

Re-Energizing the Indian-Russian Relationship: Opportunities and Challenges for the 21st Century

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*Discussions of the Indian-Russian partnership in policy circles are too often shrouded in nostalgia for the close diplomatic, military, commercial, and cultural ties of the Cold War years. They contain few pragmatic prescriptions for re-energizing a relationship that, while truly privileged, is showing signs of structural problems and inertial thinking. The bilateral relationship's *raison d'être* can be traced to the defense industry, where approximately 70% of the installed base of Indian equipment is still Russian-made—a situation rife with problems—and to the energy sphere, where Russia's dominant position intersects with India's growing appetite for oil, gas, and nuclear power. Despite some joint successes such as the BrahMos supersonic missile system and the Fifth-Generation fighter aircraft, the two countries have rarely broken new ground in their interactions since the fall of the USSR. Bilateral trade is still below the level of Indo-Soviet trade in 1990. The deficiencies in the pillars of the India-Russia relationship lie in the overly heavy involvement of the state, which accounts for more than two-thirds of the economy in both countries. The state sector alone cannot influence the development of trade, defense, energy, science and technology, or soft power in a globalizing, increasingly competitive market. The stimulation of the private sector, given ample incentives and privileges by both governments, is an essential part of revitalizing the strategic relationship. What's needed is a new paradigm that will make private sector activity paramount while reinforcing and building on existing state mechanisms. While helping Russia overcome its resource-based economic disability by spurring on other sectors like trade and technology, India can solve its own problems, such as feeding its energy hunger and advancing in science with the help of Russian know-how. This*

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mutually beneficial relationship in which the two up-and-coming powers join forces for stability and mutual profit and gain would be a worthwhile modern take on the “hindi-rusi bhai bhai” shibboleth.

INTRODUCTION

Contemporary scholarly publications on the Indian-Russian relationship almost invariably mention Raj Kapoor’s films and Indian tea—both wildly popular in the Soviet Union decades ago—and, going further back in time, recollect hoary anecdotes about Rabindranath Tagore’s exchanges with Leo Tolstoy. These images accurately reflect the historically close bonds between India and Russia, but also say little about what the relationship signifies for the two generations of Indians and Russians that were born or came of age after the collapse of the Soviet Union. Discussions of the India-Russia partnership in policy circles likewise are still too often shrouded in the mists of nostalgia for the close diplomatic, military, commercial, and cultural ties of the Cold War years with little reference to the new realities in both nations. Yet, much of the oratory rooted in the rich history between the Soviet Union and India does not translate into pragmatic prescriptions for re-energizing a relationship that, while truly privileged, is showing multiple signs of structural challenges and inertial thinking. These bilateral ties need strengthening which should come from a more active involvement not just from scholars but also political, media, and, critically, corporate figures. The Indo-Russian marriage is long past its youthful bloom and must at this point be based on realistic assessments of mutual strengths and opportunities as opposed to idealized and impracticable mythologizing about the bright future of “*Hindustan-Russia Bhai Bhai*.”

This paper intends to provide an overview of the historic background and key issues and to inform the policy dialogue by assessing the actual challenges and opportunities for the relationship in the context of today’s Russia and India. Based on an in-depth overview of the existing literature and interviews with many diplomats and observers on both the Russian and Indian sides, the paper in particular examines (1) whether dramatic improvements in the Indian-Russian relationship are possible in the current environment and (2) explores how such improvements can be catalyzed.

There are still great stores of goodwill between Russia and India, not just because of their historic relationship, but also due to the enduring political trust linking the two countries: they almost always vote the same way at the United Nations, and Russia has shown support for India's inclusion in the UN General Council. Russia's newly inaugurated President Vladimir Putin remains highly popular in India, credited with doing the most to normalize the bilateral relationship in recent years and respected for what the Indian media represents as a strong, dynamic leadership style. Much of this sympathy has to do with the fact that Russia has shown complete understanding of India's position on cross-border terrorism in Kashmir; in response, India continually expresses support for what it sees as Russia's protection of its territorial integrity and constitutional order in Chechnya and other North Caucasus republics. While views on Russia have worsened dramatically across the world in recent years, India remains one of just three countries to demonstrate the opposite trend—the percentage of Indians viewing Russia positively rose to 39% in 2009, up from 25% in 2008, according to the World Public Opinion Project.¹ Recent surveys by Russian scholars find that a great share of this goodwill can be attributed to India's young.²

To continue being relevant to the younger generations, both countries need to reconceive their ties for a globalized society where cooperation is based on the complementarity of resources and needs. The paradigm of the bilateral relationship thus has to be about India's and Russia's joint rise, modernization, and transformation as opposed to the outdated notion of Russia as India's "big brother" or as an alternative to India's relationship with China or the West. A more realistic assessment of where the two countries actually stand is also important because in correctly reflecting economic trends and power dynamics such an approach can help encourage Russian policymakers to orient Russia's modernization so as to hitch Russia's development to India's economic rise. These ties should not be measured by India's cooperation with the United States; any gain in this other relationship that many analysts believe is inevitable given many socioeconomic trends and trade patterns is not Russia's loss. India, like Russia, is committed to the vision of a multipolar world, where the goal is diversifying one's diplomatic, trade, and defense baskets. Therefore,

1 World Public Opinion Project, www.worldpublicopinion.org/pipa/pdf/feb09/BCEvals_Feb09_rpt.pdf

2 See Tatiana Zagorodnikova, Vladimir Kashin, and Tatiana Shaumian, eds., *Obraz Rossii v obshchestvennom soznanii Indii* (Russia's Image in India's Public Consciousness) (Moscow: Nauka, 2011).

neither India's relationship with the United States nor Russia's developing relationship with Central Asia or even Pakistan should be seen as a threat to the bilateral ties.

What Indians, and especially their political and business elite, do need to be convinced of is Russia's importance to their country and the potential for the bilateral relationship to serve India's interests. The rationale for sustaining a positive equation with Russia in fact involves considering the two countries' greatest needs and priorities over the next ten to twenty years. This approach necessitates taking a look at the future of India—a country striving to become a world power—and the future of Russia—a former superpower focused on asserting its status as a great nation.

Relations with Russia also have to be set against the broader strategic landscape of India's security issues and geopolitical priorities. Forming better ties to its Eurasian ally is crucial in the context of India's struggle to forge relations with its neighbors and its quest for a firmer diplomatic foothold in the region. Russia can lobby for India's full membership in the SCO, which has eluded India so far largely due to the negative influence of founding member China. Furthermore, the Russia-India partnership is crucial in ensuring stability in the Afghanistan region as the war winds down. India's aims to prevent Islamic extremism and narco-trafficking there correspond to Russia's. Especially given its fraught relationship with Pakistan, India needs to work with Russia, whose Pakistan ties have been steadily improving, on making sure that Afghanistan does not become a sanctuary for the Taliban in the future. And, finally, a more constructive partnership with Russia based on mutual profit and gain can help India remove some of the mistrust that has been building between the two powers in the ongoing competition in resource-rich Central Asia.

This paper examines the current status of Indo-Russian ties on five dimensions: military, energy, trade, scientific, and cultural. The paper argues that there is sufficient alignment of strategic and economic interests and a strong foundation of trust developed over a multi-generational rapport between the two countries to enable new thinking and new energy in their relationship. Drawing on this foundation, better ties will require a shift from a defensive posture of measuring the bilateral relationship against India's relationships with China and the United States, to an ultimately more productive framework of joint modernization and development.

Currently, much of the Indo-Russian relationship's *raison d'être* appears to be already existing ties, especially in the defense industry where, according to most sources, approximately 70% of the installed base of Indian equipment is still Russian-made and in the hydrocarbon industry, where one country's needs, and the other's surplus, are complementary. Cooperation in other sectors is close and well-intentioned, but unenergetic. India and Russia have rarely broken new diplomatic ground in their interactions since the collapse of the Soviet Union in 1991, with the possible exception of a civil-nuclear agreement in 2009, itself following on the heels of a similar deal between India and the United States. The annual summits that have taken place since the two countries inaugurated their "strategic relationship" in 2000 have produced uneven results. The clearest proof of a relationship in need of a boost is the ongoing weakness of their bilateral trade, a linkage duly evoked in every governmental report yet still lingering at roughly USD 5.3 billion a year (USD 8.5 billion by Russian estimates), an order of magnitude vastly smaller than the USD 42 billion India-China trade and the USD 36 billion India-U.S. trade.

As is increasingly recognized, the deficiencies of Indo-Russian trade, as well as most of the other pillars of the relationship, are linked to the overly heavy involvement of the state—and the absence of energetic engagement from the private sector, which accounts for 70% of the economy in both countries. The state sector alone cannot influence the development of trade, defense, energy, science and technology, or soft power in a globalizing, increasingly competitive market. Gone are the days of the state-controlled rupee-rouble exchange rate and business delegations being ordered to visit their India or Russia counterparts by their governments, of state-funded academic exchanges and cultural propaganda initiatives. This situation has been brought to the fore by the stalling of the Comprehensive Economic Cooperation Agreement (CECA) between the two governments, which would provide special economic zones and lower import/export tariffs. While the state can and should provide the necessary structure for bilateral interaction, it needs to first and foremost encourage greater vitality and cooperation in the corporate sphere. If there is a bright future for India-Russia ties, it has to be linked to the enhancement and greater coordination of the private sector in both countries.

We propose a new paradigm that would make private sector activity in the two countries the key to a reenergized bilateral relationship across

all its major areas. First and foremost, India and Russia need to provide incentives and channel dynamism by reinforcing and building on existing state mechanisms. One possible new solution that can either be integrated into present structures or exist in parallel to them is a Russia-India Innovation and Modernization Fund, jointly financed on a 50-50 basis by the two governments. This fund would provide seed capital for collaborative projects with a distinctive joint development, research, and commercialization component. A potential source of the two countries' initial contribution to the fund could come from the USD 1.5 billion that currently stands to be paid back from India to Russia as the remainder of their rupee-rouble arrangement and is already being considered for a number of joint ventures. In the future, multiple potential models for driving corporate incentives are possible, including a venture fund that relies on matching contributions from the private sector. While the financial backing would come from the two governments, businesses would receive subsidies to help get their collaboration off the ground. The resultant increase in private sector initiatives and linkages may not lead to immediate results but will ensure greater cooperation in years to come.

