

MILITARY BUDGETS in INDIA and PAKISTAN

Trajectories, Priorities, and Risks

by Shane Mason



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PREFACE

The Stimson Center prides itself in fact-driven analysis, as exemplified in Shane Mason's report, *Military Budgets in India and Pakistan: Trajectories, Priorities, and Risks*. Shane's analysis and policy-relevant conclusions are properly caveated, because India does not reveal some important data about defense spending, and Pakistan, while doing better to offer its citizens defense budget information, still reveals less than India. While Shane has found it necessary to draw inferences about spending for nuclear weapon-related programs, for which there is little publicly available information, he has been transparent about his sources and methodology.

Those who appreciate reading the pages of *The Economist* will find comfort immersing themselves in Shane's charts and graphs comparing trends in Indian and Pakistani defense expenditures. This Stimson report is also accessible to those who prefer analysis to numerology.

Shane's analytical bottom lines are worth highlighting. The growth of India's defense expenditures relative to Pakistan are noteworthy, but the full impact of this differential will be diminished absent reforms in familiar organizational, bureaucratic, and procurement practices, as well as by growth in benefit payments. Nonetheless, Pakistan will feel increasingly uncomfortable with growing defense budget differentials over time. The tradeoffs between spending for conventional and internal security capabilities on the one hand, and for nuclear capabilities on the other, are likely to grow as US military assistance, Coalition Support Funds, and subsidized financing for arms sales diminish. Growing support from China is unlikely to cover these shortfalls. Absent a reconsideration of the military utility of nuclear weapons in Pakistan's overall defense posture, and absent reconciliation with India, Rawalpindi's discomfort with growing conventional force disparities could lead to increased reliance on nuclear weapons. Other states have faced this dilemma, and have concluded that there is no substitute for capabilities necessary for conventional defense and internal security.

The Stimson Center welcomes comments and critiques of this report. We are grateful to the funders of the Stimson Center's South Asia Program—the MacArthur Foundation, the Carnegie Corporation of New York, and the National Nuclear Security Administration—for making our work possible.

Michael Krepon
Co-Founder, The Stimson Center

A handwritten signature in black ink, appearing to read "Michael Krepon", followed by a horizontal line.

KEY TERMS AND ACRONYMS

APCC	Annual Planning Co-Ordination Committee
BJP	Bharatiya Janata Party
CBO	Congressional Budget Office
Crore	Unit of value equal to 10,000,000
CSF	Coalition Support Funds
DRDO	Defense Research and Development Organisation
FY	Fiscal Year
IAF	Indian Air Force
ISI	Inter-Service Intelligence Organization
MOD	Ministry of Defence
MOF	Ministry of Finance
NCA	National Command Authority
NESCOM	National Engineering Science Commission
OROP	One-Rank One-Pension
PAC	Public Accounts Committee
PAEC	Pakistan Atomic Energy Research Commission
PILDAT	Pakistan Institute of Legislative Development and Transparency
PMAD	Pakistan Military Accounts Department
PSDP	Public Sector Development Program
Rs	Rupees
SIPRI	Stockholm International Peace Research Institute
SPD	Strategic Plans Division
SUPARCO	Space & Upper Atmosphere Research Commission

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Key Findings

- Personnel costs in India's defense budget are crowding out investments in military modernization. These budgetary trends will negatively impact India's defense posture, particularly with respect to air power.
- Domestic politics, bureaucratic inertia, and fiscal constraints make it unlikely that recent trends in Indian defense spending – namely, declining capital budgets relative to personnel costs – can be reversed in the near to medium term.
- Pakistan's defense budget is higher than official estimates. Although Pakistan has increased the transparency of its defense spending in recent years, the country's budget documents raise more questions than answers.
- In the long run, Rawalpindi will either have to make tough choices about defense priorities, strategy, and national objectives, or dedicate a larger portion of government spending to defense.
- Pakistan's ability to purchase big-ticket weapons systems from the United States and Western countries will be increasingly difficult unless it can do so at concessionary rates, which seems unlikely.
- India spends at least four percent of its defense budget on nuclear weapons, while nuclear weapons account for at least 10 percent of Pakistan's military spending. In 2016, Pakistan will spend at least \$747 million on nuclear weapons, and India will spend \$1.9 billion.
- In the long run, India's relative resource advantage will feed Pakistan's worst-case perceptions of the conventional military balance. Absent a reevaluation of the utility of nuclear weapons, Pakistan will continue to offset India's conventional forces with investments in nuclear weapons, especially those that are difficult to keep safe and secure.
- States that seek to substitute nuclear for conventional capabilities do so at great peril to themselves as well as others. Pakistan's military will increasingly have to make this choice, unless it receives an even bigger slice of the budget pie. If Pakistan responds to defense budget shortfalls by increasing reliance on nuclear weapons, it will heighten its national security dilemmas.

Abstract

The national security of India and Pakistan will hinge on the manner in which each state converts economic power into military strength. This report examines current trends in defense spending in India and Pakistan. First, I examine defense spending in India and argue that India's military modernization efforts will be delayed by trends in the defense budget and its management. Next, I explore defense spending in Pakistan and conclude that the country's actual defense budget is likely higher than the estimates provided in official defense budget documents. I conclude by estimating how much of the defense budget in each country is dedicated to nuclear weapon-related capabilities, and argue that Pakistan's reliance on nuclear weapons will increase as India's relative advantage in defense spending and conventional military power grows in the years ahead.

EXECUTIVE SUMMARY

The strategic competition between India and Pakistan is evolving, with India outpacing Pakistan in conventional capabilities while Pakistan seeks to compete with nuclear capabilities. India's economy is eight times larger than Pakistan's, and may be 15 times larger in 2030. Absent reconciliation between India and Pakistan, how each state converts economic power into military strength will reflect longstanding grievances. India's advantages are diminished by an ad hoc approach to defense budget management and other constraints, but long term trends point to Indian ascendance. Pakistan cannot match India conventionally in the long term, and any attempt to do so will exhaust its economy. Responding to adverse defense spending trends with increased reliance on nuclear weapons, especially short-range weapons, may be a cost effective approach, but it is likely to diminish Pakistan's national security.

India's Defense Budget

- India's defense budget is growing at an impressive clip, but rising personnel costs are crowding out resources for modernization. Since the mid-2000s, an increasing share of India's defense budget has been dedicated to pensions and personnel costs, while capital outlays – investments in weapons systems – are decreasing relative to the rest of the budget.
- Declining capital budgets will delay military modernization efforts and reduce projections of India's advantages over Pakistan, particularly with respect to air power. India's plan to purchase French Rafale aircraft, for example, has been delayed and downsized in part due to declining capital budgets for aircraft.
- Recent trends in Indian defense spending – declining capital investments relative to personnel costs – are likely to continue for the foreseeable future. New Delhi has committed to increases in military salaries and pensions which leave less room for modernization. Meaningful budgetary reform in the defense ministry is unlikely to materialize in the near-future, because implementing reform within India's defense bureaucracy has been so challenging.

Pakistan's Defense Budget

- Pakistan spends more on defense than its official estimates suggest. Pakistan leaves out important components of the defense budget, and there is reason to believe that off-budget financing supplements official spending.
- The inter-service distribution of the defense budget reflects the preeminence of the Pakistan Army. The Army receives nearly half of the country's defense budget, and is by far the largest service in terms of troop strength. The Army has overspent its allocated defense budget every year since 2009. The practice of exceeding its allocated budget is in stark contrast to India, where services routinely underspend their budgets.
- Rawalpindi has already begun to receive less military assistance from the United States, as US troop strength in Afghanistan has declined. US military aid accounted for 21 percent of Pakistan's defense budget between 2002-2015, and now accounts for less than 11 percent. Pakistan will rely on China for major conventional platforms going forward, but Beijing's support and subsidies are likely to be less than what Washington provided.

Defense Spending and Nuclear Weapons in South Asia

- India likely spends at least four percent of its defense budget on nuclear weapons, while nuclear weapons account for at least 10 percent of Pakistan's military spending. In 2016, Pakistan will spend at least \$747 million on nuclear weapons, and India will spend \$1.9 billion. Neither India nor Pakistan includes information about its nuclear weapons budget in official defense budget documents. In the last two years, however, parliamentary oversight has yielded more information than before.
- Absent a reevaluation of the utility of nuclear weapons and a reconciliation process with India, the role of nuclear weapons in Pakistan's defense posture is likely to increase, heightening national security dilemmas. India's relative resource advantage will continue to feed Pakistan's worst-case perceptions of the conventional military balance. It is unlikely that Rawalpindi will be persuaded by arguments that India's conventional warfighting advantages are not as great as they appear on paper.

Rawalpindi's Strategic Dilemma

- In the face of India's growing conventional advantages Rawalpindi may be tempted to increase reliance on nuclear weapons, which would increase Pakistan's security dilemmas. Other states have tried this, only to reverse course.
- The question for the Pakistan Army is not whether it will compete with India, but how. Nuclear weapons are useful for deterrence, but not warfighting. There is no substitute for military capabilities necessary for conventional defense and internal security.

