

RESTRAINT AND AFFLUENCE

One of the most remarkable attributes of India as an independent nation has been its longstanding restraint in military strategy. Reticence in the use of force as an instrument of state policy has been the dominant political condition for Indian thinking on the military, including military modernization. From the initial delay in sending troops to defend Kashmir in 1948 to the twenty-four-year hiatus in testing nuclear weapons, India has used force mainly in response to grave provocation and as an unwelcome last resort. The country's greatest strategic success, the victory of 1971, occurred in response to a Pakistan Army crackdown on rebel Bengalis, which killed tens of thousands and forced millions of refugees to flee to India. It is notable that New Delhi did not press its military advantage in the west to resolve the Kashmir problem. Similarly, India's nuclear weapons program, the military capacity that could have transformed India's strategic position, remained in limbo for twenty-four years after India tested its first atomic device in 1974. There are exceptions to Indian restraint as well as questions about whether it was driven by capacity or intention. Of course, Pakistan has never been persuaded of Indian restraint. We discuss these issues below as part of our investigation in this chapter into whether India's new affluence and access to advanced weapons technology will end the pattern of strategic restraint, turning India into a traditional great power with clear strategic objectives and the military means to achieve them.

The answer is not self-evident. India's burgeoning resources will go a long way in reducing the most apparent obstacle to India's strategic ambition: lack of resources. Equally, India's access to Western technology—most importantly from the United States—could transform the Indian armed

forces in unprecedented ways, giving the country new instruments of strategic assertion. While there are good reasons to expect a breakthrough, we do not believe it is likely. Military preparation just does not receive the kind of political attention that is necessary to marry military modernization and strategy. India's military modernization suffers from weak planning, individual service-centered doctrines, and disconnect between strategic objectives and the pursuit of new technology. In comparison, other modern states, especially India's primary rivals, Pakistan and China, focus more steadily on developing the military means to deal with their own security concerns.

The bar for change in India is so high that any talk of imminent military transformation is highly premature. Since armed force has not been a central instrument of state policy, the country has not developed the institutional structures necessary to overhaul the mechanisms for generating military power. Notwithstanding India's newfound affluence or new access to military technology, we do not see good reasons to expect dramatic change. Contrary to conventional realist wisdom, wherein threat and affluence drive military posture, we believe that military change in India will be evolutionary, driven by the slow pace of institutional change in the Indian military system. Consequently, India's strategic choices will remain limited. The Indian military system can expand in size; create new agencies, commands, and positions; and purchase new advanced weaponry, but it cannot address the contested demands over retrenchment, coordination, and reconciliation of competing interests.

It is important to emphasize that strategic restraint has not served India poorly thus far, nor will it be an ill-conceived choice for the future. In a region characterized by many conflicts and an uneasy nuclear standoff, restraint is a positive attribute. However, restraint is not seen as a virtue by those who want India to be a great power, a counterbalance to a rising China, and a provider of security in the international system rather than a passive recipient of the order created and managed by others. They strongly criticize the lack of political direction, confused military doctrines, dysfunctional civil-military relations, and lack of interest in reforming defense acquisition and policymaking processes. Below, we examine the roots and trajectory of Indian strategic restraint and then the challenges to restraint brought on by the advent of affluence and new technology.

THE DEVELOPMENT OF RESTRAINT

India's weak military policy from independence in 1947 to the war with China in 1962 is evidence of the lower priority given to military matters than to other national concerns. The country was unable to afford ambitious

strategic objectives and robust military rearmament. Instead, as the cold war intensified, the national leadership sought gains in the political arena through its policy of nonalignment. As has often been noted, India's position resembled America's strategy of distancing itself from European wars, and Nehru's speeches of the day resembled George Washington's Farewell Address, which cautioned against entangling alliances.

The primary military assignment in the 1950s was international peacekeeping, a function in which the Indian Army excelled. In Korea and later in the Congo, the Indian Army's performance was professional and measured. In the peacekeeping roles of the time—as opposed to contemporary UN Chapter 7 peace enforcement—the Indian Army found the perfect canvas for the expression of its quiet capacity. In national defense, however, the civil-military system, and particularly the political leadership, fell short.

The British Empire had raised a powerful Indian Army, which had fought creditably in the world wars in Europe, North Africa, and Burma, and secured possessions from Hong Kong to Aden; but India's nationalists saw military power as an instrument of oppression, imperialism, and undue financial burden, and most were strongly critical of India's armed forces.¹ The struggle against the British had focused in part on the Raj's use of military power. The success of the nonviolent independence movement buttressed the view that India did not have to raise a strong military to develop effective means of international influence.

Though early Indian nationalists such as Bal Gangadhar Tilak and Gopal Krishna Gokhale saw military service as a means to secure home rule; Mahatma Gandhi and Jawaharlal Nehru, the two Indian leaders with the greatest influence on the direction of independent India, saw military spending as a burden imposed by the British in defense of their empire. In 1938 Nehru wrote that India did not face any significant military challenge; the only military role he saw for the Indian Army was in suppressing the tribes of the North-West Frontier Province, who were, in any case, too primitive in his view to fight a modern military outside the tribal areas.² In general, Nehru agreed with Gandhi that the use of force in political life was inappropriate. The mainstream in the Indian independence struggle was committed to nonviolent strategies. Nehru, in particular, believed that high principles trumped the use of force as an instrument of Indian foreign policy. This thinking was in sharp contrast to that of Nehru's greatest political rival, Subhas Chandra Bose, who had a very different view about the use of force as an instrument of politics. Bose turned to the Germans and Japanese to support his Indian National Army that fought the British during World War II. Had Bose survived the war (he was killed in a 1945 plane crash), India's history

would have been very different. There were others who remained in the Congress but expressed strong interest in strategic and military matters, most exceptionally, K. M. Panikkar, the eminent diplomat-scholar, who wrote an important treatise on India's new security situation, especially regarding China and the Indian Ocean.³

Despite the ideological preference, the new government did use force repeatedly in the early years. The Indian Army put up a rearguard action to defend Kashmir in 1948–49. The First Kashmir War remains one of India's most intense conflicts; the Indian Army won more Param Vir Chakra medals, the highest military honor in India, in that war than in any other conflict since. Earlier the Indian Army had contributed units to the binational Punjab Boundary Force deployed along the India-Pakistan border in the Punjab. The campaign was unable to stop the ethnic carnage that accompanied partition, and it went down in history as an early example of a catastrophically failed peacekeeping force.

The army deployed at home on three other occasions. In 1948 Nehru ordered the Indian Army to annex the princely states of Hyderabad and Junagadh. In 1955 he asked the Indian Army to conduct a counterinsurgency campaign against the rebel Naga tribesmen in Northeast India, a campaign that has since haunted the region. In 1961 he pushed for the military liberation of Goa from continued Portuguese colonization.

Civil-Military Relations

India's nationalist leaders preserved much of the colonial state and its institutions, including the armed forces, police, and civilian bureaucracy. They sought to maintain continuity despite imperfections and contradictions in how the colonial institutions served a new democracy. With respect to the armed forces, the new government allowed continuity within the institution but brought strong political and, in time, bureaucratic supervision. The role of the armed forces in the new nation was limited sharply, control over the armed forces was lodged in the civilian cabinet, and after independence the status of the army was reduced by making the uniformed heads of the navy and air force "commanders in chief." Then in 1955 all three positions of commander in chief were abolished, and the chiefs assumed leadership of their respective staffs.

