

India's national security: challenges and dilemmas

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States across Asia face growing challenges to their security. The gradual shift in the balance of power from the West to the East has introduced security competition among the major states.¹ As India's economic and military profile grows in the wider Indo-Pacific, it too faces a range of intrastate and interstate security challenges which it has to manage. In this context, it is worth considering the nature and scope of India's military modernization in view of the types of conflicts it faces. The modernization of the Indian defence forces is a complex process covering issues pertaining to the balance between manpower and firepower as well as that between the acquisition of weaponry from indigenous sources and the import of arms. India's efforts to revamp and restructure its military in response to security challenges are characterized by a quest to meet the needs of the three services without compromising transparency and integrity in the acquisition of weapons.

These factors have influenced, and will continue to influence, the configuration of the Indian defence forces, determining their preparedness to deal with future conflicts, including their readiness to deal with military contingencies involving the country's principal opponents, China and Pakistan.² India faces a very challenging strategic environment, with both these neighbours possessing significant capabilities and militaries that are themselves modernizing rapidly. This article explores the opportunities, challenges and constraints confronting the Indian state in building its military strength to deal with its variegated threat environment. It examines how India has dealt with the use of force and how it seeks to shape its armed forces to face new threats and emerging capabilities.

Two related themes frame the arguments presented in this article. The first is the restraint imposed on India's employment of military power by tight civilian control over the military instrument. Thus New Delhi's application of force is guided more by political considerations than by the needs of the military; and

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¹ Christopher Layne, 'The US–Chinese power shift and the end of Pax Americana', *International Affairs* 94: 1, Jan. 2018, pp. 89–112; Astrid H. M. Nordin and Mikael Weissmann, 'Will Trump make China great again? The Belt and Road initiative and international order', *International Affairs* 94: 2, March 2018, pp. 231–50; Doug Stokes and Kit Waterman, 'Security leverage, structural power and US strategy in east Asia', *International Affairs* 93: 5, Sept. 2017, pp. 1039–60.

² Xiaoyu Pu, 'Ambivalent accommodation: status signalling of a rising India and China's response', *International Affairs* 93: 1, Jan. 2017, pp. 147–64.

the country's defensive orientation stems mostly from an ambivalence about the exercise of military power.³ The second concerns the problems that afflict India's civilian–military architecture. Inadequate integration has been a key weakness in India's military modernization. Insufficient direction from India's civilian leadership for the three services has hobbled the acquisition of military hardware and made it difficult to achieve productive tri-service cooperation in effectively dealing with India's evolving threat environment. Both these factors—tight political control over the military instrument coupled with insufficient political will in forcing tri-service cooperation—afflict military modernization.

The following analysis is divided into five sections, in which we explore five key themes. First, we explain the nature of India's threat environment. Second, we consider India's response to the threats it faces. Third, we address the conclusions India has drawn about the role of alliances and strategic partners in dealing with these conflicts. Fourth, we discuss the efforts and obstacles confronting New Delhi in configuring its forces to tackle the varied threats it faces. Finally, we analyse what all these factors mean for its defence acquisition programmes. India has to contend with all these challenges as an emerging power, and the measures it has put in place are still a work in progress. There remains a fundamental need for greater integration across the Indian security sphere—in interservice arrangements, in procurement processes, and in broader strategic thinking and planning.

The nature of India's threat environment

The Indian state is faced with a varied set of threats in the conventional, subconventional (insurgency and terrorism) and nuclear domains. Along its land frontiers, India faces disputed boundaries and competing territorial claims with both Pakistan and China. The Line of Control (LoC), a de facto boundary with Pakistan, and the Line of Actual Control (LAC), an unmarked boundary with China, have remained contentious for decades. In the conventional sphere, both states pose military threats along India's continental frontiers as well as in the maritime domain. Today, for the first time in the fraught strategic history of Sino-Indian relations, Beijing is a stronger actor in the Indian Ocean Region (IOR), as regular surface and subsurface naval deployments by the People's Liberation Army Navy testify. The establishment of fixed Chinese bases, coupled with logistics and supply hubs, in the IOR will shrink the Indian Navy's geographic and strategic advantages in the region.⁴ Substantial naval cooperation already exists between China and Pakistan. Gwadar in Pakistan serves as a deep-water port for Chinese nuclear submarines (both SSNs and SSBNs), while Karachi serves as a major logistics hub.⁵ To be sure, Sino-Pak naval cooperation is in a league of its own and there are few parallels when it comes

³ George K. Tanham, *Indian strategic thought: an interpretive essay* (Santa Monica, CA: RAND, 1992), pp. 8–20.

⁴ Lt-Cdr Apoorv Pathak, 'China's maritime Silk Road and Indian dilemma', *Naval War College Journal: A Journal of Maritime Defence and Strategic Studies* 27: Annual Issue, 2015, p. 117. See also Maria Abi-Habib, 'How China got Sri Lanka to cough up a port', *New York Times*, 25 June 2018.

⁵ Iskander Rahman, 'Drowning stability: the perils of naval nuclearisation in the Indian Ocean', *Naval War College Review* 65: 4, Autumn 2012, p. 76; Daniel J. Kosteca, 'Places and bases: the Chinese Navy's emerging support network in the Indian Ocean', *Naval War College Review* 64: 1, Winter 2011, pp. 70–72.

to China's naval engagement with other countries in the Indian Ocean and the Persian Gulf. However, other facilities in the Gulf Cooperation Council (GCC) countries, such as the Salalah port in Oman and Aden in Yemen, serve as supply facilities for the People's Liberation Army Navy (PLAN) warships.⁶ Djibouti has been China's first overseas naval base since 2017.⁷ For now, in the Indian Ocean China sees formal diplomatic agreements as a way to secure 'places' as opposed to 'bases' to replenish PLAN warships with vital supplies such as fresh water, food and fuel. The latest addition to this list of 'places' is Hambantota port in southern Sri Lanka, in which Beijing now has a 70 per cent stake, secured as part of a 99-year lease due to Colombo's inability to repay Chinese debt.⁸

Yet it is the Sino-Pakistani strategic nexus which is more militarily challenging to New Delhi. Beyond naval cooperation, collusion between China and Pakistan has intensified on other fronts, too, with increased interoperability between the militaries of the two countries in the realm of mission compatibility, covering doctrine, force structure and operational planning.⁹ Interoperability also extends to military hardware, with increasing compatibility in equipment. The Pakistan Air Force fields Chinese-built jets and trains and undertakes joint exercises with the People's Liberation Army Air Force, and the navies of China and Pakistan also operate similar warships, such as frigates supplied by China to Pakistan's navy.¹⁰ Pakistan has access to China's BeiDou satellite navigation system and secure communications in the form of fibre optic cables running through the Karakoram highway.¹¹

Beijing has also forged partnerships with other states in the IOR, if not of the same depth and breadth as its relationship with Pakistan. The Yunnan province of China borders Myanmar (Burma), which in turn serves as a bridgehead into the Indian Ocean.¹² Thus, Beijing is able to pursue a more potentially offensive strategy in the IOR with both Pakistan and Myanmar offering dependable means of execution.¹³

Beijing's military deployments have been facilitated by improved hardware across the three service arms, a progressive shift in objectives, and organizational changes in the form of five integrated theatre commands introduced by the Xi regime in 2015. Together, these developments provide the Chinese military with greater offensive capabilities and the ability to make more rapid forward deployments.¹⁴

⁶ Kosteca, 'Places and bases', pp. 65–9.

⁷ Tyler Headley, 'China's Djibouti base: a one year update', *The Diplomat*, Dec. 2018.

⁸ Jonathan E. Hillman, 'Game of loans: how China bought Hambantota', CSIS Brief, Washington DC, 2 April 2018, pp. 1–5.

⁹ Pravin Sawhney and Ghazala Wahab, *Dragon on our doorstep: managing China through military power* (New Delhi: Aleph, 2017), pp. 108–109.

¹⁰ Sawhney and Wahab, *Dragon on our doorstep*; Kosteca, 'The Chinese Navy's emerging support network', pp. 70–72.

¹¹ Sawhney and Wahab, *Dragon on our doorstep*.

¹² Yun Sun, 'China's strategic misjudgement in Myanmar', *Journal of Current Southeast Asian Affairs* 31: 1, 2012, pp. 83–5.

¹³ Sun, 'China's strategic misjudgement in Myanmar', pp. 83–5.

¹⁴ For an overview of Chinese military modernization under Xi, see Kartik Bommakanti and Ameya Kelkar, 'China's military modernisation: recent trends', ORF Issue Brief No. 286, March 2019, available at https://www.orfonline.org/wp-content/uploads/2019/03/ORF_Issue_Brief_286_China_Military.pdf, accessed 2 April, 2019.

