

“The Influence of Arms: Explaining the Durability of India-Russia Alignment”

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Abstract: Despite India’s deepening alignment with the United States in defense of the rules-based order, India professes a puzzlingly robust partnership with Russia, a country that US strategists regard as an adversary and revisionist threat to global order. While some accounts dismiss this as a gradually obsolescing Cold War legacy, this paper evaluates the drivers of the relationship and offers a materialist explanation for its endurance. India has not only maintained but invigorated its relationship with Russia primarily due to significant transfers of advanced military hardware, technical support, and unique opportunities for indigenous military technology. Analysts have generally under-appreciated the quantity of current and future Russian hardware in India’s materiel stock as well as the quality of Russian inputs into India’s strategic systems and technology base. This paper also identifies secondary drivers of the relationship to include overlapping interests and approaches to Asian geopolitics as well a shared foundational vision of a polycentric global order. We argue that these points of alignment—material, geopolitical, and even ideational—will likely sustain a robust India-Russia partnership for decades.

I. Introduction

The US-India relationship-- described as “a defining partnership for the 21st century”-- has seen a dramatic rise over the past two decades.¹ Seeing India as a “natural ally”² with “shared values”,³ the US undertook great efforts beginning in 2005 to “to help India to become a major world power in the 21st century.”⁴ To that end, the US has sought to boost India’s standing in the global order and international institutions, bolster their arms capabilities and technology base, and enable interoperability for military operations. Today, India has been designated a “major defense partner” on par with NATO allies, apex national security underscore how “vital” and “critical” India is to US strategy,⁵ and US officials contend India has a “pre-eminent role in the Administration’s Indo-Pacific vision.”⁶ Despite American bear hugs, India also professes a great friendship and unprecedented “strategic partnership” with the Russian bear, a country explicitly regarded by the US as a hostile revisionist adversary, and long-term strategic competitor.⁷

India has embraced Russia in a “special and privileged strategic partnership” which features regular dialogues between the heads of state as well as ministries, substantial advanced arms sales, and intergovernmental commissions to cooperate in trade, energy, science, technology, and culture. India has also joined Russia in new institutions and “mini-laterals” (SCO, BRICS, RIC), demurred from opposing Russia’s revisionist assault on the global order (from Crimea/Ukraine, to democratic election interference, to the Skirpal chemical weapons attack), and extolled the partners’ shared “civilizational values” pledging “new heights of cooperation through trust and friendship.”⁸

Strategic promiscuity aside, that a democratic, rule-bound, status quo country like India would so strongly identify with an autocratic, rule-breaking, revisionist country like Russia has been frustrating to American analysts and policymakers. Moreover, these seemingly dissonant leanings—between the chief proponent of the liberal international order and one of its chief antagonists—present a fundamental puzzle and question for policymakers. Given different interests, institutions, and ideas about global order, *what has kept India and Russia bound together and why?* This line of inquiry should be of interest both to US policymakers struggling to make sense of Russia’s enduring appeal, as well as estimating the opportunities and limits of a strategic relationship with India.

¹ Statements by President Obama and Prime Minister Modi of the Republic of India, New Delhi, India, January 25, 2015, <https://obamawhitehouse.archives.gov/the-press-office/2015/01/25/statements-president-obama-and-prime-minister-modi-republic-india>

² Address by Shri Atal Bihari Vajpayee, Prime Minister of India, Asia Society, New York, September 7, 2000 <https://asiasociety.org/address-shri-atal-bihari-vajpayee>

³ Narendra Modi, “For the U.S. and India, a Convergence of Interests and Values,” *Wall Street Journal*, June 25, 2017, <https://www.wsj.com/articles/for-the-u-s-and-india-a-convergence-of-interests-and-values-1498424680>

⁴ David C. Mulford, “US-India Relationship to Reach New Heights,” *Times of India*, March 31, 2005.

⁵ U.S. Department of State, *A Free and Open Indo-Pacific: Advancing a Shared Vision*, November 4, 2019, 9.

⁶ Statement of Alice G. Wells Senior Bureau Official for South and Central Asian Affairs Before the House Foreign Affairs Subcommittee for Asia, the Pacific, and Nonproliferation, “U.S. Interests in South Asia and the FY 2020 Budget,” June 13, 2019. A lead author of the NDS has echoed this sentiment. See Elbridge Colby, “Take India’s Side, America,” *Wall Street Journal*, March 12, 2019.

⁷ James Mattis, “Summary of the 2018 National Defense Strategy of the United States of America,” Washington, DC: Department of Defense.

⁸ “India-Russia Joint Statement during Visit of Prime Minister to Vladivostok,” *Ministry of External Affairs*, September 5, 2019, https://www.mea.gov.in/bilateral-documents.htm?dtl/31795/India__Russia_Joint_Statement_during_visit_of_Prime_Minister_to_Vladivostok

This paper seeks to offer a set of historic, political, ideational, and material factors driving the India-Russia relationship forward that require scrutiny. In short, we find that while the residue of Cold War collaboration, contemporary geopolitical alignments, and ideological convergence on a polycentric global order all contribute, the material arms relationship provides the strongest and most durable driver of the relationship. The breadth of Russian-origin platforms in the Indian military—composing somewhere between 70-85 percent of Indians weapons systems—have created a “lock-in” effect, while the depth of relative support to India’s technology base and strategic systems have engendered a relatively high degree of indebtedness and trust in key strategic circles. Yet the quantity and quality of Russian contributions to the Indian arsenal—features that could reinforce and sustain the relationship much to the chagrin of US policymakers—have largely been underappreciated.⁹ At the same time, we find scant evidence that India’s extended arms collaboration and geopolitical relationship with Russia has led to a diffusion of strategic thinking that has directly or indirectly shaped military doctrine.

Following this introduction, this paper proceeds to detail the path dependency from the pair’s Cold War ties (historic). Section three examines broad contemporary strategic alignment maintained due to geopolitical configurations and mutual support for balancing threats (geopolitical). Section four assesses overlapping strategic worldviews regarding the international order (ideational). Section five hones in on what we judge to be the leading driver that has carried the relationship during and after the Cold War: direct arms and technology transfers (material). This final component of the relationship, in particular, has preserved a high and unique degree of trust between India and Russia, which ensures the relationship endures. Following this, section six considers whether certain material arms transfers and technology sharing have had a distinct feedback effect on strategic concepts or doctrines, which could potentially render India unconsciously even more aligned Russia. Finally we conclude with implications for India’s future relations with both Russia and the United States.

II. Cold War Inheritance

India initially moved towards the Soviet Union owing to a set of security, economic, and political motives, but this relationship has continued to inform India’s preferences and incentives, while shaping future relations with great powers long after the dissolution of the Soviet Union. Although India was a self-professed nonaligned power during the Cold War, by the 1970s it had clearly gravitated towards the USSR through significant purchases of Soviet defense equipment, the signing of the 1971 treaty, dense scientific cooperation, and *de facto* endorsement of the Soviet occupation of Afghanistan.

Origins

There are several reasons why India first gravitated towards the USSR. Prime Minister Jawaharlal Nehru’s anti-colonialism set him against the West, and Defence Minister Krishna Menon’s socialist leanings drew India closer to the Soviets. India’s nonalignment ideology professed strategic equidistance between the West and the Soviets. Therefore, India sought to

⁹ For instance, US policymakers speak of India needing to carefully weigh decisions, “because certain choices preclude other choices.” See “India’s buying of S-400 from Russia will have serious implications on defence ties: US,” *Press Trust of India*, May 31, 2019, <https://economictimes.indiatimes.com/news/defence/indias-buying-of-s-400-from-russia-will-have-serious-implications-on-defence-ties-us/articleshow/69592036.cms>.

counterbalance its legacy defense and bureaucratic ties to the British and the West by actively strengthening its defense relations with the USSR.¹⁰

More significant though was the US-Pakistan alliance. While Nehru was fundamentally skeptical of the United States and did not want to be drawn into the Cold War by siding with either the US or the Soviet Union,¹¹ US alignment with Pakistan forced India's hand. US partnership with Pakistan, first through SEATO and then the Baghdad Pact in the 1950s naturally prompted India to lean towards the USSR as a way to balance Pakistan.¹²

The two also supported each other internationally beginning in the 1950s, with the Soviets quickly adopting the Indian position on Kashmir (and casting vetoes in the UNSC to back them) and calling for negotiations over Sino-Indian border disputes rather than backing the Chinese. India, for its part, voted against the UN General Assembly resolution that called for Soviet troops to withdraw from Hungary.¹³ The Soviets also sought to bolster India internally through substantial economic aid totaling \$1 billion including support for heavy industrial projects, and pressing the Communist Party of India to move from militarized opposition to peaceful opposition within Indian Parliamentary democracy.¹⁴

Furthermore, arms sales added a new dimension to the relationship. As the Sino-Soviet relationship began to fray and India grew more capable of managing the internal communist threat to its security in the 1950s, it began to look to the Soviet military technology to balance China, and more importantly Pakistan. After India began its defense cooperation with the USSR with engine acquisitions, one of the first major arms agreements it made was of its first supersonic jet fighter, the MiG-21, in 1962, which opened the gate to large scale defense cooperation, production, and arguably dependence (to be discussed later).

Tilt

After a period of nonalignment, India more explicitly tilted towards the Soviets in the second half of the Cold War. Though it had been offered as early as 1969, the impending clash with Pakistan moved India to formalize and make explicit with the Indo-Soviet Treaty of Friendship and Cooperation signed in 1971 under Indira Gandhi, who was also more ideologically aligned with the Soviets than the Americans.¹⁵ This tightening of relations was largely due to India's wartime experience. After the US ended all arms sales to India and Pakistan during the 1965 and 1971 war, India came to perceive the Soviets as more reliable. However, India did not want to be perceived as a Soviet ally, so it limited the scope of the Friendship Treaty and excluded any mutual defense clause.¹⁶ In parallel, the USSR was also reluctant to be drawn too close to India. The two sides also signed the treaty for different reasons: the Soviets desired India's support against China and, although India also sought to deter China,

¹⁰ Ian C. C. Graham, "The Indo-Soviet MIG Deal and Its International Repercussions," *Asian Survey* 4, no. 5 (1964): 824.

¹¹ Sumit Ganguly and Manjeet S. Pardesi, "Explaining Sixty Years of India's Foreign Policy," *India Review*, 8, no. 1 (2009): 6.

¹² Harsh V. Pant, *Indian Foreign Policy: An Overview* (Manchester, UK: Manchester University Press, 2016): 51.

¹³ Pant, *Indian Foreign Policy*, p. 52.

¹⁴ Arthur Stein, "India and the USSR: The post-Nehru Period," *Asian Survey* 7, no. 3 (1967): 165, 172.

¹⁵ Tanvi Madan, *Fateful Triangle: How China Shaped U.S.-India Relations During the Cold War*, Washington DC: Brookings Institution, 2020. Pp. 230-233, 242-45.

¹⁶ Srinath Raghavan, *1971: A Global History of the Creation of Bangladesh* (Cambridge, MA: Harvard University Press, 2013): 112, 125.

it believed that the treaty implied Soviet support for its position on East Pakistan.¹⁷ Additionally, this treaty gave Gandhi the confidence to intervene in the Bangladesh War of Independence against West Pakistani forces, as she perceived the treaty as a deterrent to Chinese or US intervention on behalf of Pakistan.¹⁸ Additionally, Indian leadership may be convinced that Russian naval intervention in December 1971 helped deter US military action against India in support of Pakistan.¹⁹ Finally, the Soviet Union did not condemn India's 1974 nuclear test, and even agreed to ship heavy water for its nuclear reactors after the US and Canada suspended shipment.²⁰ It was no surprise then that India backed the Soviet invasion and occupation of Afghanistan in the 1980s.

In total, a slight ideological preference for the Soviet Union, the US's support for Pakistan, crisis-time political and military support for India, but most importantly, a robust arms sales program that facilitated an enduring military-technical relationship (detailed later) coalesced to form the logic behind the Indo-Soviet relationship, which has, in many ways, carried over into the present day.

Path Dependence from Cold War

The Indo-Russian relationship has persisted in the post-Cold War period due, in large part, to path dependence. There is accumulated good will and emotional residue among senior Indian diplomats and bureaucrats due to the decades of perceived support by India's "all-weather friend" and perceptions that the USSR and Russia came to India's aid when it needed it most: after the Kashmir resolutions in the UN, in the 1965 and 1971 wars, after the collapse of the USSR, and even after India's 1998 nuclear tests.²¹

Additionally, path dependence suggests the relationship has achieved some lock-in effects for several potential reasons: high fixed costs sunk into the venture render reversal or switching quite difficult (and the risk that some of India's existing stock of materiel could be compromised if Russia denied spare parts, ammunition or servicing support); the accumulation of learning by organizations, operators, and maintainers of Russian systems; and, potentially, the network effects between operational, procurement, financing, and political organizations like the military services, the Ministries of Defence and External Affairs, and political leadership.²² It is also possible to consider that there are some hidden network effects between the Russia/Soviet hardware and the strategic "software" that the Indian military has inculcated.

¹⁷ Raghavan, 1971, pp. 110, 127.

¹⁸ Ganguly and Pardesi, "Explaining Sixty Years of India's Foreign Policy," p. 9.; Raghavan, 1971, pp. 108-130.

¹⁹ Yogesh Joshi, "Samudra: India's convoluted path to undersea nuclear weapons," *The Nonproliferation Review*, 26:5-6, 486; Sujan Dutta, "That Same Fleet but New Face," *The Telegraph*, December 17, 2016, <https://www.telegraphindia.com/india/that-same-fleet-but-new-face/cid/1486069>.

²⁰ Pant, *Indian Foreign Policy*, p. 54.

²¹ G. Parthasarathy, "India, too, Has an All-Weather Friend," *The Hindu Business Line*, September 19, 2019, <https://www.thehindubusinessline.com/opinion/columns/g-parthasarathy/india-too-has-an-all-weather-friend/article29452072.ece>; for instance, Jaishankar mentioned how warmly his mother received the Soviet defense ministers in 1960, see "External Affairs Minister in Conversation at Raisina Dialogue 2020: The India Way," *Ministry of External Affairs*, January 16, 2020, https://mea.gov.in/interviews.htm?dtl/32305/External_Affairs_Minister_in_Conversation_at_Raisina_Dialogue_2020_The_India_Way

²² Paul Pierson, "Increasing Returns, Path Dependence, and the Study of Politics," *American Political Science Review* 94, no. 2 (2000): 254.

In short, the historic experiences of alignment, fulfillment of commitments, the joint weathering of major crises undoubtedly all strongly influence India's decision to keep Russia as a close partner. But as we will explore later in this paper, the accumulated stock of materiel from the Cold War created specific lock-in effects that ensured a robust defense sales relationship with Russia even after the end of the Cold War. .