Continuity in military institutions also meant that the Indian Army remained caste- and ethnolinguistic-based in contradiction to the egalitarian principles of the Indian Constitution. It also meant that the Indian officer corps preserved the tenets of British military professionalism, which, especially since the interwar period, emphasized technology-driven doctrinal

innovation. The British inventions of tank warfare and air power revolutionized war. Similarly, India's officer corps sought the best technology available, which in the early decades of independence meant importing from the United Kingdom. In keeping with Western traditions, Indian military officers prioritized security objectives and, unlike Pakistan, avoided involvement in domestic politics.

A three-tiered structure from the colonial period continued to be used in higher defense policymaking. The Cabinet Committee on Political Affairs (CCPA) was the foremost national security authority. The CCPA comprised all senior ministers of the prime minister's cabinet and was responsible for policymaking on a variety of subjects including foreign affairs and defense. The next tier below the CCPA, the Defence Planning Committee (DPC)—previously the Defence Minister Committee—consisted of the cabinet secretary; the prime minister's special secretary; the secretaries of finance, external affairs, planning, defense, defense production, and defense research and development; and the three service chiefs. The Chief of Staff Committee (CSC) was the military component of the third tier. The other half was the Ministry of Defence's (MoD) Defence Coordination and Implementation Committee (DCIC) chaired by the defence secretary. The DCIC coordinated defense production, defense research and development, finances, and the requirements of the services.⁴ A version of this arrangement continues to this day.

Despite production, release, and updating of official documents to facilitate the acquisition process (the Defence Procurement Manual and Defence Procurement Procedure), the system continues to be plagued by fundamental structural problems. The Ministry of Finance, which has its own defense wing, has the authority to intervene in specific spending decisions of the Ministry of Defence, often with an eye toward limiting costs. One of the key unresolved problems in the acquisition process, which is almost entirely about importing weapons from advanced industrial societies (the West and the Soviet Union), is an unrealistic and ambiguous policy of offsets (where foreign companies, as part of their bids, commit to source a percentage of the contract in India). However, any leader or bureaucrat advocating lower offsets becomes vulnerable to charges of corruption. India simply lacks civilian expertise in military matters. Few politicians are interested in defense until forced by events. The bureaucracy that functions as the secretariat for the political leaders comprises generalists with little practical knowledge of military matters, but this group lobbies powerfully to preserve its position against military encroachment. Even the Ministry of External Affairs, with the greatest institutional capacity for international relations, has very few people with sound knowledge of military matters. Although the armed

services are highly professional and have the necessary expertise, they remain excluded from the high table.

A Fresh Start on Strategy

In military planning, the Indian government initially retained most of the defense plan proposed by Field Marshall Sir Claude Auchinleck, the last British commander in chief of the Indian Army. The plan envisaged a regular army of 200,000 backed by reserve and territorial forces, a twenty-squadron air force, and a naval task force with two aircraft carriers. However, the new strategic reality, the main threat coming overland from Pakistan, intruded once the Kashmir War started, and the Indian government reduced its ambitious plans for the air force and the navy.

To make a fresh start on military and defense affairs, Nehru hired British scientist and Nobel Prize-winning physicist P. M. S. Blackett to advise him on how the Indian state could leverage science for defense.⁵ Blackett had been at the center of the Allied war effort. He was privy to Ultra codebreaking, the development of nuclear weapons, and other major military technology programs. In 1946 the United States gave him the Medal of Honor for his service during the war, and in 1948 he won the Nobel Prize for physics for his pre-war work. Blackett's 1948 report went beyond the role of science in military affairs to address both India's strategic position and its military spending. It recommended that India limit its military ambitions and pursue a policy of nonalignment with both superpowers to escape a potentially debilitating arms race. He proposed that military spending should not exceed 2 percent of Indian GDP. Blackett also argued against India's acquisition of nuclear and chemical weapons. Instead, he emphasized India's need to develop an industrial and technological base.

Blackett's report resonated in the Indian government and especially with Nehru, a secular modernist who believed entirely in the ability of science to deliver not only economic progress but also social change. He called India's first large dam project, the Bhakra Nangal in Punjab, "a temple of modernity." The Indian government shifted spending priorities and pushed infrastructure for technology development over military readiness. Nehru charged a number of scientists to develop institutions to alter the defense landscape in India. The Cambridge-educated physicist Homi Bhabha was the father of India's nuclear program, and a close friend of Nehru's. Bhabha's home was one of the few places Nehru visited regularly. Daulat Singh Kothari, a Blackett protégé, became the head of the Defence Science Organisation, the precursor to the Defence Research and Development Organisation (DRDO). While Indian defense research gathered momentum, India did make some

procurement decisions. In the 1950s the Indian Air Force (IAF) ordered Canberra bombers and transport aircraft. The Indian Army's purchase of jeeps precipitated India's first major defense corruption scandal in 1955. British debt, held by the Indian government from the colonial period, paid for the purchases. India also struck its first nuclear deal, buying a nuclear reactor from Canada.

On the conventional front, Indian capacity declined. Through the 1950s defense budgets fell below what they had been under the British and were less than those of other countries such as Pakistan and China as well as those of the United States and the Soviet Union.⁶ At this time, the Indian Army was clamoring for greater preparation against the Chinese, especially as the Indian government had adopted a dangerous forward policy of setting up small, unsupported positions in the disputed territory to serve as a tripwire for a general war that New Delhi believed China did not want. Nehru worked through close confidant V. K. Krishna Menon, the defense minister, to overrule military objections to the forward policy. Menon's promotion of officers who supported the forward policy led to India's first civil-military crisis in 1958 when army chief General K. S. Thimayya resigned in protest. Nehru persuaded him to stay, but was severely weakened thereafter. In contrast, B. M. Kaul, one of Nehru's and Menon's handpicked generals, made a spectacular rise to chief of general staff in New Delhi. His relentless push for a forward policy against the better judgment of his colleagues in the army brought the charge by Neville Maxwell, author of the definitive book on India's 1962 defeat, that he had led a putsch in the army headquarters.⁷

The forward policy angered the Chinese; they were further upset in 1959 when the Dalai Lama was granted asylum in India after the Chinese had crushed the Tibetan uprising. In October 1962, after three years of Sino-Indian confrontation, the better-prepared People's Liberation Army routed the Indian Army. China retained all of the disputed territory it claimed in the northwest (including a sizable chunk of Kashmir); but more shockingly, it invaded and occupied most of the North East Frontier Agency (NEFA—later renamed Arunachal Pradesh). The Henderson Brooks Report, which was prepared in the aftermath of the defeat and remains secret even today, reported that Kaul's general staff conducted the war from New Delhi, ordering thousand-yard movements when local commanders reported their inability to gain and hold ground.⁸ The official history of this war remains unpublished.⁹

Consolidation

After the shock of defeat in 1962, the Indian government moved quickly to redress the military retrenchment of the previous decade. Over the next two

years, the country doubled its military manpower, raised a fighting air force (as opposed to a transport fleet), and reversed its position on forging relationships with foreign powers. Both the United States and the Soviet Union stepped in to fill the breach in Indian defenses. Moscow supplied MiG-21 fighters and also built a number of factories in India to assemble advanced weapons.¹⁰ The U.S. equipped eight new infantry divisions for mountain defense against the Chinese and rebuilt some defense production facilities. The United States stopped the aid program during the 1965 India-Pakistan war, embittering Indian security managers who marked the United States as an unreliable military supplier. The navy, which had enjoyed a boost from the Nehru-Panikkar vision of Indian maritime renewal, went into decline as the country refocused on its land borders.