The twin military challenges posed by China and Pakistan thus reflect critical shifts in these two countries' military capabilities and operational postures. They demand, in turn, different command structures, involving tri-service cooperation and capabilities, for the Indian armed services. Most of the subconventional threat confronting the Indian state stems from Pakistan, although insurgencies in north-east India also impose a military burden. In addition to conventional and subconventional threats, India faces a significant nuclear threat from Pakistan and China, between whom a deep connection has historically existed in the nuclear technology and missile delivery domains.¹⁵

The Indian state's response and the utility of force

Given this backdrop, how has India dealt with these varied threats? The Indian state has employed the military instrument in conventional and subconventional conflicts. It has also embraced nuclear weapons as a deterrent against blackmail and coercion. The first four decades following independence in 1947 saw the Indian state fight both conventional and subconventional conflicts. The conventional wars against Pakistan yielded victory in 1947 and 1971, successful pre-emptive seizure of the Siachen Glacier in the 1980s and stalemate in 1965; however, conventional war against China in 1962 ended in defeat.

The challenges facing the Indian armed services in using force after the 1998 nuclear tests were no less than they had been before. The tests altered the deterrence calculus of the Indian state in tackling Pakistan and China, and not necessarily in India's favour. *Vis-à-vis* the former, some critics saw New Delhi's decision to undertake the tests as an abandonment of its conventional advantage over Islamabad.¹⁶ As for the latter, India's delivery capabilities were nowhere near advanced enough to support a credible nuclear deterrent against Beijing.¹⁷ New Delhi's nuclear strategies and postures will vary between Pakistan and China, which confront it with very different problems. So far as Pakistan is concerned, there is a strong imperative to prevent its use of nuclear weapons simply because of the Pakistani sense of vulnerability to strategic interdiction due to its lack of geographic depth, its propensity for risk-taking and ability to strike deep inside Indian territory—and if pushed into a corner it might easily be driven to nuclear use.¹⁸ *Vis-à-vis* China, India's nuclear capabilities and deterrence are a work in progress, in both scope and extent. China's expansion of its nuclear capabilities in response to increasing American and Russian capabilities could potentially leave India more vulnerable to Chinese coercion.¹⁹ New Delhi faces greater pressures in deterring Pakistan's nuclear capabilities and blandishments than it does those of

¹⁵ Andrew Small, *The China–Pakistan nuclear axis: Asia's new geopolitics* (New Delhi: Oxford University Press, 2015).

¹⁶ Prakash Menon, 'Conventional dilemmas in the nuclear age', *Combat Journal: Army College of Combat* 28: 2, 1999, pp. 71–7.

¹⁷ Yogesh Joshi and Harsh V. Pant, 'India and the changing nature of war: gradual incrementalism?', in Harsh V. Pant, ed., *Handbook of Indian defence policy: themes, structures and doctrines* (London: Routledge, 2016), pp. 82–3.

¹⁸ Verghese Koithara, *Managing India's nuclear forces* (London: Routledge, 2012), p. 201.

¹⁹ Koithara, *Managing India's nuclear forces*, pp. 201–206.

China simply because the former is a motivated adversary with a strong proclivity for risk-taking.²⁰ Pakistan's fragile internal security and lack of adequate resources, paralleled by a potential decline in its conventional military strength relative to India, leave it very vulnerable and consequently more reliant on nuclear weapons as a substitute for conventional strength.²¹ India's relationship with China is based more robustly on conventional deterrence and there are fewer incentives and opportunities for Beijing and New Delhi to pursue and sustain strategically and territorially significant goals that invite nuclear posturing by each state to deter the other.²² Nor is the Sino-Indian conflict dyad as stressed by the use of force as the Indian-Pakistan conflict dyad.

India's most recent experience of conflict has involved low-intensity warfare in the form of insurgency and militancy. The Kargil War of 1999, which took place a year after the nuclear tests in both India and Pakistan, tended to confirm the view that the nuclear tests in part emboldened Pakistan's pursuit of a highly risky decision to engage in a land war of limited aims in the Dras-Kargil sector of Kashmir under the shadow of nuclear weapons.²³ This conflict provided India's sole tangible success since the nuclear tests of 1998 when it eventually defeated the Pakistani seizure of Indian territory. Since the Kargil War, the Indian state has had to face recurring and widespread cross-border terrorism from Pakistan. The Pakistani terrorist attack of 13 December 2001 on the Indian parliament precipitated an Indian military mobilization in a bid to coerce Pakistan into abandoning its use of terrorism against India. That mobilization failed to produce any tangible outcome. Almost seven years later, following the Mumbai terror attacks of 26 November 2008, New Delhi held back from retaliation, thereby confirming to Pakistan that its sponsorship of terrorism is effective.

The challenge facing New Delhi has been how to leverage its conventional advantages in the shadow of nuclear weapons. For its part, Pakistan has more effectively leveraged its advantages in the employment of terrorism under the atomic umbrella. India has had few answers to Pakistan's resort to subconventional violence under the cover of nuclear weapons. The most it has been able to do militarily is launch limited attacks on Pakistan's side of the LoC, using special forces and infantry units. However, following a suicide attack on 14 February 2019, which was a first in the armed conflict in Kashmir that claimed the lives of around 40 Indian paramilitary personnel, India retaliated with air strikes against the Pakistan-based group Jaish-e-Mohammad inside Pakistani territory, which again was a first in the Kashmir conflict. This was an attempt to reset the nuclear dynamic between India and Pakistan by calling Islamabad's bluff.

More broadly the thrust of New Delhi's strategy both before and after 2001–2002, reinforced by the 9/11 attacks in 2001 and the ensuing 'war on terror', has been the intensive pursuit of diplomacy to isolate Pakistan as a state sponsor

²⁰ Koithara, *Managing India's nuclear forces*, pp. 201–206.

²¹ Koithara, *Managing India's nuclear forces*, pp. 201–206.

²² Koithara, *Managing India's nuclear forces*, pp. 201–206.

²³ Sumit Ganguly and Devin T. Hagerty, *Fearful symmetry: India-Pakistan crises in the shadow of nuclear weapons* (Seattle, WA: University of Washington Press, 2005), p. 152.

of terrorism. This has yielded some gains by introducing deep strains in Pakistan's relations with the United States in particular and with the international community more generally.²⁴

In addition, the Indian state has had to deal with domestic insurgencies emerging from tribal, ethnic, religious and linguistic grievances and disaffection in the north-east of the country and in the Indian hinterland. The counter-insurgency (COIN) strategy pursued by the Indian state in these contexts has varied across theatres,²⁵ depending on the existence and degree of schisms based on identity which insurgent groups can mobilize, the relative effectiveness of police action at the state level and the conduct of politicians. Thus far, the Mizo insurgency, which eventually ended in a peace deal, is the only example in the north-east of the Indian state of a conflict being successfully terminated through an agreement.²⁶ India's COIN strategy is not exclusively the product of military organization, doctrine or tactics, but is driven equally by political factors.

Counter-insurgency operations are intrinsically manpower-intensive.²⁷ This fact alone militates against creating a leaner fighting force that can operate with adequate manoeuvrability, tactical mobility and speed. Extensive force deployments along Indian frontiers has sapped the Indian Army's capacity to reallocate resources to create a streamlined fighting force. In particular, despite an effort to cut force levels dating back to the 1990s, the army augmented its manpower to six light infantry divisions to fight the insurgency in Kashmir, a conflict that shows no signs of abating.

At the present time—notwithstanding proposals for a shift in approach, which we will evaluate in more detail below—India appears condemned to wage attrition warfare, which involves protracted low-intensity fighting. This focus on attritional warfare has been a constraining factor in, if not an outright impediment to, planning for other contingencies. Nevertheless, Indian force planning has made provision for conventional wars under nuclearized conditions. Its longstanding conventional warfighting doctrine, better known as the 'Sundarji doctrine', involved seven defensive 'holding corps' deployed close to the international border (IB). These holding units, consisting of infantry divisions, are designed to conduct static defence, supported by mobile mechanized divisions. Their express aim is to blunt enemy offensives, including limited armoured attacks.²⁸ The Indian Army's offensive operations against Pakistan are sustained by its three 'strike formations' deployed in the rear at considerable distance from the IB. In wartime, the 'strike formations' are expected to stage counter-offensives under close air support, in

²⁴ George Perkovich and Toby Dalton, *How India can motivate Pakistan to prevent cross-border terrorism* (Washington DC: Carnegie Endowment for International Peace, 28 July 2016), <https://carnegieendowment.org/2016/07/28/how-india-can-motivate-pakistan-to-prevent-cross-border-terrorism-pub-64203>. (Unless otherwise noted at point of citation, all URLs cited in this article were accessible on 9 March 2019.)