MILITARY BUDGETS IN INDIA AND PAKISTAN: TRAJECTORIES, PRIORITIES, AND RISKS

By Shane Mason

Introduction

Military developments in India and Pakistan will have profound implications for regional and international security. The Asian balance of power in the 21st century will hinge, in part, on the military rise of India. Likewise, global counterterrorism efforts depend, to some degree, on the extent to which the Pakistan Army is willing and able to wage an effective counterinsurgency and counterterrorism campaign within its own borders, and counteract negative spillovers across the border into Afghanistan and India. In addition, a strategic balance in South Asia depends on a stable political relationship between India and Pakistan. All of these questions will largely be answered by the manner in which both countries are able to mobilize economic resources on behalf of the national interest.

The process of converting economic resources into military power is best captured in a country's defense budget. Two key themes emerge from analyzing the defense budgets of India and Pakistan. First, India is spending relatively little on military modernization compared to manpower accounts, with negative implications for readiness, procurement, and the country's military posture. Second, Pakistan is investing generously in its military relative to the size of its economy and national budget. Looking ahead, Rawalpindi will have to make tough choices about purchasing big-ticket weapons systems from Western countries unless it can do so at concessionary rates, which seems improbable. If perceived threats from India are deemed to require even more investment in the military, nonmilitary budget accounts will be even more strained.

This paper examines defense spending in India and Pakistan. Specifically, I will examine trend lines in defense spending in India and Pakistan over the past several decades, the inter-service distribution in each country's defense budget, and country-specific developments in defense spending that will illuminate how each country's defense posture might evolve in the years ahead. For sources, this report makes use of independent estimates dating back to the 1950s, defense budget documents released by each country's ministry of finance, and parliamentary transcripts.¹ Pakistan's budget documents only go back as far as 2009, when a newly elected government reversed the long-standing practice of releasing only a single figure for the year's defense budget and began producing more comprehensive documentation. The paper analyzes Indian defense budget documents dating back to 1999, the earliest date that digitized defense budget documents are available.

¹ Top-line defense spending figures obtained from the Stockholm International Peace Research Institute (SIPRI), "SIPRI Military Expenditure Database," 2016, <https://www.sipri.org/databases/milex> and the International Institute for Strategic Studies (IISS), *The Military Balance*, 2016, <https://www.iiss.org/en/publications/military-s-balance>.

This paper finds that India will be able to spend more on defense relative to Pakistan in the years ahead. Even if Pakistan spends more under the best economic forecasts, it will not be able to compete with India for much longer. Thus, the conventional military balance will shift inexorably in India's favor. However, absent reforms in how India manages the defense budget, its advantages will be less than top-line budgets suggest. Pakistan will have increasingly hard choices to make between conventional and nuclear capabilities unless the military's share of the budget grows. Rawalpindi is likely to respond to the growth of India's defense budget with greater reliance on nuclear weapons, including those that are the least safe and secure, which will raise additional concerns for stable deterrence and escalation control on the subcontinent.

Even if Pakistan spends more under the best economic forecasts, it will not be able to compete with India for much longer. Thus, the conventional military balance will shift inexorably in India's favor.

Defense spending in India and Pakistan is influenced by each country's threat perceptions. Consequently, I will begin by briefly describing the nature of the strategic competition in South Asia.

Strategic Competition in South Asia

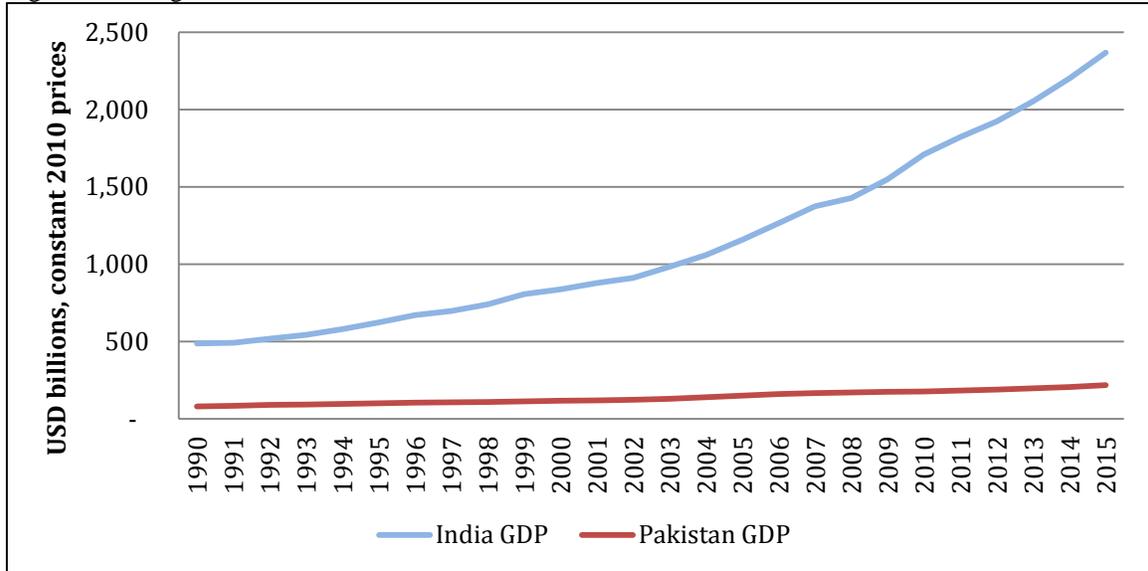
The strategic competition between India and Pakistan is evolving. India's relative advantage in terms of comprehensive national power is growing and will continue to grow. Against this backdrop, both countries are developing and expanding an array of nuclear weapon capabilities. Rawalpindi has not shut down violent extremist groups that launch cross-border attacks. These attacks have destabilized the region, and are likely to continue to prompt changes in conventional and nuclear force postures.

The relative power differential between India and Pakistan is at the heart of both countries' defense policies. India enjoys an advantage in every metric of national power. It has a larger and more dynamic economy, a more favorable geographic position, and its pluralistic democracy is a source of strength. India's economic revitalization since the early 1990s (see Figure 1) has altered the strategic landscape in South Asia. As India's international position rose during the 1990s and 2000s, Pakistan's fell. Pakistan's international standing has been harmed by illicit proliferation activities, the dismissal and overthrow of civilian governments by military leaders, and its toleration of safe havens for violent extremist groups.

The fundamentals of Indian power will remain stronger than Pakistan's. Pakistan's efforts to compensate for these fundamentals have weakened it further. Unable to afford the conventional military capabilities of its larger and wealthier neighbor, Pakistan has long used non-state actors to further its perceived security interests in South Asia. Although this strategy has effectively imposed costs on India, particularly in Kashmir, it has also diminished Pakistan's international reputation while weakening its social cohesion and economic growth. In parallel, Pakistan has developed nuclear weapons to deter a nuclear or major conventional conflict. As a result, India's

military options have been constrained. Large-scale conventional military options do not seem viable. Special operations may now be the option of choice.

Figure 1: Divergent Economic Fortunes in India and Pakistan²



India’s preeminent position in the region does not diminish its security dilemmas. Pakistan’s nuclear capabilities pose an existential threat, while its employment of proxies has been costly. China poses more substantial, if not more immediate, threats to Indian security, and these challenges will grow as China develops power projection capabilities. Ties between China and Pakistan are thickening – another strategic concern.³

India and Pakistan are mid-size nuclear powers that continue to develop their capabilities. Based on estimates of its fissile material stockpile, Pakistan’s arsenal is slightly larger than India’s, with somewhere between 110 and 130 nuclear warheads.⁴ Pakistan can deliver nuclear weapons from the ground or by air. Land-based ballistic missiles are the mainstay of Pakistan’s nuclear program, while a fleet of F-16s and Mirage aircraft can deliver gravity bombs over targets. Pakistan shrouds its nuclear doctrine in ambiguity, based on the assumption that generating uncertainty in the mind of an adversary is essential for deterrence. Since the country has not released an official document explaining its nuclear policy, many analysts rely on a 2002 report in which then-Director General of the Strategic Plans Division (SPD) Khalid Kidwai sketched out scenarios in which Pakistan might use nuclear weapons.⁵ He noted that Pakistan maintained the option of using nuclear weapons first in a conflict, and explained that nuclear weapons would likely be used if India were to conquer significant parts of Pakistani territory, destroy large parts of the Pakistan Army or Pakistan Air Force, conduct economic warfare against Pakistan, or

² World Bank, “GDP at Market Prices (constant 2010 US\$),” <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD>.