The aforementioned fund is an example of the kind of creative measure needed to contribute to a revitalized exchange of goods, expertise, and cultural capital between India and Russia. Based on a realistic analysis of existing challenges and opportunities, the paper will discuss this and other short-to medium-term ideas around the main areas of bilateral cooperation that would help reenergize the private sector and lay the seeds for sustained close and important ties between the two countries in the twenty-first century. A summary of proposed initiatives follows:

1. Military/Defense – These ties should transition from the traditional importer model to a more symbiotic relationship through joint defense R&D and manufacturing. For instance, the Indian defense industry can selectively outsource manufacturing or have joint projects to bring down the costs of India-made parts and accessories for the Russian military. Increased private sector cooperation should be encouraged for defense materiel development under the new DPrP policy in India.

2. Energy – Russian and Indian private companies are experts in engineering; they should invest in joint nuclear projects beyond reactor

construction in India. One could be a private Indo-Russian consortium, set up at the initiative of the two governments, to construct nuclear power plants in third nations, particularly in Africa, that are seeking inexpensive civilian nuclear power. Opportunities also exist for India and Russia to jointly mine uranium and produce low-cost renewable energy on Indian soil.

3. Trade and Investment – Bilateral trade will benefit from the introduction of new mechanisms to promote private investments and businesses, in addition to the existing ones. To augment the impact of the Russia-India Innovation and Modernization Fund, the two governments can jointly set up an Entrepreneurs' Council to encourage cooperation between medium-sized yet fast-growing businesses.

4. Science and Technology –The two governments can create a set of initiatives and a preferential environment for the exchange of practices which will drive collaboration between mid-sized businesses in target sectors like IT, pharmaceutical research, and nano- and biotechnology. India's Ministry of Science and Technology can also devise more robust ways of scientific cooperation with Russia, such as setting up a Bangalore-Skolkovo (Russia's up-and-coming innovation city) hub for joint research and technology development, followed by hubs in India's other IT centers.

5. Culture and Education – India's Ministry of Human Resource Development should encourage private sponsors, especially those already active in the two markets, to set up branches of Russian higher-learning institutions in India. Additionally, sponsors can provide greater funding for Russian-language courses within Indian educational establishments, much like China does with its Confucius Institutes which are often located within the campuses of universities around the world.

While Russia and India may have too many needs and concerns right now to prioritize bilateral ties in the nearest future, the goal is to think of the changes to their relationship that will bear fruit twenty to fifty years from now and make the two countries truly strategic partners, joining forces to become key regional, and world, players.

1. THE CURRENT RELATIONSHIP: OPPORTUNITIES AND CHALLENGES

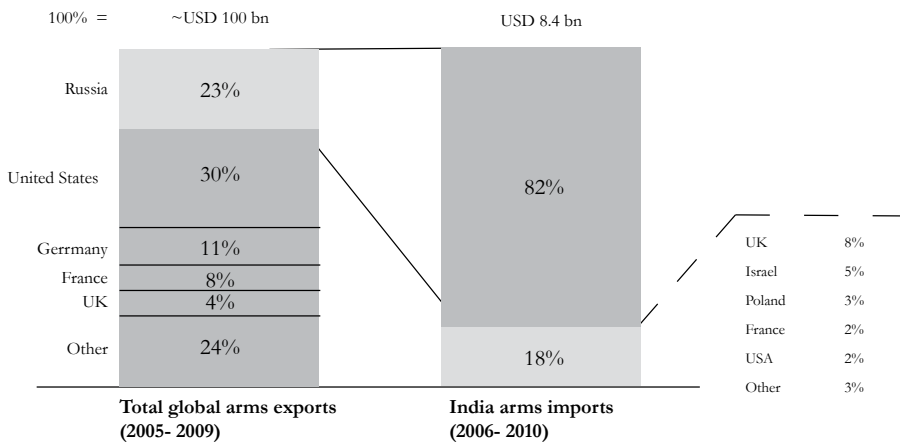
1.1 THE MILITARY-DEFENSE COMPLEX

Russia is the dominant supplier of arms to India, with the historic military and defense ties between the two countries continuing to serve as one of the cornerstones of the India-Russia relationship. Strains are becoming apparent, however, as India moves further along the path of military indigenization and import diversification while Russia continues to struggle with a long-deferred military and defense complex modernization program. While frustrations in the defense sector may not be articulated loudly as they were over a recent incident involving the overly expensive outfitting of the aircraft carrier *Admiral Gorshkov*, differing perceptions remain. Despite these challenges there is a clear opportunity for closer cooperation on joint military modernization. The success of the defense relationship depends critically on India's ability to continue to transition ties from the traditional importer model into a more symbiotic relationship that could potentially involve helping Russia with its military modernization challenges through joint defense R&D and manufacturing.

With a USD 34.8 billion defense budget (2010), India imports more than 70% of its arms, an amount totaling over USD 2 billion annually. The budget is expected to grow in line with India's economy as defense spending has been relatively consistent over the past decade at 2.5-3% of the country's GDP. Over the last five-year period for which data is available (2006-2010), India was the largest importer of conventional arms in the world, with a 9% share of all weapons imported globally according to the Stockholm International Peace Research Institute.³ During the same time, Russia—which together with the United States is a leading global supplier of conventional weapons—accounted for 82% of Indian arms imports⁴ (Figure 1). Although a number of Russia's military technologies have become outdated, many are still valuable, the legacy of Russian equipment in the Indian military is strong, and the appeal is further enhanced by Russia's cut-rate prices, a third lower than those from Western suppliers.

3 SIPRI Yearbook 2011, Chapter 6, www.sipri.org.

4 For the list of the kinds of weapons India imported from Russia in 2005-2010, and their numbers, see Amit Kumar, "The Indian Navy Chief's Visit and Indo-Russian Defence Cooperation, IDSA Comment., 29 July 2011.



Source: SIPRI data; author's analysis

Figure 1 - Russia has a dominant position in India's arms imports

Historically, since the 1970s the Indian military has been dominated by Russian equipment, with the share of Russian-origin hardware peaking at nearly 80% by the end of the Soviet period. After a drop in military imports from Russia during the chaos of the post-Soviet transition, Indian-Russian defense cooperation was again put on a firm footing with the landmark USD 1.46 billion deal signed in late 1996 with the Sukhoi Corporation for the delivery of 50 Su-30 combat aircraft. India has since signed contracts for the delivery of hundreds of more Sukhois with the latest, USD 3.33 billion deal announced in 2010 for the delivery of 42 aircraft by 2018 which will be the core technology of the Indian air forces for the foreseeable future. Most Indian navy vessels are likewise of Soviet/Russian origin. Additionally, for over four decades, the mainstay of the Indian infantry has been the AK-47 (Kalashnikov) as well as the Russian Dragunov sniper rifle.⁵

The most positive feature of the Indo-Russian defense cooperation is an increasing focus on long-term-basis transfer of technology, modernization of existing equipment, and access to the latest equipment and weaponry in the Russian arsenal. Most promisingly, the defense relationship has begun to move beyond the "buyer-seller" model to a more cooperative relationship involving joint research, design, and production. Russia is the only country, for instance, with whom India has an institutionalized

5 "Security Trends South Asia: India Defence: India, Russia Expand Defence Cooperation," 14 November 2010, www.security-risks.com

mechanism at the level of defense ministers to monitor military-technical cooperation. The shift has been slow, however, and many of the fruits of increased cooperation are still to be seen.

One important cooperative effort has been GLONASS, the Soviet-era global satellite navigation system that India had decided to cooperate on making fully functional in 2007, as an alternative to being dependent on the American GPS system. As of January 2011, India joined the Russian GPS network, having signed a formal agreement the previous year to get access to high precision signals while manufacturing GLONASS-based navigation devices jointly with Russia. Other promising joint ventures in the defense space have been the Medium Transport Aircraft Development Program, Sukhoi/HAL (Hindustan Aeronautics Ltd) Fifth-Generation Fighter Aircraft, and the Multi-Generation Fighter Aircraft that will be fitted with the BrahMos supersonic cruise missile system that the two countries have also been developing together, under a joint patent.

Despite these historic strengths, the defense relationship also faces a number of notable challenges. On the level of defense strategy, the biggest issue in the bilateral ties is the implications of India's indigenization drive. The Defence Procurement Policy (DPP), dating back to 2002, now requires foreign vendors to offset 30-50% of their orders through indigenization of production. The DPP was reinforced with a new Defence Production Policy (DPrP) in 2011, focused on encouraging domestic design and manufacture independently of import orders.⁶ In 2009, for instance, the Indian Navy took a major leap with the launch of the first domestically built nuclear-propelled strategic submarine named Arihant. In late 2009 and 2010 India also rolled out its first batch of indigenous, Russian-designed T-90 tanks, planned to be the country's main battle tank for the next three decades.

In the near term, indigenization is unlikely to affect Russia's share of the Indian market dramatically. The Military-Technical Cooperation agreement between India and Russia – signed in 2007 and in place until 2020 continues to dictate much of India's military procurement policy. Russian technology still constitutes the absolute majority of Indian military equipment (estimated at slightly less than 70% of India's military hardware). Additionally, India accounts for 40% of Russia's annual defense

6 Defence Production Policy (DPrP) (see www.mod.nic.in/dpm/DPP-POL.pdf).

exports and this share will likely increase to over 50% in the next few years given the current pipeline of contracts.⁷

At the same time, indigenization is already having an impact on the defense relationship. India's Ministry of External Affairs has stated that Russian equipment is targeted to decline towards a 60% share. Additionally, analysts consulted for this report believe that as part of the indigenization drive India will increasingly look to diversify its procurement strategy by boosting high-tech imports from well-capitalized non-Russian suppliers. Given that Indian defense purchases are a core pillar of the funding for Russia's defense R&D and manufacturing industry, Russia's defense complex unsurprisingly views such moves as a strategic challenge and a threat.