²⁵ Paul Staniland, 'Counterinsurgency in India', in Sumit Ganguly, Nicolas Blarel and Manjeet Pardesi, eds, *The Oxford handbook of India's national security* (New Delhi: Oxford University Press, 2018), pp. 229–46.

²⁶ Bhibu Prasad Routray, 'Insurgencies in India's north-east: rise, fall and the rise?', in Pant, ed., *Handbook of Indian defence policy*, p. 312.

²⁷ Joshi and Pant, 'India and the changing nature of war', p. 81.

²⁸ Walter C. Ladwig III, 'A Cold Start for hot wars? The Indian Army's new limited war doctrine', *International Security* 32: 3, Winter 2007–08, pp. 159–60.

the event that the Indian defensive formations cannot prevent enemy penetrations, by striking Pakistan's two strike corps—the Army Reserve North and the Army Reserve South.²⁹ The Indian Air Force (IAF) would support the Indian Army's offensive operations into Pakistan only after it gained complete air superiority over its adversary.³⁰

This remained the essential thrust of the Indian Army's conventional doctrine from the early 1980s to 2004. It has, however, come under criticism following the terrorist attacks on the Indian parliament in December 2001, which precipitated a massive Indian mobilization to punish Pakistan's sponsorship of the attacks—a mobilization which, though it claimed both money and Indian soldiers' lives during deployment, did not result in an Indian decision to apply punitive measures against Pakistan. Two factors in particular explain this Indian failure. First, the long mobilization time—roughly three weeks for the strike corps to deploy to their staging areas—undercut the Indian Army's pursuit of swift action and deprived it of the element of surprise.³¹ Second, India's political leadership failed to provide a clear definition of objectives.³² Since Operation Parakram, India has faced Pakistan-sponsored terrorism targeting the Indian financial capital, Mumbai, on 26 November 2008. These attacks too produced no response from India. Here the problem was not so much a clear lack of objectives as, very importantly, the absence of any means to control escalation.³³

Given this background, it is not surprising that New Delhi has sought to escape the stalemate of fighting a relentless three-decade war of attrition. Ironically, in principle, attrition warfare suits stronger powers, and India is, at least nominally, the stronger power in the India–Pakistan dyad. Attrition fights strength with strength, which normally would enable the materially stronger party to prevail over an extended period.³⁴ Despite this fact, Indian military elites are most resistant to attrition-based warfare. New Delhi finds itself wrestling with the challenge of how to alter its existing conventional war-fighting posture to punish the menace of Pakistani-sponsored terrorism. The September 2016 'surgical strikes' by Indian Army Special forces deep inside Pakistan's side of the Line of Control (LoC) and the February 2019 air strike by Indian Air Force (IAF) against the Pakistan-based Jaish-e-Mohammad terrorist training camp at Balakot in Khyber-Pakhtunkhwa were intended to overcome this challenge. Indian analysts argue that, in order to escape the constraints imposed by tactical-level engagements, the country needs a more mobile and nimbler fighting force to raise the costs for its Pakistani adversaries and deter them from the use of terrorism. Some Indian military strategists have proposed preparing India militarily at the 'operational level' of war, which

²⁹ Ladwig, 'A Cold Start for hot wars?', pp. 159–60.

³⁰ Ladwig, 'A Cold Start for hot wars?', pp. 159–60.

³¹ Gurmeet Kanwal, 'Lost opportunities in Operation Parakram', *Indian Defence Review*, 13 Dec. 2011, <http://www.indiandefencereview.com/spotlights/lost-opportunities-in-operation-parakram/>.

³² Lt-Gen. V. K. Sood and Pravin Sawhney, *Operation Parakram: the war unfinished* (New Delhi: Sage, 2003), p. 73.

³³ Sandeep Unnithan, 'Why India didn't strike Pakistan after 26/11', *India Today*, 15 Oct. 2015, <https://www.indiatoday.in/magazine/the-big-story/story/20151026-why-india-didnt-strike-pakistan-after-26-11-820634-2015-10-14>.

³⁴ Edward N. Luttwak, 'The operational level of war', *International Security* 5: 3, Winter 1980–1, pp. 63–4.

is an intermediate stage between the tactical and strategic levels.³⁵ The operational level involves 'relational manoeuvre', which, instead of undertaking the methodical cumulative destruction that characterizes attrition warfare, applies a 'systemic disruption': that is, it could destroy an army, some part of it, or other technological capacities of the adversary.³⁶ Relational manoeuvre should be attractive to militaries that are numerically inferior.³⁷ However, the effective execution of manoeuvre-based operations will require greater joint operability between arms and services, as we will see below, which India is yet to adopt.

At present, the Indian conventional war-fighting doctrine and posture, with its time-consuming mobilization, cannot adequately respond to the terrorism unleashed by Pakistan. Moreover, the Pakistani state, which remains determined to contest India's claim to territory, particularly in Kashmir, benefits from far shorter interior lines of communication requiring a mobilization period of 96 hours, which gives it an advantage both in faster mobilization and in simultaneously concentrating the strength of its mobile offensive units.³⁸ India's exterior lines of communication are significantly longer, which contributes to an increase in mobilization time. These factors, and the failures of Operation Parakram, prompted the Indian Army's chief officer during the crisis, General S. Padmanabhan, to propose the Cold Start doctrine requiring that India reconfigure its forces to mobilize more rapidly in response to terror strikes from Pakistan.³⁹

Cold Start, which is still a doctrine under development, nominally does fulfil the criteria of relational manoeuvre. A limited war doctrine, it allows the 'holding corps' under the Sundarji doctrine to be detached from the slow-moving strike corps and used for more rapid offensive action. The larger and heavily armed strike corps are expected to be broken up into smaller, division-strength 'integrated battle groups' (IBGs), retaining some of the manoeuvre elements of the Sundarji doctrine and undertaking combined offensive operations using mechanized infantry, artillery and armour.⁴⁰ The purpose of this reconfigured Indian fighting force is both to retain the element of surprise in retaliating quickly and punitively following a Pakistani terrorist outrage and in doing so also to secure a few decisive territorial gains to deter future terror attacks. Nevertheless, the gap in conventional capabilities between India and Pakistan may not be as wide as was previously believed. Indeed, as a detailed analysis of a range of structural factors demonstrates, terrain, deployment patterns of Pakistani forces, obsolescence of weaponry within the Indian armed forces, and lack of sufficient tri-service integration between the three service branches of the Indian military all limit New Delhi's capacity to compel Pakistan to do its will.⁴¹ At best, given its extant

³⁵ V. K. Kapoor, 'Operational art in the Indian context', *USI Journal* 133: 554, Oct. 2003, pp. 552–68. See also Vijay Oberoi, 'Indian Army needs to modernise war doctrines as much as structure', *Asia Times*, 24 Sept. 2018.

³⁶ Luttwak, 'The operational level of war', p. 64.

³⁷ Luttwak, 'The operational level of war', p. 64.

³⁸ Sood and Sawhney, *Operation Parakram*, p. 73.

³⁹ Praveen Swami, 'Gen. Padmanabhan mulls over lessons of Operation Parakram', *The Hindu*, 6 Feb. 2004.

⁴⁰ Ladwig, 'A Cold Start for hot wars?', p. 164.

⁴¹ Walter C. Ladwig III, 'Indian military modernization and conventional deterrence in south Asia', *Journal of Strategic Studies* 38: 5, 2015, pp. 729–72.

capabilities, India's ability to compel the Pakistani Army and change its behaviour remains relatively limited. Consequently, assuming an approximate conventional parity between India and Pakistan, the attraction of Cold Start is obvious: it provides flexibility and swiftness, and in particular gives the Indian Army the benefit of surprise. The emergence of Cold Start in the Indian strategic discourse also explains why India has become increasingly averse to attritional warfare as the best way to defeat Pakistan's use of subconventional force.