³ “China’s Xi Jinping Agrees \$46bn Superhighway to Pakistan,” BBC News, April 20, 2015, <http://www.bbc.com/news/world-asia-32377088>

⁴ Hans Kristensen and Robert Norris, “Pakistani Nuclear Forces, 2015,” *Bulletin of the Atomic Scientists* 71, no. 6 (2015): 59.

⁵ Paolo Cotta-Ramusino and Maurizio Martellini, “Nuclear Safety, Nuclear Stability, and Nuclear Strategy in Pakistan: A Concise Report of a Visit by Landau Network – Centro Volta,” 2002.

destabilize the country internally.⁶ Pakistan has subsequently embraced a doctrine of “full-spectrum deterrence” to deter both major conventional war and nuclear threats. One element of full-spectrum deterrence is the Nasr missile, a short-range ballistic missile intended to deter a major Indian conventional strike on Pakistani territory.⁷ Although civilians have a titular role atop the country’s National Command Authority (NCA), it is Pakistan’s most senior military officers who make nuclear policy. In addition, strategic assets are controlled by the SPD, a military body that serves as the secretariat of the NCA.

India’s nuclear arsenal is believed to consist of between 110 and 120 nuclear warheads.⁸ The country fields ground-based and air-launched delivery systems – ballistic missiles, cruise missiles, and gravity bombs – and is moving nuclear capabilities to sea.⁹ The Indian Navy will soon field a nuclear-powered ballistic missile submarine, which will make India the sixth country ever to do so.¹⁰ India’s official nuclear doctrine embraces credible minimum deterrence, a no first use policy, and massive retaliation.¹¹ These concepts signal the country’s commitment to resist oversizing its nuclear arsenal. India’s leaders consider nuclear weapons to be of political and strategic value rather than weapons to be used on the battlefield. The no first use pledge – an assurance to only use nuclear weapons “in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere” – is a fundamental aspect of India’s nuclear doctrine, while “massive retaliation” reflects the view that limited nuclear war is not possible and that there exists a sharp distinction between conventional and nuclear conflict.¹² India’s nuclear command-and-control arrangement reflects the country’s civil-military relations. Civilians form the apex of nuclear decision-making, while the military is tasked with implementing those decisions.

The adversarial relationship between India and Pakistan is the defining characteristic of South Asia’s security environment. The two countries have fought four wars since 1947. Since demonstrating their nuclear capabilities in 1998, several nuclear-tinged crises have brought the region to the brink. This strategic context is essential to understanding the defense budget trends in India and Pakistan described below.

India’s Defense Budget

This section lays out three main arguments about India’s defense budget. First, personnel costs are crowding out capital investments in military modernization efforts. Second, military modernization will be delayed due to budgetary constraints, particularly with respect to air power.

⁶ Ibid.

⁷ Inter Services Public Relations, “Press Release No. PR94/2011-ISPR,” April 19, 2011, https://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=1721&search=1.

⁸ Hans Kristensen and Robert Norris, “Indian Nuclear Forces, 2015,” *Bulletin of the Atomic Scientists* 71, no. 5 (2015): 77.

⁹ For more information on naval nuclear dynamics in South Asia, see Iskander Rehman, “Murky Waters: Naval Nuclear Dynamics in the Indian Ocean,” Carnegie Endowment for International Peace, 2015, <http://carnegieendowment.org/2015/03/09/murky-waters-naval-nuclear-dynamics-in-indian-ocean-pub-59279>.

¹⁰ Sam LaGrone, “India’s First Boomer Leaves on Acceptance Trials,” *USNI News*, April 21, 2016, <https://news.usni.org/2016/04/20/indias-first-boomer-leaves-on-acceptance-trials>.

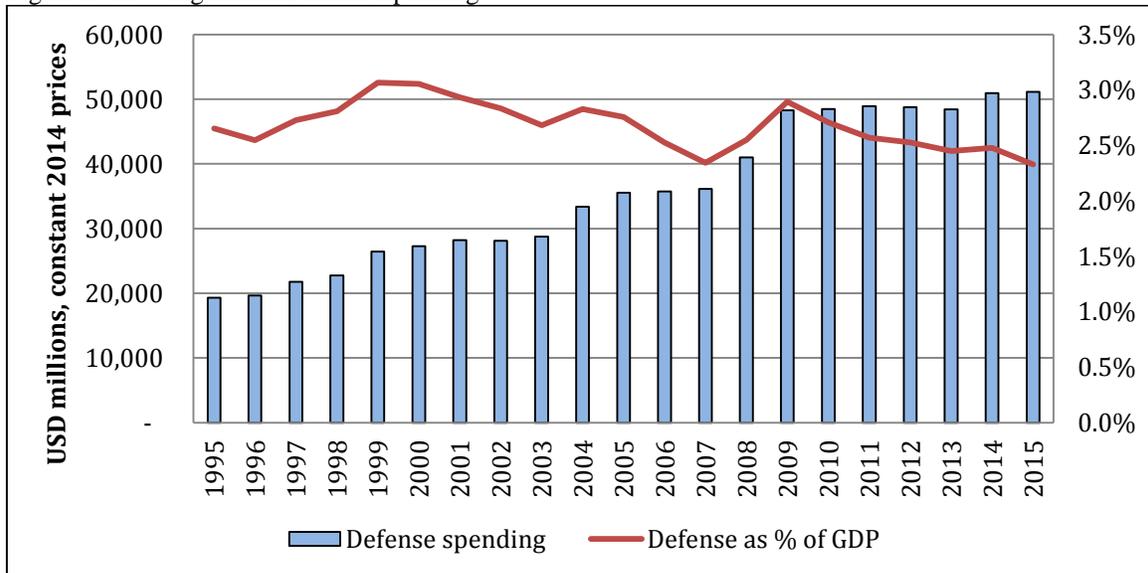
¹¹ Office of the Prime Minister, “Cabinet Committee on Security Reviews Progress in Operationalizing India’s Nuclear Doctrine,” January 4, 2003, <http://pib.nic.in/archieve/lreng/1yr2003/rjan2003/04012003/r040120033.html>.

¹² Ibid.

Finally, domestic political factors make it highly unlikely that this trend will be reversed anytime soon.

India’s defense budget is growing at an impressive clip, but rising personnel costs are crowding out resources for modernization. Since the mid-2000s, an increasing share of India’s defense budget has been dedicated to pensions and personnel costs, while capital outlays – investments in weapons systems – are decreasing relative to the rest of the budget. Between 1995 and 2015, India’s defense budget grew, on average, over 5.5 percent annually (see Figure 2).¹³ Drawing on India’s impressive economic growth, the country has gone from a contested regional power to one of the preeminent regional powers along with China and Japan. In 2015, India’s defense budget topped \$51 billion, making it the sixth largest in the world.¹⁴ India’s defense spending accounted for three percent of international defense spending in 2015. In contrast, India’s share was just over one percent in 1995.¹⁵ In short, India’s military profile has never been higher.

Figure 2: Growing Indian Defense Spending¹⁶



¹³ The defense budget data were obtained from SIPRI, “SIPRI Military Expenditure Database,” while the inflation figures were obtained from IMF, “World Economic Outlook.”

¹⁴ SIPRI, “Military Expenditure Database,” and IISS, “Chapter 2: Comparative Defense Statistics,” *The Military Balance*, 2016.

¹⁵ Ibid.

¹⁶ SIPRI, “Military Expenditure Database.”

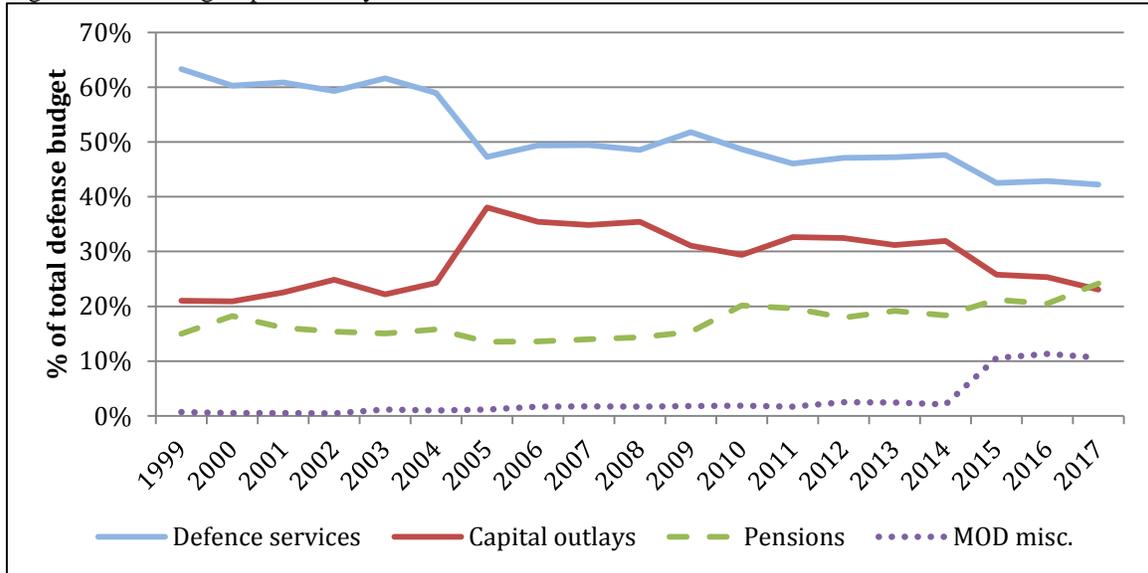
Examining relative spending between the defense budget's four main line-items— defense services, capital outlays, pensions, and Ministry of Defence (MoD) miscellaneous—it is clear that the defense budget is being increasingly skewed away from procurement and toward personnel costs.