III. Contemporary Geopolitical Alignments

The Cold War is over and even if ideological ties no longer bind as they once did, India and Russia still share broad political and strategic convergences on a number of key issues in Asia. These priorities include mutual silence, if not political support, in conflicts with key adversaries as well as stability in Eurasia through a balance of power with China that entails engagement and hedging rather than direct confrontation. However, friction emerges regarding either state's relationships with the US, China, Pakistan, and the future of Afghanistan.

Mutual Backing

Historically India and the USSR have embraced what one scholar describes as a "reciprocity of silence."²³ During the Cold War, through forbearance, silence, and abstentions, India effectively backed the Soviets in their invasions of Hungary and Czechoslovakia, and more importantly their invasion of Afghanistan. For its own part, Russia supported India in its wars against Pakistan, its "peaceful nuclear explosion", and its military operations in Goa, Bangladesh, and Sri Lanka.²⁴ Russia has, at times, strongly defended India's position on Kashmir within the UN, in opposition to the US.²⁵

More recently, Russia became the first P-5 country to openly endorse India's position on Kashmir after it abrogated the autonomy provisions of the state in 2019, imprisoned political leaders, and reinstated central control.²⁶ In return, India has condoned Russian actions in the Syria conflict, its seizure of Crimea, its fomenting of instability within Eastern Ukraine, and its position on chemical weapons use.²⁷

Priority of China Threat

Russia and India possess a shared concern over China and mutual interest in contending with its rise, but also identify higher priorities, less confrontational approaches, and opportunities for cooperation with China. While neither state has sought to overtly balance China, India has hedged between rhetorically supporting US regional strategy and explicitly criticizing China's Belt and Road Initiative while trying not to draw China's ire. In comparison, Russia appears to

²³ Ramesh Thakur, "India and the Soviet Union: Conjunctions and Disjunctions of Interest," *Asian Survey*, 31, no. 9 (1991): 838-839.

²⁴ Thakur, "India and the Soviet Union," pp. 838-839.

²⁵ Parthasarathy, "India, too, Has an All-Weather Friend."

²⁶ Dipanjan Roy Chaudhury, "Russian Support to India on Kashmir is Rooted in History," *The Economic Times*, January 20, 2020, <https://economictimes.indiatimes.com/news/politics-and-nation/russian-support-to-india-on-kashmir-is-rooted-in-history/articleshow/73411150.cms>

²⁷ Indrani Bagchi, "Putin, Pakistan, China: Why India Has Gone to Great Lengths to Protect the Special Quality of its Russia Relationship," *The Times of India*, October 14, 2016, <https://timesofindia.indiatimes.com/blogs/Globespoting/putin-pakistan-china-why-india-has-gone-to-great-lengths-to-protect-the-special-quality-of-its-russia-relationship/>; Geeta Mohan, "India Backs Russia against UK Resolution about Chemical Weapons," *India Today*, June 28, 2018, <https://www.indiatoday.in/world/story/india-backs-russia-against-uk-resolution-about-chemical-weapons-1272064-2018-06-28>

have bandwagoned for now, strengthening its military and economic ties to China. Many attest that in private though, Russia remains profoundly apprehensive of China due to population asymmetries, its encroachment into Central Asia, and its bypassing of Russia to get to Europe.²⁸

First, Russia and India do not view their eastern border with China as their primary threat. At present, Russia still perceives US/NATO presence to its West as its main threat, and Indian force posture, deployments, and rhetoric suggest it sees Pakistan the same way.²⁹ These legacy concerns dominate both states' conventional force planning and short- to medium-term focus. While both are suspicious of China and its intentions, they appear to prefer free-riding or buck-passing by letting Western states, particularly the US, deal with China.³⁰ India's and Russia's borders with China are also lengthy, a geographic vulnerability that may partially account for their desire to keep tensions low.

India and Russia's theories of how China should be managed also differ from the US and some of its allies, like Japan, who have chosen to counter China through hard balancing: military build-ups and actively engaging Asian states to push back against Chinese influence and economic power. Conversely, Russia and India have preferred a more diplomatic, multilateral "tethering" strategy with China, focused on mutual benefit.³¹ This has come in the form of deep political investments in some China-led international institutions like the Russia-India-China trilateral,³² the BRICS summits, and the Shanghai Cooperation Organization.

Despite some apprehension, both Russia and India pursue deeper economic cooperation with China while minimizing confrontation.³³ For example, after the 2017 Doklam border dispute, Prime Minister Modi went to great lengths to curb friction points, meet President Xi in a bilateral Wuhan summit, and discuss pragmatic economic and information-sharing

²⁸ Manoj Joshi, "India's Strategy in the China-Russia-USA Triangle.," Nitin Pai, "An Insider Look into What Russia actually Thinks of India," *The Print*, December 18, 2018, <https://theprint.in/opinion/an-insider-look-into-what-russia-actually-thinks-of-india/165344/>; Shannon Tiezzi, "China Eyes Land Giveaway Program in Russia's Far East," *The Diplomat*, January 28, 2015, <https://brncstrat.files.wordpress.com/2015/12/the-diplomat-china-eyes-land-giveaway-program-in-russia-s-far-east-2015.pdf>

²⁹ Evan S. Medeiros and Michael Chase, "Chinese Perspectives on the Sino-Russian Relationship" in *Russia-China Relations: Assessing Common Ground and Strategic Fault Lines*, (Washington, DC: National Bureau of Asian Research, July 2017): 5, https://carnegieendowment.org/files/SR66_Russia-ChinaRelations_July2017.pdf; Rajesh Rajagopalan, "Annex B: India's National Security Perspectives and Nuclear Weapons," in Robert Einhorn and W.P.S. Sidhu, *The Strategic Chain: Linking Pakistan*, (Washington, DC: Brookings Institution, 2017): 27, https://www.brookings.edu/wp-content/uploads/2017/03/acnpi_201703_strategic_chain.pdf

³⁰ Sameer Lalwani and Heather Byrne, "The Elephant in the Room: Auditing the Past and Future of the US-India Partnership," *War on the Rocks*, June 26, 2019, <https://warontherocks.com/2019/06/the-elephant-in-the-room-auditing-the-past-and-future-of-the-u-s-india-partnership/>; Rensselaer Lee and Artyom Lukin, *Russia's Far East: New Dynamics in Asia Pacific and Beyond* (London: Lynne Rienner Publishers, 2016), pp. 203–37.

³¹ Patricia A. Weitsman, *Dangerous Alliances: Proponents of Peace, Weapons of War* (Redwood City, CA: Stanford University Press, 2004).

³² Christopher Weidacher Hsiung, "A Tenuous Trilateral? Russia-India-China Relations in a Changing World," *Swedish Institute of International Affairs*, January 2019, <https://www.ui.se/globalassets/ui.se-eng/publications/ui-publications/2019/ui-brief-no.-1-2019.pdf>

³³ One senior Indian analyst stated in a private roundtable that if India is to become a \$5 trillion economy, it will only be able to do so on the back of \$250 billion in trade with China. Even instances of Indian confrontation of China have been rare and typically designed to avoid provocation. See Rajesh Basrur, Anit Mukherjee, and T.V. Paul, "Introduction" in *India-China Maritime Competition: The Security Dilemma at Sea* edited by Rajesh Basrur, Anit Mukherjee, and T.V. Paul (New York, NY: Routledge, 2019): 7.

arrangements.³⁴ Russia's embrace of BRI is well known, but India has criticized China's BRI out of concern for sovereignty, transparency, and sustainability.³⁵ Nevertheless, India aims to work around this to enhance China-India trade and investment.³⁶ India maintains large financial stakes in the China-led Asian Infrastructure Investment Bank, and since 2014, has received at least \$10 billion in Chinese investments with planned investments totaling \$26 billion.³⁷

Despite different treat prioritization, tethering, and economic cooperation, both India and Russia seek to hedge their bets with China, sometimes in tandem. Russia nurtures a relationship with both rising Asian powers³⁸ even as it helps India acquire defense technology to compete with China and pursues a rapprochement with Japan.³⁹ Indian relations boosts Russia's political and economic status for potentially many reasons: a "preclusion" strategy with Russia to prevent a deep alliance with China⁴⁰; a rising power strategy to distribute the costs of balancing while minimizing opposing coalitions;⁴¹ or an extractive strategy to "enhanc[e] its bargaining power with the US."⁴² While India is more open about supporting the US Indo-Pacific strategy and hedging China, Russia may be assisting it by aiding India's military modernization.

Geopolitical Friction

Of course, contemporary geopolitical conditions also bring innumerable frictions. Both India and Russia have partnered with each other's rivals and adversaries. Russia has recently moved closer to Pakistan and China, while India has partnered with the US to counteract China's regional influence. This section explores how these partnerships have created a divergence in the Indo-Russian relationship that both sides have attempted to overlook in order to maintain the relationship.

India-US Relations. For Russia, India's closer partnership with the United States has become a source of unease. Along with harmonizing its Indo-Pacific strategy with the US—

³⁴ Anath Krishnan, "Modi-Xi bonhomie 2.0: All That Happened During the 'Informal' Wuhan Summit," *India Today*, April 28, 2017, <https://www.indiatoday.in/india/story/all-that-you-need-to-know-about-pm-modi-xi-s-informal-wuhan-summit-1222279-2018-04-28>

³⁵ "Official Spokesperson's Response to a Query on Participation of India in OBOR/BRI," *Ministry of External Affairs, Government of India*, May 13, 2017, <https://mea.gov.in/media-briefings.htm?dtl/28463/Official+Spokespersons+response+to+a+query+on+participation+of+India+in+OBORBRI+Forum>

³⁶ Ananth Krishnan, "China and India Look to Cooperate Despite Belt and Road Disagreements," *South China Morning Post*, April 25, 2019, <https://www.scmp.com/week-asia/opinion/article/3007588/belt-and-road-differences-aside-china-and-india-agree-disagree>

³⁷ Krzysztof Iwanek, "Fully Invested: India Remains the China-led AIIB's Biggest Borrower," *The Diplomat*, September 6, 2019; Ananth Krishnan, "Following The money: China Inc's growing stake in India-China relations" *Brookings India Impact Series 032020-01*, March 2020. Brookings Institution India Center. It is worth noting that these could total more than the actualized investments in the "flagship" China-Pakistan Economic Corridor.

³⁸ David A. Lake, "Anarchy, Hierarchy, and the Variety of International Relations," *International Organization*, 50, no. 1 (1996): 15.; Joshi, "India's Strategy in the China-Russia-USA Triangle"; Joshua R. Itzkowitz Shifrinson, *Rising Titans, Falling Giants: How Great Powers Exploit Power Shifts* (Cornell, NY: Cornell University Press, 2018).

³⁹ Anna Kireeva, "A New Stage in Russia-Japan Relations: Rapprochement and its Limitations," *Asia-Pacific Review*, 26 (2), 2019, pp. 76-104.

⁴⁰ Glenn Snyder, "Alliance Theory: A Neorealist First Cut," *Journal of International Affairs*, 44 (1), 1990, pp. 103-123.

⁴¹ Itzkowitz Shifrinson, *Rising Titans, Falling Giants*, p. 4.

⁴² Joshi, "India's Strategy in the China-Russia-USA Triangle."

which Russia has been critical of⁴³—India has recently upgraded the Quad dialogue to the ministerial level⁴⁴ and pledged to purchase more US weapons systems.⁴⁵ India has managed to straddle both relationships with noncommittal hedging but, the US entrenched a harder position on revisionist competitors in the 2018 NDS which may box New Delhi into zero-sum choices. An India hewing closer to US positions on international order could alienate Moscow.

Russia-China Relations. Russia's relationship with China has progressed and could generate two vulnerabilities for India, as the latter continues to rely on Russian arms. First, if there was another border conflict with China (or even with Pakistan), Beijing's asymmetric leverage on Moscow may press Russia to slow or arrest the supply of spare parts and ammunition. Second, in peacetime, China's acquisition and knowledge of advanced Russian systems can allow it to identify and exploit weaknesses in India's defenses.⁴⁶ India cannot easily mitigate these risks because sudden procurement shifts may cause Russia to deny India critical spares or maintenance before India can further diversify.⁴⁷

Russia-Pakistan Relations. Russia's relationship with Pakistan has been quite possibly a greater source of frustration for India than the Russia-China entente because India sees Pakistan as a direct near term threat.⁴⁸ Despite periodic attempts at warming in the 1960s,⁴⁹ Russia-Pakistan relations turned hostile the 1980s after the latter sponsored Afghan mujahideen against Soviet forces, a relationship which persisted post Cold War. Today, though, Russia has been slowly improving relations—with sales of attack helicopters to Pakistan and three military exercises—as it positions itself for a post-US withdrawal Afghanistan.⁵⁰ While some analysts dismiss a Russian pivot as overblown because Pakistan simply can't afford Russian commercial prices, others fear it is a warning to India about diversification.⁵¹

⁴³ Aleksei Zakharov, "While Criticizing the Indo-Pacific, Russia Steps up Its Presence," *Observer Research Foundation*, February 6, 2020, <https://www.orfonline.org/expert-speak/while-criticizing-the-indo-pacific-russia-steps-up-its-presence-61102/>

⁴⁴ "Minister-level Quad Meet an Elevation of Indo-Pacific Dialogue, says US," *Hindustan Times*, September 28, 2019, <https://www.hindustantimes.com/india-news/minister-level-quad-meet-an-elevation-of-indo-pacific-dialogue-says-us/story-JU7P3AT9Vmd6tUjiumZJCM.html>

⁴⁵ Amanda Macias, "India, Facing Sanctions for Russian Arms Deal, Says It Wants to Pivot Spending to the US," *CNBC*, May 23, 2019, <https://www.cnb.com/2019/05/23/india-to-pivot-spending-to-the-us-amid-russia-arms-deals-sanctions.html>

⁴⁶ Daniel Kliman, Iskander Rehman, Kristine Lee, and Joshua Fitt, "Imbalance of Power: India's Military Choices in an Era of Strategic Competition with China," *Center for a New American Security*, October 23, 2019, <https://www.cnas.org/publications/reports/imbalance-of-power>

⁴⁷ Kliman et al. "Imbalance of Power."

⁴⁸ Tanvi Madan, "Between a Cold War Ally and an Indo-Pacific Partner: India's US-Russia Balancing Act," *War on the Rocks*, October 16, 2018, <http://warontherocks.com/2018/10/between-a-cold-war-ally-and-an-indo-pacific-partner-indias-u-s-russia-balancing-act/>

⁴⁹ Some details in Madan, *Fateful Triangle*, p.230.