Despite technological advantages in some areas, the Indian armed services lack the 'skill asymmetry' to penetrate and overwhelm their Pakistani adversaries in a short and limited offensive war.⁴² That apart, Pakistan's asymmetric nuclear escalation posture early in a crisis fetters an Indian conventional response to a Pakistani subconventional attack and 'renders India's assured retaliation posture mostly irrelevant'.⁴³ Nevertheless, the major difficulty with Cold Start does not lie solely in the failure to convert it into formal doctrine and actual planning and reorganization of the strike corps. It lies just as much in the reluctance of India's civilian decision-makers, despite the army's effort to pursue more limited goals than the massive offensives required under the Sundarji doctrine, to fully embrace the offensive thrust of the Indian Army's capabilities and plans.⁴⁴ The exercise of tight political control over the military instrument to convey an image of restraint has hindered the complete and formal institutionalization of the Cold Start doctrine. To date, the breakup of the large strike corps into smaller division-sized units, which requires significant reorganization of the army, is not visibly evident.⁴⁵

In addition, New Delhi has also had to contend with and respond to substantial shifts in the nature of the military capabilities of its north-eastern neighbour, China. The growth of Chinese military power has been accompanied by a new assertiveness, reflected in frequent troop incursions along various sectors of the LAC dividing India and China. Tensions became most pronounced between May and August 2017 over the Doklam tri-junction on the boundary separating India, Bhutan and China. India contested the Chinese claim of sovereignty, viewing it as a significant departure from the 'status-quo on the ground with serious security implications for India', and arguing that it 'amounted to unilateral determination of the tri-junction point between India, China and Bhutan'.⁴⁶

This was the most significant stand-off in 30 years and revealed the fragility of Sino-Indian relations, despite years of negotiations between Beijing and New Delhi in the attempt to resolve their longstanding boundary dispute through a special representatives mechanism.⁴⁷ As one former senior official in the government of

⁴² Ladwig, 'A Cold Start for hot wars?', p. 189.

⁴³ Vipin Narang, 'Posturing for peace? Pakistan's nuclear postures and South Asian stability', *International Security* 34: 3, Jan. 2010, p. 76.

⁴⁴ Christopher Clary, 'Personalities, organizations, and doctrine in the Indian military', *India Review* 17: 1, 2018, p. 115.

⁴⁵ Clary, 'Personalities, organizations, and doctrine in the Indian military', p. 115.

⁴⁶ *Sino-India relations including Doklam, border situation and cooperation in international organizations*, Committee on External Affairs 2017–2018: Sixteenth Lok Sabha (New Delhi: Lok Sabha Secretariat, Sept. 2018), p. 16, http://164.100.47.193/lssccommittee/External%20Affairs/16_External_Affairs_22.pdf.

⁴⁷ *Sino-India relations*, pp. 32–5.

Narendra Modi conceded, 20 rounds of talks between the special representatives have not brought India and China any closer to a resolution of the issue.⁴⁸ Chinese actions along the disputed boundary appear to be aimed at ‘salami slicing’, that is, seizing small chunks of disputed territory without provoking a robust response from India and thereby probing the limits of India’s tolerance. Since then, China is reported to have undertaken a military buildup on the Doklam plateau, which is Bhutanese territory.⁴⁹ Moreover, the confrontation at Doklam, while representing the most intense crisis in three decades, came in the wake of several Chinese incursions into Indian territory along the contested boundary in the preceding years, at Demchok, Chumar and Barhoti.⁵⁰ While tensions over Doklam have eased, the potential for a recurrence of crisis conditions in Sino-Indian relations looms large. Despite being called ‘strategic’, India’s relationship with China has been more about managing ties characterized by considerable mutual distrust with a ‘strong element of competition and even rivalry attached to it’.⁵¹

The combination of relentless subconventional violence from Pakistan and boundary tensions with China has triggered concerns within the Indian military and political establishment about a two-front war with both Pakistan and China.⁵² The Indian Army’s most recently released land warfare doctrine, published in December 2018 in response to shifts in Pakistan’s and China’s individual capabilities and operational postures, and increased interoperability between the two militaries, has been criticized for ‘lifting ideas from American writings, instead of drawing on China’s 2015 military reforms’.⁵³ The doctrine’s salient features included improving hardware and making it interoperable, augmenting mobility and expanding scope to conduct conventional military operations through the deployment of IBGs.⁵⁴ However, the fundamental difficulty for the Indian Army is that it has three different doctrines—the first for counter-insurgency operations, the second for conventional war, and the third for joint operations with the other two services, namely the IAF and the Indian Navy.⁵⁵

New Delhi is yet to find a credible way to deal in military terms with the challenge of a potential war on two fronts; its efforts to date represent at best a work in progress. The Chinese military deployments in Pakistan-controlled Kashmir as part of the China–Pakistan Economic Corridor (CPEC) further erode

⁴⁸ Arvind Gupta, *How India manages its national security* (Gurgaon: Penguin Random House India, 2018), p. 244.

⁴⁹ Gupta, *How India manages its national security*, p. 15.

⁵⁰ Vivek Mishra, ‘Doklam and beyond: India must brace for China’s land–maritime “salami slicing”’, *Huffpost*, 18 Aug. 2017, https://www.huffingtonpost.in/vivek-mishra/doklam-and-beyond-india-must-brace-for-china-s-land-maritime-s_a_23077473/.

⁵¹ Gupta, *How India manages its national security*, p. 244.

⁵² *Demands for Grants (2018–2019)*, Standing Committee on Defence 2017–2018: Sixteenth Lok Sabha (New Delhi: Lok Sabha Secretariat, March 2018); Cecil Victor, ‘India’s security challenge: a two-and-half-front war’, *Indian Defence Review*, 7 July 2017, <http://www.indiandefencereview.com/spotlights/indias-security-challenge-a-two-and-half-front-war/>. See also comments by Indian Army chief Gen. Bipin Rawat in Shaurya Karambir Gurung, ‘India must be prepared for two-front war: army chief General Bipin Rawat’, *Economic Times*, 12 July 2018, <https://economictimes.indiatimes.com/news/defence/india-must-be-prepared-for-two-front-war-army-chief-bipin-rawat/articleshow/60396549.cms>.

⁵³ Pravin Sawhney, ‘New land warfare doctrine is not a credible deterrent to China or Pakistan’, *The Wire*, 28 Dec. 2018.

⁵⁴ ‘Army’s land warfare doctrine–2018 prioritises force modernisation’, *Force*, 20 Dec. 2018.

⁵⁵ Sawhney, ‘New land warfare doctrine’.

and complicate India's 'two-front challenge', to the extent that a war with Pakistan alone that involved an Indian offensive against Pakistani targets could inadvertently strike Chinese troops and civilians based in Pakistan-controlled Kashmir, and this in turn could trigger Chinese retaliation against India.⁵⁶

Vis-à-vis China, the Indian military faces an asymmetry in areas including air power and naval power. Tables 1 (below) and 2 (overleaf) illustrate the variance in depth and breadth of Chinese and Indian naval and air forces. The conventional balance on certain indices is thus skewed in favour of Beijing. The most revealing figure in table 3 (overleaf) is the differential in the number of active duty ground forces between India and China with Beijing succeeding in reducing the size of its land army, which New Delhi is struggling to accomplish. As opposed to the Indian Army, the reduced strength of the PLA's ground forces enables Chinese military planners to redirect budgetary support to other areas of the Chinese military. Moreover, while China has undertaken a massive reorganization of the People's Liberation Army by splitting its erstwhile seven military districts into five integrated theatre commands (ITCs), India is yet to move beyond its single-service operational practices. It has been argued that the perception that China's military focus is entirely on the United States is a misunderstanding, and that in fact China's military strategy is 'focused on specific conflicts or contingencies that China will face in the future, especially concerning Taiwan but also other potential conflicts such as the China–India border and increasingly maritime disputes'.⁵⁷

Restraint has always been an important element of India's approach towards the utility of force, and Indian decision-makers remain inclined towards a limited rather than an expansive use of the military instrument. This tendency is evident in India's nuclear force posture, in its conventional conflicts up to and including the conflict in Kargil, and also in India's counter-insurgency campaigns. The use of force in India's case is clearly guided by political logic rather than by the needs

Table 1: Balance of naval power in major platforms, India and China

<i>Platform</i>	<i>India</i>	<i>China</i>
Submarines	16	59
Aircraft carriers	1	1
Destroyers	14	27
Frigates	13	59
Patrol and coastal combatants	106	205

Source: Adapted from *The Military Balance 2019* (London: International Institute of Strategic Studies, 2019).

⁵⁶ Pravin Sawhney, 'Chinese presence in POK further limits India's options in Kashmir', *Force*, May 2011, <http://forceindia.net/bottomline/red-wall/>.

⁵⁷ Ankit Panda, 'M. Taylor Fravel on how the People's Liberation Army does military strategy', *The Diplomat*, 30 Jan. 2019.

Table 2: Balance of air power in major platforms, India and China

<i>Platform</i>	<i>India</i>	<i>China</i>
Fighters	62	759
Fighters/ground attack aircraft	561	702
Attack aircraft	117	240
Intelligence, surveillance and reconnaissance	3	51
Airborne early warning and control aircraft	4	13
Tanker aircraft	6	13
Bombers	0	172

Source: Adapted from *The Military Balance 2019* (London: International Institute of Strategic Studies, 2019).