The 1965 war, political unrest, and economic decline in the late 1960s stalled military rearmament. The United States stopped military supplies to both India and Pakistan; the Soviet Union, to forestall escalation in the regional conflict, mediated a cease-fire agreement in Tashkent. The war itself was short and ended in a draw. The Indian Army committed most of its forces in the early days of the armored confrontation with Pakistan, taking the risk of not leaving any reserves. Had Pakistani forces managed to break through to the Beas River on the Grand Trunk Road, Delhi would have been a day away. In the event, Pakistan's first armored division disintegrated at Khem Karan in the Battle of Assal Uttar. India did not press the advantage and soon after suffered its own debacle in the Battle of Chawinda. When the Soviets offered mediation, New Delhi accepted, and India's strategic condition remained unchanged. Nehru's death in 1964 began a political battle for succession that lasted until 1969, and split the Indian National Congress—the movement that had won the country's independence and held uninterrupted power as the preeminent political party for two decades. Concomitant with the political unrest, the Indian economy nosedived due to growing international and domestic pressures. This period saw the large-scale delivery of American food supplies under Public Law 480, which both saved millions of Indian lives and made Indian leaders bitterly aware of their dependency on the United States.

The 1970 Pakistan Army crackdown on Bengali dissidence in East Pakistan offered Prime Minister Indira Gandhi the chance at redemption after a decade of uncertainty. As tens of thousands of Bengalis died and millions escaped into India, New Delhi saw a clear opportunity to eliminate the two-front threat from Pakistan in the east and in the west. But India did not rush headlong into conflict. In early 1971, the Indian Army chief, General Sam Manekshaw, told Indira Gandhi that he needed nine months to prepare for war; she accepted this advice. Before starting the war, New Delhi

also signed the Indo-Soviet Treaty of Peace, Friendship and Cooperation to ensure international balance and continued military supplies. The United States was all but certain to back Pakistan. The war in December 1971 lasted fourteen days and brought India its most spectacular military victory. The Indian Army attacked along three axes and easily took East Pakistan's capital, Dacca. Pakistani forces were unable to put up resistance, and the Bengali uprising that had occasioned the invasion helped the Indian Army in no small measure. The western front, however, remained in another 1965-like draw. The Indian Army did not swing west to assert its dominance on West Pakistan, the true source of the "Pakistani threat." Nor did India use the 90,000 Pakistani prisoners of war, held in liberated Bangladesh, to coerce Pakistan into relinquishing all claims over Kashmir. India and Pakistan did, however, agree to settle future disputes, including Kashmir, peacefully at Simla in 1972. Clearly, this did not happen, and the two countries have been embroiled in several major crises and a mini-war.

Why did India not pursue its strategic goals more completely? The conventional answer is that India was under international pressure. President Nixon had ordered the USS *Enterprise* carrier group into the Bay of Bengal to coerce New Delhi. Even India's Soviet allies wanted a quick cessation of hostilities. There was also the military reality that Pakistani defenses in the west were much stronger than in the east. The irrigation ditches in the Punjab, which had proved to be a considerable obstacle in 1965, continued to present a serious challenge. No popular insurrection welcomed the invaders. Additionally, there is the view that India had concentrated its military capacity so overwhelmingly in the east that a change of theater to the west was not even feasible. Further, Indian military stocks were low and needed replenishment. While all these arguments are valid, it is also the case that these problems were surmountable. New Delhi could have prevailed on Moscow to undertake a serious resupply effort and even asked for Soviet submarines to enter the Bay of Bengal to counter the threat from the USS *Enterprise* task force. Had Indian leaders been ambitious, they might have taken these risks. The decision to keep war goals in check, we believe, is evidence of strategic restraint. New Delhi saw advantage in breaking up Pakistan, but it did not want to prolong the war.

India followed the military victory of 1971 with a dramatic demonstration of its unconventional capabilities. New Delhi tested a nuclear device in 1974, calling it a peaceful nuclear explosion. There are many competing theories of the timing of India's 1974 nuclear test—chief among these is Indira Gandhi's own domestic political concerns—however, it is equally noteworthy that the Indian nuclear weapons program slowed down, if not froze altogether,

for at least the next decade. In fact the country did not think it necessary to conduct another nuclear test for twenty-four years—a period during which India's strategic resolve was tested by repeated provocations, and India was shielded from international sanctions by the Soviet veto.

Why did India go this far and no further? Nuclear weapons offered India the only viable deterrent against China and even against the possibility of another American effort at gunboat diplomacy. If India had conducted more tests and built a nuclear arsenal, it might have forced early changes to the emerging nuclear proliferation regime. Although Soviet leadership may have been uncomfortable with a nuclear India, it was not in a position to dictate Indian nuclear policy. India's relations with the West were already at their nadir due to the nuclear sanctions that followed the test. What else was there to lose? We believe that India's decision not to go down the nuclear path after the 1974 test is rooted in the country's preference for strategic restraint over risk taking. The circumstances of the 1998 tests, discussed later, bolster this view of Indian reticence in military matters.

Strategic Assertion Fizzles Out

Turning over the coin of India's strategic restraint, we see the chastening reality of failure when the country has attempted strategic assertion. The 1962 war had resulted from Nehru's naïve and careless policy of forward military deployment without the requisite military preparation. Nehru's belated attempt at strategic assertion against the Chinese juggernaut ended badly. The one success was the 1971 war, with the attendant horrors of Pakistan Army atrocities against Bengalis; and even then India did not press the advantage.

It was not until the mid-1980s, however, that India pursued a series of ambitious strategic projects, all of which were failures. In 1984 India preempted Pakistani efforts to occupy the Siachen Glacier, a strategic position at an altitude of 25,000 feet in the disputed and nondemarcated region of upper Kashmir. An initial Indian success has since proved to be a steady drain on Indian military resources. The game between the two countries to capture heights along the India-Pakistan Line of Control (LOC), as the de facto border is called in Kashmir, culminated in the threat of nuclear escalation in the 1999 Kargil War. Cross-LOC harassment continues today. At least since the 1990s, India has tried to demilitarize Siachen in an agreement with Pakistan, but Islamabad will not allow India a tactical withdrawal unless it pays a price.

After Rajiv Gandhi became prime minister following the assassination of his mother, Indira, by Sikh separatists, he pushed India's strategic objectives and posture further than any Indian leader before or after him. Rajiv Gandhi restarted the nuclear program in response to reports that Pakistan's

nuclear program was picking up speed. Working with General Krishnaswami Sundarji, the Indian Army chief at the time, and Arun Singh, his minister of state for defense, Rajiv ordered a dramatic modernization of the armed forces, leveraging India's rapid economic growth—the first time in the post-independence period that the Indian economy expanded faster than population growth. India bought MiG-29s, T-90s, and submarines from the Soviet Union. Moscow even leased India a Charlie class nuclear submarine. The Indian Air Force also bought the Mirage 2000 fighter from France; the Indian Navy bought diesel submarines from Germany; and the Indian Army bought howitzers from Sweden. A corruption scandal centered on the Swedish guns from the Bofors Company contributed to Rajiv Gandhi's defeat in the 1989 general elections.

Buoyed by new military capability, Rajiv made two dramatic attempts at strategic assertion. The first came in 1986 when he approved General Sundarji's plans to conduct a large-scale military exercise on the border with Pakistan. Called Brasstacks, the military maneuvers were later reported to have been open-ended and could have turned into an invasion of Pakistan. Military advice to the Indian prime minister is not publicly available, but General Sundarji wrote after his retirement that Brasstacks was India's last opportunity to decapitate Pakistan's nuclear program and force a Kashmir settlement. In the event, Pakistan threatened to use nuclear weapons and India backed down. A similar scene played out in 1990, when India was compelled once more to accept nuclear parity as the new reality. India's conventional superiority, including its modernization program, served little purpose. Indeed, the wars India would fight thereafter were against insurgencies and demanded troops and superior organization rather than advanced weaponry and technology.