⁵⁰ Nandan Unnikrishnan, "The Enduring Relevance of India-Russia Relations," *ORF Issue Brief*, no. 179, May 2017, p. 3. https://www.orfonline.org/wp-content/uploads/2017/05/ORF_IssueBrief_179_India-Russia_Nandan_FinalForUpload.pdf; Franz-Stefan Gady, "Pakistan Begins Receiving Advanced Attack Helicopters From Russia," *The Diplomat*, April 12, 2018 <https://thediplomat.com/2018/04/pakistan-begins-receiving-advanced-attack-helicopters-from-russia/>; Madan, "Between a Cold War Ally and an Indo-Pacific Partner"; Imar Farooq Khan,

"Pakistan-Russia Hold Military Drill," *Times of India*, October 22, 2018, <https://timesofindia.indiatimes.com/world/pakistan/pakistan-russia-hold-joint-military-drill/articleshow/66317808.cms>

⁵¹ Oliker, WOTR, 2017; Madan, "Between a Cold War Ally and an Indo-Pacific Partner."

Afghanistan End Game. A final realm of India-Russia friction appears in their divergent approaches towards the Afghanistan conflict. While India has long opposed a political reconciliation between the Taliban and Afghan government, Russia's theory of regional stability has led it to support the Taliban in recent years. While India perceives the Taliban as a Pakistani proxy and a potential host to regional anti-India militant groups, Russia sees the Taliban as a potential bulwark against the transnational terror groups like ISIS that it most fears.⁵² Nevertheless, their views may converge during the peace process, since they share an interest in limiting the degree of Taliban influence in a future power-sharing government. Of particular interest is whether Russia permits India to reactivate and scale up its military and intelligence presence at Ayni Air Base in Dushanbe, Tajikistan, where India previously had been able to conduct logistics and supply operations in the 1990s.⁵³

Despite several inevitable points of friction, India and Russia continue to share a set of geostrategic priorities that keep them close. These include both a mutual defense of each other's prerogatives to take necessary political-military measures within their territory; mutual recognition that their Western borders constitute a more pressing near-term security challenge; and, quiet agreement that China constitutes a long-term challenge best addressed through a strategy of hedging, tethering, and economic engagement rather than direct confrontation.

IV. Views of International Order

The geopolitical alignments described above are in many ways underpinned by a shared strategic approach to world order.⁵⁴ During the Cold War, India and the USSR were motivated by a commitment to anti-colonialism that led to collaboration on anti-apartheidism and support for self-determination of the Palestinians.⁵⁵ Today, India and Russia share several similar theories of how the international system should be organized—particularly their embrace of “polycentrism,”⁵⁶ which encompasses both spheres of influence and multipolarity. However, they hold divergent views on the international rules-based order.

Spheres of Influence

Both are strong proponents of spheres of influence, with Russia arguing that it should have unrivaled influence over parts of the former Soviet Union and those states in the

⁵² Kapoor, “Russia-Pakistan Relations and Its Impact on India”; Unnikrishnan, “The Enduring Relevance of India-Russia Relations,” pp. 3-4.; Harsh V. Pant and Avinash Paliwal, “India’s Afghan Dilemma Is Tougher Than Ever,” *Foreign Policy*, February 19, 2019, <https://foreignpolicy.com/2019/02/19/indias-afghan-dilemma-is-tougher-than-ever/>; Avinash Paliwal, “The ‘India Question’ in Afghanistan,” *Lawfare*, October 6, 2019, <https://www.lawfareblog.com/india-question-afghanistan>

⁵³ Shashank Joshi, “Indian Power Projection: Ambition, Arms and Influence” *RUSI Whitehall Papers* no. 85, December 2015, pp. 113-114.; Thomas F. Lynch III, “After ISIS: Fully Reappraising US Policy in Afghanistan,” *The Washington Quarterly*, 38, no. 2: 126.

⁵⁴ Foreign policy alignments can derive from more foundational ideas and worldviews. See for instance Judith Goldstein and Robert O. Keohane, *Ideas and Foreign Policy: Beliefs, Institutions, and Political Change*, (Cornell, NY: Cornell University Press, 1993); Alexander L. George, “The “Operational Code”: A Neglected Approach to the Study of Political Leaders and Decision-Making,” *International Studies Quarterly*, 13 (2), June 1969, pp. 190-222.

⁵⁵ Thakur, “India and the Soviet Union.”

⁵⁶ Sergey Lavrov, “Remarks at the 73rd Session of the UN General Assembly,” speech delivered at the United Nations, New York, September 28, 2018.

Commonwealth of Independent States (CIS),⁵⁷ and India arguing that its cultural ties in the Indian Ocean Region (IOR) constitute a sphere of influence.⁵⁸ (To be sure, some contend the US also engages in this thinking with the de facto extension of its historic Monroe Doctrine to Latin America).⁵⁹ Therefore, both states believe that their role as the regionally dominant power bestows upon them the right to exert influence over smaller states, preventing them from forming alliances with outside powers. While Russia is undoubtedly suspicious of US engagement in its sphere of influence or “areas of privileged interest,”⁶⁰ it is often not appreciated that India too jealously guards its own sphere of influence against US encroachment, even today, expressed in hostility to US regional military basing or defense cooperation with its neighbors.⁶¹ For Russia, polycentrism extends beyond material control to the creation of political, economic, security, and cultural spaces impenetrable by Western and liberal ideas.⁶² India did not share this goal for its first seventy years, but its current political evolution may soon lead to a defense of cultural nationalism and antipathy toward Western liberalism.⁶³

While India supports the US vision for a rules-based order throughout the Indo-Pacific, it still desires that its Western partners “treat South Asia and the adjoining Indian Ocean waters as the ‘traditional sphere of Indian influence.’”⁶⁴ India’s desire for “political hegemony”⁶⁵ in the IOR, and in particular India’s views on legal jurisdiction, freedom of navigation, and foreign military surveying within its Exclusive Economic Zone, conflict with the UN Convention on the Law of the Sea.⁶⁶ PM Modi’s ‘neighborhood first’ policy in the IOR, under which India

⁵⁷ Alexander Gabuev, “Russian-U.S. Flashpoints in the Post-Soviet Space: The View from Moscow,” *Carnegie Moscow Center*, February 23, 2018. <https://carnegie.ru/2018/02/23/russian-u.s.-flashpoints-in-post-soviet-space-view-from-moscow-pub-75631>

⁵⁸ C. Raja Mohan, “Modi and the Indian Ocean: Restoring India’s Sphere of Influence,” *Asia Maritime Transparency Initiative*, June 18, 2015, <https://amti.csis.org/modi-and-the-indian-ocean-restoring-indias-sphere-of-influence/>

⁵⁹ David Smilde, “Trump and Venezuela: Return to the Monroe Doctrine,” in Timothy M. Gill *The Future of US Empire in the Americas: The Trump Administration and Beyond* (New York: Routledge, 2020): 37-58.; Giorgio Cafiero, “Trump Fights Iran’s ‘Axis of Resistance’ in Latin America,” *The Atlantic Council*, February 28, 2020, <https://www.atlanticcouncil.org/blogs/iransource/trump-fights-irans-axis-of-resistance-in-latin-america/>.

⁶⁰ Stephen Watts, Nathan Beauchamp-Mustafaga, Benjamin N. Harris, Clint Reach, “Alternative Worldviews Understanding Potential Trajectories of Great-Power Ideological Competition,” RAND Research Report, 2020, p. 16.

⁶¹ Based on author discussions with officials in US Departments of State and Defense. For instance, India also pursued a diplomatic strategy that threatens pushing the US out of Diego Garcia. See Robert Thorpe, Mauritius Scores a Pyrrhic Victory in the Indian Ocean, *War on the Rocks*, July 12, 2019.

⁶² Watts et al, 2020, p. 8

⁶³ Milan Vaishnav, “Religious Nationalism and India’s Future” in ed. Milan Vaishnav, *The BJP in Power: Indian Democracy and Religious Nationalism*, (Washington, DC: Carnegie Endowment for International Peace, 2019): 5-22.; Abhijnan Rej and Rahul Sagar, “The BJP and Indian Grand Strategy” in ed. Vaishnav, *The BJP in Power*.

⁶⁴ N Sathiya Moorthy, “India’s Traditional Sphere of Influence and the Importance of the ‘Indo-Pacific,’” *Observer Research Foundation*, March 7, 2020, <https://www.orfonline.org/expert-speak/indias-traditional-sphere-of-influence-and-the-importance-of-indo-pacific-62020/>

⁶⁵ Ashley Tellis, “Troubles Aplenty: Foreign Policy Challenges for the Next Indian Government,” *Carnegie Endowment for International Peace*, May 20, 2019, <https://carnegieendowment.org/2019/05/20/troubles-aplenty-foreign-policy-challenges-for-next-indian-government-pub-79161>

⁶⁶ Iskander Rehman, “India, China, and Differing Conceptions of the Maritime Order,” *Brookings Institute*, June 20, 2017, pp. 4-6.

contributes to regional maritime security as a ‘net security provider’⁶⁷ has deep roots. In the 1960s India sought to guard the IOR against great power rivalry and in the 1980s it launched military interventions in Sri Lanka and the Maldives. In all, while some claim India has sought to cooperate and not dominate regional states,⁶⁸ others contend that the resentment towards India from its neighbors stems from its heavy-handedness, and lack of economic heft to underwrite regional integration.⁶⁹

Multipolarity

India and Russia also have a mutual desire for multipolarity. In a joint press conference following a 2018 summit with President Putin, PM Modi stated, “Russia and India agree on multipolarity and multilateralism in the world.”⁷⁰ Although India has aligned with the US against China, it does not wish to be locked into a bipolar world order. However, the US has not deviated from its Cold War alliance strategy based on a bipolar distribution of power⁷¹ with a “networked security architecture.”⁷² The residue of India’s Cold War nonalignment posture, though, predisposes it to oppose great power competitions, jealously guard its strategic autonomy, and balk at serving as a vessel for another state’s strategic priorities. Its theory then is not to coalesce under a single Western bloc, but to support geopolitical pluralism through “multi-alignment” with regional powers like Russia, the EU, Japan, the US, and even Iran.⁷³ However, Russia and India do differ on which state is the target of the multipolar reordering: Russia wants an end to US hegemony, while India wants to preempt Chinese hegemony in Asia.⁷⁴

Rules-Based International Order

While India’s and Russia’s views of spheres of influence and multipolarity generally converge, their view of the status-quo global order diverges. India recognizes the immense benefits it has accrued from the “Liberal International Order” (LIO), and therefore has some investment in maintaining it. In a noteworthy speech at the 2018 Shangri-La Dialogue, PM Modi articulated India’s support for a “rules based order” built on international law, a respect for

⁶⁷ Japish S. Gill and Ryan Mitra, “India’s Indo-Pacific Strategy: Understanding India’s Spheres of Influence,” *SIR Journal of International Relations*, July 5 2018, <http://www.sirjournal.org/research/2018/7/5/indias-indo-pacific-strategy-understanding-indias-spheres-of-influence>; Monish Tourangbam, “Modi 2.0 and India’s Neighborhood First Policy: Walking the Talk?” *South Asian Voices*, June 15, 2019 <https://southasianvoices.org/modi-2-0-and-indias-neighborhood-first-policy-walking-the-talk/>

⁶⁸ David Brewster, “An Indian Sphere of Influence in the Indian Ocean?” *Security Challenges*, 6, no. 3 (2010): 15-17.

⁶⁹ Tellis, “Troubles Aplenty.”

⁷⁰ Dipanjan Roy Chaudhury, “Russia and India Agree on Multipolarity: PM Modi,” *The Economic Times*, October 6, 2018, <https://economictimes.indiatimes.com/news/defence/russia-and-india-agree-on-multipolarity-pm-modi/articleshow/66094091.cms?from=mdr>

⁷¹ R. Harrison Wagner, “What Was Bipolarity?,” *International Organization* 47, no. 1 (1993): 77-106.

⁷² Department of Defense, “Summary of the 2018 National Defense Strategy of the United States of America,” (Washington, DC: Department of Defense, January 2018): 9.

⁷³ M.K. Narayan, “Non-alignment to Multi-Alignment,” *The Hindu*, January 5, 2016; Ian Hall, “Multialignment and Indian Foreign Policy under Narendra Modi,” *The Commonwealth Journal of International Affairs*, 105 (3), 2016, pp. 271-286.

⁷⁴ Aleksei Zakharov – “Friends in Need: Whither the Russia-India Strategic Partnership?” *French Institute of International Relations*, October 2019, p. 11. https://www.ifri.org/sites/default/files/atoms/files/rnv_116_zakharov_russia_india_2019.pdf

sovereignty, and equal access to the commons.⁷⁵ In harmony with the US Indo-Pacific strategy, India has prioritized protection of the free flow of trade throughout the region and supported the US-backed status quo. Simultaneously, India's support for this order comes with qualifications. Modi has called for a free, open, and "inclusive" Indo-Pacific, which surprised India's partners because it seemed to signal an opening for both China and Russia, despite the US NDS identifying their behavior as threats to the LIO.⁷⁶

In contrast, Russia has explicitly broken with parts of this order. Russia perceives foreign intervention (particularly in the former Soviet republics), democracy promotion, and the free flow of information as threats to its regime and its international interests.⁷⁷ Russia has developed a raiding or 'brigandry' strategy as an asymmetrical response to its power imbalance with NATO. Such indirect coercion, disruption, and cost imposition characterized by many as "hybrid", "gray zone," and "information warfare" seeks to compel Washington to compromise on a new power condominium for Moscow.⁷⁸

Though New Delhi and Moscow share a belief in polycentrism consisting of multipolarity and spheres of influence, and India may be sympathetic to Russia's critiques of the international order (consistent with India's critiques of Western moralist intervention⁷⁹), India likely does not endorse Russia's brigandry strategy, which Pakistan may draw inspiration from for its own disruptive playbook within South Asia. Nevertheless, India's willingness to accept or even defend Russia's methods stands in conspicuous contrast to its rhetorical defense of the rules-based international order. One cannot dismiss that Indian interests may be advanced if reckless Russian brigandry effectively accelerates a transition to polycentrism.

V. Enduring Arms Relationship

While the geopolitical and ideational agreements certainly enhance the strength of the India-Russia partnership, the true core of the relationship is the abiding arms relationship, which has persisted since the Cold War and evolved from arms sales and technology transfer to the lease of a nuclear submarine and technical advising on the development of an indigenous Indian SSBN. The depth of this relationship has not been fully appreciated heretofore. It is estimated that the Soviet Union supplied India with \$35 billion in equipment between 1960-1990, most without immediate payment, and that too to be paid in Indian rupees at concessionary interest

⁷⁵ "Prime Minister's Keynote Address at Shangri La Dialogue" *Ministry of External Affairs Media Center*, June 01, 2018, <https://www.mea.gov.in/Speeches-Statements.htm?dtl/29943/Prime+Ministers+Keynote+Address+at+Shangri+La+Dialogue+June+01+2018>

⁷⁶ "Prime Minister's Keynote Address at Shangri La Dialogue"; "National Defense Strategy," p. 1; Based on a discussion in January 2020 with an East Asia analyst who claimed Japanese Prime Minister Abe was livid after this opening.