Examining relative spending between the defense budget's four main line items – defense services, capital outlays, pensions, and Ministry of Defence (MOD) miscellaneous – it is clear that the defense budget is being increasingly skewed away from procurement and toward personnel costs.¹⁷ “Defense services” includes salaries, allowances, and transportation for the three defense services and joint staff. “Capital outlays” includes the cost of land, construction, and the procurement and modernization of aircraft, heavy and medium vehicles, and ships. “MOD miscellaneous” includes general services, housing, defense ordnance factories, and research and development. In effect, defense spending for military modernization, which is found in capital outlays, is less than what the top-line figure suggests. This trend has been particularly acute since the mid-2000s, when capital outlays accounted for over a third of the defense budget (see Figure 3). Clearly, the Indian military was investing in high-end military systems. In the budget for the fiscal year that ended in the summer of 2016, however, capital outlays accounted for just a quarter of the defense budget. In contrast, pension allocations have increased. Since the late 1990s, the retirement budget for military personnel has never accounted for less than 14 percent of the defense budget. However, by 2016 that figure reached 21 percent and is projected to top 24 percent by FY 2017. In other words, pensions are rising at the expense of modernizing India's military.

This was not always the case. India increased defense modernization spending after the 1999 Kargil War and Operation Parakram in 2001-2002. Overall defense spending increased 30 percent between 1999-2005, and capital outlays rose from 21 percent to 38 percent of the budget. This new investment in weapons systems was funded by trimming costs from the defense services and pensions accounts. Defense services went from two-thirds to one-half of the budget during this time period, while pensions dropped a few percentage points. On the back of nearly a decade of impressive economic growth, India was making a concerted effort to modernize.

¹⁷ Components of the different line-items can be found in defense budget documents. See, for example, Government of India, “Expenditure Budget, Volume II, Demands 21-28 [21: Ministry of Defence (Misc.), 22: Defence Pensions, 23: Defence Services-Army, 24: Defence Services-Navy, 25: Defence Services-Air Force, 26: Defence Ordnance Factories, 27: Defence Services-Research and Development, 28: Capital Outlay on Defence Services],” 2016, <http://indiabudget.nic.in/>.

Figure 3: Declining Capital Outlays Since 2005¹⁸



What can explain the emphasis on capital spending beginning in 1999, and its relative fall beginning in the mid-2000s? One factor for growth seems to be the impact of the 1999 Kargil War and the Twin Peaks Crisis that led to Operation Parakaram in 2001-2002. As noted earlier, defense spending rose 30 percent in the six years after Kargil. One explanation offered for the relative decline of defense modernization spending was a change in India’s domestic political leadership. For a decade beginning in 2004, a coalition government led by the Congress Party governed India. The government was criticized for its unwillingness to push through meaningful reforms in order to galvanize the country’s economy. A.K. Antony, the defense minister, was subject to criticism during his tenure for procurement delays, and for his reluctance to enact officially recommended defense reforms.¹⁹ The fundamental criticism of Antony was that his drive to make India’s procurement process more transparent and corruption-free came at the expense of prioritizing challenges facing the country’s military readiness and defense posture. However, the data does not reflect this narrative when it comes to the distribution of the defense budget. During the years Congress was in power, capital outlays made up an average of one-third of the defense budget. However, capital outlays accounted for an average of 23 percent of the defense budget during the Bharatiya Janata Party (BJP) government between 1999 and 2004, and 26 percent in the first two defense budgets of Prime Minister Modi’s government. If anything, the inverse of the conventional wisdom is true: higher modernization spending was conducted under a Congress-led government than under the BJP.

A more compelling explanation for the shift in capital spending focuses on civil service and pension reform, which posed a serious challenge to the capital budget beginning in the late

¹⁸ Government of India, Expenditure Budget, Volume II, Demands 21-28 (21: Ministry of Defence (Misc.), 22: Defence Pensions, 23: Defence Services-Army, 24: Defence Services-Navy, 25: Defence Services-Air Force, 26: Defence Ordnance Factories, 27: Defence Services-Research and Development, 28: Capital Outlay on Defence Services), <http://indiabudget.nic.in/>.

¹⁹ Ajai Shukla, “The Cost of Antony’s Halo,” *Business Standard* (India), February 23, 2010, http://www.business-standard.com/article/opinion/ajai-shukla-the-cost-of-antony-s-halo-110022300021_1.html.

2000s.²⁰ Difficulty began with the implementation of recommendations from the Sixth Central Pay Commission Report in 2008.²¹ The report, produced once a decade by a government-sanctioned committee to assess the federal pay structure, called for increased pay for Indian service members.²² The results had an immediate impact on the defense personnel budget. The Indian government recently noted that after “the implementation of [the pay commission] this share of expenditure on personnel to total defense revenue expenditure has increased sharply.”²³ It added that the “conclusion that increased expenditure on personnel has been at the expense of operational and maintenance expenditure ... is inescapable.”²⁴

The Indian Parliament has been troubled by trends in the capital budget and the defense ministry’s general mismanagement of the budget process. In a May 2016 report, the Lok Sabha’s defense committee focused on the decline in the capital budget, the underutilization of capital funds, and how these two trends will affect India’s procurement ambitions.²⁵ The report noted that the ratio between defense services and capital outlays in both the Army and the Air Force is trending toward defense services. It added that if the ministry wants to meet its 30:40:30 target for the capital account – 30 percent for state-of-the-art technology, 40 percent for current technology, and 30 percent for older technology – it would have to “enhance our capital outlay” and enact reforms to enable underutilized funds from one year to be available the next. The committee focused on the pattern of underspending the capital fund, concluding that the “capital head invariably ends off with unutilized funds.”²⁶ The report noted that capital funds that are not used are instead “diverted to non-priority or non-essential heads of account.” The primary cause of underutilization is poor planning in the MOD and the reluctance of the Ministry of Finance (MOF) to allocate defense dollars more strategically. The MOD and Parliament explained that budget planning “needs to be drastically changed.”²⁷ These trends and the mismanagement of the defense budget have implications not only for the budget itself but also for India’s defense posture.

²⁰ Laxman K. Behera, “Defence Budget 2016-17: The Bigger Worry,” Institute for Defence Studies and Analysis (IDSA), http://www.idsa.in/idsacomments/defence-budget-2016-17_lkbehera_220316.

²¹ Government of India, “Report of the Sixth Central Pay Commission,” <http://pensionersportal.gov.in/sixthcpc/paycommissionreport.pdf>.

²² Meera Siva, “All You Wanted to Know about Seventh Pay Commission,” *The Hindu*, September 7, 2015, <http://www.thehindubusinessline.com/opinion/columns/all-you-wanted-to-know-about-seventh-pay-commission/article7625708.ece>.

²³ Government of India, “Report of the Seventh Central Pay Commission,” <http://7cpc.india.gov.in/pdf/sevencpcreport.pdf>.

²⁴ *Ibid.*

²⁵ Government of India, “Twenty-Second Report: Standing Committee on Defence (2015-2016),” Sixteenth Lok Sabha, Ministry of Defence, Demands for Grants (2016-2017) on Capital Outlay on Defence Services, Procurement Policy and Defence Planning (Demand No. 23), http://164.100.47.134/lsscommittee/Defence/16_Defence_22.pdf.

²⁶ *Ibid.*, 18.

²⁷ *Ibid.*

In March 2016, a senior ranking IAF official noted that under present conditions, the Air Force would not be able to conduct a two-front war.

Declining capital budgets will delay military modernization efforts and reduce projections of India's advantages over Pakistan, particularly with the Indian Air Force. Modernization plans for all three defense services will be delayed, cancelled, or less robust than originally planned.²⁸ According to the aforementioned Lok Sabha report, the defense secretary acknowledged that “the money allocated for Capital acquisition was not in accordance with the requirements of the Services.”²⁹ While the MOF argues that the services have to make do with what they are given, the Indian military is already feeling the pinch of declining capital budgets. The most worrisome development from New Delhi's perspective is the readiness posture of the Indian Air Force (IAF), the service that has been most subject to fluctuations in the procurement budget. In March 2016, a senior ranking IAF official noted that under present conditions, the Air Force would not be able to conduct a two-front war.³⁰ While there is a debate in New Delhi about whether China or Pakistan poses the most pressing threat to India, it is an article of faith in the country's strategic community that the armed forces should be able to prosecute a war simultaneously against Pakistan and China, if compelled to do so. The public repudiation of the government's defense management was a clear signal that the IAF considered its budgetary and procurement position as an unacceptable danger to vital Indian interests.