Rajiv's second act of strategic assertion came in 1987 when he sent the Indian Army to police a peacekeeping deal he had forced on the Sri Lankan government and the Tamil Tigers. Both sides rejected the agreement, and the Indian Army was caught between an insurgency on one side and an unhelpful host government on the other. India's only campaign of peace enforcement was a chastening experience. The Indian Army lost more men in that war than in any other in the history of independent India, and the conflict came to be seen as India's Vietnam.

Since then, the problem of how to fight an insurgency has beset India. Once India and Pakistan accepted the basic reality of nuclear deterrence, Islamabad quickly escalated subconventional conflict, causing what nuclear theorists call the stability-instability paradox. Pakistan openly supported an indigenous rebellion in Kashmir and spawned a twenty-year insurgency in

the disputed territory that has diverted and bled the Indian Army to the point that the institution, by its own admission, lost sight of its main mission of fighting the Pakistan Army after the Kargil War. The restraint of choice became restraint without choice. No Indian leader could risk the chance of a Pakistani attack on any Indian city.

Crossing the Nuclear Threshold, Finally

India finally broke out of its nuclear restraint in 1998, not due to the pressure of mounting threat but to the international politics of nuclear nonproliferation. Following its cold war victory, the United States spent significant energy in the early and mid-1990s in revamping the international nuclear nonproliferation regime in an effort to cash in on the peace dividend. The Clinton administration sought to extend the Nuclear Non-Proliferation Treaty indefinitely, conclude a Comprehensive Test Ban Treaty, and push along a Fissile Material Cutoff Treaty. These changes in the international nuclear treaty threatened to close off India's nuclear options, which New Delhi had preserved despite international sanctions since the 1974 test. Seeing that the nuclear option was closing down, India tried to test in 1995, but American satellites picked up the test preparations, and Washington was able to pressure New Delhi into backing off. In 1998, however, a new conservative government, buoyed by consensus in India for overt nuclear capacity and set against American nonproliferation fundamentalism, ordered stealthy nuclear test preparations to avoid satellite surveillance. The tests conducted in May 1998 led to widespread criticism outside India but received great support within the country.

The strategic community in India and abroad saw the tests as an indication that New Delhi had finally abandoned strategic restraint in favor of a more active international agenda. Certainly, the revival of the Indian economy a few years later provided the Indian government with greater resources to undertake a massive rearmament program. India's military procurement wish list today confirms that this has indeed happened. Yet, it is important to note that the decision to test in 1998 was reactionary and defensive, driven by the ambition of Washington's nonproliferation agenda rather than a new strategic posture in India. Further, New Delhi fully expected Pakistan to test its own weapons in response to the Indian tests. The Pakistani tests a month later negated lasting strategic advantage. The tests also alerted China to India's growing military potential, though the Chinese reaction to the increased threat from Indian nuclear weapons—as opposed to the heightened threat from the resulting strategic realignment between India and the United States—is not clear.

The tests altered India's strategic landscape, but in unexpected ways that had little to do with breaking out of strategic restraint. Following the tests, the United States placed wide-ranging sanctions on India, but also sought to engage India in an effort to put the nuclear genie back in the bottle. U.S. Under Secretary of State Strobe Talbott initiated talks with Indian Foreign Minister Jaswant Singh in what became the most sustained engagement of India by the United States in history. The Talbott-Singh talks, designed to persuade India to roll back its nuclear weapons program, instead legitimized India's nuclear weapons. The rise of Islamic extremism in Pakistan helped India's case as the region's only stable democracy. During the Kargil War a year after the tests, the United States backed India over Pakistan, the first time in history that Washington came out in unequivocal support of New Delhi. The United States' break from its past support of Pakistan (or neutrality, as in 1965) opened the door to strategic realignment between India and the United States. This realignment, sometimes hesitant and at other times breathtaking, could not have been expected in New Delhi when the Indian government decided to test. In this view the nuclear tests and the unintended strategic realignment with the United States do not suggest that India is abandoning its strategic restraint. Restraint continues to be evident in India's cautious approach to developing its nuclear arsenal since the 1998 tests. The readiness of the Indian nuclear arsenal supports the country's No First Use Policy and is compatible with the civil-military relations of a cautious democracy. Reports in India and abroad suggest that India may lag behind Pakistan in nuclear readiness, including the number of weapons, the delivery systems, and the command and control mechanisms.

Strategic Restraint Today

India's contemporary external security relations suggest continued strategic restraint. Following the Somdurong Cho crisis with China in 1986, India sought to engage China, an effort that culminated in Prime Minister Rajiv Gandhi's visit to Beijing in 1988. The rapprochement eased tensions on the India-China border. Military investment on the border decreased, and the Indian Army routinely diverted its China-oriented mountain divisions to counterinsurgency. Since the 1990s, New Delhi has also emphasized political and economic relations, and China has become India's fastest growing trade partner. The 1998 nuclear tests did not alter this dynamic. Even though Indian Defence Minister George Fernandes sought to justify the 1998 tests by pointing to the Chinese threat, twelve years later no Indian missile threatens China. The hardliners in India's strategic community, alarmed by the China threat, have been largely marginalized, even by the conservative Bharatiya

Janata Party (BJP), which should have been their natural home.¹¹ The mainstream belief in India has been that the threat from China is not direct, but lies in Beijing's special relationship with Islamabad. It is this link that India has sought to break through rapprochement. China has returned the favor for over a decade. Beijing equivocated between India and Pakistan during the Kargil War in 1999 and has since kept away from the Kashmir problem. After some verbal jousting with China in 2009, the government agreed to an army proposal to raise four new mountain divisions oriented toward the border with China, and the IAF is also reopening forward air bases in the north and east. However, there is no consensus in India that New Delhi should seek military advantage over Beijing. Certainly, India has been unwilling to match Chinese investments in defense modernization.¹²

India has so far tried to deflect the anti-Chinese implications of its growing relationship with the United States; at the same time it has continued to allow the Dalai Lama, the Tibetan leader, to remain in exile in India. The political debate in India over the nuclear deal with the United States, especially as it relates to China, is about preserving the ability to dramatically expand India's nuclear weapons inventory. The parties on the Left, which until recently held the domestic balance of power, opposed the deal not because they seek strategic parity with China but because their leaders do not trust the United States. Some have also expressed fears that close ties with the United States might precipitate Chinese hostility. Only the Far Right is keen to take on China—but many of the same people are equally excited that India may be able to match the United States in some way. India and China continue to negotiate the border dispute with neither ready to compromise or to abandon the talks. At the same time, they are forging ahead on trade and investment. Teresita Schaffer has called the triangular relationship between India, China, and the United States a “virtuous circle,” where effort by two sides to come closer is matched by the third.