Table 3: Balance of ground forces in manpower and major surface platforms, India and China

<i>Platforms/Personnel</i>	<i>India</i>	<i>China</i>
PLA and Indian Army ground forces (active duty personnel)	1,237,000	975,000
Main battle tanks (MBTs)	3,565	5,800
Infantry fighting vehicles (IFVs)	3,100	5,000
Artillery	9,719	8,954
Guns (towed and self-propelled)	2,395	7,396

Source: Adapted from *The Military Balance 2019* (London: International Institute of Strategic Studies, 2019).

of the military, and an absolute political control is, therefore, an integral element of any use of force. In search of ways to offset some of the disadvantages the country faces in confronting its immediate adversaries, Indian policy-makers have invested in strategic partnerships, rather than alliances. This is the subject of the next section of the article.

Role of strategic partners and alliances

Strategic partnerships, rather than alliances, are the core foundation of India's external engagements. Scholars have put forward various arguments in accounting for the prevalence of such partnerships in the Asian geopolitical landscape.⁵⁸ For

⁵⁸ Rajesh Basrur and Sumitha Narayan Kutty, 'A time of strategic partnerships', *The Hindu*, 21 Sept. 2017.

instance, domestic factors, political ideology and security-related factors have all contributed to Japan's forging a closer partnership with India.⁵⁹ This partnership has largely been established with Washington's blessing: indeed, improved relations between Washington and New Delhi since 2000 'served as at least a permissive cause of the *rapprochement* between Tokyo and New Delhi'.⁶⁰

Despite the growth of Chinese power, Asian states such as India are not favourably disposed to the formation of alliances, preferring relationships governed by fluidity and flexibility.⁶¹ To date, in the context of intra-Asian strategic engagements, India has not sided openly with Japan in the latter's disputes with China over the Senkaku/Diaoyu islands, nor has Tokyo done the same in India's territorial disputes with either Pakistan or China. In the event of war, neither side is likely to extend military support such as the supply of troops and logistical assistance to the other.

Given its heavy dependence on military imports, New Delhi has sought to diversify risk by forging partnerships with multiple external partners. It has significantly upgraded military ties with and defence purchases from the United States in particular, and also has crucial strategic ties with France and Israel. However, Russia remains the single largest defence supplier in aggregate terms, despite having been displaced by the United States in some key acquisitions India has made in the past decade. In one ranking, Russia is graded eight on a ten-point scale for its current significance as a substantive partner, and seven for the potential it has for the future; this places it above the United States as a strategic partner, Washington ranking five on substantive support to India but only eight on the potential it has for India in the future.⁶²

Despite Russia's recent moves to placate Pakistan and its tactical alliance with Beijing to mitigate sanctions-related pressures from the West, Moscow's latest sales in the military arena do suggest continued cooperation with New Delhi.⁶³ Owing to the failures of its native defence industry to deliver in timely fashion high-quality military platforms ranging from weapons systems to sensors, India continues to depend heavily on military imports, and its sourcing these from both Russia and the United States—in contrast to its policy in the Cold War—is indicative of an attempt to strike a balance in its ties with Moscow and Washington. India's military purchases from both powers in some ways constitute an attempt at redefining the underpinnings of its traditional non-aligned posturing.⁶⁴ New

⁵⁹ Rohan Mukherjee, 'Japan's strategic outreach to India and the prospects of a Japan–India alliance', *International Affairs* 94: 4, July 2018, pp. 843–45.

⁶⁰ Mukherjee, 'Japan's strategic outreach to India', p. 843.

⁶¹ H. D. P. Envall and Ian Hall, 'Asian strategic partnerships: new practices and regional security governance', *Asian Politics and Policy* 8: 1, 2016, pp. 87–105.

⁶² Satish Kumar, S. D. Pradhan, Kanwal Sibal, Rahul Bedi and Bidisha Ganguly, *India's strategic partners: a comparative assessment* (New Delhi: Foundation of National Security Research, 2011), pp. 1–7, http://fnsr.org/files/Indias_Strategic.pdf.

⁶³ Government of India, Ministry of External Affairs, 'India–Russia joint statement during visit of President of Russia to India', 5 Oct. 2018, https://mea.gov.in/bilateral-documents.htm?dtl/30469/IndiaRussia_Joint_Statement_during_visit_of_President_of_Russia_to_India_October_05_2018.

⁶⁴ On India's attempts at redefining non-alignment, see Harsh V. Pant and Julie M. Super, 'Non-alignment and beyond', in Harsh V. Pant, ed., *New directions in India's foreign policy: theory and praxis* (Cambridge: Cambridge University Press, 2019), pp. 127–48.

Delhi's engagement with Moscow in particular has less to do with alignment or non-alignment than with its accumulated inventory of legacy weapons from the former Soviet Union. Replacement of these weapons, ranging from tanks to fighter jets, will occur only when they reach obsolescence—a process likely to take decades. Therefore, Indian military imports from Russia are in part a function of path dependence. Generally, path dependence is self-reinforcing and characterized by inertia, in that it tends to reproduce a pattern of conduct over an extended period.⁶⁵ The causal factors that drive path dependence are very sensitive to early events and conditions within a historical process.⁶⁶ Defence ties between India and Russia were made and cemented in the early 1960s against the background of the Cold War and the Sino-Soviet split of the same decade, and this history explains in part why New Delhi still turns to Moscow to meet its military requirements.

Moscow's support of New Delhi has never been unconditional, even during the Cold War.⁶⁷ At the same time, the wider the fissures between Russia and China, the more New Delhi benefits.⁶⁸ When relations between Moscow and Beijing become close, as they are today, the strategic burden on India increases. New Delhi's military purchases from Moscow are in part aimed at neutralizing the strategic and military gains accruing to Beijing and limiting Sino-Russian collusion against India, as well as preventing a strategic consolidation of that relationship.

That said, Russia is the only state prepared to offer assistance to New Delhi in certain restricted categories of weaponry, such as nuclear submarines. For example, Russia has leased to India the Akula class submarine, to train Indian crew for nuclear submarine operations, and crucial equipment for crew survival on nuclear submarines.⁶⁹ Other key areas of Indo-Russia military cooperation include the joint venture development of cruise missiles such as BrahMos. More recently, despite the threat of American sanctions, India and Russia concluded an agreement for Russian supply of S-400 surface-to-air missiles (SAMs) to redress gaps and weaknesses in Indian air-defence capabilities.⁷⁰ The reported American offer of the Theater High Altitude Area Defence (THAAD) system as an alternative to the S-400 to wean India away from a dependence on Russian arms was irrelevant as THAAD is an anti-ballistic missile system incapable of meeting non-missile aerial threats from sources such as fighter aircraft, bombers, unmanned aerial vehicles and reconnaissance and surveillance aircraft.⁷¹ New Delhi's decision to purchase

⁶⁵ James Mahoney, 'Path dependence in historical sociology', *Theory and Society* 29: 4, Aug. 2000, pp. 510–15.

⁶⁶ See Thomas C. Schelling, *Micromotives and macrobehavior* (New York: Norton, 1978), p. 15.

⁶⁷ M. Y. Prozumenshikov, 'The Sino-Indian conflict, the Cuban Missile Crisis, and the Sino-Soviet split', *Cold War History Project Bulletin*, nos 8–9, Winter 1996, pp. 251–65.

⁶⁸ Tanvi Madan, 'Between a Cold War ally and an Indo-Pacific partner: India's US–Russia balancing act', *War on the Rocks*, 16 Oct. 2018, <https://warontherocks.com/2018/10/between-a-cold-war-ally-and-an-indo-pacific-partner-indias-u-s-russia-balancing-act/>.

⁶⁹ Sujan Dutta, 'Indian Navy gets \$600 million machines to make breathing easy in nuclear submarines', *ThePrint*, 19 Oct. 2018, <https://theprint.in/security/indian-navy-gets-600-million-machines-to-make-breathing-easy-in-nuclear-submarines/137402/>.

⁷⁰ 'India–Russia S-400 missile deal: all you need to know', *Times of India*, 5 Oct. 2018.

⁷¹ Ajai Shukla, 'How the S-400 will add teeth to an upgraded air defence network', *Business Standard*, 8 Oct. 2018; 'Terminal High Altitude Area Defense (THAAD)', CSIS Missile Defence Project (Washington DC: Center for Strategic and International Studies, 14 June 2018), <https://missilethreat.csis.org/system/thaad/>.

the Russian air defence system was largely a reflection of military need rather than of its strategic alignments or non-alignment.

For the Russians the supply of the S-400s was demonstration of their 'balanced Asia policy', whereas for India it was about demonstrating its 'strategic autonomy' irrespective of American sanctions against India.⁷² Nevertheless, New Delhi's quest for strategic autonomy does not rule out Washington as a strategic partner;⁷³ indeed, that partnership supplements and complements India's defence engagement with Moscow.