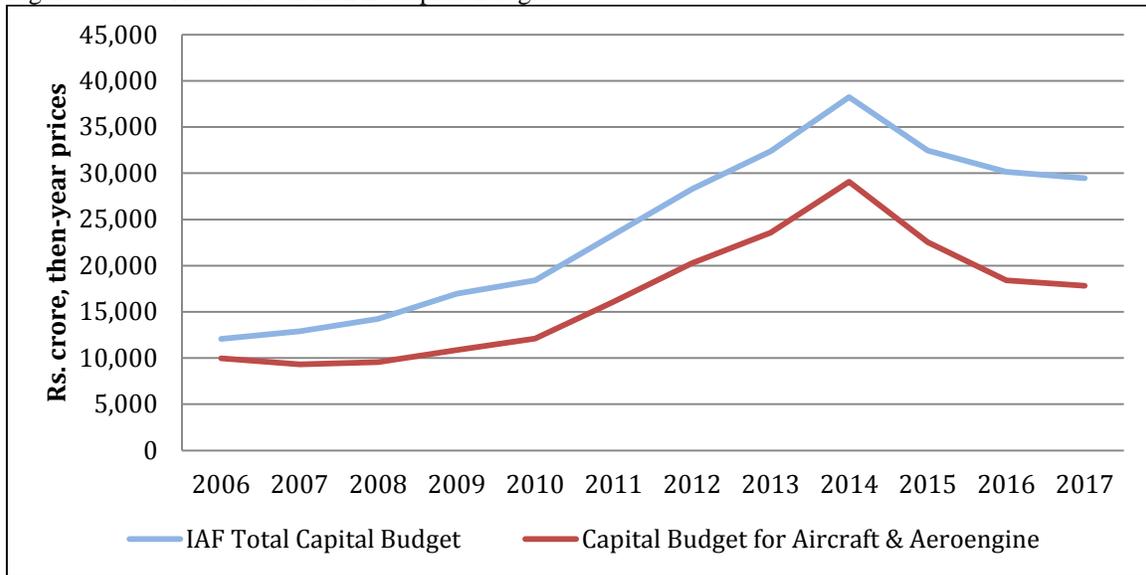
What, exactly, is the IAF concerned about? A close look at the inter-service distribution of the capital budget underscores that changes in procurement resources have most adversely affected the IAF at a time when India needs to replace its aging aircraft. Specifically, although the IAF's capital budget has increased since 1999, it has decreased in the last few years. Within the capital budget, the IAF benefited the most from the spike in modernization money between 1999 and 2005 (see Figure 4). During the six years starting in 1999, the IAF went from being allocated a third of the capital budget to being allocated 44 percent. The spike was most clearly felt in the budget for aircraft, which actually tripled in 2005. However, things began to change in the next budget. Since 2006, the capital budget for aircraft has declined an average of one percent each year.

²⁸ Sushant Singh, “Defence Procurement: If Process Not Expedited, We'll Have to Rethink Our Investment in India, Says IWI,” *Indian Express*, August 9, 2016, <http://indianexpress.com/article/business/business-others/defence-procurement-if-process-not-expedited-well-have-to-rethink-our-investment-in-india-says-iwi-2962633/>.

²⁹ Government of India, “Twenty-Second Report: Standing Committee on Defence (2015-2016),” 56, http://164.100.47.134/lsscommittee/Defence/16_Defence_22.pdf.

³⁰ Rahul Bedi, “IAF's Depleting Assets Preclude Two-Front War Option,” IHS Jane's 360, March 17, 2016, <http://www.janes.com/article/58847/iaf-s-depleting-assets-preclude-two-front-war-option#.VuxtZq1v3O8.twitter>.

Figure 4: Slow Real Growth in IAF Capital Budget³¹



Analysts have taken note of the IAF’s budgetary constraints and its impact on readiness. Perhaps the most high-profile voice in this debate is that of Ashley Tellis, who has argued that the IAF is “in a crisis.”³² In a report released in early 2016, Tellis argues that India’s quest for air dominance against China and Pakistan is slipping, and will continue to do so absent high-level policy intervention. He notes that the IAF’s 36.5 squadrons are weaker than the figures suggest; the balance of forces with China and Pakistan is increasingly unfavorable from India’s perspective; and procurement delays, budgetary shortfalls, and mismanagement within the Indian defense establishment and defense industries is making the problem worse. He recommends that the IAF trim investments in the indigenously produced Tejas fighter, and focus instead on procuring more affordable, fourth-generation Western aircraft to address immediate needs. However, he also concedes that the budgetary shortfall in the IAF’s capital budget makes this solution extremely difficult, if not impossible.

The Lok Sabha noted that a “lower Capital Budget allocation may affect major Aircraft or Armament deals from foreign sources,” and specifically noted that it already has with respect to India’s intended purchase of Rafale fighters from France. While India originally planned to purchase 126 medium multi-role combat aircraft, that request for proposals was withdrawn in June 2015. After recalculating the cost and assessing the procurement budget, a new plan is in place to purchase only 36 aircraft from France, and even that will require a separate proposal for additional funds in future budgets.³³ Overall, the shortfall in the capital budget will have a wide-ranging and profound impact on India’s force posture going forward. The Indian government concedes that it will cause a “slowdown of modernisation, delay in induction of important capabilities, erosion of IAF’s superiority over our adversaries, resultant asymmetry [sic] in capability with respect to envisaged threat perception, and flight Safety Concerns due to

³¹ Government of India, “Expenditure Budget, Volume II, Demand No. 28, Capital Outlays on Defence Services,” <http://indiabudget.nic.in/>.

³² Ashley Tellis, “Troubles, They Come in Battalions: The Manifold Travails of the Indian Air Force,” Carnegie Endowment for International Peace, 2016, http://carnegieendowment.org/files/Tellis_IAF_final.pdf.

³³ Government of India, “Twenty-Second Report: Standing Committee on Defence (2015-2016),” 24, http://164.100.47.134/lsscommittee/Defence/16_Defence_22.pdf.

obsolescence issues.”³⁴ The IAF is burdened by systemic dysfunctions in the budget process and capital allocations, which is now undermining its ability to achieve mission objectives against China and Pakistan.

Similar to the IAF, the Indian Navy has struggled with cuts to its capital allocations. The capital budget for the Navy has only increased one percent annually for the past decade. The capital budget was increasing relative to defense services and pensions until 2011, when 63 percent of the service’s budget went to procurement and 37 percent went to personnel costs. That figure has dropped almost every year since, and the ratio between defense services and capital outlays in the 2017 budget is projected to be 55 percent to procurement and 45 percent to manpower. Trends are different when one looks at recent developments in the shipbuilding budget. Between 2007 and 2011, the capital budget for shipbuilding grew an average of 15 percent a year. In the next five years, between 2012 and 2016, the budget declined an average of four percent annually. Like the IAF, the Navy also suffers from underutilization of funds, primarily caused by “slippages in contractual milestones, slow progress of work and delay in milestone [sic] payments.”³⁵

The Indian Army is also facing serious readiness challenges. Capital budgets have flatlined in the past five years, and the cost of defense services within the Army’s budget is increasing. The increase of defense services is likely due to creating four new mountain divisions for the contested border with China, although reports suggest that budget shortfalls are causing delays in procurement.³⁶ This has led to shortages in basic equipment, with the Lok Sabha concluding that “the Army is grappling with shortages in several areas ranging from modern assault rifles, bullet-proof jackets and nightfighting [sic] capabilities to howitzers, missiles and helicopters.”³⁷ The numbers of artillery pieces and main battle tanks are also declining. Figure 5 demonstrates that India’s advantage over Pakistan in these weapons systems has been declining over the past decade.