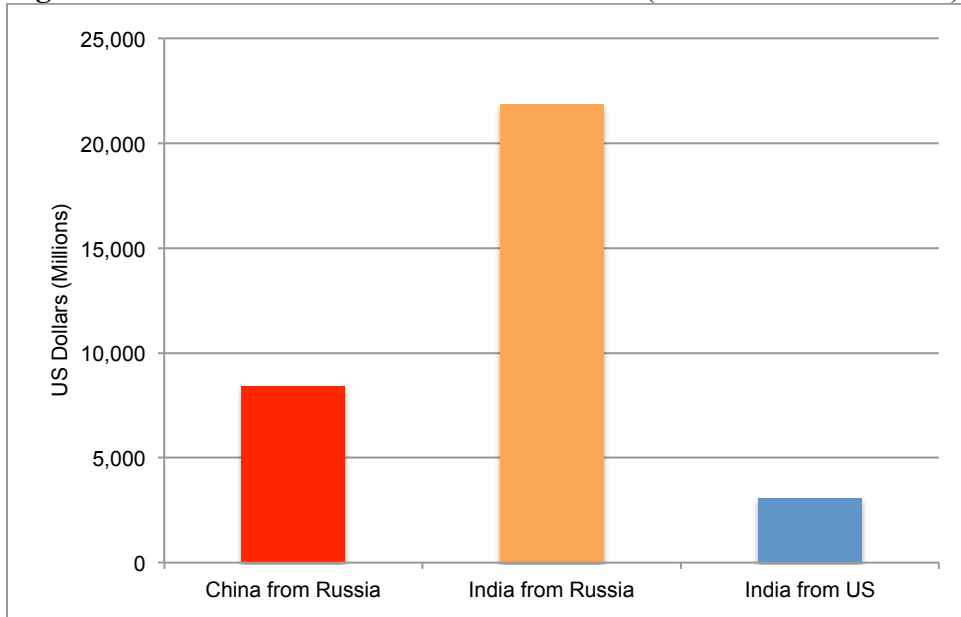
⁷⁷ Thomas Wright, "The Return to Great-Power Rivalry Was Inevitable," *The Atlantic*, September 12, 2018, <https://www.theatlantic.com/international/archive/2018/09/liberal-international-order-free-world-trump-authoritarianism/569881/>; Andrew Radin and Clint Reach, *Russian Views of the International Order*, (Santa Monica, CA: RAND, 2017) https://www.rand.org/pubs/research_reports/RR1826.html

⁷⁸ Michael Kofman, "Raiding and International Brigandry: Russia's Strategy for Great Power Competition," *War on the Rocks*, June 14, 2018, <https://warontherocks.com/2018/06/raiding-and-international-brigandry-russias-strategy-for-great-power-competition/>

⁷⁹ C. Raja Mohan, "India, Libya and the Principle of Non-Intervention," *ISAS Insights*, No. 122, April 13, 2011; N Sathiyamoorthy, "India's Traditional Sphere of Influence and the Importance of the 'Indo-Pacific.'"

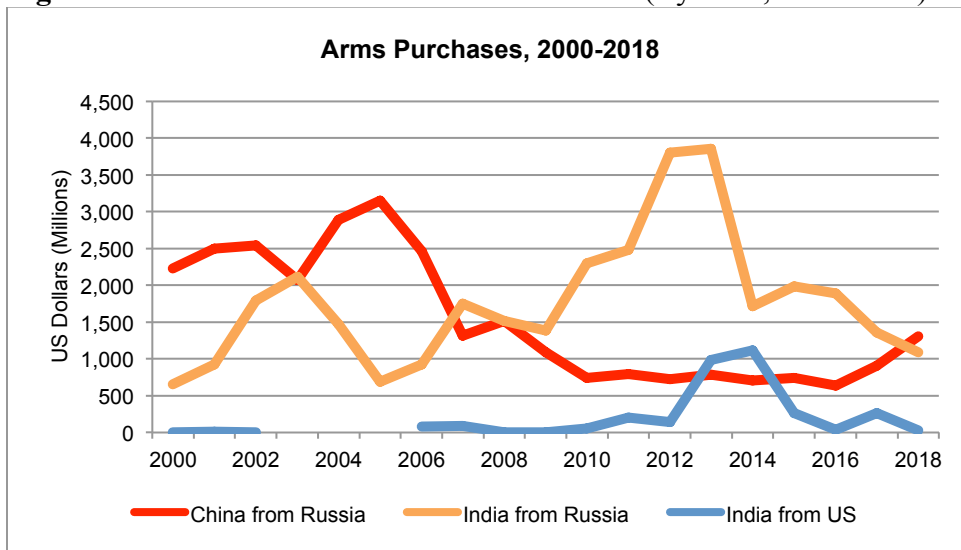
rates.⁸⁰ Former deputy chairman of India’s Planning Commission, PN Haskar, remarked that this Soviet/Russian support helped to bolster "India's dignity, India's sovereignty and India's independence."⁸¹ Indo-Soviet defense ties began in the 1960s and have persisted ever since, maturing from a buyer-seller dynamic to co-development of weapon systems.

Figure 1: Indian Arms Purchases from Russia (Cumulative 2000-2018)



Source: Arms Transfers Dataset, Stockholm International Peace Institute

Figure 2: Indian Arms Purchases from Russia (By Year, 2000-2018)



Source: Arms Transfers Dataset, Stockholm International Peace Institute

⁸⁰ It was estimated that India’s debt to Russia ran between \$12-16 billion by the time the USSR collapsed and was eventually settled in 1993. See Prashant Dikshit, “India and Russia Revisiting the Defence Relations,” IPCS Special Report, No. 52, March 2008, Institute for Peace and Conflict Studies, 2008, p. 4.

⁸¹ Thakur, “India and the Soviet Union,” p. 828.

Despite Indian frustrations with issues of quality, spares, and maintenance costs of Soviet/Russian-origin system, New Delhi persisted down this path and strengthened its arms partnership with Russia with a hefty \$70 billion worth of procurements since 1991 including 3rd and 4th generation fighter aircrafts, transport helicopters, aircraft carriers, nuclear submarines, frigates, cruise missiles, and air defenses. Today, India absorbs a third of Russian arms exports over the past decade, far exceeding China's arms purchases from Russia,⁸² and the vast majority of India's contemporary armed forces systems originate from Russia.⁸³ While the US touts the \$16-18 billion in arms sales over fifteen years as the cornerstone of its relationship with India, Delhi has signed \$15 billion in new arms contracts with Moscow since 2018.⁸⁴

Cold War Acquisitions

New Delhi's procurement of the MiG-21 in the early 1960s provided the first big boost for Indo-Soviet defense ties. India's relationship with the Soviets served to not only secure its immediate security needs but also to facilitate technological transfers in service of long-term goals like defence production indigenization and industrial development.

Reliable, cost-effective supplier. Before the MiG-21, India's fighter squadrons consisted entirely of British and French aircraft.⁸⁵ India chose to purchase the MiG-21 rather than the alternative American or British offers because of the MiG's superior speed, cost, ease operation and maintenance as well as the supplier's efficient, centralized decision-making, and absence of any conflicting defence relationship with Pakistan. On top of this, the Soviets offered assistance in the manufacture of the MiG-21 in India, and integration of India into the supply chain for airframes, engines, and component parts.⁸⁶

Furthermore, around the same time, the Indians were unable to acquire US naval equipment or receive approval to borrow three British destroyers. These failures led Indian officials to question whether the West was a reliable source for arms.⁸⁷ India then moved to procuring submarines, frigates, bombers, attack and transport helicopters, air defense systems, and tanks from the Soviets. Geopolitical factors such as the Sino-Soviet split and the Sino-US détente also pushed New Delhi and Moscow to develop more significant military-industrial ties. Ultimately, India's preference for Soviet-origin weapons was nurtured over the years and came down to "the perceived low risk of embargoes or of denial of technologies and spare parts, together with easy credit and barter arrangements, low price and competitive performance."⁸⁸

The terms of the Soviet arms trade to India were eminently favorable, often referred to as "friendship prices." The Soviets offered advanced systems at low prices, allowing India to

⁸² IFRI, SIPRI

⁸³ Manoj Joshi, "India's Strategy in the China-Russia-US Triangle," *Observer Research Foundation*, December 20, 2019, <https://www.orfonline.org/research/indias-strategy-in-the-china-russia-usa-triangle-59417/>

⁸⁴ Ajai Shukla, "Russian Arms Sales Boom in Face of Prickly Ties, Possible Sanctions," *Business Standard*, March 12, 2019, https://www.business-standard.com/article/defence/russian-arms-sales-boom-despite-prickly-ties-possible-sanctions-119031100955_1.html; "Russia Plans S-400 Deliveries to India in 2021," *The Moscow Times*, February 5, 2020, <https://www.themoscowtimes.com/2020/02/05/russia-plans-s-400-deliveries-to-india-in-2021-a69166>

⁸⁵ Graham, "The Indo-Soviet MIG Deal," p. 824.

⁸⁶ Graham, "The Indo-Soviet MIG Deal," p. 828; Dikshit, 2008: 3.

⁸⁷ Ravinder Pal Singh, "India" in "Arms Procurement Decision Making Volume 1: China, India, Israel, Japan, South Korea and Thailand" edited by Ravinder Pal Singh (Oxford University Press: Oxford, 1998) p. 63.

<https://www.sipri.org/sites/default/files/files/books/SIPRI98Singh/SIPRI98Singh.pdf>

⁸⁸ Pal Singh, "Arms Procurement Decision Making," p. 64.

stagger payment over an extended time period and purchase in rupees.⁸⁹ Alternatively, Western governments often required upfront payment before delivery and rarely allowed sales in local currency.⁹⁰ Furthermore, the pricing was set at the same time as the Soviet political leadership approved the sale, not separately by the private firm delivering the system. While European arms makers operated similarly, American firms did not, creating an additional complicating factor.⁹¹

The persistence of the Indo-Soviet relationship has been attributed to the pragmatic transactionalism of both countries. The Soviets were attracted to India because of its large defense market, even though they were dissatisfied with the payment system, at times.⁹² By the end of the Cold War, the Indian military consisted of an estimated 70% Soviet-origin equipment, a figure that largely holds today.⁹³

Indigenization. In addition to immediate security needs, the Indians also selected the MiG-21 in the hopes that it would result in the transfer of technology and capacities to stimulate indigenous defense production of advanced weapons systems. Indigenization served two purposes: first, it would ensure military self-sufficiency and greater autonomy from major powers; second, there was the potential for economic spillover effects into the commercial domain.

The extent of Soviet assistance and licensing of arms production to India was substantial—India received more assistance with its production than any other developing country that purchased Soviet arms. This included assistance with the construction of factories to assemble licensed MiG-21 and MiG-23/27 fighters as well as to repair T-72 tanks.⁹⁴ More significantly, after the Soviets denied China licensing production, they granted this opportunity to India⁹⁵ (though the USSR did offer significant technological transfers to China in the 1950s).

Finally, India's desire for technology transfers to help speed the pace of indigenization was aimed not only at defense production, but also at industrialization more broadly. India, much like Japan and Israel, sought to diffuse the technical learning and human capital it built up in the military-industrial complex into the commercial sector, with the goal of boosting technological innovation.⁹⁶ Though this has had mixed success—in part because of India's lack of absorptive capacity including requisite technological and industrial base tacit organizational knowledge) – this motive still animates Indian procurement decision making.⁹⁷

⁸⁹ Stephen P. Cohen and Sunil Dasgupta, *Arming without Aiming: India's Military Modernization*, (Washington, DC: Brookings Institution Press, 2012), p. 20.

⁹⁰ Pal Singh, "Arms Procurement Decision Making," p. 64.

⁹¹ Cohen and Dasgupta, *Arming without Aiming*, p. 25.

⁹² Pal Singh, "Arms Procurement Decision Making," p. 65.

⁹³ Pal Singh, "Arms Procurement Decision Making," p. 64.; Joshi, "India's Strategy in the China-Russia-USA Triangle."

⁹⁴ Yuriy Kirshin, "Conventional Arms Transfers during the Soviet Period," *Russia and the Arms Trade* edited by Ian Anthony (Oxford University Press, Oxford: 1998), p. 66

⁹⁵ Shri Ram Sharma, *India-USSR Relations: 1972-91, A Brief Survey* (New Delhi: Discovery Publishing House, 1999): 139.

⁹⁶ Richard J. Samuels, *Rich Nation, Strong Army: National Security and the Technological Transformation of Japan*, (Cornell, NY: Cornell University Press, 1994), pp. 229, 246; Daniel Senor and Saul Singer, *Start-up Nation: The Story of Israel's Economic Miracle* (New York, NY: Twelve, 2009).; NB Singh, "Building a Defence Industrial Base," CLAWS, April 6, 2017, <https://archive.claws.in/1726/building-a-defence-industrial-base-lt-gen-nb-singh.html>

⁹⁷ Andrea Gilli and Mauro Gilli, "Why China Has Not Caught Up Yet: Military-Technological Superiority and the Limits of Imitation, Reverse Engineering, and Cyber Espionage," *International Security* 43, no. 3 (2018/19), pp. 142, 155-162.; Ksenia Zubacheva, "Why India Fails to Fully Localise Russian Defence Technology," *Russia*

Contemporary Arms Trade

The breakup of the Soviet Union sent India scrambling for alternative sources of spare parts and defense equipment but India persisted with Russian arms procurement post 1991 for several reasons. The biggest reason was path dependence of accumulated stock, platform familiarity by operators, training, and organization around acquisition flows. India, essentially, remains reliant on Russia to keep its military functioning, which makes a deliberate split, either political or on arms sales, near impossible without rendering India deeply vulnerable. Furthermore, India still considered Russian weapons cost efficient even though “friendship prices” evaporated in the post-Cold War period and, perhaps, because the full life cycle costs, inclusive of servicing and maintenance, were not immediately apparent.⁹⁸ Additionally, as India diversified sourcing from other Western suppliers like Israel, France, and later the US,⁹⁹ its bargaining power vis-à-vis Russia grew. Due to Russia’s economic demand for foreign exchange through defense exports, it was more open to India’s demand for licensed production or joint development on some technologically advanced systems. The consequence of path dependence, perceived cost efficiencies, and technology acquisition opportunities has led to new procurements totaling \$70 billion since 1991, as well as opportunities to collaborate on weapons development including cruise missiles, nuclear submarines, fighter aircraft, nuclear energy, and surface ships (including an aircraft carrier). India is unlikely to find another state as willing as Russia is to develop high-level collaboration on advanced strategic systems. This only strengthens India’s resolve to continue the relationship, as it will likely bear fruit well into the future.