Beyond indigenization, the most frequently mentioned challenge to the defense relationship is the unreliability of Russian supplies, as manifested in late arrivals, defective parts, and perennial conflicts over pricing and warranties. Tales of new parts being ordered by India from Russia and old repainted ones being received instead, of late deliveries and unexpected price hikes, abound. In 2005, for instance, the relationship was marred by a scandal concerning T-90 tanks that came from Russia without a missile firing system and with overheating problems.⁸ In 2009, Indian defense stakeholders publicly expressed their unhappiness with the delays in the delivery of Russian AWACS system and the concomitant disputes over pricing. Moreover, it was deemed necessary to reinforce these jets' airframes and install more powerful engines to fit the Israeli radars chosen for their superior quality to Russian ones. No more orders for the jets followed, and the incident was rumored to cause India to reconsider its Russia procurement strategy.

Many of these challenges are not new and are surface symptoms of deeper maladies on the Russian side. As the Russian economy became de-militarized in the early 1990s, the chaotic transition in the post-Soviet period saw the fragmentation of manufacturing and design capabilities across multiple ex-Soviet states and a dramatic reduction in the level of resources for the military-defense complex, events with consequences that

7 According to the Russian Center for Analysis of International Weapons Trade, India will account for 54% of Russian arms exports from 2010 through 2013, estimated at over USD 15 billion.

8 See Bakshi, p. 456.

have lasted to this day. A separate issue has been bureaucratic inertia and growing corruption. Five years ago, complaints over the corruption and inefficiency involving Russian arms deliveries led to the creation of a joint agency in India called Rosoboron Service, a branch of Rosoboronexport, especially to oversee the timely supply of Russian spare parts to India and their maintenance. There has also been some de-monopolization of the Russian defense sector in the last decade, with private arms supply firms entering the market and leading to somewhat improved logistics and prices. Yet, complaints from the Indian side about the life-cycle costs and performance-based logistics of Russia's arms have not subsided given the deeper systemic issues in Russia's military and defense establishment.

With Putin's support, President Medvedev (2008-12) was a vocal advocate of addressing Russia's military woes, and in January 2011 announced a major army modernization program. As intended, it would cost Russia USD 20 trillion and involve the purchase of hundreds of new surface and underwater vessels and aircraft, thousands of helicopters, missile and air defense systems. Plans are also afoot to cut back on the size of the military and update procurement procedures. A special department is to be established in the defense industry that would determine the prices for defense products, which should streamline future purchases by foreign countries. While the reform is awaiting approval in the Russian Parliament, skeptics have already been questioning whether Russia will indeed go through with its grandiose plans given pre-election distractions and how long this gigantic-scale refurbishment might take.

The latest source of tension in the relationship has been the April 2011 announcement that the Russian MiG-35 failed to make the short list for India's single largest defense procurement deal, a tender to purchase 126 fighter jets under the MMRCA (Medium Multi-Role Combat Aircraft) contract. This USD 11 billion deal, currently being decided between two European jets, is part of India's plan to spend USD 50 billion over the next five years on modernizing its armed forces; the American Boeing and Lockheed Martin have also been taken out of the running.⁹

The Russians themselves in an analysis of the losing bid highlighted that "the Indian delegation that studied the situation at the Russian enterprise working on the MiG-35 programme apparently had doubts as to whether

9 See "India Chooses European Fighters over US Rivals," BBC News, 28 April 2011.

the firm could fulfill the future contract on schedule.”¹⁰ Other observers have noted that performance considerations were the key driver for the bid’s failure. As Brigadier Arun Sahgal writes, “essentially for the first time [the] Indian Defense establishment has decided to give priority to technical parameters and state-of-the-art technology than [sic] purchasing old airframe albeit with modern and third-generation avionics.”¹¹ Carnegie Endowment’s study also came to the conclusion that it was the superior fighting ability of the finalist aircrafts on offer that served as the dealbreaker.¹²

Russia’s recent disappointment related to India’s defense purchases brings back memories of equipment procurement-related scandals amidst pervasive concern about the viability of its much-needed military reform. These challenges are a warning sign, but can be not just a challenge, but an opportunity. India will continue needing spare parts for its defense equipment of Soviet and Russian origin; further large-scale acquisitions from Russia, however, are at this point in question. Maintenance needs for the current stock of arms are not the only reason why India should not neglect a productive relationship with its most significant arms supplier. Despite problems of faulty or obsolete equipment, Russia still has relatively low-cost and cutting-edge technology—especially in aeronautics—and, often, the willingness to transfer it or engage in joint development with Indian engineers. The same cannot be said for Europe or the United States, with their more onerous export regulations and lack of historical ties to India’s defense industry.¹³ According to Brigadier Sahgal’s prediction, henceforth “India will upgrade and modernize current Russian equipment in service” while inducting “modern state-of-the-art technologies both Western and indigenously developed” and in the process trying to “create a sustainable indigenous military-industrial base.”¹⁴ By this account, cheaper Russian-made defense equipment may be fitted out with cutting-edge Israeli, American or European parts, as India has already done with a recent batch of Su-30s. There will thus continue to be a substantial place—albeit a necessarily diminished one—for Russia in India’s defense acquisition plans.

10 Victor Litovkin, “Not to Worry, India Ties Will Survive MiG Setback,” 10 May 2011, *Russia & India Report*.

11 Interview with Brigadier (Retd.) Arun Sahgal, 16 June 2011.

12 Ashley Tellis, Carnegie Endowment, “Decoding India’s MMRCA Decision,” *Force*, June 2011, pp. 8-17.

13 For more on this subject, see Kanwal Sibal, “India’s Relations with the US and Russia,” *Force*, 13 June 2011.

14 Interview with Arun Sahgal, 16 June 2011.

THOUGHT-STARTERS ON RE-ENERGIZING THE RELATIONSHIP

The India-Russia defense relationship should no longer be allowed to drift without a new and more realistic policy framework that (1) acknowledges India's commitment to indigenization and import diversification with the inevitable consequence of reduced arms imports from Russia over time, but also (2) clearly commits to a long-term knowledge and production partnership with the Russian defense industry. Even if Russia's loss of a share of the traditional Indian arms market is inevitable, the joint relationship has the potential to remain strong in the coming decades with appropriate framing and expectations management. In order for this to occur, India needs to have realistic expectations of the life cycle costs of Russian equipment and the limitations on Russia's ability to follow through on its delivery and quality commitments. The Russian side, for its part, needs to invest more into developing competitive products and delivery procedures rather than relying on inertia, historic ties, and close relationships within the older generation of Indian military policymakers and defense procurement officials. The Indian government needs to lobby the Russian one to exercise better quality control over production and roll out storing facilities for weapons slated for export, while also taking into consideration the arms' life cycle costs. Additionally, both sides should be interested in building more transparency and accountability into the relationship. An important step in streamlining the defense acquisition procedure would involve giving more substance to the India-Russia Intergovernmental Commission on Military-Technical Cooperation so it could provide greater oversight.

A revamped defense relationship will also require greater coordination and cooperation between the two ministries of defense, more than the demonstrations of goodwill that have so far taken place. In particular, there is significant potential in setting up several centers of defense excellence in research and development in Russia and India, with India taking the lead on funding such centers under the new DPrP policy. This scenario could also involve increasingly outsourcing the engineering and manufacturing of defense equipment and spare parts to India, rather than India simply buying the necessary parts, for top dollar, from the West. Such a development would lower prices, enable greater Indian control over deadlines and quality, and ultimately, grow native defense production

capabilities with the goal of creating an independent, indigenous industry in the future. At the same time, this approach could create opportunities for Russia to outsource some of the military production for its own domestic purposes to India. For instance, the Indian defense ministry can help Russia with its modernization challenges, e.g. by select outsourcing of manufacturing or joint projects to bring down the costs of provision of India-manufactured parts and accessories for the Russian military. Another promising direction is joint Indo-Russian production of armaments for other nations, such as the partners' recent plans for the sale of BrahMos missiles to "friendly" third countries, e.g. Indonesia, Malaysia, Brazil, and the UAE.

While defense cooperation between the two countries is now almost exclusively a state-to-state affair, the Russian-made arms on offer to the Indian market are constantly in danger of being treated as political commodities. Following the lead of Russian non-state firms getting into the military equipment business, more private sector cooperation should be encouraged in both countries for defense materiel production. The platforms of indigenization, joint development, and low-cost manufacturing in India should form the cornerstone of Indian negotiations with Russia's defense complex, on a free-market basis, in the future.

1.2 ENERGY

OIL AND GAS

India's hydrocarbon consumption is projected to increase at a rapid pace. At present, India is the world's fifth largest oil importer, bringing in 65% of its oil from abroad and meeting 80% of its needs from overseas. The IEA estimates growth from 3-3.5 million barrels per day in 2010 to over 5 million per day in 2020.¹⁵ India also imports almost half of its gas requirements.¹⁶

Russia, with one of the world's largest supplies of oil and the largest supply of natural gas, has so far shown itself well positioned to meet those needs.

15 "Electricity in India," IEA, 2006 www.iea.org/work/2006/gb/publications/india_electricity.pdf and "Oil Market Report," IEA, 15 March 2011 <http://omrpublic.iea.org/currentissues/full.pdf>

16 See V. Balaji Nagendra Kumar, "Energy Security Scenario and Challenges in India" in *India and Russia: Problems in Ensuring Energy Security*, ed. R. K. Mishra, Ranjit Sinha and R. B. Rybakov (New Delhi: Academic Foundation, 2011), p. 44-47.