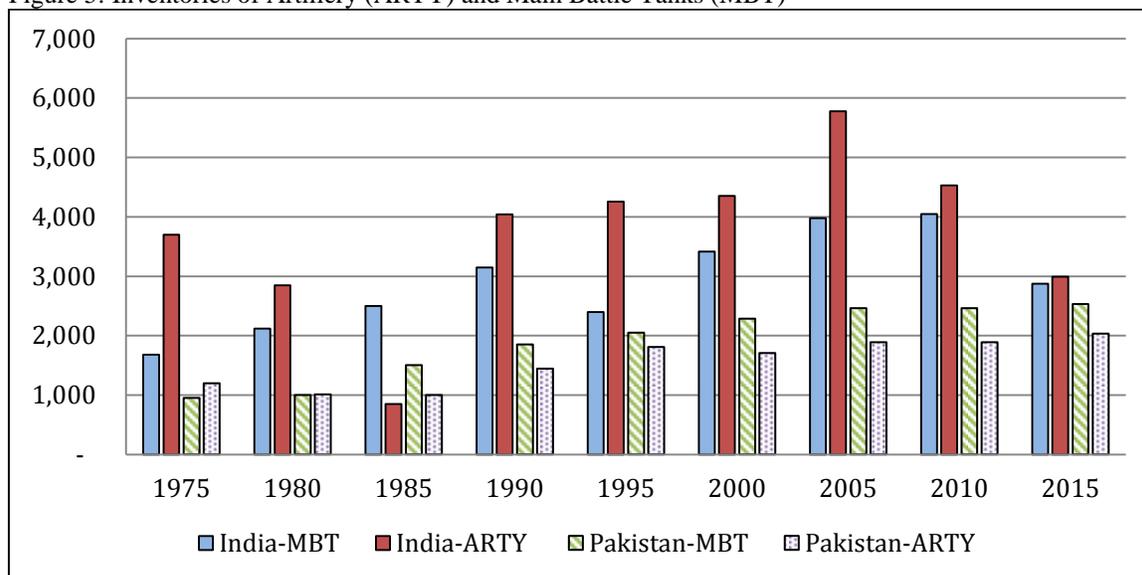
³⁴ Government of India, “Twentieth Report: Standing Committee on Defence (2015-2016),” Sixteenth Lok Sabha, Ministry of Defence, Demands for Grants (2016-2017) on Army, Navy & Air Force (Demand No. 22), 54, http://164.100.47.134/lsscommittee/Defence/16_Defence_20.pdf.

³⁵ Government of India, “Twentieth Report: Standing Committee on Defence (2015-2016),” 30-31, http://164.100.47.134/lsscommittee/Defence/16_Defence_20.pdf.

³⁶ Rajat Panditl, “No Budget, Army Struggles to Raise Mountain Strike Corps,” *Times of India*, March 7, 2016, <http://timesofindia.indiatimes.com/india/No-Budget-Army-struggles-to-raise-mountain-strike-corps/articleshow/51283303.cms>.

³⁷ Government of India, “Twentieth Report: Standing Committee on Defence (2015-2016),” 13, http://164.100.47.134/lsscommittee/Defence/16_Defence_20.pdf.

Figure 5: Inventories of Artillery (ARTY) and Main Battle Tanks (MBT)³⁸



Testifying before the Lok Sabha’s defense committee, a MOD official noted that “the ammunition shortage is huge.”³⁹ This problem was acknowledged by the defense secretary, who said that the ministry’s top officials are “concerned about this situation.”⁴⁰ In short, declining capital budgets, as well as underutilization of the funds it does have, means that the Indian Army is running low on bullets.⁴¹

Recent trends in Indian defense spending – declining capital investments relative to personnel costs – are likely to continue for the foreseeable future. First, the government has committed to sharp increases in military salaries and pensions that will affect not only the defense budget but the government’s fiscal policy as a whole. Two recent initiatives, in particular, will make it hard to cut back on rising personnel and pension costs: the Seventh Central Pay Commission and One-Rank One-Pension (OROP). In June 2016 the Modi government approved recommendations from the pay commission to increase federal salaries, including the armed forces, by roughly 25 percent.⁴² While some veterans have called the commission “the worst pay deal ever” – citing unresolved issues from the sixth pay commission and discrepancies between civilian and military compensation – salaries have nevertheless increased substantially.⁴³ Implementing the new pay structure is projected to cost the government \$15 billion a year, or just under one percent of GDP.⁴⁴ It will also put severe upward pressure on the defense services

³⁸ I derived this information from previous editions of IISS, *The Military Balance*. Due to changes in the publication over time, only self-propelled and towed artillery pieces are counted here as “Artillery.”

³⁹ Ibid., 14.

⁴⁰ Ibid.

⁴¹ For more information on the ammunition shortage, see Government of India, “Report of the Comptroller and Auditor General of India on Ammunition Management in Army for the Year Ended March 2013,” http://www.cag.gov.in/sites/default/files/audit_report_files/Union_Performance_Defense_Service_Army_Ammunition_Management_19_2015.pdf.

⁴² Amy Kazmin, “India’s Civil Servants Get 23% Pay Rise,” *Financial Times*, June 29, 2016, <http://www.ft.com/cms/s/0/9649cb44-3ddb-11e6-8716-a4a71e8140b0.html>.

⁴³ “Worst Pay Deal Ever, Say Army Officers,” *The Hindu*, July 2, 2016, <http://www.thehindu.com/news/national/7th-pay-commission-worst-pay-deal-ever-say-army-officers/article8798037.ece>.

⁴⁴ Kazmin, “India’s Civil Servants Get 23% Pay Rise.”

budget, which will come at the expense of the capital budget – unless the Modi government, which has campaigned on trimming the federal deficit, will accept a greater defense burden on the economy.

OROP is a reform that will require the government to pay out similar pensions to soldiers of the same rank, regardless of when they retired. Veterans groups that had been advocating for this reform in recent years had become a powerful political bloc, to the extent that both the BJP and Congress included OROP in their campaign manifestos in 2014.⁴⁵ When the BJP swept to power in national elections, the new government committed to deliver on a campaign promise to an important constituency. Despite political pressure, implementing OROP has faced several setbacks. While the government announced in November 2015 that OROP would soon be implemented, the reforms are still on stand-by. A new committee is scheduled to release a report in December 2016 to fill out the remaining details about how the scheme will be enacted.⁴⁶ However justified OROP is in supporting India's veterans, there will be serious fiscal implications once it is fully implemented. The scheme is expected to cost the defense ministry roughly \$1 billion a year.⁴⁷ OROP and the new pay structure approved by the pay commission suggest that India will be committed to paying higher salaries and higher budgets for defense services. This indicates that the Modi government would have a difficult time reversing rising personnel costs even if it wanted to do so.

Another reason why trends in the defense budget are likely to continue is that other priorities – economic growth, infrastructure development, and tax reform – are more salient political issues in India than defense spending. Maintaining high growth rates, in particular, is a subject much more likely to animate the country's political leadership than details about the defense budget. Despite India's impressive economic growth in recent decades, the country is still relatively poor. For example, India's GDP per capita in 2016 peaked at \$1,747, while China's exceeded \$ 8,239.⁴⁸ Turning India into a manufacturing hub is an important national objective, which will not be furthered by making reforms to defense budget management. Ultimately, the issues raised so far in this report are unlikely to register politically in India. A 2014 survey from the Pew Research Center found that Indians are mainly concerned about inflation and jobs.⁴⁹

Finally, meaningful budgetary reform in the Ministry of Defence is unlikely to materialize in the near future because implementing reform within India's defense bureaucracy is notoriously challenging, and it is not immediately obvious that systematic, inter-service, and inter-ministry defense budget planning occurs in India. K. Subrahmanyam argued in 2005 that the adhocism reflected in India's defense budget practices are a function of “the total absence of a coherent system of planning in defence.”⁵⁰ He explained that the fundamental shortcoming in India's

⁴⁵ Bharatiya Janata Party, “Election Manifesto 2014,” http://www.bjp.org/images/pdf_2014/full_manifesto_english_07.04.2014.pdf; Indian National Congress, “Lok Sabha Elections 2014 Manifesto,” <http://inc.in/images/pages/English%20Manifesto%20for%20Web.pdf>.

⁴⁶ “More Delay in ‘One Rank, One Pension’ as Panel Gets 6-Month Extension,” *The Tribune* (India), <http://www.tribuneindia.com/news/nation/more-delay-in-one-rank-one-pension-as-panel-gets-6-month-extension/254395.html>.

⁴⁷ Amy Kazmin, “Modi Faces Rising Military Discontent Over Pensions,” *Financial Times*, August 16, 2015, <http://www.ft.com/cms/s/0/d13becc8-43d1-11e5-b3b2-672f710807b.html#axzz4GNSk9psl>.

⁴⁸ IMF, *World Economic Outlook*, April 2016.

⁴⁹ Pew Research Center, “Chapter 2: Indians View the World,” in *Indians Reflect on Their Country & the World*, March 31, 2014, <http://www.pewglobal.org/2014/03/31/chapter-2-indians-view-the-world/>.