Missiles. The joint development of the BrahMos cruise missile system is considered the most substantive case of Indo-Russian defense collaboration. In 1998, India’s Defense and Research Development Organization (DRDO) and Russia’s NPO Mashinostroyeniya created joint venture BrahMos aerospace to develop a supersonic cruise missile system.¹⁰⁰ Russia developed the missile’s engine and seeker while India worked on the guidance control system, airframe, and on-board electronics.¹⁰¹ For India, the advantage of joint development with Russia on BrahMos was access to technology related to canisterization of missiles, which enabled DRDO to

Beyond, March 15, 2017, https://www.rbth.com/defence/2017/03/15/minor-obstacles-hamper-transfer-of-military-technology-from-russia-to-india_720123; Jyotsna Bakshi, “India-Russia Defence Co-operation,” *Strategic Analysis*, 30, no. 2 (2006): 457-58.; Karthik Bommakanti, “India-Russia Military-Technical Cooperation: Beyond Commercial Relations,” ORF Issue Brief, No. 184, June 2017, p. 3; Pal Singh, “Arms Procurement Decision Making,” p. 66; Smita Purushottam, “Russia, China and the ‘reset’ with the West,” *CLAWS*, November 9, 2010, <https://archive.claws.in/444/russia-china-and-the-reset-with-the-west-smita-purushottam.html>; Dennis Childs and Michael Kidron, “India, the USSR and the MiG Project” *Economic and Political Weekly*, Vol. 8, No. 38 (Sep. 22, 1973, pp. 1721-28.

⁹⁸ Bommakanti, 2017: 3, 5.

⁹⁹ Arun Sahgal, “India-Russia Defense Cooperation: Perspectives and Prospects,” in *India-Russia Strategic Partnership: Challenges and Prospects*, ed. Nivedita Das Kundu (Academic Foundation, New Delhi, 2010): .25-36.

¹⁰⁰ Brahmos Aerospace, “History of BrahMos,” accessed November 15, 2018, www.brahmos.com/content.php?id&sid=2

¹⁰¹ Pravin Sawhney, “Missile with Make in India label,” *The Pioneer*, June 30, 2016, <https://www.dailypioneer.com/2016/columnists/missile-with-make-in-india-label.html>

indigenously develop it for its Agni-I missile.¹⁰² The degree of “joint” development should not be overstated however since the BrahMos propulsion technology, arguably the most sophisticated part of the missile, is based almost entirely on Russia’s Yakhont SS-N-26 anti-ship cruise missile.¹⁰³

Naval Equipment. The Soviet Union loaned India one of its Charlie-class nuclear-powered submarines for a period of three years between 1988 and 1991, the first time any country had ever done so for another.¹⁰⁴ India and Russia built on this cooperation with Russia leasing another nuclear-powered attack submarine, the K-152 Nerpa, to India for a period of 10 years in 2012, and a third SSN will be leased in 2025.¹⁰⁵ India also purchased Russian Talwar-class frigates, which came into service in 2003-04.¹⁰⁶ It purchased another three in 2013 and has contemplated purchasing more.¹⁰⁷ Russia also sold India an aircraft carrier, designated INS Vikramaditya, which, though marred by cost overruns and delays, was offered at a marginally concessionary rate to replace India’s retiring British-origin carrier.¹⁰⁸ The most significant example of a collaborative project has been Russian assistance in the development of India’s nuclear-powered ballistic missile submarine INS *Arihant*.¹⁰⁹

Fighter Aircraft. An agreement between New Delhi and Moscow for India’s Hindustan Aeronautics Limited (HAL) to manufacture the Su-30MKI under a “deep license” production was seen as a significant development because India would be able to indigenously manufacture all the components of the multi-role fighter aircraft, including the engine.¹¹⁰ Russia’s Su-30MKI with Israeli and French avionics ultimately became the Air Force’s frontline aircraft,¹¹¹ but India

¹⁰² “India developing seekers for BRAHMOS, other missiles: Sudhir Mishra,” *Brahmand.com*, April 1, 2016, <http://www.brahmand.com/news/India-developing-seekers-for-BRAHMOS-other-missiles-Sudhir-Mishra/14739/1/10.html>

¹⁰³ “3M55 Oniks / P-800 Yakhont / P-800 Bolid / SS-N-26,” *Global Security*, accessed November 15, 2018, <https://www.globalsecurity.org/military/world/russia/ss-n-26.htm>

¹⁰⁴ Ramesh Thakur, “The Impact of the Soviet Collapse on Military Relations with India,” *Europe-Asia Studies* 45, no. 5 (1993): 838-839.

¹⁰⁵ “Russia leases out Nerpa nuclear-powered attack submarine to India,” *India Today*, December 31, 2011, <https://www.indiatoday.in/world/asia/story/russia-leases-out-nerpa-nuclear-submarine-to-india-150449-2011-12-31>; Vivek Raghuvanshi, “India Signs \$3 Billion contract with Russia for Lease of a Nuclear Submarine,” *Defense News*, March 8, 2019, <https://www.defensenews.com/global/asia-pacific/2019/03/08/india-signs-3-billion-contract-with-russia-for-lease-of-a-nuclear-submarine/>

¹⁰⁶ Richard Weitz, The Maturing of Russia-India Defence Relations, *Journal of Defence Studies* 6, no. 3 (2012):85, http://www.idsa.in/jds/6_3_2012_TheMaturingofRussiaIndiaDefenceRelations_RichardWeitz

¹⁰⁷ Vivek Raghuvanshi, “India signs \$950 million contract with Russia to buy two stealth frigates,” *Defense News*, October 30, 2018, <https://www.defensenews.com/naval/2018/10/30/india-signs-950-million-contract-with-russia-to-buy-two-stealth-frigates/>

¹⁰⁸ Kryzysztof Iwanek, “How India’s Aircraft Carriers Tell the Story of Its Diplomatic History,” *The Diplomat*, October 24, 2019, <https://thediplomat.com/2019/10/how-indias-aircraft-carriers-tell-the-story-of-its-diplomatic-history/>.

¹⁰⁹ Manu Pubby, “Russia offers to jointly design, build submarines,” *Economic Times*, July 6, 2018, <https://economictimes.indiatimes.com/news/defence/russia-offers-to-jointly-design-build-submarines/articleshow/64877908.cms>

¹¹⁰ “Russia, India to ink Sukhoi deal on Dec 28,” *Rediff.com*, December 26, 2000, <https://www.rediff.com/news/2000/dec/26sukhoi.htm>

¹¹¹ Reuben F. Johnson, “Russia and India Negotiating Su-30 Combat Jet Support Deal,” *AIN Online*, January 25, 2017, <https://www.ainonline.com/aviation-news/defense/2017-01-25/russia-and-india-negotiating-su-30-combat-jet-support-deal>

remained dissatisfied, as Moscow only offered licensed production, not complete transfer of technology.

When India and Russia began discussions on the fifth-generation fighter aircraft (FGFA) in the early 2000s, the Russians had already developed a prototype for it, the Su-57. India was concerned that it would not receive significant access to technology or know-how since most of the design and development of the aircraft had already been completed.¹¹² Ultimately, a joint development agreement was finally signed between Russia's Sukhoi and India's HAL in 2007,¹¹³ and Sukhoi's director announced that they would "share the funding, engineering, and intellectual property in a 50-50 proportion."¹¹⁴ However, the project encountered stumbling blocks when Sukhoi balked at giving HAL a large work share due to its lack of experience and India worried it would not be able to reap indigenization benefits for its investment.¹¹⁵ Delays and cost overruns on the Russian side also continued to plague the project. After 11 years of negotiations, India withdrew from joint development of the FGFA in 2018, but the Russians re-offered the agreement in 2019 under better relations and potentially better technology transfer terms, which India has not ruled out.¹¹⁶ Russia's consideration of sharing the source codes for a FGFA likely outstrips anything on offer from other partners.¹¹⁷

¹¹² Interview with an Indian air force veteran, October 29, 2018. In fact, India's former air chief, S. Krishnaswamy raised concerns that India's role in the joint development of the FGFA may be circumscribed. "India can at best only be a partner in funding and a partner in risk-sharing. Besides details of the program have never been shared with India. The term fifth generation has no meaning unless the capability, design, performance, structure and material, sensors, weapon systems, survivability are known," he said From: Dr. Rajan Kumar, "Indo-Russian Defence Cooperation," in *Significance of Indo-Russian Relations in the 21st Century*, ed. VD Chopra, 141-156 (Delhi: Kalpaz Publications, 2008), 149.

¹¹³ "India, Russia to make fifth generation fighter jets," *Times of India*, January 24, 2007, <https://timesofindia.indiatimes.com/India-Russia-to-make-5th-generation-fighter-jets/articleshow/1433785.cms>

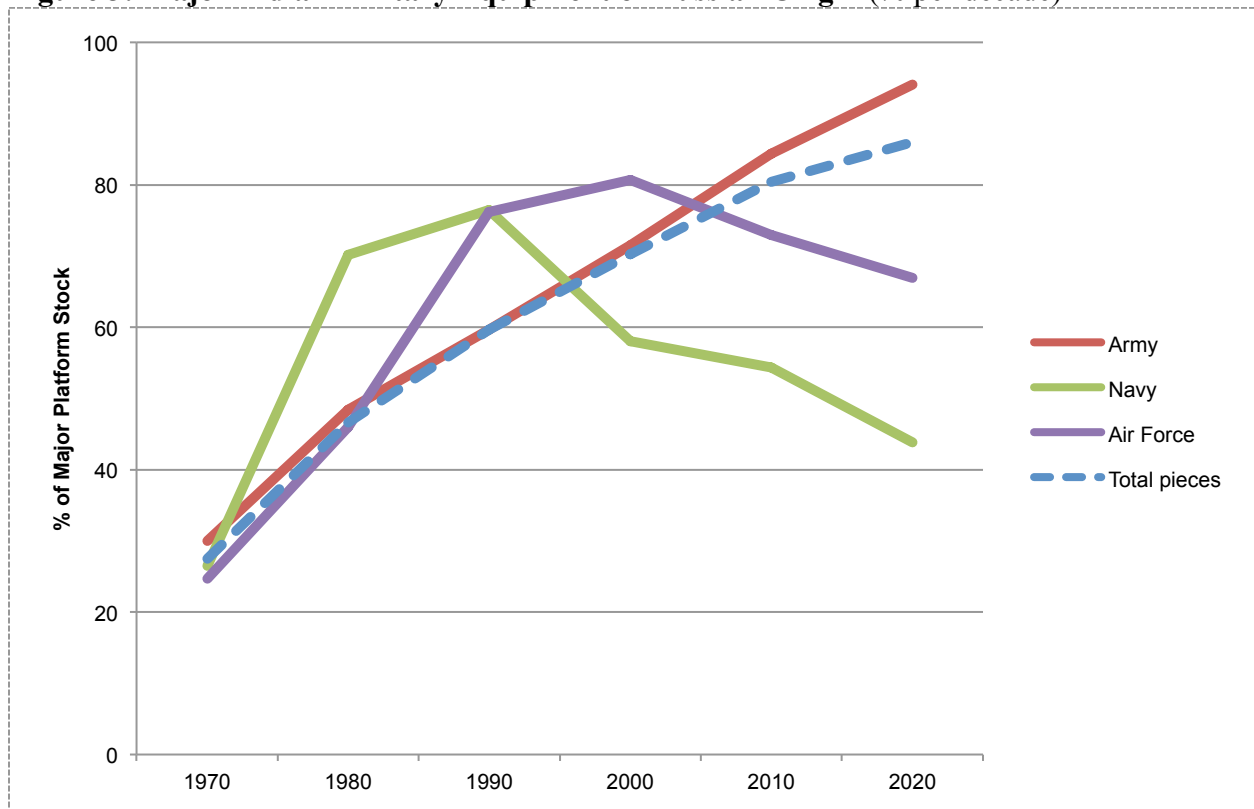
¹¹⁴ Sudha Ramachandran, "India, Russia still brothers in arms," *Asia Times*, October 27, 2007, http://www.atimes.com/atimes/South_Asia/IJ27Df01.html

¹¹⁵ Ajai Shukla, "India to develop 25% of fifth generation fighter," *Business Standard*, January 21, 2013, https://www.business-standard.com/article/companies/india-to-develop-25-of-fifth-generation-fighter-110010600047_1.html; Jay Menon, "India Concerned about FGFA Work Share with Russia," *Aviation Week*, October 21, 2013, https://www.business-standard.com/article/companies/india-to-develop-25-of-fifth-generation-fighter-110010600047_1.html

¹¹⁶ "India tells Russia to go ahead with fifth generation fighter aircraft project; says it may join at a later stage," *The New Indian Express*, July 14, 2018, <http://www.newindianexpress.com/nation/2018/jul/14/india-tells-russia-to-go-ahead-with-fifth-generation-fighter-aircraft-project-says-it-may-join-at-a-1843133.html>; Mark Episkopos, "Russia's Su-57 Stealth Fighter Could Fly for India. Here's Why." *The National Interest*, July 22, 2019, <https://nationalinterest.org/blog/buzz/russias-su-57-stealth-fighter-could-fly-india-heres-why-68347>; Franz-Stefan Gady, "Russia Offers India its Su-57 Stealth Fighter (Again)," *The Diplomat*, July 16, 2019, <https://thediplomat.com/2019/07/russia-offers-india-its-su-57-stealth-fighter-again/>

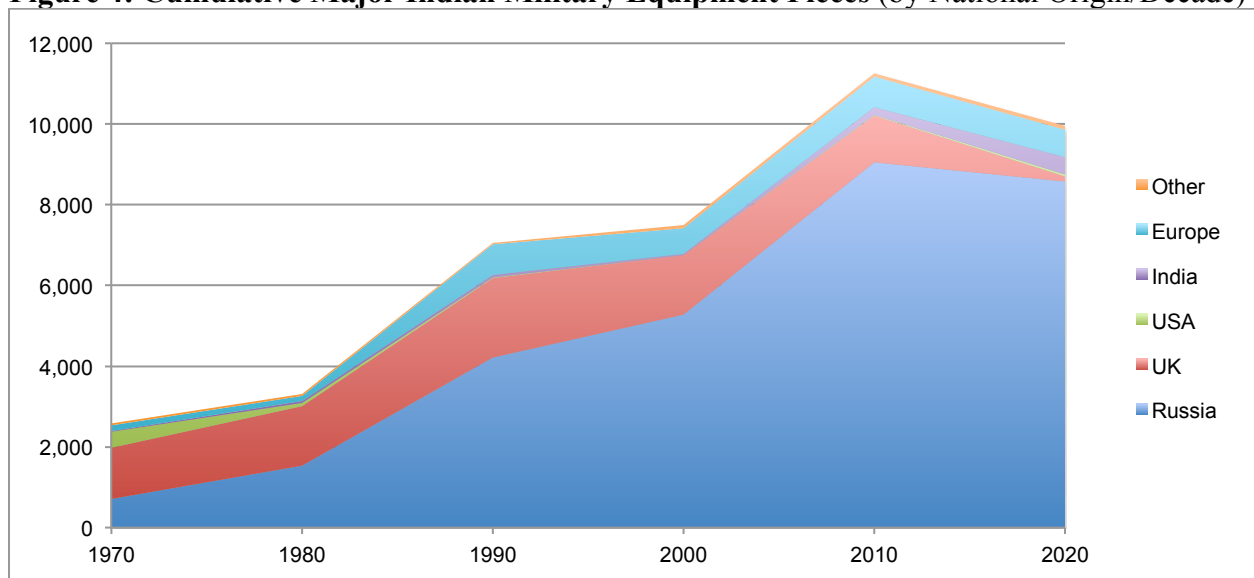
¹¹⁷ Franz-Stefan Gady, "India, Russia 5th Generation Fighter Jet Deal to Be Signed 'Soon,'" *The Diplomat*, May 9, 2017, <https://thediplomat.com/2017/05/india-russia-5th-generation-fighter-jet-deal-to-be-signed-soon/>; Gady, "Russia Offers India its Su-57 Stealth Fighter (Again)."