Public opinion polls in India as well as the actions of most Indian governments indicate that the tendency to restraint runs deep and remains the default option for most Indians. Polls evince an ambiguity about threats and offer no strong guidance to policy or strategy. The Chicago Council on Global Affairs made the most sophisticated attempt to measure Indian views toward foreign and strategic policy in 2007.¹³ Terrorism, Islamic fundamentalism, and India-Pakistan tensions all rank higher on India's list of threats than China's development as a military power; although AIDS, avian flu, and other epidemics ranked second only to terrorism (which in the Indian context, is often equated with Pakistan). Most strikingly, Indians rank the promotion of economic and other “quality of life” concerns very highly, more

so than their Chinese counterparts, who are less concerned about regional security issues. Of the five issues that the largest share of Indians regard as critical threats to their country's vital interests, four relate directly to regional security.¹⁴ *India Today*, India's leading newsmagazine, declared its own war on terrorism, as it put forth an impassioned case for reforming India's security apparatus after the Mumbai attack.¹⁵

To the extent that India deviates from strategic restraint, the conventional military balance with Pakistan should be central to that change. Pakistan has never believed in India's posture of strategic restraint. India's global aspirations complicate the communication of that position. Pakistanis see India's rise as an erosion of their own leverage. The ongoing rivalry shapes the nature of demands the Indian armed forces make to their government. The Kargil War in 1999 caught the Indian Army unawares. The 2001–02 Operation Parakram, designed to bring coercive pressure on Pakistan, failed in part due to the lack of military options. In 2008 the government did not even ask the army to mobilize against Pakistan. Since then the Indian Army—and the other services—have sought ways in which to engage in brinkmanship with Pakistan without precipitating nuclear escalation. The army's wish list of new weapons seems to rest on the notion that a sudden but limited attack against Pakistan will not precipitate a nuclear riposte. Consequently, Pakistani efforts to maintain a regional balance of power embroil India in ways that preclude effective military modernization and undermine efforts to achieve great-power status, but the continuing rivalry in the face of mammoth national asymmetry underscores, rather than detracts from, the case for Indian strategic restraint.

We disagree with many analyses of India's military balance with Pakistan. These tend to project imagined, rather than demonstrated, motives and capabilities on India; and only a handful take into account the terrain, political conditions, and nuclear capability of these two countries on the one hand, and the restraint exercised by Indian politicians on the other. A 2009 analysis by BBC defense correspondent Jonathan Marcus is a typical, and much cited study, which concludes that India has an overwhelming advantage. Marcus takes at face value the assertions of India's military rise and the centrality of military power to this rise. He evades the question of India-China military rivalry and attributes to Pakistan a passive strategy rooted in deterrence.¹⁶ Anthony Cordesman, an American analyst writing during the 2001–02 India-Pakistan crisis, offers a more nuanced assessment of the India-Pakistan balance, noting that India's conventional superiority is meaningless as it does not have the capacity to push into Pakistan without risking a nuclear confrontation, that Pakistan has successfully engaged in a

“war of nuclear rhetoric and symbolic missile tests” to deter India, and that much of India’s armor is in storage and not modern. Both military establishments are rated as competent by the standard of “developing” countries, both have failed to demonstrate the ability to effectively integrate advanced conventional technology into their operations, and both have less than optimal battle management, joint warfare, and combined arms skills.¹⁷

COUNTERVAILING STRATEGIC RESTRAINT

The conventional explanation for India’s slow military development has emphasized the country’s poverty. The nationalist critique of the British military policy in India highlighted the undue burden imposed by the imperial state on the people. The post-independence Indian government believed that development, rather than defense, would bring security to the new country. In 1948 the Blackett report recommended pegging defense spending at no more than 2 percent of GDP. The budget decline of the 1950s was largely responsible for the lack of preparedness of the Indian armed forces against China in 1962. The expansion of the 1960s took the budget up to 4.5 percent of GDP, but it fell due to economic stagnation in the late 1960s and through the 1970s. The first period of rapid economic growth of the Indian economy in the 1980s underwrote that decade’s military modernization, when defense spending as a percentage of GDP reached its highest-ever level of over 5 percent. The financial crisis of 1991 pushed back budgets, but it put pressure on GDP as well, keeping the percentage high.¹⁸

Growing Affluence

The explosive growth of the last few years has resulted in an unprecedented increase in defense spending. In 2000 India’s defense budget was \$11.8 billion. The figure had risen to \$30 billion in 2009.¹⁹ The single largest year-on-year increase of 34 percent came in that year, but military budgets have been rising steadily since 2007. The trend in Indian defense spending is likely to continue, though not at the staggering rates achieved in 2007–09. The dramatic nature of the increases has heightened expectations that India’s armed forces will acquire significantly increased capacity that could alter the country’s strategic posture.

As a percentage of GDP, Indian military spending is now at 3 percent, which is higher than it has been through the last decade, but lower than it was in the last period of modernization in the 1980s. Indeed, Indian defense spending as a percentage of GDP fell to 2 percent in 2007, when the economy expanded rapidly but defense spending did not.²⁰ The level of defense

Table 1-1. *Percentage Breakdown of Defense Spending by Service, Fiscal Years 2006–07 to 2009–10*

<i>Service</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>	<i>2009-2010</i>
Army	46.29	49.96	51.53	53.72
Navy	18.95	17.33	15.11	14.54
Air Force	28.39	25.74	25.54	24.30
Research and Development	6.27	6.66	6.05	5.99

Source: Ministry of Defense, Annual Report, 2009–10, p. 19 (<http://mod.nic.in/reports/welcome.html>).

spending as a percentage of GDP is widely seen as a way to control for economic capacity when comparing defense budgets, but this is a false exercise. The assumption is that military spending should be a function of the size of the economy, a notion inconsistent with the realism of threat-driven military posture. While a bigger economy may mean more to defend, it is not necessarily so. Still, long-term co-occurrence of affluence and military strength is a central proposition in international relations theory.

As Table 1-1 shows, the Indian Army received 54 percent of the total defense budget in 2009. The Indian Air Force received 24 percent, and the Indian Navy, 15 percent. Defense research and development received 6 percent. The army's allocations since 2007 reverse a decade-long trend, where it had been losing budgetary ground to the IAF and the Indian Navy. In particular, the Indian Navy's budget had risen to 18 percent of the total expenditure. The IAF, the country's premier instrument of power projection, is also on a downward trend though its relative decline is slower. Part of the explanation for the reversal of the army's budgetary fortunes lies in the massive Sixth Pay Commission increases. Because the army is disproportionately larger in manpower, it draws the bulk of new resources. However, the strong return of the Indian Army at a time when the air force and the navy have been making large deals indicates the degree to which India remains a land power tied to its historical strategic conditions. It also suggests future difficulties that India must face in rebalancing its forces.

The capital budget for major equipment and infrastructure was \$2.7 billion in 2000 and is now \$10 billion. In 2009 capital expenditure was about \$12 billion, or 40 percent of the budget, while the rest was allocated to the running costs of the armed forces. Revenue spending includes salaries, the single biggest item in the defense budget. Critics of India's military spending say that too much of the budget is consumed by salaries and too little is left for buying new weapon systems and building infrastructure that would

Table 1-2. *Comparative Defense Expenditures, 1998–2008*

Totals in millions of U.S. constant 2005 dollars

Year	India		China		Pakistan	
	Millions U.S.\$	% of GDP	Millions U.S.\$	% of GDP	Millions U.S.\$	% of GDP
1988	11,440	3.6	n.a.	n.a.	2,896	6.2
1989	12,219	3.5	12,276	2.6	2,894	6.0
1990	12,036	3.2	13,147	2.6	3,054	5.8
1991	11,238	3.0	13,691	2.4	3,270	5.8
1992	10,740	2.8	16,534	2.5	3,472	6.1
1993	12,131	2.9	15,331	2.0	3,467	5.7
1994	12,185	2.8	14,607	1.7	3,379	5.3
1995	12,550	2.7	14,987	1.7	3,435	5.3
1996	12,778	2.6	16,606	1.7	3,430	5.1
1997	14,144	2.7	16,799	1.6	3,285	4.9
1998	14,757	2.8	19,263	1.7	3,281	4.8
1999	17,150	3.1	21,626	1.8	3,311	3.8
2000	17,697	3.1	23,767	1.8	3,320	3.7
2001	18,313	3.0	28,515	2.0	3,553	3.8
2002	18,256	2.9	33,436	2.1	3,818	3.9
2003	18,664	2.8	36,405	2.1	4,077	3.7
2004	21,660	2.9	40,631	2.0	4,248	3.6
2005	22,891	2.8	44,911	2.0	4,412	3.5
2006	23,029	2.6	52,199	2.0	4,463	3.3
2007	23,535	2.5	57,861	2.0	4,468	3.1
2008	24,716	n.a.	63,643	n.a.	4,217	