⁵⁰ K. Subrahmanyam, *Shedding Shiboletths: India's Evolving Strategic Outlook* (New Delhi: Wordsmiths, 2005), 45-46.

defense budget planning was that “an overall, total, integrated threat assessment picture, and the consequences of actions taken in the coming year in regard to the defence budget,” are not produced and given to government leaders.⁵¹ There is no evidence to suggest that this issue is being given consideration at high levels of the Indian government. Other attempts at defense reform – like appointing a chief of defense staff – have stalled despite receiving significant political and public attention.⁵²

Pakistan’s Defense Budget

This section advances three arguments about Pakistan’s defense spending. First, important defense-related spending – like military pensions – are excluded from Pakistan’s defense budget. Consequently, Pakistan spends more on defense than its official budget documents suggest. Second, a breakdown of the defense budget reflects the Pakistan Army’s preeminence in the military. Finally, Pakistan’s defense posture is likely to suffer in the medium to long term unless the country is able to procure high-end systems at concessionary rates. I make these arguments by describing what has been unveiled about the budgetary process, the trend lines and distribution of the defense budget along with various subcomponents, and finally implications for Pakistan’s grand strategy.

Pakistan spends more on defense than its official estimates suggest. According to official Pakistani budget documents, the country’s defense budget in 2015 was Rs. 720 billion. However, the Stockholm International Peace Research Institute (SIPRI) – an industry standard in the field of defense budget analysis – estimated that the figure was 40 percent higher, or Rs. 1 trillion.⁵³ There is a large disparity between Pakistan’s official defense spending figures and independent estimates because Pakistan excludes important components of its defense budget, and there is reason to believe that the defense establishment funds some of its activities off-budget. First, Pakistan does not include military pensions in its defense budget.⁵⁴ During a parliamentary session in August 2015, Defense Minister Khawaja Muhammad Asif

There is a large disparity between Pakistan’s official defense spending figures and independent estimates because Pakistan excludes important components of its defense budget, and there is reason to believe that the defense establishment funds some of its activities off-budget.

⁵¹ Ibid., 44-45.

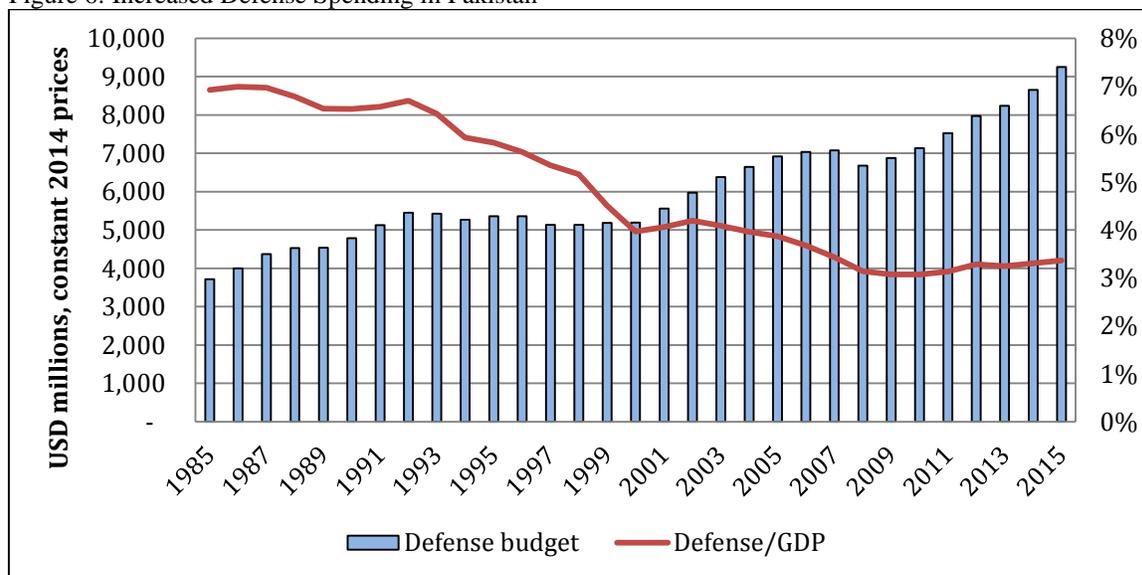
⁵² Government of India, “Group of Ministers (GoM) Report on Reforming the National Security System in pursuance of Kargil Review Committee Report,” 2001, <http://www.vifindia.org/sites/default/files/GoM%20Report%20on%20National%20Security.pdf>.

⁵³ SIPRI, Budget in Brief (2015-2016), 6, <https://www.sipri.org/databases/milex>.

⁵⁴ IMF, “Report on the Observance of Standards and Codes: Pakistan,” November 28, 2000, para. 30, <https://www.imf.org/external/np/rosc/pak/fiscal.htm>.

noted that Pakistan began charging defense pensions to the civilian budget in 2000, and began doing so “for the purpose of one budget demand both for Civil and Defence Pensions.”⁵⁵ This practice fell under some scrutiny in the first years after General Pervez Musharraf left office. In a 2010 meeting of the Public Accounts Committee (PAC), some members of parliament argued that pensions should be included in the defense budget. A vocal supporter of this reform was Khawaja Asif, then a member of the opposition in the National Assembly and currently the Minister of Defence. During a meeting of the PAC in 2010, Asif reportedly said, “Whom we are trying to fool by showing [the] military pension budget as part of [the] civilian budget [?]”⁵⁶

Figure 6: Increased Defense Spending in Pakistan⁵⁷



Pakistan’s opaque defense budget raises more questions than it answers. One area of the federal budget that could be used for off-budget financing is the category of “contingent liabilities.” According to the Ministry of Finance (MOF), contingent liabilities “are possible future liabilities that will only become certain on the occurrence of some future event.”⁵⁸ Examples include payments associated with natural disasters, or an outstanding government loan.⁵⁹ The MOF explains that these payments are not shown in balance sheets, and can either be explicit or implicit. Explicit contingent liabilities are “specific government obligations defined by law,” and include liabilities such as guarantees for private investments, state insurance schemes, and umbrella guarantees for various loans. Implicit contingent liabilities, on the other hand, represent a “moral obligation or expected burden for the government not in the legal sense, but based on public expectations and political pressures.”⁶⁰ This fund is used to pay defaults and failure on

⁵⁵ Government of Pakistan, “Questions for Oral Answers and Their Replies,” August 5, 2015, 20, http://www.senate.gov.pk/uploads/documents/questions/1438762566_288.pdf.

⁵⁶ Rauf Klasra, “Military Pension Bill Rs72 bn, Civilian Rs18 bn, PAC Told,” *News International* (Pakistan), September 22, 2010, <http://www.thenews.com.pk/Todays-News-13-762-Military-pension-bill-Rs72-bn-civilian-Rs18-bn-PAC-told>.

⁵⁷ SIPRI, “SIPRI Military Expenditure Database.”

⁵⁸ Ministry of Finance, “Contingent Liabilities,” *Pakistan Economic Survey 2009-2010*, http://www.finance.gov.pk/survey/chapter_10/conti.pdf.

⁵⁹ Hana Polackova, “Contingent Government Liabilities: A Hidden Fiscal Risk,” *Finance and Development* 36, no. 1 (March 1999), <http://www.imf.org/external/pubs/ft/fandd/1999/03/polackov.htm>.

⁶⁰ Ministry of Finance, “Contingent Liabilities,” in *Pakistan Economic Survey 2009-2010*, http://www.finance.gov.pk/survey/chapter_10/conti.pdf.

non-guaranteed debt, bank failures, disaster relief and financing, and presumably equipment and services related to the military. The outstanding contingent liability of the Pakistani federal government in 2010, for example, stood at Rs. 642 billion, or roughly one-quarter of the entire federal budget.⁶¹

As far back as 2009, the MOF was concerned that the use of contingent liabilities, which it admitted was often used as a “cost-reduction strategy,” was deeply problematic. It warned that “such off balance sheet transactions cannot be overlooked ... to gain a holistic view of a country’s fiscal position,” and that there are “risks associated with the obligations made by the government outside the budget.”⁶² It also highlighted the accounting problems associated with this fund. It added, “In addition to these explicit contingent liabilities, the records of which are being maintained at the Ministry of Finance, there is a need to quantify various implicit guarantees embedded in many government contracts that represent a potentially significant charge on future budgets.”⁶³ Official budget documents do not break down contingent liability spending, so it is not possible to determine with specificity how much of this fund goes to defense. Aside from raising concerns about transparency and accountability, the potential use of off-budget financing for defense is deeply problematic from an analytical perspective as well as from the perspective of civilian oversight.

Another area of defense spending that remains ambiguous is the exact nature of the relationship between corporations with ties to the military and the defense budget. In a Senate question-and-answer transcript from July 2016, Defense Minister Khawaja Asif listed dozens of charitable and corporate entities associated with the military.⁶⁴ The most prominent of those included the Fauji Foundation, the Shaheen Foundation, the Bahria Foundation, the Army Welfare Trust, and the Defence Housing Authority.⁶⁵ These entities have corporate interests in almost every sector of the economy, including real estate, private security, agriculture, health care, insurance, offshore liquid natural gas projects, and breakfast cereals. While most of these foundations engage in charitable activities, their close association with the military raises the question of whether funding from these sources is used to supplement the defense budget. Greater transparency with respect to these foundations and their relationship to the military could assuage concerns that these entities are used to augment official defense spending.