At the time of his coming to power, Putin promised to give India broader access to Russia's vast hydrocarbon wealth, with some success over the past decade: Indian investments in Russia's hydrocarbon sector already total over USD 4.25 billion as of 2010.¹⁷

India's ONGC Videsh Limited (OVL), which operates petroleum assets abroad, is an investor and shareholder (20%) in the Sakhalin-1 offshore natural gas development project in Siberia, having already committed nearly USD 2.7 billion to the project. The conglomerate has also been seeking a stake in Sakhalin-3, a joint venture between ONGC and the main Russian hydrocarbon company Rosneft. Furthermore, ONGC has been keen to tap into Russia's oil market, in 2006 taking over Imperial Energy, a London-listed Russian oil producer, for USD 2.6 billion. In recent years, India has been cooperating in extracting hydrocarbons in Siberia, particularly in the giant oilfields of Trebs & Titov with Bashneft, the Kirinsky gas block with Gazprom, and Yurubcheno-Tokhomskoye oil field with Rosneft. According to the latest reports, India has also been pushing hard for the possibility of investing in the marketing of Liquefied Natural Gas in the Yamal region of the Arctic Ocean, with Russia's technology concept company Novatek, and bringing the LNG back to India.¹⁸

Increased access for India to Russia's gas supplies is closely aligned with Russian priorities as Russia needs to diversify its gas exports away from existing European channels. Currently the major supplier of gas to Europe, Russia might lose a share of its European clientele once the U.S.-led Nabucco pipeline is built—this route is slated to carry Azerbaijani gas through Turkey and Eastern Europe to Austria, bypassing Russia and depriving it of valued Eastern and Western European consumers. In response, Russia has plans of increasing its natural gas exports to Asia to 25% from a current level of 5%.¹⁹ In December 2010, Medvedev said that Russia is considering participation in the TAPI (Turkmenistan-Afghanistan-Pakistan-India) pipeline, the project to deliver gas along the ancient Silk Road being funded by the Asian Development Bank, per a framework agreement signed in December 2010. Gazprom, the world's largest extractor of natural gas, would serve as the key supplier

17 "India Leans on Russia in Energy Race," *The Wall Street Journal*, livemint.com, 25 November 2010.

18 Ibid.

19 See Nivedita Das Kundu, *India-Russia Strategic Partnership: Challenges And Prospects* (New Delhi: Academic Foundation, 2010), p. 74.

for the project.²⁰ India is reportedly hoping that Russia will both provide expertise and stability to the project, be a guarantor for the connecting link between the South and Central Asian portions of the pipeline, and serve as a potential arbiter between India and Pakistan, with which Russia has a rapidly improving relationship.²¹ However, for now, TAPI appears to get less attention from Russia than alternate gas routes. For instance, Medvedev met five times with President Hu Jintao in the course of 2010, the gas supplies to China being a major element on the agenda, while he had only one such meeting with PM Singh. While, due to the volatile regional situation, the completion of TAPI by its current target date of 2019 appears unrealistic, Russia's participation in this future project would be important if it is serious about wielding influence in Central Asia.

On the oil front, while ties between India and Russia have so far been very positive and there are tentative plans for broadening them further, plenty of uncaptured opportunities exist. India has been diversifying its strategic sources, recently concluding a long-negotiated Rs. 1,800 crore deal that gave India's ONGC Videsh Ltd. a 25% stake in the Satpayev oil field on the Caspian Sea, which would fill its needs for the next 1.5 years.²² In 2010, the Russian Energy Ministry and India's Ministry of Petroleum and Natural Gas concluded an inter-governmental agreement on cooperation in the oil and gas sector, yet this IGA has no power because of the two sides' failure to agree to an annexure. Such a document would have provided tax relief to ONGC, letting it pay taxes on the profit from the oil rather than on every barrel produced. Moscow would also have been contractually obligated to carry out all the projects, and the financial arrangements therein, in the agreed-upon time.²³ Without an annexure, there is more potential for disagreement, as well as a lost opportunity for India to engage in additional projects under the more favorable and secure terms.

Promisingly for Russia, Indian needs for oil and gas are great and ever-growing, while Russia's own economy shows no signs of moving away from its hydrocarbon dependency. Furthermore, there is today in India a strong push to make parts of the manufacturing process available to the

20 "Gazprom May Join TAPI Gas Pipeline Project," LNG World News, 16 May 2011.

21 See "TAPI No Longer a Paper Tiger," *Mainstream*, Vol. XLIX, No. 13, 19 March 2011.

22 The Satpayev field expands ONGC's footprint beyond the existing patchwork of assets in Vietnam, Myanmar, Russia, Iran, Iraq, Syria, Libya, Nigeria, Sudan, Brazil, Columbia, Cuba, and Venezuela.

23 "India, Russia Sign IGA on Oil & Gas, Differ on Project Timeline Norm," *Indian Express*, 22 December 2010.

private sector while research remains with government entities, a move which would open the field to more diverse projects than those headed by ONGC. Joint projects such as TAPI (slated to open in 2019 yet contingent on the regional situation) and swap arrangements—important given the insecurity of the current energy transport routes—hold the greatest promise in this regard, and the hope is that the various states involved will iron out their differences to enhance cooperation.

URANIUM AND NUCLEAR ENERGY

Use of atomic energy reduces a nation's dependence on natural resources such as oil, gas, and coal, therefore the development of nuclear power has been a priority for independent India. India's current nuclear power program is expected to reach 20,000 MW in nuclear capacity by 2020, up from 22 billion KW today. The long-term ambition is reaching 63,000 MW by 2032, with the ultimate goal of supplying 25% of electricity from nuclear power by 2050 through a nuclear industry with high indigenous engineering content.²⁴ As a result of this expansion plan, it is expected that India's demand for nuclear fuel will increase tenfold by 2020, up to 8,000 tons of uranium a year, while doubling its 20 nuclear plant capacity.²⁵

Russian-Indian nuclear cooperation has a long history. Before the break-up of the Soviet Union, the two countries signed a nuclear cooperation deal in 1988, updated a decade later, and extended with other agreements, like the 2002 agreement for the construction of two nuclear reactors by Russia at Kudankulam, Tamil Nadu. The Kudankulam plants—finally started up in the wake of the 2011 India-Russia summit—have opened the door to greater Russian involvement in India's nuclear energy field; four additional nuclear reactors are being planned. Meanwhile, the 2008 Civil-Nuclear Agreement with the United States, following an accord by the Nuclear Suppliers' Group amidst a dramatic change in American policy, ended India's nuclear isolation and presented the potential for greater cooperation with the West. In 2009, close on the footsteps of the U.S.-India deal and following up on their own history, India and Russia sealed a breakthrough long-term pact for expanding civil nuclear cooperation that is free from any restrictions on India and guarantees it against any curbs

24 www.world-nuclear.org/info/inf53.html

25 See Henry Sokolski, "Negative Reaction," *Armed Forces Journal*, 4 May 2011.

in the future. It was announced that this deal would “ensure transfer of technology and uninterrupted uranium fuel supplies to [India]’s nuclear reactors.”²⁶ Accordingly, Russia made its first Indian uranium delivery in April 2009.

During then-Prime Minister Putin’s visit to India in March 2010, Russia expanded on its cooperation pact with India with a roadmap agreement providing for up to sixteen nuclear power units to be built in India over the next fifteen years. As Russia’s Ambassador to India Alexander Kadakin has pointed out, this agreement will be a core element of India’s plan “to more than quadruple India’s nuclear power capacity by 2020—a target outlined by the Indian government.”²⁷ Russia’s state-owned nuclear company, Rosatom State Nuclear Energy Corporation, earlier said that six of these reactors, including one in Haripur and one in West Bengal, would be built by 2017. Furthermore, in 2009, Russia had offered India the option of participating in the International Uranium Enrichment Center in Angarsk, Siberia, which would guarantee fuel supplies.²⁸ However, the challenge that Russia and India are facing in their bilateral energy relationship is competition from other countries. India was largely excluded from trade in nuclear materials for 33 years while it refused to sign the Nuclear Non-Proliferation Treaty so as not to jeopardize its weapons program. The 2008 deal has changed that, as Ambassador Kanwal Sibal has observed: “the underlying purpose [of the Indo-US nuclear deal] was to put the India-US relationship on a new footing, remove mutual distrust of the Cold War period, lift the obstacles to India’s greater integration with the international system, recognize the value of the long-term relationship with the next big Asian power to rise, exploit the market opportunities in a growing India, and tie up India within evolving global structures superintended by the West.”²⁹

The largest consequence of the 2008 agreement is that for the past three years, India has significantly increased its acquisition of foreign nuclear technology and fuel to advance its energy strategy.³⁰ Beyond US and Russia, civilnuclear cooperation agreements have been signed between India and France, UK, South Korea, and Canada, as well as Argentina,

26 “India, Russia Sign Nuclear Deal,” *The Times of India*, 7 December 2009.

27 “Russia and India Expand Ties,” ITAR-TASS, 20 December 2010.

28 “Russia Offers India Role in Uranium Centre Project,” *The Hindu Business Line*, 14 April 2009.

29 Kanwal Sibal, “India’s Relations with the US and Russia,” *Force*, 13 June 2011, p. 3.

30 *Ibid.*

Kazakhstan, Mongolia, and Namibia. Kazakhstan, for instance, which has the world's second largest supply of recoverable uranium and by some estimates is poised to emerge as the number one supplier of uranium in the world across the extraction, enrichment, and fuel fabrication markets, has provided a comparable amount of deliveries to India. France is in third place as India's energy supplier.³¹ The quickly improving Indo-U.S., Indo-Kazakh, and Indo-European relationships, which have all been growing quickly beyond the energy sphere, are all likely to present increased competition to Russian interests.

THOUGHT-STARTERS ON RE-ENERGIZING THE RELATIONSHIP

The state-level hydrocarbon relationship between India and Russia should proceed as before, driven by India's energy needs and the Russian economy's dependence on oil and gas exports. Meanwhile, the nuclear energy cooperation, to come under increasing competition from India's other energy partners following the 2008 U.S.-India Civil-Nuclear deal, calls for greater effort and creativity, involving the private sectors of both countries. Indian companies need to invest more in joint nuclear projects beyond reactor construction in India that can combine the engineering expertise of both nations. The Indian government should borrow Russian know-how and technology transfer capacities to help develop its uranium deposits, which it has already begun to do.³² Another longer-term opportunity may be a Russo-Indian private consortium, set up on the initiative of the two governments, to construct nuclear power plants in nations, particularly in Africa, that are seeking civilian nuclear power but lack the means to procure costlier American or French technologies.³³ Recent reports suggest, for instance, that India is currently exploring joint venture opportunities with the Canadian nuclear industry for the development of nuclear plants in third-world countries. A Russia partnership may be easier to build, given the lengthy history of cooperation at the technical level on plant development and senior policy level linkages between the Indian and

31 See Katherine Foshko, "India-Kazakhstan: Looking Beyond Energy I and II," web commentaries on the Gateway House's webpage, April 14 and 28, 2011 and Zakir Hussain, IDSA Comment, "India and Kazakhstan: New Ways Ahead," February 18, 2009.