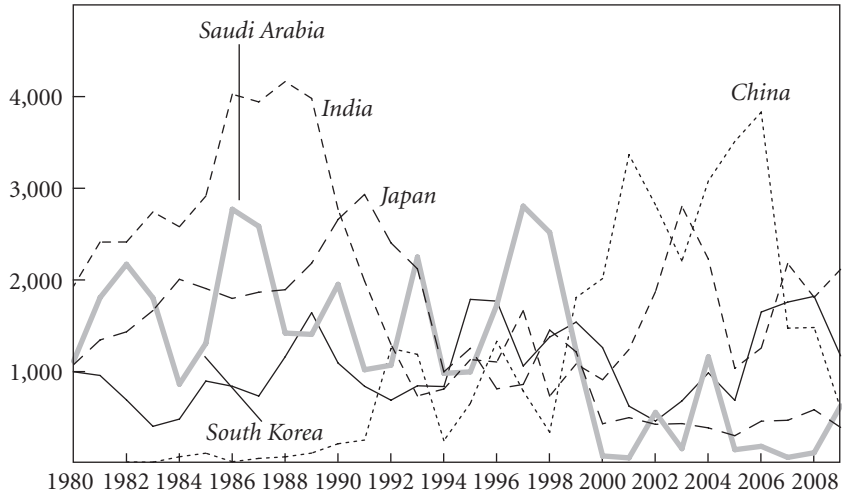
Source: Information from the Stockholm International Peace Research Institute (SIPRI) (www.sipri.org/databases/milex). Data not available is indicated as n.a.

improve fighting capacity. Pay increases distributed by the government's Sixth Pay Commission account for more than half the 34 percent increase in total spending in 2009. The 60–40 revenue-capital spending split is an improvement from the 70–30 division that had been in place for much of the last decade; the ratios were far worse in the 1990s. In the early years of the decade, capital spending had ground to a near halt because of the fiscal crisis and the country's efforts to adjust its strategic vision.

As figure 1-1 shows, Indian military spending is higher than in South Korea and is close to Saudi Arabia's, but remains less than half of China's reported figure of \$70 billion in 2009. As a percentage of GDP, Chinese and

Figure 1-1. *Comparative Arms Imports, 1980–2009*

SIPRI trend indicator values in U.S. constant 1990 dollars



Source: Information from the Stockholm International Peace Research Institute (SIPRI), Arms Transfer Database (www.sipri.org/databases/armstransfers).

Indian spending on defense is similar, but China's total spending far exceeds India's, and the military gap between New Delhi and Beijing is growing rather than shrinking. Pakistan spends more on defense as a percentage of GDP than India, and is able to hold India to a strategic standoff. In absolute terms, Pakistani defense spending has always been less than India's, though historically Islamabad has tried to maintain military parity on its eastern border. In the past Pakistan spent approximately 6 percent of its GDP on defense, though there has been a sharp downturn since 1997. Pakistani military spending in 2007 was about 3 percent of GDP but a fifth of all government expenditure.

The numbers in India and Pakistan suggest a growing divergence in the respective ability of each country to spend on the military. Hardline Indian nationalists have suggested that India adopt the Reagan cold war strategy of spending the enemy into the ground. India could use this strategy against Pakistan; however, recent crises have shown that New Delhi should not assume that the budget gap is necessarily a military one.

India has long been one of the biggest weapons importers in the world. According to Stockholm International Peace Research Institute (SIPRI) data in figure 1-1, India accounts for 8 percent of all known arms imports between

2003 and 2007; it is sandwiched on the list between China (12 percent) and UAE (7 percent). India's arms market is in an unprecedented boom. The IAF is set to become the biggest buyer with 126 Multi-Role Combat Aircraft (MRCA). It has already ordered six Lockheed Martin C-130J medium-range transport aircraft and is considering purchase of a large transport aircraft, the Boeing C-17. The service is also looking at air tankers and airborne early warning platforms while examining upgrades for its Jaguar and Mirage fighters. The Indian Navy has ordered six P-81 maritime reconnaissance aircraft. The Russian retrofit of the aircraft carrier *Admiral Gorshkov* has been ongoing, albeit with recurring problems with pricing and specifications. The navy is also considering two indigenous aircraft carriers and scores of new surface ships and submarines. The Indian Army wants new tanks; light, towed, and self-propelled artillery; armored personnel carriers; tactical air defense; and transport and attack helicopters. All three services seek to upgrade their missiles and munitions, unmanned aerial vehicles (UAVs), electronic warfare capability, battle-space management systems, and communications. Table 1-3 provides a comprehensive but not exhaustive wish list of weapons the Indian armed forces want.

Access to Advanced Technology

Since the 1971 Indo-Soviet Treaty of Peace, Friendship and Cooperation, the Soviet Union had been India's primary military supplier. New Delhi bought some Western weapons, but over 80 percent of Indian weapons platforms were of Soviet origin. The Soviet terms of trade were excellent. The low prices, staggered payment, and rupee denomination allowed India to buy advanced conventional weapons without triggering a balance of payments crisis, which was always imminent because of the country's weak economy. The Soviets were willing not only to sell the weapons, but also to license production and transfer some technology. India assembled MiG fighters, T-72 tanks, armored carriers, and other equipment. The former Soviet Union stopped at the transfer of nuclear technology during the cold war, but Moscow leased a nuclear submarine to the Indian Navy in the 1980s and sold India heavy water for fast-breeder reactors, which produce plutonium that could be used in bombs.

The end of the cold war altered the political justification for Indo-Soviet military trade. After a period of disarray—when Indian officials were going from factory to factory in Russia, the Ukraine, and other former Soviet and Soviet bloc states, trying to buy military spare parts—the special terms were cancelled. Prices went up, though not to Western standards. Russian quality was commensurate with the West's, but India's security threats did not