All the factors identified above mean that Russia will remain a military supplier, albeit one of diminished importance, to India for years to come. Much like its strategic relationship with Japan, New Delhi's partnerships with Moscow and Washington are unlikely to lead it to support them in their disputes with either major or minor powers; nor will it expect to incur reciprocal guarantees and burdens of the kind that govern an alliance relationship. Briefly, India will fight its own wars, despite its use of Russian and American weaponry. The greater challenge that faces New Delhi from these two major defence suppliers is that of reliability of supply. At present, Russia has the reputation of being a key supplier, if not timely in the delivery of weapons platforms. In addition, it is a proven military supplier, having been the principal source of New Delhi's military acquisitions for the past five decades.

American reliability, on the other hand, is still to be fully tested, and past experience suggests some fickleness on America's part—most prominently evident in Washington's decision to cut military supplies to India during its 1965 war with Pakistan, a conflict precipitated entirely by Pakistan.⁷⁴ Since then, however, India and the United States have traversed a considerable distance in their relationship and managed to overcome the inhibitions arising from its chequered history.⁷⁵ In January 2004 they concluded a strategic partnership in earnest, dubbed the Next Steps in Strategic Partnership (NSSP). Although the NSSP's initial intention was focused on cooperation in strategic technologies such as civilian nuclear, space and other high technology, it nevertheless served as a vital facilitator for increased conventional defence cooperation between New Delhi and Washington. Washington also declared India a 'major defence partner' in June 2016, a status which commits the United States to treating India on a par with its closest allies in respect of sharing defence technology.⁷⁶ The United States has secured a position

⁷² Alexsei Zakahrov, 'India–Russia summit: reading between the lines', *IDS Comment*, 18 Oct. 2018 (New Delhi: Institute for Defence Studies and Analyses), <https://idsa.in/idsacomment/india-russia-summit-azakharov-181018>.

⁷³ Jeff Smith, 'Seven myths are keeping India and the United States from pursuing closer ties', *The National Interest*, 29 Oct. 2018, <https://nationalinterest.org/feature/seven-myths-are-keeping-india-and-united-states-pursuing-closer-ties-34627>.

⁷⁴ Ashley J. Tellis, 'What should we expect from India as a strategic partner?', in Henry Sokolski, ed., *Gauging US–Indian strategic cooperation* (Carlisle Barracks, PA: Strategic Studies Institute, US Army War College, 2007), p. 233.

⁷⁵ For an overview of the shift in Indo-US ties in recent years, see Harsh V. Pant and Yogesh Joshi, 'Indo-US relations under Modi: the strategic logic underlying the embrace', *International Affairs* 93: 1, Jan. 2017, 133–46.

⁷⁶ Government of India, Ministry of External Affairs, 'Brief on India–US relations', June 2017, https://www.mea.gov.in/Portal/ForeignRelation/India_US_brief.pdf.

second only to Russia in the Indian defence market, a point we will explore in more detail below when we look at the source and extent of military acquisitions made by India over the last decade. At present, it is hard to take any definitive view of how Moscow and Washington might situate themselves in the event of future conflict between India and China or India and Pakistan, or in a two-front war between India and both China and Pakistan. This makes it even more imperative for New Delhi to work towards streamlining its defence architecture.

Restructuring Indian forces: the challenge of joining up the services

The importance of joint working for armed forces is largely a consequence of the demands made on modern militaries to produce greater military effectiveness and decisive outcomes through combined arms operations.⁷⁷ The problems associated with India's higher defence organization have been amply evident in the conventional wars India has fought over the past seven decades against both Pakistan and China.⁷⁸ Joint operations are also critical to the Cold Start doctrine.⁷⁹ Joined-up working, or 'jointness', in this context is generally defined as a capacity on the part of the three armed services for planning, training and operating together and for integrating service doctrines, perspectives and forces.⁸⁰

Among the greatest obstacles to jointness across the three branches of the Indian military are service parochialism and the absence of civilian intervention to compel the three services to overcome it.⁸¹ Fundamentally, jointness can work through two mechanisms or models: coordination and integration. The selection of the appropriate model lies at the heart of the jointness debate in India. The coordination model permits maximum autonomy to each of the armed services, and avoids interference on matters related to individual service prerogatives, roles and—critically—issues surrounding command and control. Under this model, service commanders may choose to engage in jointness. In contrast, the integration model requires a 'unity of effort' which in turn requires all three services to operate under a single commander. That is, 'unity of effort' is determined by 'unity of command'.⁸² There are potential drawbacks to jointness, such as a stifling of military innovation among the three services and of the interservice rivalry that may be beneficial for military effectiveness. Moreover, jointness achieved through tri-service cooperation could undermine civilian control: indeed, this is one of the critical reasons why Indian civilian decision-makers have resisted appointing a chief of defence staff or chairman of the joint chiefs of staff to oversee coordi-

⁷⁷ Katarzyna Zysk, 'Managing military change in Russia', in Jo Inge Bekkevold, Ian Bowers and Michael Raska, eds, *Security, strategy and military change in the 21st century: cross-regional perspectives* (London: Routledge, 2015), p. 164; Joel Wuthnow, 'A brave new world for Chinese joint operations', *Journal of Strategic Studies* 40: 1–2, 2017, pp. 169–95.

⁷⁸ See Lt-Gen. J. F. R. Jacob, *Surrender at Dacca: birth of a nation* (New Delhi: Manohar, 1997), pp. 50–59.

⁷⁹ Ladwig, 'A Cold Start for hot wars?', p. 177.

⁸⁰ Peter J. Roman and David W. Tarr, 'The Joint Chiefs of Staff: from service parochialism to jointness', *Political Science Quarterly* 113: 1, Spring 2011, pp. 91–5.

⁸¹ Anit Mukherjee, 'Fighting separately: jointness and civil–military relations in India', *Journal of Strategic Studies* 40: 1–2, 2017, pp. 20–22.

⁸² Mukherjee, 'Fighting separately', p. 10.

nation and cooperation.⁸³ Another factor driving civilian resistance to jointness is the Indian Army's existing doctrine, which has remained strongly focused on large-scale offensive operations against Pakistan, something India's civilian decision-makers are resistant to authorize, particularly in the overtly nuclearized environment that has prevailed in South Asia since 1998. Notwithstanding recent moves to create IBGs and test their efficacy for potentially limited offensive operations,⁸⁴ the army's existing doctrine is poorly suited to the military realities of the subcontinent, because civilians are reluctant to support the offensive operations that the army wishes to mount. Consequently, the army continues to make acquisitions that are 'tailored for a doctrine ... [designed for a] fundamentally different [non-nuclear] strategic environment'.⁸⁵

Generally, the coordination model has been adopted as the basis of India's military operations, as evident in its most recent conventional conflicts, in Sri Lanka in the late 1980s and against Pakistan in the late 1990s at Kargil.⁸⁶ Indian Army assessments do concede that jointness in the form of combined arms warfare and tri-service cooperation is a critical imperative for manoeuvre-based operations.⁸⁷ However, despite shifts in capabilities, doctrines and organization within the militaries of India's adversaries, Indian policy-makers have yet to concede the necessity for joint operations, even though Indian military assessments do recognize that they are essential for manoeuvre-based action. The absence of political will in compelling jointness is an even more significant obstacle to it than interservice rivalry.

As noted above, China has not only established ITCs, each under a single operational commander, it has forged a consonant approach with Pakistan across equipment, doctrine, force structure and military-to-military exercises. Notwithstanding recent progress at India's only ITC, the Andaman and Nicobar Command (ANC), which has seen the operationalization of the naval base INS Kohassa, India's civilian policy-makers have yet to fully embrace ITCs as part of a larger reorganization of the military. This failure exemplifies the chasm between India and its immediate adversaries in their approaches to transforming operational architectures and introducing military reforms.

India's civilian regime confronts a dilemma. Should it subject the army—the largest of the three service arms, which consumes the lion's share of the defence budget—to significant manpower reductions, despite facing the reality of a form of warfare from Pakistan that compels India to pursue manpower-intensive operations? India's other potential adversary, China, has rapidly reconfigured its forces by reducing armed personnel. The trade-offs between technology and firepower on

⁸³ Mukherjee, 'Fighting separately', p. 10.

⁸⁴ Shaurya Karanbir Gurung, 'Army to test integrated battle groups for warfare strategy', *Economic Times*, 9 Feb. 2019, <https://economictimes.indiatimes.com/news/politics-and-nation/army-to-test-integrated-battle-groups-for-warfare-strategy/articleshow/67910407.cms>.

⁸⁵ Christopher Clary, 'Personalities, organizations, and doctrine in the Indian military', *India Review* 17: 1, 2018, p. 116.

⁸⁶ Mukherjee, 'Fighting separately', p. 10.