32 See Dave Brown, "India Uranium Demand Offset by Russian Joint Ventures," *Uranium Investment News*, 25 November 2010.

33 Nations making moves in this space and/or seeking nuclear know-how include Senegal, Nigeria, Uganda, and Kenya. Niger and Ghana have looked into the idea. And Algeria, Tunisia, Morocco, and Egypt have pledged to go nuclear by 2020 and are considered the likeliest to do so.

Russian civilian nuclear power industries—and the advantage to Russia of having a cheaper labor force at its disposition.³⁴ The funding for these projects could come from the aforementioned Russia-India Innovation and Modernization Fund, which would be specifically focused on joint projects in the private sector.

Finally, there are also opportunities for agreements to produce low-cost renewable energy—wind, hydro, and solar, all resources that both countries possess—such as the deal India has in place with the United States.³⁵ Both India's and Russia's clean tech industries are far behind world leaders like the U.S. and China, yet the two nations have substantial interest in innovation in this field. The way to approach this cooperation is for the two governments to establish a joint clean energy R&D center, eventually funded by private capital, that would leverage Russian know-how and Indian manufacturing capabilities and would later transition into production.

TRADE AND INVESTMENT

The failure of Russia and India to quickly expand the volume of their trade, against the background of rapidly growing commercial relations with their other strategic partners—especially the influx of cheap, mass-produced goods from China into both—has been the leitmotif of every bilateral summit since the early 1990s. The latest official figures from the Russian Foreign Ministry show that Indo-Russian bilateral trade, including imports and exports, was around USD 8.53 billion in 2010.³⁶ Meanwhile, Indian sources estimate it to be USD 5.3 billion—the discrepancy is attributed by some sources to Russia's inclusion of Indian goods being traded through third countries, such as Singapore and the UAE.³⁷ This level of trade, slightly down from a recent peak of USD 5.4 billion in 2008-2009,

34 One important complication, however, is that the leadership of the designers unit of Russia's state nuclear corporation, including the lead designer of India's Kudankulam plant were killed when a Tu-134 passenger plane crashed in the northern republic of Karelia in late June 2011; analysts believe, however, that the overall Russian program is robust enough to survive this setback.

35 Partnership to Advance Clean Energy (PACE) created to enhance to cooperation in energy security, efficiency, clean energy and climate change and funded by a USD 50 million grant administered by USAID, with matching funding for the US side.

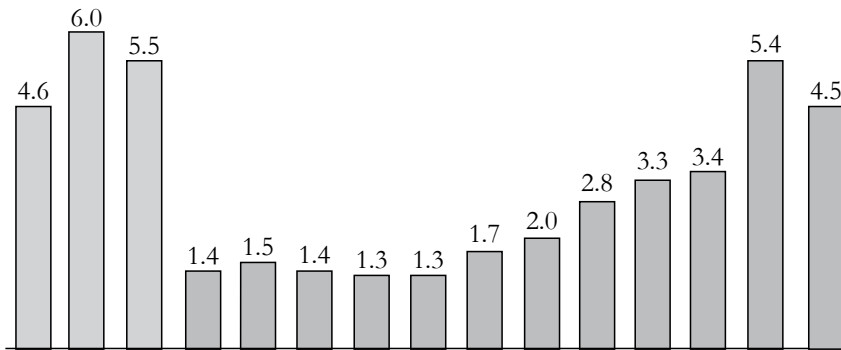
36 See the official documentation for SPIEF, June 2011, www.forumspb.com/upload/shorthand/shorthand_157_en.pdf

37 According to the Foreign Trade Statistics of India, between April 2010 and February 2011 Russian exports to India were worth USD 3.2 billion while Indian exports to Russia were USD 1.35 billion (a trade gap of almost USD 2 billion).

is actually a substantial improvement on the last two decades, approaching the level of trade between India and the Soviet Union in 1990 (Figure 2). According to the Federal State Statistics Service, as for the end of the first half of 2009, Russian investments in the Indian economy amounted to USD 762.2 million, including foreign direct investment (FDI) of USD 513.3 million. This is a far cry from the total FDI flow for India in 2009, USD 34.6 billion.³⁸ Out of all the investors in India, Russia ranked 21st from April 2010 to Jan 2011 with USD 466.98 million, predominantly in the telecommunications sector. Meanwhile, Indian investments into the Russian economy amounted to USD 1.172 billion for the first half of 2009, whereas Russia's total FDI for that year added up to USD 36.5 billion.³⁹ Both countries realize that there is vast potential for further increasing their volume of trade and investment given the sizes of the two economies, and, during Medvedev's visit to India in 2010, it was decided to set a target of USD 20 billion worth of bilateral trade by 2015. While this is still a small amount compared to projected trade figures with India's and Russia's largest partners in several years, it is widely perceived by analysts as aspirational rather than realistic.

Figure 2 - India-Russia Trade Turnover (1980 - 2010)

India-Russia Trade (Import & Export)
USD Billions



Source: Report on Currency and Finance (Multiple issues), Statistical Outline of India (Multiple issues); Indian Dept. of Commerce

38 "Russian-Indian Cooperation,"-IV Russian-Indian Forum on Trade and Investments, 20 December 2010, New Delhi statistics, www.en.restec-international.com/projects/india/cooperation/ and Foreign Direct Investment in India: Department of Industrial Policy & Promotion, Ministry of Commerce and Industry Statistics.

39 "Foreign Direct Investment in Russia up 39 pct in H1 Says Putin," RIA Novosti, 22 July 2011.

Indo-Russian trade has shown an overall modest increase over the past two decades, except for the years 2008-9, when the global financial crisis had severely affected the Russian economy. However, this increase, and the volumes of trade overall, place India and Russia nowhere near either country's most important commercial partners.⁴⁰ India is Russia's 10th largest trading partner, accounting for 1.4% of Russia's total trade, while Russia is India's 29th, making up just 0.97% of India's total trade.⁴¹

Figure 3

India's Trade with Russia, Versus Other Major Trade Partners

USD Billions

Country	2005-06	2006-07	2007-08	2009-10	2010-11	Yon Y Growth
Russia	2.8	3.3	3.4	5.4	4.5	13%
China	17.6	25.8	38.0	41.8	42.4	25%
USA	26.8	30.6	41.8	39.7	36.5	8%

Source: Indian Department of Commerce

In the days of Indo-Soviet friendship and very favorable rupee-rouble rates, India exported large quantities of its products to Russia, including tea, rice, fruit, textiles, and various household and luxury items, in return for Russian imports of arms and machinery. Now, in the absence of state-managed economic incentives and given Russia's anti-dumping laws, traditional commodities between the two countries have been traded with only intermittent success.

40 Russia's major bilateral trade partners as of 2011 were China with USD 18 billion, the Netherlands with USD 14 billion, Germany with USD 14 billion, Ukraine with USD 12 billion, and Italy with USD 9 billion. India's major trade partners as of 2009-10 were the United Arab Emirates with USD 43.4 billion, China with USD 42.4 billion (up from a mere USD 3 billion in 2001/2), USA with USD 36.5 billion, Saudi Arabia with USD 21 billion, and Germany with USD 15.7 billion. Indian Department of Commerce Statistics.

41 See www.commerce.nic.in/eidb/iecnttopn.asp

Figure 4- Russia-India trade volume (January-April 2010)

Russian Exports to India

Product group name	In millions USD	% of total
Fertilizers	411	20.4
Oil, natural gas, charred coal	232	11.5
Diamonds	176	8.7
Aircrafts and aviation parts	164	8.1
Power equipment	157	7.8
Ferrous metals	138	6.8
Land transport vehicles/ parts	131	6.5
Electrical machinery, equipment and parts	123	6.1
Optical and measuring instruments and apparatus	102	5.0
Paper and paperboard, articles thereof	46	2.3
Total	2019	100

Product group name	In millions USD	% of total
Pharmaceutical production	167	28.5
Electrical machinery, equipment and parts	157	9.8
Coffee, tea, spices	50	8.5
Tobacco	33	5.7
Various food products	28	4.8
Energy equipment and mechanical devices	26	4.4
Clothes, excluding knitted	25	4.3
Knitted clothes	19	3.3
Organic chemical compounds	18	3.0
Ferrous metals	17	2.9
	589	100.00

Russia still relies on India for the pharmaceutical exports that were one of the mainstays of Indo-Soviet trade, access to cheap medicine being a persistent problem for the Russian population. In 2010, the Russian government sought to protect its domestic pharmaceutical industry by lowering the price of local drugs and imposing regulations on foreign manufacturers, a plan which pushed a number of Indian pharma companies out of Russia. However, even now 80% of the Disclosed Limited Order (DLO) of Russia's pharmaceutical market is spent on imported products,⁴² a trend said to persist for the next several years. Moscow recently extended an invitation to Indian businessmen to supply pharmaceuticals "at moderate prices under direct contracts."⁴³ Furthermore, four agreements and memoranda of understanding related to the production of pharmaceuticals that have been concluded by the two sides during Medvedev's visit to India in December 2010 (after the aforementioned reform) points to the ongoing primacy of this industry in the bilateral trade.

Recently, both sides have been leaning away from a focus on all conventional commodity trade to stress development in the banking sector and business-to-business ties. Three out of the thirty agreements (an MoU between Central Board of Excise and Customs and Russia's Federal Customs service on exchange of information on foreign trade, an MoU between the State Bank of India and Russia's Vnesheconombank on banking sector cooperation, and an MoU between Exim bank and Russia's Vnesheconombank to operate USD 100 million line of credit signed in 2009) concluded at the 2010 Indo-Russian summit dealt with expanding bilateral trade by facilitating the banking between the two countries. Russia has only one bank, Vnesheconombank, in India. Its largest financial institution, Sberbank, has still not set up its operations there, despite having launched the process several years ago, and another, Gazprombank, is still establishing a representative office. Meanwhile, the Indian banking sector in Russia has a somewhat more diverse presence, with the State Bank of India, Canara Bank, ICICI Bank, and IDBI Bank all registered there, the first two in a joint venture with the Commercial Bank of Moscow; however, only one or two branches of each bank have been opened.