Table 1-3. *India's Wish List: Some Major Weapons Systems on the Anvil*

<i>System</i>	<i>Units</i>	<i>Vendors or possible vendors</i>	<i>Estimated or contracted cost (U.S.\$)</i>
Fighter aircraft	126	Boeing, Lockheed Martin (U.S.), Dassault (France), Eurofighter (U.S.), Saab (Sweden), MiG (Russia)	12 billion
Very large transport aircraft	10	Boeing C17 (U.S.)	6 billion
Medium-range transport aircraft	6 + option to buy 6 more	On order, Lockheed Martin C-130J (U.S.)	1 billion; 1 billion more if option taken
Tanker aircraft	6	Airbus 330 (EU), Boeing, IL-78	1 billion
Naval airborne early warning systems	6	Northrup Grumman Hawkeye E-2D (U.S.)	2 billion
Long maritime reconnaissance systems	8	On order, Boeing P-8 (U.S.)	4 billion
Attack helicopters	22	Augusta (Italy), Apache Longbow (U.S.)	1 billion
Medium-lift helicopters	390	Hindustan Aeronautics Limited (HAL) (India)	n.a.
Light combat helicopters (Army and Air Force)	179	HAL (India)	n.a.
Light observation helicopters	325	Eurocopter (EU), Kamov (Russia)	750 million
Naval helicopters	17	U.S. Navy with Sikorsky and Lockheed Martin as U.S. foreign military sales	n.a.
Aircraft carriers	3	Under contract (Russia) to retrofit and supply <i>Admiral Gorshkov</i> ; two being built in India	2.7 billion
Submarines	6	Scorpene (France), Kilo (Russia)	4 billion
Nuclear submarines	4	Being designed in India	n.a.
Destroyers, frigates	15	Built at Mazgaon in India and other docks	n.a.
Main battle tanks	124	124 Arjuns (India), unspecified number T-90s (Russia)	n.a.
Light tanks (wheeled or tracked)	200	General Dynamics Stryker (U.S.)	1 billion

(continued)

Table 1-3 (continued)

<i>System</i>	<i>Units</i>	<i>Vendors or possible vendors</i>	<i>Estimated or contracted cost (U.S.\$)</i>
Howitzers (light, towed, and self-propelled)	450–480	Light howitzer contract to BAE Systems. SWS Defense (Sweden) and Soltam Systems (Israel); Singapore Technologies and BAE in the running for towed and self-propelled guns	2.5 billion
Unmanned aerial vehicles (UAVs), various specifications	n.a.	Israel Aerospace Industries, Honeywell (U.S.), Indian companies	Many disparate programs
Quick reaction surface-to-air-missiles (QRSAMs)	56 launchers and 1,485 missiles	Rafael (Israel), MBDA (EU), Raytheon (U.S.), Rheinmetall (Germany), KPB Tula (Russia)	1.2 billion
Surface-to-air missile programs (Air Force)	n.a.	Under contract (Israel) to buy Barak 8	1.1 billion
Theater air defense (Army)	n.a.	Lockheed Martin PAC-3 (U.S.), S-300, S-400 (Russia), Elements of Arrow (Israel)	n.a.
Tactical communications (Army)	n.a.	Thales, Alcatel (France), EADS (EU), Siemens (Germany), Elbit (Israel), Singapore Technologies, Ericsson (Sweden), General Dynamics (U.S.), many Indian private companies	1 billion
Battlespace management systems (Army)	n.a.	n.a.	2.5 billion
Networkcentric pilot projects (Navy, Army, and Air Force separately)	n.a.	n.a.	1 billion
Target towing, transportation, communication, and aerial photography aircraft	9	Elta (Israel), Embraer (Brazil), Gulfstream, Cessna, Raytheon (U.S.), Dornier (Germany), Bombardier (Canada), Dassault (France)	0.5 billion
Close-quarter carbines	n.a.	n.a.	1.1 billion
Anti-tank missiles	n.a.	Lockheed Martin/Raytheon Javelin (U.S.)	n.a.

Source: Collated from press reporting with assistance from Dhruva Jaishankar. Special thanks to Manohar Thyagaraj of U.S.-India Business Alliance and Woolf Gross of Northrup Grumman for verifying and adding to the list.

n.a. = Not available or applicable.

demand cutting-edge conventional weapons. India awarded Russia its two largest post-cold war military contracts: the Sukhoi-30 fighter-bomber and the purchase and retrofit for the aircraft carrier, *Admiral Gorshkov*. Increasingly, however, India and Russia found themselves in contract disputes. In January 2008, the *Times of India* reported that India had refused to take delivery of a refurbished Kilo-class submarine, suspecting “material deficiencies.”²¹ Previously, India had strongly protested Russian efforts to add \$1.2 billion to the contracted price of \$1.5 billion for the *Gorshkov*. Both governments have been trying to minimize differences by emphasizing commercial gains, but special Indo-Russian military trade is clearly fading.

Since 1991 Israel has been slowly selling more to India to the point where New Delhi is now Tel Aviv’s biggest military customer. India not only reversed its political opposition to the Jewish state, but also came to see strategic convergence of the two democracies, bookending the swath of political instability that lies in between.²² India recognized that Israel possessed counterterrorism technologies that it urgently needed. Further, Tel Aviv became a conduit for technology that had been developed through Israel’s special relationship with the United States. There has been considerable discussion, for example, over the airborne early warning and missile defense systems; these deals are slowly materializing as Indian efforts to build these systems have not borne fruit.²³

Israelis—and Russians—have won contracts by offering the DRDO joint development of elements of the project they bid on. The military trade has given India access to new military electronic equipment and technology. Most important, Israel has influenced New Delhi’s decision on the feasibility of the border fence in Kashmir, which is believed to have reduced cross-border terrorism. Israel is also a key supplier of unmanned aerial vehicles, which have altered Indian reconnaissance practice. A DRDO joint venture with a Russian missile design firm produced the Brahmos cruise missile, which is ready for induction. In the absence of a public history of the Brahmos, lessons are hard to draw. We do not know the degree to which the joint venture was actually a cover for the Russians to do the job rather than true joint development. The same is true of the *Arihant*, India’s “indigenous” nuclear-powered submarine, also likely of Russian origin. History favors a pessimistic view. Despite manufacturing MiG fighters and T-72 tanks under license from the former Soviet Union, India failed to parlay the experience into designing and building the light combat aircraft and the Arjun tank. India is also beginning to buy from the United States, and American companies are pitching their platforms to the Indian Ministry of Defence and the Indian armed forces. Two of the final five contenders for the huge MRCA purchase are American. India

has already bought an amphibious assault ship, the former USS *Trenton*, and six specially equipped C-130 transport aircraft, fitted out for special forces use. These two systems give India a modest power-projection capability. We examine America's likely role in Indian military modernization further in chapter 8, but it should be noted here that officials in the Indian government recognize the importance of building constituencies inside the United States that will support improved relations. A case in point is the Federation of Indian Chambers of Commerce, which seeks to link the Department of Science and Technology with a center for innovation at the University of Texas-Austin, in the hope of commercializing DRDO's research.²⁴ These and other commercial ties provide ballast to the relationship. Buying from the United States represents a change in attitude and process. Indians have long seen the United States as a fickle supplier. In doing business with the United States, then, India is signaling a fundamental change in the level of trust. Moreover, doing business with U.S. companies will require that the Indian system change its approach from one of massive consensus building to a more decision-oriented one, which will expose individual officials to charges of failure and possibly corruption. Officials will have to be shielded from personal attacks if they are expected to make decisions.

In India, the new relationship with the United States and Israel is cause for optimism among those who advocate modernization of the armed forces. They see technology as fundamentally altering the way the Indian military system works. The use of UAVs, for example, is expected to flatten the military command structure by making tactical intelligence available to higher command echelons. Technology access can ultimately reorganize the indigenous research and development system to function more effectively, but only if there is organizational adaptation. The openness that should follow technology transfers—after all, the Indian system will have greater incentive to protect intellectual property—may have the most resounding impact by inviting Indian private sector participation in research and development.

In the eyes of Indian modernizers, India's military trade with Israel was a successful experiment in using alliances to develop indigenous capacity. They would like to see that pattern replicated with the United States. Given the reverse asymmetry, the dynamics of the exchange are likely to be different with the United States; however, as the Israeli case and the nuclear deal show, the payoffs could be substantial. Whether and to what extent the alliance will actually meet India's very specific demands for technology—rather than ready weapons platforms—many observers believe, depends on how close a relationship India develops with Washington. Because India hopes to preserve its strategic independence even as it embraces American technology,

competing interests will be a matter of some friction between India and the United States. One side seeks strategic cooperation and profit while the other pursues access to technology.