Figure 3: Major Indian Military Equipment of Russian Origin (% per decade)



Source: *The Military Balance, IISS*

Figure 4: Cumulative Major Indian Military Equipment Pieces (by National Origin/Decade)



Source: *The Military Balance, IISS*

Nuclear Energy Cooperation. Any discussion of India-Russia arms cooperation would be incomplete without acknowledgment of the nuclear energy relationship. Russia has been India's most important nuclear energy partner for the past few decades. Russia has completed

construction on four nuclear reactors, with two more under construction and as many as six planned.¹¹⁸ Russian assistance to India's civilian nuclear program, in the form of enriched uranium fuel supply, became increasingly important after some Western partners, like the US, ended cooperation after India's 1974 nuclear test. Furthermore, Russia continued construction on two nuclear reactors even after India's 1998 nuclear tests and international pressure to end nuclear cooperation with India.¹¹⁹ As well, analysts assume that the India-Russia nuclear cooperation agreement, which isn't public, "allows India to reprocess the spent fuel from Russian reactors" and, very likely, any other spent Russian fuel used in non-Russian-origin reactors.¹²⁰

Arms Procurement Frictions

Despite their deep arms relationship, there have been several points of friction between New Delhi and Moscow over these procurements. The first issue has been quality. Russian systems were never the highest quality but were considered optimal at comparable levels of Western quality with 30-35% lower cost, robust performance, and simplicity of maintenance.¹²¹ India encountered several problems, though, including sub-standard systems or contractual obligations not being met. For instance, in 2012, India's defense ministry reported that more than half of the 872 MIGs procured from USSR/Russia had crashed, the source of its "flying coffin" nickname.¹²² The recently procured Su-30MKI has also been plagued by engine-related issues and display systems problems that may have contributed to five aircraft crashes between 2012-17.¹²³ However, some contend the problem has to do with systems integration because the DRDO has sought to experiment with "Frankenstein" platforms by adding in French and Israeli avionics onto a Russian fighter.¹²⁴

In addition, when it comes to supply of spare parts, Indian officials have privately complained about delays, price revisions, cost overruns, and demands for advance payments or

¹¹⁸ Devika Sharma, "India-Russia Energy Cooperation" in ed. Nivedita Das Kundu, *India-Russia Strategic Partnership: Challenges and Prospects* (New Delhi: Academic Foundation, 2010): 76.; Sanjeev Miglani and Geert De Clercq, "Russia Signs Pact for Six Nuclear Reactors on New Site in India," *Reuters*, October 5, 2018, <https://www.reuters.com/article/us-india-russia-nuclear/russia-signs-pact-for-six-nuclear-reactors-on-new-site-in-india-idUSKCN1MF217>

¹¹⁹ G. Balachandran, "India-Russia Civil Nuclear Cooperation" in ed. Nivedita Das Kundu, *India-Russia Strategic Partnership: Challenges and Prospects* (New Delhi: Academic Foundation, 2010): 86-89.

¹²⁰ G. Balachandran, "India-Russia Civil Nuclear Cooperation," p. 89.

¹²¹ P. R. Chari, "Indo-Soviet Military Cooperation: A Review," *Asian Survey*, 19, No. 3 (Mar., 1979): 239.; Bakshi, "India-Russia Defence Co-operation," pp. 452-455

¹²² Andrew North, "Why are India's air force planes falling out of the sky?," *BBC*, October 16, 2014, <https://www.bbc.com/news/world-asia-india-29639897>

¹²³ Rahul Singh, "Su-30 fleet plagued by engine woes, poor serviceability," *Hindustan Times*, March 17, 2015, <https://www.hindustantimes.com/india/su-30-fleet-plagued-by-engine-woes-poor-serviceability/story-CUNvrCuhWdK0w4J6jVecIK.html>; "Su-30 MKI aircraft displays facing 'blinking off' problems," *Livemint*, March 12, 2014, <https://www.ndtv.com/india-news/29-indian-fighter-jets-have-crashed-since-last-5-years-government-1727809>. At the same time, India's French and Indian made fighter aircraft have also suffered numerous crashes raising questions of whether maintenance or training are also the culprits. See "12 Planes Lost, at Least 30 Air Force Personnel Killed in Crashes This Year So Far," *India Today*, September 25, 2019, <https://www.indiatoday.in/india/story/indian-air-force-planes-crashes-personnel-killed-in-2019-1603033-2019-09-25>; Rakesh Krishnan Simha, "Why the Indian Air Force Has a High Crash Rate," *Russia Beyond*, June 4, 2015, https://www.rbth.com/blogs/2015/06/04/why_the_indian_air_force_has_a_high_crash_rate_43501

¹²⁴ Discussion with US officials.

new or long-term contracts, some even designed to leverage India's dependence on Russia.¹²⁵ However, this may begin to be redressed with a recent agreement that would allow India to manufacture spare parts and components domestically.¹²⁶

Finally, India has been dissatisfied by the limits Russia has maintained on technology transfers and access.¹²⁷ For instance, while the Soviet Union/Russia's lease of a nuclear submarine to India from 1988-1991 and 2012-present demonstrates a unique willingness to share technology, accompanying restrictions hampered India's ability both to train personnel and to learn from Soviet technology. During the first lease, Soviet personnel continued to man the SSN's reactor and refused to provide access to any Indian personnel.¹²⁸ Further, the Soviets provided little technical data on the SSN.¹²⁹ Additionally, some Indian Ministry of Defence officials have, in hindsight, called the Su-30MKI program a "mistake," alleging that licensed production without technology transfer or access had not brought the expected benefit of advancing an indigenous capability to manufacture a fighter aircraft and move toward R&D self-reliance.¹³⁰

Ultimately, a competitive marketplace has compelled Russia to grow more open to technology transfers; but Russia—given its experience with Chinese replication or reverse engineering—will likely remain hesitant to allow technology transfers that eventually undercut its own defense exports.¹³¹ Nevertheless, a review of Soviet/Russian involvement in India's strategic deterrent reveals the magnitude of Russian contributions.

Russian Contributions to India's Strategic Deterrent

Russian support for Indian defense technology and indigenization—while never fully satiating India's desires—cannot be understated. What is often unappreciated, though, is Russia's contribution to India's nuclear deterrent. While reports of Russian contributions to Indian submarine-launched, intermediate range and intercontinental ballistic missile capabilities have been unconfirmed,¹³² there is a consensus that decades of Soviet and Russian support proved

¹²⁵ "India Upset at Russian Military Parts Supply," *Aviation Week*, April 4, 2011, <https://aviationweek.com/india-upset-russian-military-parts-supply>; A non-paywalled version can be read here: <https://defenceforumindia.com/forum/threads/india-upset-at-russian-military-parts-supply.20732/>; Vivek Raghuvanshi, "Russia Allows Companies to Work with India to Supply Weapon Spares," *Defense News*, January 23, 2017, <https://www.defensenews.com/pentagon/2017/01/23/russia-allows-companies-to-work-with-india-to-supply-weapon-spares/>; Vivek Raghuvanshi, "India's Sukhoi fleet faces problems despite Russian spare parts deal," *Defense News*, March 22, 2017, <https://www.defensenews.com/air/2017/03/22/india-s-sukhoi-fleet-faces-problems-despite-russian-spare-parts-deal/>

¹²⁶ Kiran Sharma, "India-Russia Pact Marks Turning Point in Asian Arms Race," *Nikkei Asian Review*, September 24, 2019,

¹²⁷ Pal Singh, "Arms Procurement Decision Making," p. 64-5.

¹²⁸ CIA, *India's Navy and Its Indian Ocean Strategy: Pursing Regional Predominance*, June 1988, <https://www.cia.gov/library/readingroom/docs/CIA-RDP89S01450R000300330001-8.pdf>, p. 19; Rahul K. Bhonsle, "Hindrances in Indo-Russian Defence Cooperation" in ed. Nivedita Das Kundu, *India-Russia Strategic Partnership: Challenges and Prospects* (New Delhi: Academic Foundation, 2010): 62.

¹²⁹ "The Indian SSN Project: An Open Literature Analysis," *Federation of American Scientists*, December 1996, <https://fas.org/nuke/guide/india/sub/ssn/part01.htm>

¹³⁰ Pal Singh, "Arms Procurement Decision Making," p. 66.

¹³¹ Bommakanti, 2017: 3-5

¹³² Rakesh Krishnan Simha, "Arihant: How Russia Helped Deliver India's Baby Boomer," *Russia Beyond*, October 26, 2015, https://www.rbth.com/blogs/stranger_than_fiction/2015/10/26/arihant-how-rusia-helped-deliver-indias-baby-boomer_533849; Rahul Datta, "With Russian Help, India to Join ICBM Big League Soon," *Daily Pioneer*,

critical to the recent fielding of India's indigenous SSBN, the INS *Arihant*. Dozens of Russian engineers and advisors were dispatched to support India's Department of Atomic Energy and DRDO, and assist with designs, precision equipment, and reactor miniaturization technology to fit it aboard a submarine.¹³³ Former science and technology advisor to the Indian Prime Minister Ashok Parthasarathi writes that the *Arihant* "would have just been impossible to realise without the Soviet Union's/Russia's massive allround consultancy," including submarine designs and "above all numerous operational 'tips' based on 50 years of experience in designing, building and operating nuclear submarines."¹³⁴

Furthermore, India's newest breakthrough strategic developments, such as enhanced ISR capabilities and improved navigational satellite systems, were uniquely and robustly boosted by space cooperation with the Russians.¹³⁵ This support dates back to the 1972 agreement the Soviets made to aid the Indian Space Research Organisation in the development of remote sensing capabilities.¹³⁶ In 2004, Russian and Indian space agencies signed an agreement to partner on re-establishing and revitalizing the Russian Global Navigational Satellite System (GLONASS) to avoid reliance on US GPS. This was to involve the launching of Russian satellites from Indian launch pads with the help of Indian vehicles.¹³⁷ Though this never materialized, India was given preferential access to GLONASS for precision signals for enhanced missile targeting.¹³⁸

In particular, what has shaped India's perception of Russian reliability is that even in the face of US pressure, Russia has strived to fulfill its commitments to India for strategic capability transfers. The US successfully pressured Russian President Yeltsin to terminate the lease of a nuclear submarine to India and the transfer of missile engine technology for an Indian space launch vehicle.¹³⁹ Nevertheless, Russian scientists, (possibly abetted by the deep state),

October 8, 2011, <https://web.archive.org/web/20120426233305/http://dailypioneer.com/columnists/item/47621-with-russian-help-india-to-join-icbm-big-league-soon.html>; Steven Lee Myers, "Russia Is Helping Extend Range of Missile, US Aides Say," *The New York Times*, April 27, 1988, <https://www.nytimes.com/1998/04/27/world/russia-is-helping-india-extend-range-of-missile-us-aides-say.html>

¹³³ Praful Bidwai, "Sinking Billions into Nuclear Weapons," *Rediff*, August 3, 2009, <http://news.rediff.com/column/2009/aug/03/sinking-billions-into-nuclear-weapons.htm>; Jyoti Malhotra, "How India's Pride INS Arihant Was Built," *Business Standard*, August 19, 2013, https://www.business-standard.com/article/specials/how-india-s-pride-ins-arihant-was-built-113081100745_1.html

¹³⁴ Parthasarathi, "Concern over a Pernicious Agreement."

¹³⁵ Chris Clary and Vipin Narang, "India's Counterforce Temptations: Strategic Dilemmas, Doctrine, and Capabilities," *International Security*, 43, no. 3 (2019); Frank O'Donnell and Alexander Bollfrass, "The Strategic Postures of China and India: A Visual Guide," *The Belfer Center*, March 2020, <https://www.belfercenter.org/publication/strategic-postures-china-and-india-visual-guide>.

¹³⁶ Thakur, India and the Soviet Union: Conjunctions and Disjunctions of Interest," pp. 831-832.

¹³⁷ Jyotsna Bakshi, "Prime Minister's Moscow Visit," *Strategic Analysis* 29, no. 4 (2005) https://idsa.in/strategicanalysis/PrimeMinistersMoscowVisit_jbakshi_1005; K.S. Jayaraman, "India to Launch Russian GLONASS Satellite," *Space News*, March 27, 2006, <https://spacenews.com/india-launch-russian-glonass-satellite/>

¹³⁸ Sandeep Dikshit, "India Strikes Deal with Russia on GLONASS," *The Hindu*, December 19, 2011, <https://www.thehindu.com/news/national/india-strikes-deal-with-russia-on-glonass/article2726888.ece>; Victoria Samson, "India-US: New Dynamism in Old Partnership," in ed. Rajeswari Pillai Rajagopalan and Narayan Prasad, *Space India 2.0: Commerce, Policy, Security and Governance Perspectives* (New Delhi: Observer Research Foundation, 2017).

¹³⁹ Yogesh Joshi, "Indo-Russian Defense Relationship Will Continue to Withstand Washington's Displeasure," *The Center for the Advanced Study of India*, July 1, 2019, <https://casi.sas.upenn.edu/iit/yjoshi>; Joshi, "India's Strategy in the China-Russia-USA Triangle."

maneuvered around the Yeltsin government to provide the technology to India and the nuclear submarine lease was resurrected in the early 2000s.¹⁴⁰ After India's 1998 nuclear tests, Russia also continued to move forward on a deal to construct two light water 1,000MW nuclear reactors. Russia then continued to provide enrichment and uranium fuel for the submarine reactor.¹⁴¹

In short, Russian arms sales, information sharing, collaboration, technology transfers, and hands-on technical guidance, often in the face of heavy US pressure, have made tremendous contributions to India's strategic deterrent. Despite frustrations over quality, spare parts, and costs, India continued to extract value from Moscow's arms technology, such that after the Cold War, even as India liberalized and warmed to the West, it expanded its arsenal of Russian systems. These arms transfers proved essential not only in modernizing the Indian military but also advancing its strategic arsenal, ranging from fissile material production and reactor designs to delivery systems, and, ultimately, space and ISR assets for targeting. The support on these strategic systems, in particular, has also ensured Indian goodwill towards Russia and highlighted the special nature of the relationship. India will be unwilling to turn down this support as long as Russia continues to offer it, likely guaranteeing a future close-knit relationship.