42 See Espicom Business Intelligence, "The Pharmaceutical Market: Russia," March 18, 2011, www.espicom.com/Prodecat2.nsf/Product_ID_Lookup/00000366?OpenDocument

43 "Moscow Invites Indian Business," RIA Novosti, 20 April 2011.

Three hundred Indian companies are registered in Russia, many of them dealing in pharmaceuticals. Meanwhile, there are only thirty-three Russian companies that Russia's Chamber of Commerce lists as operating in India. Almost all of these are Indian branches of Russian state-owned conglomerates involved in hydrocarbons, machine-building and construction, and arms rather than private companies.⁴⁴ One exception to this rule has been the recent success story of bilateral cooperation in the telecommunications sector, spearheaded by Russian corporate initiative. A deal was concluded under the Russian telecom brand MTS, now a frequent presence on billboards across India. MTS is owned by the midsize company Sistema Shyam Telelink Ltd (SSTL), which combines Sistema—the only privately owned Russian multinational to have entered India thus far, holding 73% of the stock, and Shyam Telelink, the smallest Indian mobile provider. MTS has already committed up to USD 7 billion to building a pan-Indian telecom network in the next several years.⁴⁵

One of the challenges often cited by the Indian side is the difficulty of doing business in Russia outside of the big cities—Moscow and St. Petersburg—due to the lack of roads, as well as the language barrier for Indian businessmen, with all communication in most companies taking place in Russian. More generally, persistent fears of corruption, lack of transparency, and inadequate insurance facilities abound. Meanwhile, the Russian side cites the hardship of setting up in India where they are bound by stringent labor laws, as well as the Export Credit Guarantee Corporation of India (ECGC)'s grade of B for Russia, which translates to a higher premium for Russia-bound Indian goods.⁴⁶

The two countries' governments have repeatedly spoken about the sluggishness of their private sectors and, in the past few years, set up several tools of cooperation to address this problem, with variable levels of effectiveness. The Russian-Indian Forum on Trade and Investment has been held annually since 2007 in Delhi. The India-Russia Chamber of Commerce, created in the same year, makes introductions between companies from both countries; some sixty-five firms are now members, mostly from the Indian side. The achievements of these bodies, as well

44 See www.indian.ru/index_en.php?page=companies

45 "Russia Gets Stake in Sistema's India Mobile Unit," *Business Standard*, 30 March 2011.

46 See Arun Mohanty, "Indo-Russian Trade and Economic Cooperation: The Way Ahead" in *India-Russia Strategic Partnership: Common Perspectives*, ed. P. Stobdan (New Delhi: IDSA, 2010).

as those of the India-Russia CEOs Council, led by Mukesh Ambani of Reliance on the Indian side and Mikhail Shamolin of Sistema on the Russian side, which has met only once since its creation in 2009, the Indo-Russian Inter-Governmental Joint Economic Commission, and the Russia-India Business Council have so far been modest. The aforementioned organizations usually discuss the overall trade environment and act as preliminary coordination mechanisms, yet lack the framework to forcefully engage in promoting interaction or creating trust on both sides. The Strategic Business Dialogue that has been held twice so far at the annual St. Petersburg International Economic Forum (SPIEF) appears to be a more effective forum, due to its focus on discussing specific deals; the long-term benefit of this new format is not clear as of yet.⁴⁷

THOUGHT-STARTERS ON RE-ENERGIZING THE RELATIONSHIP

When it comes to engaging the private sector in trade, several Indo-Russian coordination bodies with varying levels of effectiveness already exist; however, they have largely led to the creation and exchange of information and served as networking forums geared to the largest corporate and parastatal companies. While this is a good focus, with tremendous opportunity involved, it means that by their very nature these organizations will move relatively slowly. The bilateral trade would benefit from the introduction of a new mechanism that would work alongside, or in cooperation with, the ones already in place. The Russia-India Innovation and Modernization Fund, jointly financed by the two governments, would provide seed funding (of approximately USD 2-3 million) for collaborative projects with a distinctive joint development, research, and commercialization component. Multiple potential models for driving such incentives, including a venture fund that relies on matching financing from the private sector, exist. While the financial investment put into the fund upfront would come from the two governments, private businesses would receive subsidies that will help get their cooperation off the ground. The goal is to ensure that grant recipients have access to the political resources needed to minimize bureaucratic hurdles for high-priority joint research initiatives. The Fund would also coordinate with bodies like the India-Russia Chamber of Commerce and a reconceived CEOs Council which

⁴⁷ See the transcript of the proceedings: *Russia-India Business Dialogue*, business round table, St. Petersburg International Economic Forum, June 16-18, 2011.

should follow the example of more successful and established counterparts like the U.S.-India CEO Forum (also headed by Mukesh Ambani). For instance, at its 2010 meeting, the U.S.-India CEO Forum identified the following priorities: launching a private equity fund for clean energy, convening a U.S.-India higher education summit, development of long-term financing in infrastructure, and removing export restrictions for high technology from U.S. to India.⁴⁸ All these proposals could be co-opted by Indian and Russian heads of business.

Furthermore, given that the few multinational corporations in both countries have shown reluctance to take risks in a new climate, the two governments should set up a bilateral Entrepreneurs' Council to target medium-sized businesses. This can be an initiative supported by the Russian Business Council and the India-Russia Chamber of Commerce with a focus on recruiting thirty to fifty CEOs of mid-sized businesses in sectors with high potential for collaboration and exchange. The Entrepreneurs' Council should also fund a highly visible entrepreneurship conference and trade delegation visitation and exchange program. This initiative may receive additional interest and financing from industry bodies like the Confederation of Indian Industry (CII) and its Russian counterparts to incent greater Indian-Russian linkages for medium-sized yet fast-growing businesses. If correctly executed, this will be the type of transformative group needed to add incentives to existing bilateral mechanisms like the CEOs Council.

On the state level, both countries would clearly gain much from a Comprehensive Economic Cooperation Agreement (CECA), which India already has with Japan, Singapore, Malaysia, and Australia. Such an agreement enshrined at the governmental level will draw the economies of Russia and India closer together and work to increase their trade turnover, if not in the immediate future, then some years down the line. State guarantees should be provided to Indian businessmen in Russia and Russian businessmen in India by eliminating investment regulations and instituting measures such as lower tariffs on exports and imports. A CECA clause reportedly on the table is "a zero customs duty regime within a fixed time frame on items covering substantial trade and a relatively small negative list of sensitive items on which no or limited duty concessions

48 See Fact Sheet: U.S.-India CEO Forum, 8 November 2010, www.america.gov/st/texttrans-english/2010/November/20101108142816su0.137199.html

are available.”⁴⁹ Russia’s recent accession to the World Trade Organization, which provides oversight for all major trade agreements such as the CECA, will hopefully help Russia achieve freer trade and greater economic growth and, in the long run, curtail corruption.⁵⁰

SCIENTIFIC AND TECHNOLOGICAL COOPERATION

The inroads being made by Russia and India in their scientific and technological cooperation are already significant. The Integrated Long-Term Program (ILTP) that the two countries signed in 1987 and renewed in 1994 and once again in 2010 is the largest bilateral scientific and technological cooperation program that India has with any country. By 2003 it was credited with “about 3000 exchange visits from both countries [and] 300 completed joint research projects.”⁵¹ Eight joint research centers have been reportedly set up. The ILTP is coordinated by the Department of Science and Technology on the Indian side and by the Russian Academy of Sciences and the Russian Ministry of Industry & Science and Technology. Development of semiconductor products, super computers, poly-vaccines, laser science and technology, seismology, high-purity materials, and software and information technology have been some of the major areas of cooperation under the ILTP. As of 2010, 146 joint scientific and technological projects have been officially designated as top priority by both countries.

The Kremlin has been recently making substantial investments in high technology, insisting that Russia diversify its economy and shed its dependence on hydrocarbons, and its status as primarily a source of raw materials for certain nations—perhaps including India. The Skolkovo Innovation Center, a planned high-technology business area and the emblem of this new focus of the Russian government, has been under construction outside of Moscow since 2009. The state leaders have also been pursuing advances in nanotechnology, a pioneering science of manipulation of matter on an atomic and molecular level which has various practical applications in commerce, medicine, and industry. Rusnano,

49 *Report of the India-Russia Joint Study Group*, 2007, www.commerce.nic.in/publications/Report_India_Russia_Joint_Study_Group_10_9_2007.pdf?id=15

50 See Vladimir Radyuhin, “Sharma Seeks to Energize Bilateral Ties with Russia,” *The Hindu*, 18 June 2011.

51 Padma L. Dash and Andrei N. Nazarkin, *Indo-Russian Diplomatic Relations* (Delhi: Academic Excellence), pp. 16-17.

the Russian Corporation of Nanotechnologies, has received a USD 11 billion boost, earmarked for the development and commercialization of nanotechnologies by 2015.⁵² The state spent as much as USD 3.25 billion on this sector from 2008 to 2010, making it the fourth-largest investor in nanotechnology after the United States, Germany and Japan.⁵³

Meanwhile, India has been attracting foreign investors in IT and networking, given its robust market growth. Also, similarly to Russia, India invests in nanotechnology, a field where it already holds a large number of patents but has difficulty in the actual production of goods and services, despite having set up nanotech parks in Bangalore and Hyderabad starting in 2007. As of February 2011, the Indian Department of Science and Technology has been pushing for a USD 200 million joint venture with Rusnano to source nano-materials for its solar power project, and the search is on for other Indian partners to collaborate with the Russian organization.⁵⁴ Promisingly, although the Indian manufacturing sector continues to be sluggish, there is today a strong push to open parts of the industrial process to the private sector while research remains with government bodies, a development which should spur on the production of goods and services.

The domain of space has been a fruitful one for Indo-Russian cooperation. The Soviet Union was the traditional source of high technology for India's space program. Building on this historic cooperation, the Russian Federal Space Agency (RFSA, or Roskosmos) and the Indian Space Research Organization (ISRO) cooperated on Chandrayaan-1, India's first unmanned lunar probe launched in 2008. They have since been working jointly on the follow-up Chandrayaan-2 project that will place an orbiter and surface rover-craft on the Moon, although several failures of Indian Geosynchronous Satellite Launch Vehicle (GSLV) rockets in the past year have forced the ISRO to scale it down. In addition, since 2008, Russia has been participating in India's Human Space Flight Project (HSP), considered to be key among India's strategic priorities; it is to carry a crew to Low Earth Orbit by 2016. Furthermore, since 2007, the two countries have been cooperating on the development of "Youthsat," a participatory scientific mission to involve the youth of both countries in space-related

52 "Russian Nanotechnology Forays into India," TecHorizon, 2 November 2011, <http://techorizen.wordpress.com/2011/02/11/russian-nanotechnology-forays-into-india/>

53 "Inside Russia's Nanotech Park," BBC News, 4 May 2010.