⁸⁷ *Manoeuvre warfare and firepower—application in the future*, seminar report (New Delhi: Centre for Land Warfare Studies, 3 Feb. 2018).

the one hand and manpower-intensive fighting force on the other are considerable and will remain unresolved for the near future. The Shekatkar Committee report of 2016, which remains classified with only a few recommendations released for the public, has called for a reduction in manpower among entities such as the Ordnance Factory Board (OFB), the Defence Research and Development Organization (DRDO), the Defence Estates, the Defence Accounts and the National Cadet Corps (NCC), which fall within the remit of the Ministry of Defence (MoD) and are funded out of the defence budget.⁸⁸ It also emphasized the importance of jointness, but resisted recommending deep cutbacks in the army's combat manpower; indeed, it called for its retention.⁸⁹ In the absence of significant civilian input into the way the armed services are organized, and plan, train and operate, the coordination model and 'single-service syndrome' will remain dominant.⁹⁰

Consequences for Indian defence procurement policies

In order to meet the complex security challenges facing it, ranging from counter-insurgency operations to a potential two-front war, India sources capabilities from a variety of states, and has expended considerable resources in dealing with its difficult threat environment. While external threats are dangerous, India also faces internal challenges in securing its military acquisitions. The country's defence acquisition policies are highly layered and complex, and the domestic defence industry is almost entirely state-owned. The Indian government pursues acquisitions for the armed forces through three principal mechanisms. The first is by way of attracting investment into its defence-industrial sector in the form of direct investments, embedded partnerships and joint ventures. The second is by way of offsets and direct government-to-government contracts; these are subject to MoD guidelines enshrined in the Defence Procurement Procedure (DPP). The third has entailed a policy of diversification. Let us begin with investments in the Indian defence-industrial sector.

India's defence-industrial sector was closed to foreign direct investment (FDI) until the early 2000s. This prohibition ended in 2001, when the Indian government under Atal Bihari Vajpayee opened the defence industry to FDI up to an equity cap of 26 per cent in total. Despite this shift, investment flows into the defence-industrial sector have remained low. Under the Modi government, the defence sector is a key area of investment focus within the 'Make in India' programme: the aim here is to develop Indian weapons with foreign assistance by allowing foreign players to collaborate with the Indian private sector, replacing the former policy of allowing only Indian state-owned armament enterprises to produce weapons with foreign cooperation or under licence.⁹¹

⁸⁸ Government of India, Ministry of Defence, 'Recommendations made by the Shekatkar Committee', press release, 7 March 2018, <http://pib.nic.in/newsite/PrintRelease.aspx?relid=177071>.

⁸⁹ Nitin A. Gokhale, 'All you wanted to know about the Shekatkar Committee Report', *Bharat Shakti*, 11 Jan. 2017, <https://bharatshakti.in/all-you-wanted-to-know-about-the-shekatkar-committee-report/>.

⁹⁰ Mukherjee, 'Fighting separately', p. 26.

⁹¹ Sandeep Unnithan, 'Unmade in India', *India Today*, 27 Feb. 2017.

Further, in a bid to attract more investment in the defence sector, in 2014 the Modi government raised the FDI cap to 49 per cent for 'permitted' investments, that is, those that do not require governmental approval.⁹² In 2016 the government went further, permitting FDI up to 100 per cent subject to governmental oversight.⁹³ Nevertheless, there is an absence of clarity from the Department of Industrial Policy and Promotion (DIPP) on India's quest for access to the latest technology and the scope of the incentives for investors under the more liberalized regime in the sector.⁹⁴ Increasingly, there are calls for the equity cap to be raised to 51 per cent to enable foreign investors to obtain a controlling stake in Indian-based defence entities.⁹⁵

So far, the results of liberalization have been small. The Indian defence-industrial sector is estimated to have attracted a paltry US\$10,000 dollars in FDI between March 2016 and March 2018. Even more telling are the data recently released by the Reserve Bank of India, according to which the Indian defence industry received just US\$5.27 million between April 2000 and June 2018.⁹⁶ With investment in the defence-industrial sector at such a low level, it is no surprise that New Delhi is heavily reliant on imported weapons systems—which brings us to the second mechanism of India's defence acquisition process.

New Delhi has a complex and elaborate procurement system enshrined in a set of formal guidelines, the DPP. The DPP has undergone three revisions since 2000, most recently in 2016. Here we will consider only the most salient features of these guidelines. First, the initial steps of the acquisition require that the vendor and buyer interact in order to establish familiarity, before a 'request for proposal' is issued. This practice was instituted following the failures of vendors to meet the stringent services qualitative requirements (SQRs), which were deemed unrealistic.⁹⁷ Vendor-buyer interactions are crucial to establishing SQRs that are more realistic.

All foreign weapons manufacturers seeking to supply India with military platforms and spares are required to sign an integrity pact with the New Delhi government. The integrity pact is vital in the defence acquisition process because of the constant threat of corruption.⁹⁸ In the past, a lack of transparency within the defence procurement process has derailed and delayed the purchase of new weapons systems and their introduction into the inventories of the Indian armed forces, thereby compromising the readiness levels of all three service arms.

⁹² Government of India, Ministry of Commerce and Industry, 'Department of Industrial Policy and Promotion', press note no. 7, 2014, pp. 1–4, http://dipp.nic.in/sites/default/files/pn7_2014_1.pdf.

⁹³ Government of India, Ministry of Commerce and Industry, 'Department of Industrial Policy and Promotion', press note no. 5, 2016, pp. 1–4, http://dipp.nic.in/sites/default/files/pn5_2016.pdf.

⁹⁴ Aman Thakker, 'India should allow more than 50 percent foreign investment in defense', *The Diplomat*, 30 Aug. 2018.

⁹⁵ Thakker, 'India should allow more than 50 percent'.

⁹⁶ Government of India, Department of Industrial Policy and Promotion, Ministry of Commerce, *Quarterly fact sheet: fact sheet of foreign direct investment (FDI) from April, 2000 to June, 2018*, p. 10, https://www.ibef.org/download/FDI_FactSheet_23August2018.pdf.

⁹⁷ Government of India, Ministry of Defence, *List of guidelines*, <https://mod.gov.in/dod/sites/default/files/List-ofGuidelinesc.pdf>.

⁹⁸ Ministry of Defence, *List of guidelines*.

Examples abound, the most prominent being that of artillery modernization for the Indian Army, delayed largely owing to a defence scandal over Swedish-built (Bofors) howitzer guns in the 1980s, notwithstanding recent efforts to fill gaps in India's artillery capabilities.⁹⁹ For its part, the Indian Air Force faces massive shortfalls in medium-weight fighter aircraft, which significantly limit its quantitative capabilities *vis-à-vis* both China and Pakistan. A deal with the French company Dassault, originally for the purchase of 126 fighter aircraft, subsequently reduced to 36, hangs in the balance owing to allegations that an Indian private-sector company was favoured by the Indian government to partner with Dassault. The DPP obliges both vendors and buyers to maintain the 'highest propriety' in order not to undermine the 'credibility' of procurements.¹⁰⁰

Another of the crucial features of the DPP is the aim of increasing Indian content in weapons orders placed by the armed services. The procurement process is very complex and layered, which is to some extent unavoidable if the integrity and transparency of the acquisition process are to be sustained. India essentially follows three models of procurement. First, for the acquisition of strategic capabilities such as Agni and Prithvi ballistic missiles, the Nag anti-tank missile and the Akash air-defence missile, New Delhi has pursued an exclusively indigenous acquisition strategy, because these missile capabilities are generally subject to export control embargoes. Second, some procurement takes place through the DRDO, India's premier defence research agency, which co-develops weapon systems with a foreign vendor or a domestic private-sector company. One example is the BrahMos cruise missile, produced through a joint venture between India and Russia; another is the Indian-Israeli long-range surface-to-air missile. In these cases the Russians and the Israelis respectively have contributed in areas where India is deficient. The third procurement mechanism is by way of direct government-to-government contracts: examples of platforms acquired by this route are the T-90 battle tanks, C-17 Globemasters and Sukhoi-30 MKI fighters.

Overall, the defence acquisition regime under the MoD is still too decentralised, suffering from an absence of coordination and accountability among the different institutions overseeing the procurement process, which is itself much too diffuse and time-consuming, with many delays.¹⁰¹ Given these challenges, an integrated approach would require a significant overhaul of India's existing civil-military architecture. Successive committees have recommended that the service headquarters of each of the armed services be integrated with the MoD, but Indian governments have been reluctant to implement this reform. Integrating service headquarters with a ministry staffed by bureaucrats, most of whom are generalists and not specialists, would reduce inefficiency and overcome unnecessary delays in the acquisition of equipment and military planning. Even now,

⁹⁹ Harsha Kakar, *Modi govt's artillery modernisation would change game at Pak border* (New Delhi: Observer Research Foundation, 6 Nov. 2018).