VI. Arms for Influence?

We now turn the puzzle on its head and consider why Russia transferred this level of military technology to India and what it received (or expected) in return. States sell arms technology not only for security and economic motives, but also to achieve *influence*. Arms sales can enhance a seller's security by bolstering a partner's security, stabilizing a regional balance of power, and gaining access to valuable geography or intelligence facilities. They can also accrue economic benefits like commercial profit, employment, foreign exchange, or lowering the per-unit costs of production. But arms sales are also thought of as vehicles to generate influence and leverage in a target country – to both spark and/or nurture a relationship. Historically, they have been used to gain access to elites, to leverage their decision-making, and even to shape strategic thinking.¹⁴²

This begs the causal direction question between arms transfers and strategic concepts: does strategy determine arms acquisition or do arms shape and structure strategic preferences? Undoubtedly, there is some inevitable degree of endogeneity in this relationship. Still, we evaluate below whether India's relationship with the Soviet/Russian strategic establishment and induction of arms has shaped its operational concepts in ways that might meaningfully endure and inform its strategic approach today. We investigate this question by first considering the theoretical mechanisms of influence, their presence or absence in the Soviet/Indian and Russia/Indian strategic relationships, and finally conducting plausibility probes in two "most likely" cases of India's SSBN program and its T-72 tank acquisition.

Influence Mechanisms

If arms relationships are expected to generate influence on the target states, influence avenues may take two principal forms: direct and indirect. Direct pathways form intentional

¹⁴⁰ Parthasarathy, "India, too, Has an All-Weather Friend."

¹⁴¹ Yogesh Joshi, 2020, p. 487. Also, email communications with Yogesh Joshi, March 2020.

¹⁴² Andrew J. Pierre, *The Global Politics of Arms Sales*, Princeton University Press, 1982: 14-27; These motives were reiterated to me by a former senior US defense official, December, 2019.

efforts to shape the future direction of foreign strategic thought, military planning, and related force acquisitions in accordance with Russian interests. Success in this objective would be evinced by evidence of a target state visibly emulating Soviet/Russian doctrine, operational art, and tactical approaches.

There are three potential pathways for this direct form of influence to be exercised. The first route is through the organization of high-level political and military dialogues with the target state. The second pathway, building upon the first, is through the conduct of joint military exercises potentially abetted by colocation or joint basing. The third pathway is through an extensive international military education and training (IMET) program.¹⁴³

The second approach that states can take to influence foreign strategic thought and planning is indirect in nature. Whereas the above direct pathways can actively shape foreign military planning, the effect of indirect influences is largely limited to constraining or enabling trends in indigenous strategic thought, planning, and force acquisition in the target state. The principal two avenues of indirect influence are, first, ideational diffusion. This transmission mechanism operates through independent studies – and interpretations – by the target state of the military thought and practice of the would-be influencer state. To maximize the success of this pathway, states must cultivate an aura of cutting-edge sophistication in operational art and technology.¹⁴⁴ The second indirect avenue is through sales of military technology to the target state, or technology co-development. These policies can lead to the target state's dependence upon the influencer state for upgrades, servicing, and maintenance.

Direct mechanisms. The existence of direct mechanisms of transmission were highly limited during the Soviet-Indian strategic relationship, with this condition continuing through today. While the Soviet Union, and then Russia, had trained over ten thousand Indian service members as of 2004, this military education was only in terms of instruction on the operation of specific platforms and weapons to be sold to India.¹⁴⁵ Indians have not attended Soviet and Russian higher staff colleges where more advanced doctrinal concepts are taught. For instance, while the CIA reported that Indian forces were represented at Russian training installations specifically designated for foreigners to study tank and ground warfare operations as well as SAM and AAA deployment and maintenance, they were conspicuously absent from the prestigious academies, command schools, and general staff colleges.¹⁴⁶ The first Soviet officer to attend a single Indian National Defence College course only joined in January 1988, and no Soviet personnel enrolled in full Indian higher staff college curriculum programs as a rule.¹⁴⁷

¹⁴³ For example, by 1984, the USSR had an extensive IMET program to wield influence and shape military operations and strategy in developing countries. This involved 19,000 military personnel stationed in these states (not including those of the Warsaw Pact) as advisors, technicians, and instructors. Moreover, over 4,000 trainees from the Middle East, Africa, Latin America, and South Asia were hosted at Soviet training facilities and military academies. See CIA, *The Soviet Military Advisory and Training Program for the Third World*, April 1984, https://www.cia.gov/library/readingroom/docs/DOC_0000497180.pdf.

¹⁴⁴ See Michael J. Eisenstadt and Kenneth M. Pollack, "Armies of Snow and Armies of Sand: The Impact of Soviet Military Doctrine on Arab Militaries," in Emily O. Goldman and Leslie C. Eliason (eds.), *The Diffusion of Military Technology and Ideas* (Stanford: Stanford University Press, 2003), p. 68.

¹⁴⁵ Rouben Azizian, "Russia-India Relations: Stability Amidst Strategic Uncertainty," *Asia Pacific Center for Security Studies*, Honolulu, Hawaii, October 2004, p. 1-6.

¹⁴⁶ CIA, *Soviet Military Advisory and Training Program*, pp. 16-18.

¹⁴⁷ Author interview with retired Indian admiral, October 19, 2018; Ramesh Thakur, "The Impact of the Soviet Collapse on Military Relations with India," *Europe-Asia Studies*, 45, Issue 5 (1993); Azizian, "Russia-India Relations," p. 1-6.

Indian acquisition of Russian equipment often came with training of forces. However, as highlighted above, this training was much more tactical – in terms of basic technical operation of the platform – than strategic or even operational.¹⁴⁸ For instance, in October 2005, as Indian finalized the terms of lease for its SSN from Russia, 200-300 Indian naval officers began technical training at a submarine training center at Sosnovij Bor near St. Petersburg.¹⁴⁹

Furthermore, there is little evidence of any joint military exercises between India and the Soviet Union. India-Russia military exercises were relatively infrequent to non-existent in the 1990s. However, as the US began to initiate exercises with the Indian military, particularly the Navy, Russia gradually followed suit. These began in earnest when Russia conducted a naval-based INDRA exercise with the Indians in 2003, and these eventually grew into bi- and tri-service exercises.¹⁵⁰ Furthermore, unlike other states, the Soviets did not have basing access or privileged port facilities in India.¹⁵¹ Given the limits on high-level exchanges, exercises, basing, and training along with several other features of the relationship, it appears unlikely that any substantial Soviet influence was directly exerted to shape Indian strategy or foreign policy.¹⁵²

Indirect Mechanism. However, there is more evidence for indirect influence upon India, albeit not through India-centered Russian initiatives. Instead, we find that India has developed indigenous operational concepts with its own military experience and perceived lessons from crisis episodes as a primary point of influence. There is a felt need within New Delhi for its operational art to be seen as cognizant of, and comparable to, similar themes within Soviet strategic planning, which is held by Indian experts to have especial refinement and prestige in global military history. Soviet tactics and operational art are utilized by Indian strategists to publicly legitimize new Indian indigenous operational concepts, *once these are finalized and announced*. However, this Soviet and Russian practice does not drive original Indian doctrinal conceptual development, with this role instead filled by the lessons of previous Indian conflicts.

This role of indirect influence is now further tested through two plausibility probes in Indian concepts and doctrine in subsurface warfare and ground forces “breakthrough” operations.

Influence over Subsurface Warfare?

Some scholars contend that “Soviet naval thinking also influenced India’s strategy,”¹⁵³ which may stem from the Indian Navy’s heavy reliance upon Soviet and Russian platforms with

¹⁴⁸ Interview with a retired Indian admiral, October 19, 2018.

¹⁴⁹ “Project 971 Shuka-B Akula Class,” *Global Security*, May 3, 2019, <https://www.globalsecurity.org/military/world/india/s-akula.htm>.

¹⁵⁰ Bakshi, “India-Russia Defence Co-operation,” p. 461

¹⁵¹ Chari, “Indo-Soviet Military Cooperation: A Review,” pp. 242-243. There is an isolated example of the Ayni airbase in Tajikistan. This is a Russian airbase, which India “started operating...in 2002 with Russian acquiescence.” However, the base reportedly does not host Russian or Indian Air Force combat squadrons, and instead its “main function is to transport India’s relief and reconstruction supplies into Afghanistan.” Micha’el Tanchum, “China’s Tajikistan Military Base Eclipses India’s Central Asian Ambitions,” *East Asia Forum*, March 23, 2019, <https://www.eastasiaforum.org/2019/03/23/chinas-tajikistan-military-base-eclipses-indias-central-asian-ambitions/>.

¹⁵² Chari, “Indo-Soviet Military Cooperation.” p. 243. In fact, one analyst quipped that “the Indian act of taking Soviet support while giving little tangible in return is one of the more outstanding feats of the contemporary international scene.” See Thomas P. Thornton, “The Security of South Asia: Analysis and Speculation,” in Stephen P. Cohen, ed., *The Security of South Asia: American and Asian Perspectives* (Urbana: University of Illinois Press, 1987): 21.

¹⁵³ Yogesh Joshi, 2020, p. 486.

an estimated 70 percent of the current fleet sourced from Moscow.¹⁵⁴ Further, its strategic deterrent development has been technically supported by Russian sales, technology, training, and guidance. If technological capabilities determine strategy and doctrine as some contend,¹⁵⁵ then it stands to reason that Indian doctrine may very well derive from its Russian platforms. Though, at first glance it might appear to be the case, it is actually shaped by more indirect mechanisms.

In the naval domain, there are also some commonalities between the Soviet/contemporary Russian and contemporary Indian nuclear-armed submarine (SSBN) posturing choices. Moscow's SSBN force has long been organized around a bastion posturing model, in which the submarines stay relatively close to port, or are even berthed, in peacetime, and only deployed or assigned more far-reaching patrols in crisis.¹⁵⁶ India too appears to be adopting a bastion strategy with its first SSBN, INS *Arihant*, which was officially inducted into the Strategic Forces Command in November 2018, and a second boat, INS *Arighat*, which is currently undergoing more localized sea trials.¹⁵⁷ The National Command Authority plans a total SSBN fleet size of at least five boats, and a second SSBN base is currently being built at Rambilli on India's east coast, to complement its West coast facility at Vishakapatnam, while a potential third "hardened submarine base" has also been under consideration for the Andaman & Nicobar Islands since 2002.¹⁵⁸

Despite the Russian loan of Akula-class nuclear-powered submarines to India, and quiet assistance in developing the *Arihant*, it is unlikely that these direct interactions have led to Indian emulation of the Russian bastion model. The size of India's eventual SSBN force and number of bases implies that it will eventually move toward a continuous at sea deterrent model. An Indian defense expert has noted that the current paucity of sufficient escort vessels is what mandates India's bastion model, suggesting that this will change as this capability gap is filled.¹⁵⁹ The commonality, then, between Russian and Indian modes of naval nuclear deterrence is more likely due to the technological novelty of the Indian SSBN force and supporting elements. This leaves the bastion model as its only viable choice, as opposed to a permanent posture, like the one adopted by Moscow.

Further, while the Soviet and Russian navies have been organized around a submarine-heavy strategy of sea denial to defensively block adversary fleets from certain areas,¹⁶⁰ the

¹⁵⁴ Ashley O'Keefe, "Sea Control 127 – Dr. Tom Fedyszyn on Russian Navy Ops, Acquisition and Doctrine," Center for International Maritime Security, February 1, 2017, <http://cimsec.org/sea-control-127-dr-tom-fedyszyn-russian-navy-ops-acquisition-doctrine/30799>, accessed May 16, 2019.

¹⁵⁵ See Rosen, 1991; also the offense-defense balance literature discussed at length by Kier Lieber, *War and the Engineers: The Primacy of Politics over Technology*, Cornell University Press, 2005.

¹⁵⁶ Barry R. Posen, "U.S. Maritime Strategy: A Dangerous Game," *Bulletin of the Atomic Scientists* 43 Issue 7 (1987), p. 24. For a more recent analysis, see Hans M. Kristensen, "Russian SSBN Fleet: Modernizing but not Sailing Much," Federation of American Scientists, May 3, 2013, <https://fas.org/blogs/security/2013/05/russianssbns/>, accessed May 16, 2019.

¹⁵⁷ Yogesh Joshi, "Angles and Dangles: Arihant and the Dilemma of India's Undersea Nuclear Weapons," *War on the Rocks*, January 14, 2019, <https://warontherocks.com/2019/01/angles-and-dangles-arihant-and-the-dilemma-of-indias-undersea-nuclear-weapons/>; Sandeep Unnithan, "INS Arihant Returned Yesterday from 20-day Deterrent Patrol," *India Today*, November 5, 2018, <https://www.indiatoday.in/india/story/ins-arihant-returned-yesterday-from-20-day-deterrent-patrol-1383188-2018-11-05>, accessed May 16, 2019.

¹⁵⁸ Saurav Jha, "India's Undersea Deterrent," *The Diplomat*, March 30, 2016, <https://thediplomat.com/2016/03/indias-undersea-deterrent/?allpages=yes&print=yes>, accessed May 16, 2019.

¹⁵⁹ Jha, "India's Undersea Deterrent."

¹⁶⁰ See Yogesh Joshi, "Sailing through the Cold War: Indian Navy's Quest for a Submarine Arm, 1947-67," *India Review* 17, no. 5 (2018): 1-29.

Indian Navy has long seen its naval strategy as one of blue-water sea control: an expeditionary fleet capable of establishing new control over contested domains.¹⁶¹

Influence over Ground Warfare?

Indian's ground warfare doctrinal shifts, in conjunction with India's acquisition of the Soviet T-72 tank in the 1970s and 1980s, offers another useful case to explore potential indirect transmission mechanisms of Soviet/Russian strategic influence. The Soviet Union and India do share common dilemmas in designing the employment of ground forces. Both states face challenges of planning conventional ground operations against an adversary (Pakistan and NATO in Europe) that has comparatively less strategic depth, and explicitly relies upon a first-use policy and battlefield nuclear weapons to compensate.¹⁶²

The real landmarks in India's doctrinal evolution included its 1971 war, in which it successfully tested new rapid maneuver operations, and its subsequent 1975-6 Expert Committee ground warfare doctrinal redesign.¹⁶³ Post 1971, the Indian military objective would be to field fast-moving armor, closely coordinated with air power, which would either punch through or bypass adversary forces to capture key military-communication hubs in the enemy's interior, thus disrupting organizational cohesion and causing rapid collapse of the enemy lines. Unlike the attritionist, search-and-destroy wars of the past, the Army and Prime Minister's Office now envisioned high-tempo maneuver warfare within a curtailed timeframe.¹⁶⁴

Each of the major Indian Army doctrinal reorderings since 1971 – the RAPIDs division and overarching Sundarji doctrine, the reorganization of some formations into new Integrated Battle Group models in the 2004 Indian Army doctrine, and the more widespread reshaping of remaining Indian Army formations into Integrated Battle Groups as envisioned in the 2018 Indian Army doctrine – all carry some surface similarities to Soviet land warfare strategic

¹⁶¹ As revealed through writings of Indian naval officers in *USI Journal* in the 1940s and 1950s through to the content of Indian maritime doctrines today. See Capt. Sanjay Sachdeva, "Sea Control by the Indian Navy: A Pragmatic Assessment," *Naval War College Journal* (2014), https://www.indiannavy.nic.in/sites/default/themes/indiannavy/images/pdf/resources/article_12.pdf, accessed May 16, 2019; Joshi, "Sailing through the Cold War," pp. 13, 21.