54 "India-Russia Exploring JV in Solar Photovoltaic Cells," MSN News, 21 February 2011.

activities that has already launched satellites into orbit. And, in the domain of pure science, India is a partner in the Roskosmos solar-terrestrial science mission for the study of the Sun's electromagnetic radiation and, specifically, the kinetics of solar flares. Russian expertise and willingness to share technology has been invaluable in stimulating the development of India's indigenous space program.

Another ambitious joint venture is the Indo-Russian Center for Biotechnology, set up at the IIT Allahabad campus. Inaugurated in 2001, it has conducted bilateral research in areas of mutual interest, especially plant and medical biotechnology. These discoveries can be used to galvanize production in agriculture—one of India's top strategic objectives—as well as pharmaceuticals, Russia's most significant import from India. For the time being, both India and Russia are minor players on the world biotech stage—together, they hold a mere 1% of all biotechnology patents.⁵⁵ Indian firms lack the expertise to partner with Russian ones to create an innovation-driven sector, which is what Russia's government requires to pursue a high-tech agenda. However, there are many opportunities for the transfer of research and technology between both countries, if not yet for making commercially viable technologies.

Deeper prodding reveals a number of other joint scientific and technological initiatives that have either not realized their full potential or never actually taken off, despite their presence in official documentation. Many years after it was first mooted, the Indo-Russian Technology Center is still “being conceived” in Moscow, as per the official website of the Indian Embassy in Russia. The projected Russian-Indian Centre for Ayurvedic Research and the Indian-Russian Center for Geophysical Instrument-Making in Chandigarh likewise do not yet appear to exist, despite a number of MoUs having been signed for their establishment.

THOUGHT-STARTERS ON RE-ENERGIZING THE RELATIONSHIP

While the ILTP clearly needs to be held more accountable for the viability of the projects and centers set up under its umbrella, Russia and India should continue powering forth in their research cooperation and concluding new technological agreements. The collaboration to aim for involves the

55 Roger Roffer, “Biotechnology in Russia: Why Is It Not a Success Story?” FOI, April 2010.

exchange of high technology for peaceful purposes that is not affected by lack of trade routes and involves greater financial—and intellectual—capital. There is much potential for growth here—technological goods constitute only one-quarter of Indian exports to Russia.⁵⁶ Given the proven challenges of enhancing Indo-Russian commodity trade and the scientific inroads the two countries have been making, India's Ministry of Science and Technology should also be working in this direction with the Russian government to improve the bilateral trade deficit and gain a valued strategic partner in an increasingly high-tech world.

Joint medical research is one such unexplored area. India, the world's highest-burden country for tuberculosis, and Russia, the world's eleventh, with a large number of prison TB cases, could conduct collaborative research on eradicating the disease at their DOTS. In the future, the joint development of products through nano-technology has the potential to revolutionize biotechnology and medical science as well. Combined Russian and Indian engineering prowess, together with large-scale Russian investments, can result in the building of thriving nanotechnology, biotechnology, and medical, including pharmaceutical, research institutions. The exchange of IT software is another promising sector, although its development is predicated on Russia expending more of its GDP on IT development (currently, it makes up only 3.4% of the Russian GDP, as opposed to 6% in India). The two countries can also add to their one existing joint IT center by creating teams of Russian and Indian database analysts that would work together develop their products not just for local consumption but for sale in third countries as well. Furthermore, Russia and India should take advantage of each other's resource strengths in alternative energy (hydro- and geothermal power in Russia, potentially solar power in India, wind power in both) to develop joint research centers with a manufacturing component in the appropriate country.

Given that the joint high-tech centers that have been created thus far tend to be slow in executing truly bilateral projects, India should devise more robust ways of scientific cooperation with Russia. The Russian-Indian Innovation and Modernization Fund, with its specific focus on joint research collaboration with the ultimate goal of commercializing new technology, would be the appropriate vehicle for providing funding for such

56 See Sergey Lounev, "Rossiysko-indiyskie otnosheniya: perspektivy i problemy," (Russo-Indian Relations: Prospects and Problems) in G. I. Chufrin, ed., *Vnesnie svyazi stran Prikaspiya v usloviyakh global'nogo krizisa i perspektivy Rossii*, Moscow: IMEMO RAN, 2010, pp. 117-129.

undertakings. A priority in the coming years will be setting up a Skolkovo-Bangalore hub for joint research and technology development, followed by more hubs in India's other IT centers, such as Chennai, Hyderabad, Pune, Coimbatore, Mumbai, Kolkata, Trivandrum, Jaipur, and Bhubaneswar. The Indian government should create a preferential environment for these high-tech, high-priority sectors that are less encumbered by infrastructure and manufacturing weaknesses, and the absence of low-cost transport links, in both countries.

CULTURAL AND EDUCATIONAL TIES AND "SOFT POWER"

Cultural and educational ties between India and Russia are the most woefully neglected aspect of their relationship, suffering on both sides from lack of funding and, no less important, a shortage of political will. Major efforts have to be undertaken by the two governments to revive their once vibrant academic and cultural exchanges. This is an important adjustment that needs to happen because, while "soft power" by itself does not stand as a dealbreaker in a bilateral relationship, it is a critical enabler for scientific, trade, and military ties. India and Russia historically enjoyed solid ties in the cultural sphere, the pre-1991 era being abundant in long-term scholarly and student exchanges, culture festivals, and art exhibits in both countries, as well as many new academic works touching on the bilateral relationship. At present, however, there is only limited funding earmarked for academic exchanges in both countries, and only ten academics per year are sent each way under the provisions of such exchange programs as the University Grants Scholarship, the Indian Council of Social Science Research, and the Indian Cultural Relations Council with Russia's Academy of Sciences.⁵⁷ The Russian language study situation in India is likewise deplorable, especially given the importance of such programs for sustaining the interest of the rising generation of Indians in Russian culture and society. The Russian Embassy in India estimates that 40 colleges teach Russian across the country (remarkably, only one in Mumbai); many others have closed down their programs, and the remaining ones face the problem of lack of native speakers and new educational material. Courses generally attract only a few dozen students (from 20 at the University of Madras to 150 at Jawaharlal

57 Interview with Professor Padma Dash, 24 May 2011.

Nehru University in Delhi)⁵⁸ and all have a high rate of attrition. While there are some more opportunities to study Russian through independent language institutes, especially in Delhi, these, too, are few.

Mutual cultural awareness in both countries has suffered as well in recent decades. On an everyday level, while Bollywood films and yoga are popular in Russia and some Indian restaurants exist in major Russian cities, no parallel exposure to any aspect of Russian popular culture exists among Indians. A former driver of the latter, the Indo-Soviet Cultural Society, now the Indo-Russian Cultural and Friendship Society, has devolved into a small chapter based in Bangalore; its sister organization, the Indo-Russian Friendship Society, is similarly inactive. The Russian Centers for Science and Culture that exist in five cities (Mumbai, New Delhi, Chennai, Kolkata, and Thiruvananthapuram) organize some cultural activities, such as film screenings and performances of touring music and dance companies, yet their initiatives are not nearly sufficient.

Another aspect of “soft power,” tourism, could be much more vigorous between the two countries. 44,000 Russians visited Goa, one of the country’s most popular beach destinations and the most popular Indian tourist spot among Russian travellers, in the 2010-11 season. Some sources predict that this number will double, making the Russian share of foreign tourists the largest in the state.⁵⁹ However, the latter’s international reputation is also suffering from recent negative publicity concerning the pervasive role of the Russian and Israeli mafias, said to trade in drugs, prostitution, and real estate.⁶⁰ According to a specialist in Russian VIP tours, the region has become an unsavory vacation choice, with few repeat visitors, because it is seen as an unsafe, drug-infested destination which is unfit for families. Goan tourism in Russia thus could substantially diminish in the coming years.⁶¹ Likewise, Indian tourists now visit Russia only in small numbers, largely due to the country’s reputation for difficulty of travel, lack of safety, and occasional incidents of racism. The lack of information about Russian culture and travel that exists in India contributes to making this a little-known and little-popular vacation choice.

58 Russian Embassy in India statistics.

59 Devika Sequeira, “Goa Set for Big Spurt in Russian Tourists,” *Deccan Herald*, 20 July 2011.

60 See, for instance, VK Shashikumar, “How the Russian Mafia Took Over Goa,” CNN-IBN, 16 June 2007.

61 Interview with Maria Ashurova, VIP travel agent, Flagman Tours, Moscow, 18 April 2011.

THOUGHT-STARTERS ON RE-ENERGIZING THE RELATIONSHIP

The fundamental problem to be addressed in revitalizing Indo-Russian cultural relations is the lack of funding that has resulted from the collapse of the Soviet system, the past principal sponsor of bilateral initiatives in education and culture. The solution, therefore, must lie in both governments engaging their private sectors—especially companies that are already active and cooperating in the Russian and Indian markets—to finance similar activities. Any new scheme undertaken, such as educational exchanges, cultural programs, and language study, has to involve the younger generation in India and Russia. This age group that will take the bilateral relationship forward needs to understand its importance without the framework of Cold War-era sentimental ties.

Private sponsors in both countries should help Russian higher-learning institutions establish a presence in India, once the law that allows foreign institutions to open campuses in the country makes its way through its parliament, a development projected for early 2012.⁶² India's Ministry of Human Resource Development can partner with private actors to set up outlets of Russian universities such as Moscow State University and provincial colleges with a science or engineering specialty in several major Indian cities, offering instruction in English. Once established, these institutions should be the recipients of state subsidies and preferential enabling regulations, e.g. lower taxes. Based on the popularity of the Russian medical—and, to a lesser extent, IT and engineering—education among Indian students, this measure cannot fail to gain its adherents. The Indian government also needs to lobby Russia to establish programs akin to the Fulbright in India that would provide an exchange of qualified scholars—and more scholarly literature—between both countries. This initiative would not only create more people-to-people exchanges but also stimulate cooperation in the scientific and technological fields, thus reenergizing the Russia-India relationship on other levels. One could even envision a Russian-funded university focused on technical/hard science or medicine in India where top-notch Russian professors would come on rotation – a revival of the early IIT model supported by Russian academics.