While Indians understand the deeply political nature of pricing in the military trade, the Western system involves a second layer of pricing complication: once the government allows the sale, private firms set the price. The Indian establishment, in light of its political choices and socialist thinking, has been fundamentally uncomfortable with this idea. Dealing with the Soviet Union was easy. Besides attractive pricing, there was a single-point decision process. Once the political leaders decided on a sale and some general pricing norms, all the other terms were mere details to be firmed up by the bureaucrats. If pricing was a problem, negotiations reverted to the leaders. There were significant problems in adhering to contracts, but the spirit of exchange remained strong, especially at the political level. Until recent deregulation, European arms makers were also in a similar position. The negotiations were conducted by trusted high-level bureaucrats and then vetted by the political leaders. Government approval and pricing were decided at the same time. In contrast, negotiating with the American firms requires separate negotiations with the firms and with the U.S. government. Government approval does not guarantee favorable pricing and vice versa.

BREAKING FROM RESTRAINT?

As Indian armed forces undertake an unprecedented modernization effort, the foundation is set for a great-power military; however, the enterprise awaits strategic intent. Ending India's historical restraint will require more than new resources and technology. In pure resources terms, it is important to remember that while India's recent economic growth may be dramatic, the absolute numbers are still very low. India's technology and industrial base remains relatively modest, especially when one factors in the desire to be autonomous in defense production. According to the World Bank, India's nominal per capita GDP is about \$1,000, which ranks it at number 130 out of a possible 170 countries measured. The purchasing power parity figure is higher, but India ranks worse—in the 140s and 160s—depending on who is measuring. To expect the country to devote sufficient resources to cutting-edge military innovation would be erroneous. At best, we are talking about relative shifts in resources that are devoted to science and technology, and we should expect modest outcomes.

Further, the Indian armed forces have been spending steadily more on the purchase of equipment and weapons over the last few years, but the

allocations in recent years have exceeded the ability of the services to spend the money. For the first time in history, the Indian armed forces have had more money than they can spend, but this may not be good news since the Indian procurement system is broken. The government has not created legitimate and transparent procedures for buying new weapons so that the deals can survive public scrutiny. Prime Minister Rajiv Gandhi lost the 1989 elections because of allegations of corruption related to a number of weapons deals. Rather than overhaul the system, the government slowed down procurement so that the armed forces were unable to spend their allocations and returned budget funds to the treasury.

With the exception of the nuclear weapons, the history of Indian defense research and development has been an unhappy one. DRDO is the best-funded research institution in India, but it has not produced a single weapons system that could alter the country's strategic condition. In fact India probably lags behind Pakistan, which has received substantial assistance from North Korea and China, in developing missiles. While for twenty years DRDO has tried and failed to produce a "light combat aircraft" (the LCA), Hindustan Aeronautics, a state-run aviation firm more open to outside influence than DRDO, has designed and manufactured a relatively successful light helicopter. The Indian Space Research Organisation (ISRO), the space agency, is more open and more successful than DRDO. Only the Atomic Energy Commission is more closed and more successful than DRDO. Successful military research and development will require a change in both the philosophy of the Indian state and its attitudes toward private industry. If the Indian Air Force buys no more than a few LCAs, for example, we expect its unit cost to compare with the numbers for U.S.-made fighters. For a country that has a per capita GDP that is approximately one-fiftieth of the United States, this level of spending must be prohibitive. The Indian government has given the greatest attention to military research and innovation: New Delhi has spent more money on military R&D than any other category. While it seeks external assistance for these projects, it is fierce in protecting the strategic independence that makes these innovations useful. Despite DRDO's failures, the government has not only persisted in its goals, but also eschewed the overhaul of the responsible agencies.

India's strategic purpose in purchasing the weapons is unclear. The marquee items on the wish list of the armed forces—the aircraft carrier, the fighter aircraft, and the tanks—suggest power projection rather than restraint. Some military power is fungible, but there are limits. How does a new aircraft carrier coincide with India's defense concerns? The quest to buy 126 multirole fighter aircraft will bolster India's air defense and possibly

serve the cause of minimum nuclear deterrence, but it is hard to find systematic public analysis of the trade-offs between aircraft and missiles. No country chooses one exclusively over the other, but understanding the trade-off is important to balance investment. This is especially pertinent as Indian Air Force chiefs, like their counterparts all over the world, have emphasized the strategic role of air power. The IAF is notably uninterested in missiles (so far the purview of the army), but the IAF's preference is for aircraft. John Lewis and Xue Litai argue that China very deliberately focused on developing missile forces at the expense of conventional air power.²⁵

A similar study of the trade-offs in India probably exists in the world of classified documents. However, given that the purchase is slated to be the biggest peacetime foreign military sale in the world in decades, the lack of public debate on the issue is surprising. Instead, there is consensus in India that these new fighters—in those large numbers—are necessary. The agreement may reflect Indian inability to develop usable missiles, but that begs the question of why this must be so. The delay in the fighter purchase results from fear that corruption charges will bring down the government. All of this and the fact that the IAF has fewer usable fighter aircraft signals that the disjunction between reality and expectation is widening.

Most important, perhaps, strategic restraint has served India well. India has never fought a country more powerful than itself—the war with China was brief and one-sided. Israel, Vietnam, and even Pakistan have all had to innovate because they were taking on larger powers; India's status is that of a large, satisfied, status quo power for which innovation is very difficult if not risky. Why then should it change?

The realist position is that as India's strategic interests grow and its neighborhood becomes increasingly dangerous, the country must step up its defense preparedness. The implication of this argument is that India's leadership must take firm control of the modernization program, altering institutional structures and imposing coordination among state agencies. India's growing strategic community has clamored for this kind of change. However, those advocating strong military rearmament—prominently, Indian scholars such as Brahma Chellaney and Bharat Karnad and a clutch of retired generals, admirals, and air force officers—have become marginalized rather than mainstreamed over time. Advocates of an offensive military posture find it hard to gain traction even within the BJP, the natural political home for robust military policy.

In contrast, the Left believes that massive rearmament is a waste of money, unnecessarily provocative toward China, and an unpalatable association with a fickle United States. The implication of this argument is that India's

leadership should step forward and curb the armed forces and their efforts to buy ever-increasing numbers of fancy weapons. Proponents of this argument prefer to avoid military competition with China (especially on behalf of the United States) and seek a more nonmilitary accommodation of Pakistan. The position of the ruling Congress Party, and especially Prime Minister Manmohan Singh, falls in this category, even though this government has allowed dramatic increases in the defense budget. Given that the Congress Party has ruled the country longer than any other political group, it is not surprising that this has been the position of most Indian governments since independence. It is also interesting that the BJP chose to remain within the general parameters of strategic restraint during its time in power.

We believe that this state of arming without aiming will continue into the future. While the behavior of individual political leaders may be suboptimal in defense matters, a kind of collective wisdom has been at play over the years and across political boundaries. The collective wisdom sets down the building blocks of enhanced military power, but not the institutional mechanisms associated with strategic assertiveness. Without strong institutional reform that pushes the development of joint doctrines, integrates the services with political decisionmaking in higher defense planning, and issues clear statements of strategic national goals, increased resources cannot enhance Indian capacity sufficiently to alter the military balance with its main rivals. A more assertive strategic and military posture will be costly, but also bring freedom of action.