¹⁰⁰ Ministry of Defence, *List of guidelines*.

¹⁰¹ Laxman K. Behera, *DPP-2016: an analytical overview*, special feature (New Delhi: Institute for Defence Studies and Analyses, 2016), p. 8, https://idsa.in/specialfeature/dpp-2016_lkbehera_120416.

civilian control over the military has transmuted itself into bureaucratic control over the armed services.¹⁰²

In addition, India's acquisitions process is hampered by a lack of expertise within the civilian bureaucracy of the MoD, including insufficient numbers of military operations researchers and systems analysts.¹⁰³ As noted above, the organization of India's MoD along exclusively civilian lines precludes a rigorous and efficient acquisition process. A further challenge relates to the 'Make in India' requirement under the guidelines for acquisitions, which requires the use of indigenous content that local industry is incapable of supplying. For instance, even though the demands and requirements are more flexible today than when the 'Make in India' procedures were first introduced in 2006, thresholds of even 20 per cent, let alone 30 or 40 per cent, for aerospace items to be sourced from India's state-owned monopoly Hindustan Aeronautical Ltd (HAL) are unrealistic.¹⁰⁴ The converse has also been true of India's acquisition process: historically, the MoD has significantly under-used domestic manufacturing capacity for items ranging from parachutes to blankets.¹⁰⁵

Where domestic capacity does exist within the Indian defence industry, it tends to be at the low end of manufacturing. The fundamental deficiency is the inability of HAL and the DRDO, and the latter's associated laboratories and manufacturing entities such as the OFB, to meet the qualitative and quantitative requirements of the air force and the army. The Indian Navy has managed to indigenize more rapidly. All warship development at Indian shipyards is undertaken under the supervision of an officer of vice-admiral rank, a practice which is not replicated in the other two armed services.

New Delhi's strategic ties with other countries also affect its military acquisitions. Generally, in order to prevent any one strategic partner from monopolizing supply, New Delhi has pursued a policy of diversification by sourcing capabilities from multiple partners. This policy also helps India to secure state-of-the-art capabilities from a range of suppliers. India consistently ranked as the world's largest importer of weapons during the period 2008–17,¹⁰⁶ and accounted for 12 per cent of the world's arms imports between 2013 and 2017. In two four-year periods put together—2008–12 and 2013–17—India's military imports increased by 24 per cent.¹⁰⁷ Further, each service is allocated a single budget on an annual basis from which to draw both capital and operational spending; and within this constraint, the services' available budgets are being further reduced by the need to fund the new One Rank One Pension (OROP) requirement from this

¹⁰² Shashank Joshi, 'India's military instrument: a doctrine stillborn', *Journal of Strategic Studies* 36: 4, p. 527.

¹⁰³ Ashley J. Tellis, *Troubles, they come in battalions: the manifold travails of the Indian Air Force* (Washington DC: Carnegie Endowment for International Peace, 2016), p. 60, https://carnegieendowment.org/files/Tellis_IAF_final.pdf.

¹⁰⁴ Behera, *DPP-2016: an analytical overview*.

¹⁰⁵ R. G. Mathews, 'The development of India's defence-industrial base', *Journal of Strategic Studies* 12: 4, Dec. 1989, pp. 424–5.

¹⁰⁶ *SIPRI Yearbook 2018: armaments, disarmaments and international security* (London: Oxford University Press, 2018), p. 205. See also *SIPRI Yearbook 2014: armaments, disarmaments and international security* (London: Oxford University Press, 2014), p. 268.

¹⁰⁷ *SIPRI Yearbook 2018*, p. 205.

same budget. The purpose of OROP, implemented in July 2014, was to fulfil a longstanding demand from military veterans to bring uniformity to defence pensions and salaries. According to the Indian government, roughly US\$5 billion have since been disbursed through the OROP programme.¹⁰⁸ Notwithstanding its imperfect implementation, it has already consumed a sizeable share of the budgetary allocations made to the armed services.

Russia still retains the number one position in the Indian defence market, and is likely to continue to hold it for several years ahead, as weapons contracts concluded in the previous few years are fulfilled. The United States, however, has risen to become the second largest supplier of military hardware to India, whose imports from America surged by 557 per cent between 2008–12 and 2013–17. The US, indeed, displaced Russia in some key areas of military hardware, with platforms such as the P-8I Poseidon long-range maritime patrol aircraft, Hercules C-130 and C-17 strategic transport aircraft, and Apache Longbow attack helicopters.¹⁰⁹ This staggering rise in US military imports to India is entirely attributable to the improvement in strategic ties between the two countries begun in the early 2000s. India and the United States also pursue close counterterrorism cooperation through the Counter-terrorism Cooperation Initiative agreed in November 2009.¹¹⁰ The other substantial defence partnership India has developed is with Israel, which is now its third largest defence supplier. Again, the robustness of India–Israel defence relations is a product of an improved strategic partnership. Israeli arms sales to India increased by 285 per cent between the years 2008–12 and 2013–17, to the point where India has become the largest export market for Israeli defence products. Indian military imports from Israel range from anti-ballistic missile systems to equipment for its special forces. Most recently, India and Israel concluded a contract worth US\$777 million to equip seven Indian naval surface vessels with Barak missile systems. This deal follows a US\$2 billion contract for Israel to supply India with the land-based version of the Barak, known as the MRSAM.¹¹¹

While purchasing weapons from numerous sources has created more options for India, it also generates challenges, in that New Delhi needs to keep many players satisfied as they compete for shares in the Indian defence market. This requires New Delhi to respond to pressures and incentives from the leading weapons supplier states.

Conclusion

The analysis presented above is an explication of how the Indian state has approached issues surrounding the use of force, how it is tackling conflicts and

¹⁰⁸ 'Interim Budget 2019–2020', speech by Piyush Goyal, Minister of Finance, 1 Feb. 2019, p. 11, <https://www.indiabudget.gov.in/ub2019-20/bs/bs.pdf>.

¹⁰⁹ SIPRI Yearbook 2018, p. 205.

¹¹⁰ Government of India, Ministry of Home Affairs, 'India–US sign Counter Terrorism Cooperation Initiative', press release, 23 July 2010, <http://www.pib.nic.in/newsite/erecontent.aspx?reid=63434>.

¹¹¹ 'From Russia's S-400 to Israel's Barak-8: how India is fortifying its defence', *Times of India*, 25 Oct. 2018.

reorganizing its capabilities and forces in response to actual and potential threats, and the influence of strategic partnerships in dealing with these matters. India faces inescapable trade-offs and stark choices in dealing with the changes in the capabilities and order of battle of its immediate adversaries. The country's national security landscape, if not irretrievably perilous, is stressed and susceptible to conflict with its neighbouring rivals. The military procurement models New Delhi has pursued are less than optimal, reflecting the difficulties faced by the Indian state in indigenizing capabilities, building core capacities within the defence bureaucracy, and exploring integrative solutions to deal with the challenges facing higher defence management. In the absence of a productive defence-industrial base, New Delhi will have no choice but to forge strategic partnerships, in order to redress the gap in its conventional capabilities *vis-à-vis* its immediate adversaries.

Given budgetary shortfalls and civilian apathy towards military reform, the Indian armed services, too, face serious choices on how to use their meagre resources. As a manpower-heavy fighting force, the Indian Army in particular is likely to face the most daunting trade-offs with regard to how it uses its allocations. Without a significant hike in military spending, the Indian Army's unsustainably large pension and salary bill will leave little for new military hardware to replace obsolete equipment. The army also faces a challenge in formulating a doctrine that fits with civilian objectives.

External dependence to make up for shortfalls in conventional capabilities is likely to persist for several years to come. Concerning strategic capabilities, the Indian state, notwithstanding limited assistance from Russia today, will need to move towards complete and durable indigenization. On other fronts, a continued failure in tri-service cooperation or 'jointness', if left unaddressed by India's civilian leadership, will potentially diminish the military effectiveness and combat performance of the Indian armed services, particularly against China. Short of a major military crisis to precipitate drastic change, India's civilian and military decision-makers will muddle through military reforms. The generalist civilian bureaucracy is not just the intermediary between the elected civilian leadership and the service chiefs and service headquarters, but will continue to be influential in shaping defence procurement and policy. While interservice rivalry will inhibit greater integration for the conduct of joint operations, the absence of civilian review of service doctrines, postures and cooperation and of a commitment to the establishment of ITCs, and more generally the persistence of civilian indifference and abdication of responsibility on matters vital to the strength and performance of the Indian armed services, will remain the dominant corrosive factors.