62 See Alya Mishra, "India: Long Wait Ahead for Foreign Universities," *Higher Education Review*, 16 January 2011.

The humanities aspect of Russian soft power in India is likewise important to cultivate, and the Indian leadership should lobby the Russian one to become more active on the cultural front so that a connection can be formed to its strategic partner among the younger generation. First and foremost, building a thriving environment for cultural exchange should also be a joint and active endeavor between the Indian Council of Cultural Relations (ICCR)—possibly aided by private sponsors—and Russia’s Ministry of Culture. India should lobby Russia to flex its cultural diplomacy drive with more publicity transmitted via the Indian media, especially television—this can include Russian music, entertainment and informational programs, as well as feature films.⁶³ Furthermore, a Russian food or crafts festival would elicit interest among the Indian public—especially given the fact that there are currently no Russian specialty restaurants or stores in the country. All of these initiatives can become the domain of the *Russkiy mir* fund, an organization for spreading Russian culture abroad founded by Putin in 2007 and amply funded by the government.⁶⁴ It is important for the Indian leadership to point out the fact that *Russkiy mir* has its centers in thirty-eight countries (as many as six in China), yet none in India.

In addition to the currently existing linguistic departments, corporate sponsors should provide financial subsidies to create or develop Russian language and culture programs in top Indian metro cities. Again, *Russkiy mir*, which funds internships and provides grants for foreign students to undergo language instruction in Russia, should be applied to in order to extend this program to India. The Russian government, as well as Russian and Indian private initiative can also help the Russian Centres for Science and Culture in India play an important role in raising awareness of their country’s heritage, as they have in the past. This can be done by organizing and publicizing regular activities such as exhibitions, lectures, and city tours discussing the Russian legacy in India, as well as popularizing Russia’s culture and literature through attractive book-and gift-shops.

More untapped opportunities for bilateral interaction and soft-power influence exist in sports, especially for Russian coaches to train Indian athletes. The legendary prowess of the heavily state-funded Soviet sports

63 There appears to be the beginning of such an effort: the Russia & India Report recently reported that a 3-D joint Indo-Russian film is slated to be released in 2012; see “Filming of a Russian-Indian Family Comedy to Start in 2012,” *Russia & India Report*, 20 April 2011.

64 See the multilingual websites of *Russkiy mir*, <http://www.russkiymir.ru> for information about its mission and ongoing programs.

industry has produced a generation of coaches and athletes-turned-coaches that can help with the development of India's own fledgling sports scene. This is a promising area of focus given India's predominantly young—and rapidly globalizing—population, with potential of reaping commercial benefits for tickets and sports-arena advertisements.

As has been reported, the Ministry of Youth Affairs and Sports has been allocated Rs 1,121 crores (USD 27.2 million) in the 2011-12 Union Budget after the conclusion of the 2010 Commonwealth Games in Delhi.⁶⁵ Private business investors should be stepping in to fill the budget gap and approaching Russia's Ministry of Sport, Tourism and Youth Policy to exchange athletic talent and attract top-level coaches to India. As the 2014 Winter Olympics in Sochi approach, one initiative announced at these games could be the formation of a joint Indian-Russian Olympic sports committee for athletic exchanges, joint training facilities, and a more robust program for importing Russian coaching talent into India.

In addition, India's tourism industry, both on the level of the Ministry of Tourism and private operators, needs to engage in a much more vigorous promotion campaign aimed at Russia. Russian travel to India should be encouraged here, spreading greater awareness of Indian regions beyond the Golden Triangle (Delhi-Agra-Jaipur) and Goa. Other tourist hubs, such as Kerala, Himachal Pradesh, and Ladakh, already popular with local and foreign visitors, would benefit from an influx of a middle-class Russian clientele; advertisement campaigns showcasing these states should thus be created for a Russian public. Significantly, no memorandum of understanding or agreement regarding tourism has been signed as of yet between the two countries, making this a priority for upcoming annual summits.

CONCLUSION: GETTING TO THE NEXT LEVEL — WHAT WILL IT TAKE?

As this paper has shown, a number of measures along several key parameters are needed to improve the bilateral relationship between India and Russia. Any efforts should involve significant political will and the involvement of key private sector sponsors on both sides, with the understanding that,

65 "Sharp Reduction in Sports Budget," *The Times of India*, 1 March 2011.

based on where they are in their development and the complementarity of their needs, Russia and India both stand to benefit from a vigorous strategic partnership.

First and foremost, judging from a track record of multiple agreements and memoranda of understanding that have not led to tangible results, there needs to be a new format for the annual summits, with greater emphasis on accountability. The recent comprehensive U.S.-India Strategic Dialogue is a model to follow. There should be more meetings at the highest state level, regular annual reports on the progress of the working groups, and reinvigorated interactions among academic, business, and policy makers in both countries. The active and persistent lobbying from the Indian side that led to the end to restrictions on business and tourist visa requirements from both sides—and will hopefully lead to more private business ventures—is one example to follow.

On a more specific level, given the opportunities for cooperation listed above, what can a reenergized relationship between Russia and India look like in the next twenty to fifty years? One could imagine the following several scenarios:

(1) Russia and India would have substantially increased bilateral trade volumes and a generally positive investment environment, benefiting from joint economic projects aided by an Entrepreneurs Council and a reorganized, ambitious India-Russia CEOs Council. They would collaborate in the engineering and construction industries; third-country projects could also be involved. Russia can help India modernize its infrastructure, such as roads and airports, with the two creating joint select modernization projects that would benefit both countries.

(2) Russia should continue being India's top partner on nuclear energy development, a role currently challenged by the United States and, increasingly, Kazakhstan. A privately funded Russian-Indian consortium could develop civilian nuclear power in a number Asian and African countries.

(3) There is a strong joint space development program between India and Russia that is one of the world's leading consortiums.

(4) There would be two to three high-technology industries beyond space where Russia and India would jointly lead, most likely information technology, nanotechnology, and biotechnology. Getting scientific and technological cooperation off the ground would be easier thanks to the Russia-India Innovation and Modernization Fund that would put up the seed money for these projects.

(5) There would be a reorientation of the Russian military-defense complex with centers of excellence in research and development in Russia and India but with manufacturing increasingly outsourced to India and privately funded.

(6) Culturally, there would be a high volume of educational exchanges between the two countries, including programs for Russian specialists in hard sciences to teach in India. There would also be Russian-led programs of the Fulbright type and a Russian university in India, funded by private initiative, where top-notch professors would come on rotation. This institution could be focused on medical education or technical/hard science education.

The aforementioned scenarios represent a relationship where India and Russia would build on the complementarity of their needs and the stores of goodwill inherited from their historic ties to grow together into major power players. The cooperation of the political and, vitally, corporate sectors in both countries is needed to make this appealing picture a reality. To this end, the relationships of the private players in India and Russia to each other should be significantly reenergized with the aid of new mechanisms (the proposed Russia-India Modernization and Innovation Fund and Entrepreneurs Council) or reorganized old ones (the India-Russia CEOs Council and the India-Russia Chamber of Commerce), all working in concert. The stimulation of the private sector—furthermore given ample incentives and privileges by both governments such as tax breaks, state subsidies, and enabling regulations—is an essential part of revitalizing a strategic relationship that, while positive, shows great scope for improvement along its every parameter. The Indian government needs to actively and publicly invest the time and initiative to make ties with Russia applicable to the younger generations of their citizens, making them aware of the importance of their countries to each other in a new age.

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APPENDIX A: CHRONOLOGY

1947 The Soviet Union becomes one of the first states to give diplomatic recognition to independent India, one week ahead of its declaration of independence; the Moscow embassy becomes the first-ever diplomatic mission of independent India

1955 First summits exchanged between the USSR and India

1971 Indo-Soviet Treaty of Peace, Friendship and Cooperation signed

1973 General Secretary Leonid Brezhnev’s first official visit to India inaugurates the most auspicious time in the Indo-Soviet relationship, to last for over fifteen years

1986 Prime Minister Rajiv Gandhi and General Secretary Mikhail Gorbachev sign the Delhi Declaration on the Principles of a Nuclear Weapon Free and Non-Violent World

1987—India becomes the Soviet Union’s largest trading partner (the Soviet Union being India’s largest trading partner since the early 1980s).

Integrated Long-Term Program (ILTP) on Science and Technology signed between Russia and India—India’s most comprehensive program of scientific and technological cooperation with any country

1988 Agreement on Russia's supply of two 1000 MW nuclear power reactors at Kudankulam, Tamil Nadu reached with India

1991 The USSR breaks up, with Russia becoming its diplomatic and political successor.

India's economic liberalization policies lead to its integration into the global economy

1993 India and Russia renegotiate the Soviet-era rupee-rouble debt

1998 The Kudankulam project is stalled after the Nuclear Suppliers' Group's sanctions on India following the Pokhran-II nuclear test

2000 India and Russia announce their "strategic partnership" (first proposal for it announced in **1998**)

2001 The Shanghai Cooperation Organization (SCO) is formed in Shanghai as an intergovernmental mutual security organization. The original member-states are China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan. India becomes an observer state in **2005** and later considers full membership.

Russia and India sign the Moscow Declaration on International Terrorism

2008 U.S.-India Civil-Nuclear Agreement opens up the Indian nuclear industry to the world; Russia goes ahead with its stalled agreement to build two nuclear reactors in Kudankulam.

2009 India-Russia Civil-Nuclear Agreement

APPENDIX B: ABBREVIATIONS

IEA	International Energy Agency
LNG	Liquefied Natural Gas
MoU	Memorandum of Understanding
SCO	Shanghai Cooperation Organization
SPIEF	St. Petersburg International Economic Forum
TAPI	Turkmenistan-Afghanistan-Pakistan-India pipeline