worst performing countries in the *Corruption Perceptions Index*, sharing (undistinguished) company with the likes of Belarus, the Islamic Republic of Iran, Sudan, Uzbekistan, Syria, and Gambia. China's rank fell from 66 to 72; India's rank moved from 83 to 85, and Brazil's from 54 to 80, with Russia having, by far, the worst performance among the largest emerging markets.

[2] According to Richard Pipes, "Russia's Pride Could Diminish Its Power." *The Wall Street Journal*. 24 August 2009: "One of the major obstacles to conducting business in Russia is the all-pervasive corruption. Because the government plays such an immense role in the country's economy, controlling some of its most important sectors, little can be done without bribing officials. A recent survey by Russia's Ministry of the Interior revealed, without any apparent embarrassment, that the average amount of a bribe this year has nearly tripled compared to the previous year, amounting to more than 27,000 rubles or nearly US$1,000. To make matters worse, business cannot rely on courts to settle their claims and disputes, and in extreme cases resort to arbitration."

Figure 5. Russia: Top priorities for policy reform