¹⁶² For background on the similarities and differences between NATO-Warsaw Pact and India-Pakistan strategic dynamics, see David O. Smith, "The US Experience with Tactical Nuclear Weapons: Lessons for South Asia," Stimson Center, March 4, 2013, <https://www.stimson.org/content/smith-tactical-nuclear-weapons-south-asia>, accessed May 16, 2019.

¹⁶³ Ali Ahmed, *India's Limited War Doctrine: The Structural Factor (IDSA Monograph Series No. 10)*, December 2012, p. 20. The 1971 Indian operational plan sought to rapidly advance through East Pakistan territory to seize key communications and geographical points, as opposed to choosing paths that took Indian forces to Pakistani force concentrations. Indian forces were to advance as rapidly as possible toward these areas and then defend them, which would produce a fait accompli to the physically existing, but organizationally broken and scattered, Pakistani forces still in the region. See Srinath Raghavan, *1971: A Global History of the Creation of Bangladesh* (Cambridge, MA: Harvard University Press, 2013): 238. For background on the primary doctrinal influence of the 1971 war and 1975-76 Expert Committee, see K.V. Krishna Rao, *In the Service of the Nation: Reminiscences* (New Delhi: Viking, 2001): 142-158; and Ali Ahmed, *India's Limited War Doctrine: The Structural Factor (IDSA Monograph Series No. 10)*, December 2012, pp. 19-21.

¹⁶⁴ For example, the 1971 war planners had estimated that they had a maximum of three weeks to initiate and conclude hostilities before some form of international intervention would occur. Srinath Raghavan, *1971: A Global History of the Creation of Bangladesh* (Cambridge, MA: Harvard University Press, 2013): 236. For background on the differences between 1971 and the more attritionist 1965 India-Pakistan war, see G.D. Bakshi, "Operational Art in the Indian Context: An Open Sources Analysis," *Strategic Analysis*, Vol. 25, No. 6 (September 2001): 730.

planning. The Soviet Operational Maneuver Group thinking of the late 1970s and early 1980s envisioned a similar reorganization of ground forces around highly maneuverable independent formations, operating just behind the initial breakthrough forces. However, India's rethinking of its operational art, as anchored in the 1971 experience and 1975-76 Expert Committee, ultimately pre-dates that of the Soviet Union.¹⁶⁵ The references to Soviet – and US – practice among Indian military strategists and strategic analysts are largely by way of *post hoc* analogization. This is intended to persuade holdouts within their own community that these Indian concepts stand alongside those of the Soviet Union and also the US in their levels of sophistication and modernity.¹⁶⁶

The T-72 Tank Selection. In selecting its next major battle tank model in the 1970s, the Indian choice of the T-72 was far from automatic, and New Delhi had several options available to it. India's indigenous Arjun tank efforts had borne no fruit, refitted older models (like Centurions or T-54s and T-55s) did not match the desired strategy, and other potential options (AMX-40 and Chieftain-800) were still only prototype blueprints that were unproven. Indian Army officials conducted "paper evaluations concerning the firepower and mobility characteristics" of each model.¹⁶⁷ The emphasis on these key attributes, as opposed to armor strength, illuminates how the Indian Army was working toward a preconceived indigenous model of the kind of wars it would be fighting in future.

The T-72 appeared to Indian evaluators to be both modern and proven, featuring active Soviet service for nearly ten years by 1980, holding the most powerful gun (measured by cannon diameter) among the above contenders, and demonstrating "excellent mobility," including a 60 km/hr top speed.¹⁶⁸ The Indian Army began importing T-72s from 1979, although most of its fleet would be acquired over the period 1982-1986. Instead of emulating the Soviet order of battle assigning T-72s to the secondary follow-on role for rapid maneuver through adversary gaps, India chose to assign both the breakthrough and follow-on missions to the T-72, and upgrade them to meet India's predetermined operational requirements more closely.¹⁶⁹

This stark difference in platform utilization highlights the absence of Soviet ground warfare doctrinal influence being directly or indirectly transmitted to India, through direct training or indirect arms sales. The sole indirect mechanism of influence is therefore that of India seeking subsequent analytic validation for operational concepts of indigenous Indian design from studying the practice of perceived cutting-edge global military powers.

¹⁶⁵ See Frank O'Donnell, "Research Note: Investigating Potential Soviet and Russian Ground Warfare Conceptual Influences on India," April 2020.

¹⁶⁶ Gurmeet Kanwal, "Transforming for an Uncertain Future," *CLAWS Journal* (Winter 2011): 23-24; and author email correspondence with Gurmeet Kanwal, January 11, 2019, and May 15, 2019. Kanwal was a retired Brigadier highly familiar with historical and contemporary Indian Army thinking.

¹⁶⁷ Prasun K. Sengupta, "T-90AM: Latest Avatar of the T-90 MBT," September 1, 2011, <http://trishul-trident.blogspot.com/2011/09/t-90am-latest-avatar-of-t-90-mbt.html>.

¹⁶⁸ "T72 Tank," *Federation of American Scientists* <https://fas.org/man/dod-101/sys/land/row/t72tank.htm>, January 16, 2000; Military Factory, "AMX-40 Main Battle Tank (MBT)," https://www.militaryfactory.com/armor/detail.asp?armor_id=428, and "Chieftain Main Battle Tank (MBT) Tracked Combat Vehicle," https://www.militaryfactory.com/armor/detail.asp?armor_id=83; Sengupta, "T-90AM."

¹⁶⁹ Franz-Stefan Gady, "India to Procure 1,000 Engines for T-72 Main Battle Tank Force," *The Diplomat*, October 03, 2018, <https://thediplomat.com/2018/10/india-to-procure-1000-engines-for-t-72-main-battle-tank-force/>; "T-72M1 Ajeya," *Global Security*, March 26, 2015, <https://www.globalsecurity.org/military/world/india/t-72.htm>; Sengupta, "T-90AM."

In considering the range of influence of Soviet arms sales, it appears the economic motives have primacy. For all its generous terms of arms sales and technology transfers, the Soviets did not appear to gain special access to basing or intelligence facilities, nor did it shape the doctrinal concepts or strategic thinking of officers owing to insufficient institutional or social links that might have fostered the “epistemic communities” that diffuse policy ideas.¹⁷⁰ The indirect influence of the sale of certain weapons platforms on Indian doctrine appears marginal, post-hoc, and arguably neither sufficient nor necessary. Where the Soviets did succeed was in creating path dependence for Indian procurement that has continued to pay dividends for contemporary Russian arms sales. A question for future research would be to examine whether Soviet motives were driven by such economic foresight or some theory of regional stability that required a significant boost for India.

VII. Conclusion

In answer to the question this paper began with, this paper argues that history, politics, and ideas, all contributed to an enduring and deepening India-Russia partnership, but that the material arms relationship has been the leading driver. That arms and technology transfers (specifically strategic technology) form the bedrock of the India-Russia relationship is not meant to dismiss these material ties but to underscore their strength and long-term durability.

First, the partnership’s historical origins in the Cold War and explicit tilt in 1971, during one of India’s most consequential crises, may have produced some reservoir of familiarity and good will that reified Russia-India cooperation after the dissolution of the USSR. Second, the geopolitical alignments of past and present have driven India and Russia together, despite some periodic friction. Like in the past, both have mutually backed or acquiesced to each other’s aggressive actions in their contested, western borders or spheres of influence. Moreover, they both worry about China’s rise and regional assertiveness but prefer a more careful approach of economic engagement, hedging, and tethering China to themselves. Third, the relationship is undergirded by some significant overlap in ideas of a polycentric global order. Though they diverge on the “rules-based order,” which India defends and Russia assaults, Indian strategy of “multialignment” is still compatible with Russia’s efforts to undermine said order. Furthermore, the recent illiberal turn of the Indian government including hostility towards civil liberties, counter-majoritarian institutions, and the free flow of information may presage something greater.¹⁷¹

The lead driver undoubtedly is Russia-India arms relationship whose depth is not fully appreciated in policy circles. Though American officials are hopeful that the inevitable turnover in India’s strategic personnel will help tilt New Delhi towards Washington,¹⁷² the relative stock of Russian-origin military materiel that exerts a powerful influence on policy will remain largely unchanged. Despite some quibbles, India has been afforded access to advanced technologies at low or deferred prices and the opportunity to capture industrial production and indigenization benefits. No country transfers advanced technology or intellectual property for free but the

¹⁷⁰ Peter Haas, “Introduction: Epistemic Communities and International Policy Coordination,” *International Organization*, 46, no. 1 (1992).

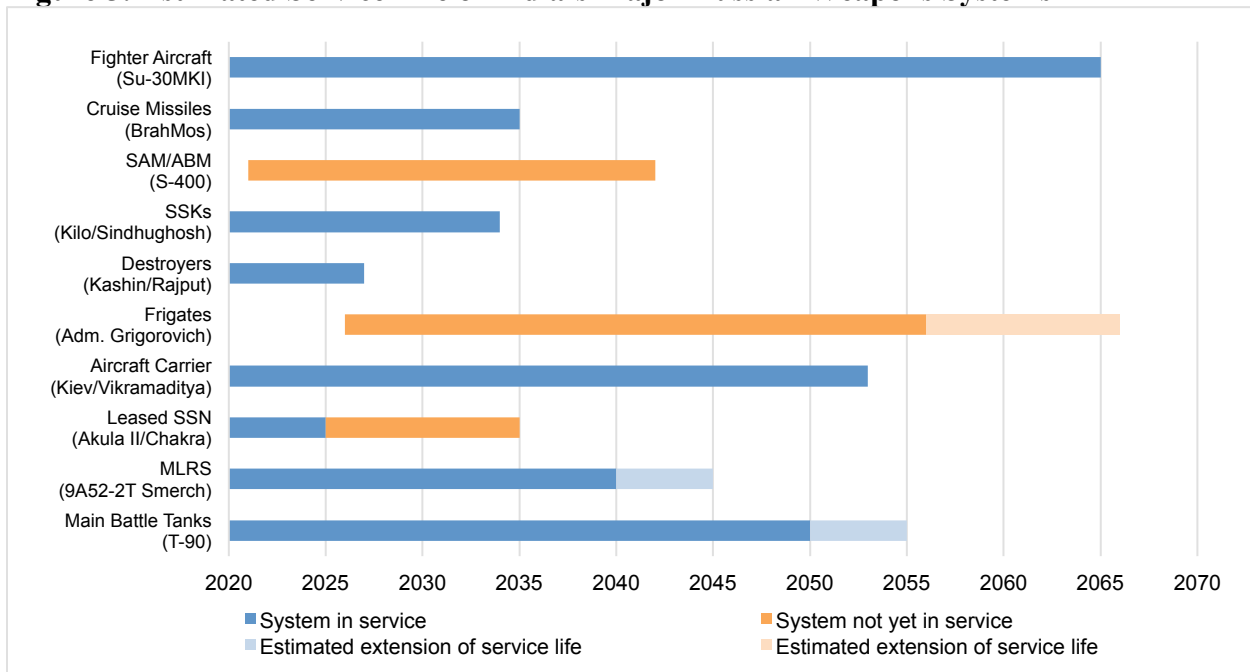
¹⁷¹ Ashutosh Varshney, “Modi Consolidates Power: Electoral Vibrancy, Mounting Liberal Deficits,” *Journal of Democracy*, 30 (4), October 2019, pp. 63-77; Sumit Ganguly, “An Illiberal India?” *Journal of Democracy* 31 (1), January 2020, pp. 193-202.

¹⁷² Discussion with US official in New Delhi, Jan 2020

Soviets may have practiced “strategic altruism” towards India long before the US did, offering more in this domain than most major power do for their treaty allies. In particular, Russian contributions to India’s nuclear deterrent rarely get the attention they deserve but at times may approach the France-Israel nuclear relationship or even the special US-UK relationship over nuclear technology that has run from 1958 to the present.¹⁷³

Even if the stock of Indian materiel was not primarily Russian and it had not recently signed defense procurement deals with Russia worth another \$15 billion that likely lock it in to several more decades of dependence for supplies and parts (see figure 5),¹⁷⁴ it would still have strong incentives to lean towards Russia. India’s desire to access, co-develop, or lease the technology required to build its own systems still makes Russia an essential partner because of its *relatively* greater willingness to share the required sensitive technology and more relaxed standards for transfers.¹⁷⁵ By contrast, stringent US guidelines on end-use of systems, classified technology, copyright protections, and operational restrictions pose a significant obstacle to licensing and transfer of defense technology to India, especially when India demands operational autonomy, seeks to refit purchased systems with materials from other foreign suppliers, and is judged to have unsatisfactory handling of intellectual property rights or classified and sensitive US technology.¹⁷⁶

Figure 5: Estimated Service Life of India’s Major Russian Weapons Systems



¹⁷³ Andrew Chuter, “Britain confirms new nuclear warhead project after US officials spill the beans,” *Defense News*, February 25, 2020, <https://www.defensenews.com/global/europe/2020/02/25/britain-confirms-new-nuclear-warhead-project-after-us-officials-spill-the-beans/>.

¹⁷⁴ Bommakanti, 2017:4

¹⁷⁵ Kliman et al. “Imbalance of Power.”

¹⁷⁶ Cara Abercrombie, “Removing Barriers to US-India Defense Trade,” *Carnegie Endowment for International Peace*, January 10, 2018, <https://carnegieendowment.org/2018/01/10/removing-barriers-to-u.s.-india-defense-trade-pub-75206>; Jonah Blank, *Regional Responses to U.S.-China Competition: India*, Santa Monica, CA: RAND Corporation, [forthcoming]

At the same time, we observe some limit to the influence of arms transfers. Even in the most likely cases, we don't find strong evidence of arms technology as a vector for transferring strategic concepts. Though this negative finding may dispel US fears that India's strategic thinking has fallen under the sway of Russian strategic concepts, it also speaks to how difficult it is to shape strategic thinking through arms transfers. The absence of Soviet strategic influence on India then is important because it may foreshadow the potential limits of US arms transfers to India to shape interoperability and diffuse military strategy.