In recent years, Pakistan has become more transparent with respect to its defense budget. Prior to 2008, the Pakistani government released only the top-line figure for defense spending – what some analysts derisively called “a one-liner.”⁶⁶ After the resignation of Pervez Musharraf and the election of a civilian government in 2008, the government made a concerted effort to improve transparency. The MOF now releases defense budget documents along with the rest of the federal budget near the end of the country’s fiscal year, which ends on June 31. While they are not as detailed or comprehensive as budget documents from countries with a longer history of civilian oversight of the military, the practice is a marked improvement. The Parliament also plays a

⁶¹ Ibid.

⁶² Ibid.

⁶³ Ibid.

⁶⁴ Government of Pakistan, “Questions for Oral Answers and their Replies,” July 20, 2016, http://www.senate.gov.pk/uploads/documents/questions/1469013106_780.pdf.

⁶⁵ For more on this, see the websites of the respective organizations including Fauji Foundation, <http://www.fauji.org.pk/fauji/>; Bahria Foundation, <http://bahriafoundation.com/bf/>; Army Welfare Trust, <http://www.awt.com.pk/home> and Defence Housing Authority, Lahore, <http://www.dhalahore.org/>.

⁶⁶ Pakistan Institute of Legislative Development and Transparency (PILDAT), “How to Review the Defense Budget in Pakistan?,” July 2009, <http://www.pildat.org/Publications/publication/CMR/HowtoReviewDefenceBudgetinPakistanJune2010.pdf>

greater, but limited, role in overseeing the defense budget. The new civilian government led by the Pakistan People's Party in 2008 was the first government in the country's history to present the defense budget to Parliament. The practice has continued after Nawaz Sharif was elected prime minister in 2013. The defense committees in the National Assembly and Senate have on occasion held hearings on the defense budget during which Ministry of Defence (MOD) officials have submitted defense budget information.⁶⁷ Civil society and some think tanks – particularly the Pakistan Institute of Legislative Development and Transparency (PILDAT) – have created political space to discuss and analyze the defense budget.⁶⁸

The defense budget process has also become slightly more transparent, although there are only a few publicly available sources that detail the way in which Pakistan formulates its defense spending plans. These sources provide a rough sketch of how the defense budget process works, or at least how it is supposed to work. The budget calendar begins when the MOF sends out a budget circular to the various ministries sometime late in the calendar year.⁶⁹ In a 2012 hearing before the Senate Defence Committee, a senior military official stated that the budget circular then reaches the service headquarters, after which:

Services Headquarters seek Operational and Support requirements in 'kind' from subordinate formations and convert them to Demand in Rupees for submission to the Ministry of Defence. MoD then analyses these after which budget demands are submitted to Ministry of Finance through Military Finance. Finance Division, based on the availability of resources presents demands before the Parliament for final approval and after receiving Parliament's endorsement and release by Ministry of Finance, Ministry of Defence allocates the head-wise funds to Services Headquarters.⁷⁰

Government ministries submit budget reports by the first week in April, when the Priorities Committee scrutinizes the proposals. The proposed budgets then pass through the Annual Planning Co-Ordination Committee (APCC) and the National Economic Council, which is apparently chaired by the prime minister and other senior political leaders.⁷¹ The budget is then to be submitted as a final "Green Book" to the budget wing of the MOF. A few weeks later, the budget is presented to the cabinet and then to the Parliament, where it is approved by the National Assembly over a period of about two weeks.

Pakistan's bicameral Parliament is constitutionally responsible for debating and approving defense budgets, although in practice its influence appears quite limited.⁷² Each chamber has two

⁶⁷ Senate Standing Committee on Defence, "Mid-Year Review of Budget of Ministry of Defence: Report No. 09," http://www.senate.gov.pk/uploads/documents/1461129556_480.pdf.

⁶⁸ For more on this, see PILDAT, "About PILDAT," <http://www.pildat.org/>.

⁶⁹ Ministry of Finance, "Budget Call Circular, 2015-2016," December 26, 2014, http://www.finance.gov.pk/mtbf/downloads_2015_18/BCC_2015-16.pdf.

⁷⁰ Senate Committee on National Defence, "Minutes of the Meeting of Senate Standing Committee on Defence and Defence Production Held on 22 October, 2012," October 22, 2012, <http://www.senatedefencecommittee.com.pk/activity-detail.php?pageid=news-detail&newsid=MjU>.

⁷¹ Khaleeq Kiani, "With Budget Date Uncertain, APCC Clears Development Outlay of Rs. 1.675tr," *Dawn*, May 28, 2016, <http://www.dawn.com/news/1261081>; Mir Shai Mazar Baloch, "The Budget Process in Pakistan," *The Business Recorder* (Pakistan), August 10, 2014, <http://www.brecorder.com/articles-a-letters/187/1211376/>; "Taxpayer Money is Sacred, Must Be Used Honestly: Nawaz Sharif," *The News International*, June 10, 2013, <http://www.thenews.com.pk/article-104635-Taxpayer-money-is-sacred.-must-be-used-honestly:-Nawaz-Sharif>;

⁷² Article 73 of Pakistan's constitution explains that "money bills" must originate in the National Assembly. Article 243 deals with civilian oversight over military spending, and that the "Federal Government shall

committees that work specifically on defense issues: the Defence Committee and the Defence Production Committee.⁷³ The Senate's Defence Committee, under the chairmanship of Senator Mushahid Hussain Syed, has demonstrated an unusual degree of engagement with the military on budget issues in recent years. Unlike past decades, the military has briefed Sen. Syed's committee on the defense budget. However, briefers from the MOD have, from available accounts, appeared to say little beyond what could already have been found in the defense budget documents. In an August 2014 briefing to the committee from Defense Secretary Alam Khattak, for example, Senator Farhatullah Babar mentioned that the "defence budget should preferably be discussed in the Committee meeting prior to its approval by the Parliament," indicating that including parliamentary inputs was not the stated practice.⁷⁴

It appears that civilian bureaucrats from the MOF and MOD are empowered, at least notionally, to participate in the defense budget process. A survey of the literature indicates that there are several departments within Pakistan's bureaucracy that have an important role in influencing the defense budget. Prominent among these is the Pakistan Military Accounts Department (PMAD), which functions as the accounting office of the military. According to the Pakistani government, the PMAD is attached to the MOD and is responsible for "making payments to the Armed Forces, maintaining accounts thereof and rendering financial advice to defence authorities."⁷⁵ It is led by the Military Accountant General and is responsible for the accounting, including auditing, of the three services, MOD Production, and the inter-service organizations. Speaking before the Senate Defence Committee, Air Vice Marshal Arshad Qudus mentioned that "every penny of the Defence Budget is drawn through Pakistan Military Accounts Departments [and]...everything is scrutinized by the Accounts Departments and hence nothing is secret."⁷⁶

Some civilians in the MOF appear to have an important role in allocating the defense budget, though the extent to which they exercise policy independence is questionable. According to Ayesha Siddiqa, the Military Finance wing in the MOF is responsible for "the allocation of grant assigned for defense during a financial year."⁷⁷ This department, Siddiqa writes, "has the responsibility for authorizing every expenditure." It also represents an important link between the MOD and the MOF, and likewise a dynamic mode of interaction between civilians and the military. The offices of the Military Finance wing are, in fact, physically located in the main MOD building.

The inter-service distribution of the defense budget reflects the preeminence of the Pakistan Army. First, the Army receives nearly half of the country's defense budget, and is by far the largest service in terms of personnel. Second, the Army has overspent its allocated defense budget

have control and command of the Armed Forces." Rule 201 of the Rules of Procedure for the National Assembly states that "Each Standing Committee shall scrutinize and suggest amendments, if necessary, and recommend Ministry's Public Sector Development Program (PSDP) for the next financial year before the same is sent to the Ministry of Finance for inclusion in the Federal Budget for the next financial year." For more on this, see Constitution of Pakistan, <http://www.pakistani.org/pakistan/constitution/part3.ch2.html>; National Assembly of Pakistan, "Rules of Procedure and Conduct of Business in the National Assembly", 2007, http://www.na.gov.pk/uploads/documents/1399619027_820.pdf.

⁷³ For more on the structure of these two houses, see National Assembly of Pakistan,

<http://www.na.gov.pk/en/index.php> and Senate of Pakistan, <http://www.senate.gov.pk/en/index.php>.

⁷⁴ Senate Committee on National Defence (Pakistan), minutes, August 24, 2014,

<http://www.senatedefencecommittee.com.pk/activity-detail.php?pageid=news-detail&newsid=MzQ>.

⁷⁵ For more on this, see Pakistan Military Accounts Department, "About Us," <http://www.pmad.gov.pk/>

⁷⁶ Senate of Pakistan, "Report of the Senate Committee on Defense: Report 10," May 19, 2014, 49-51,

<http://www.senatedefencecommittee.com.pk/reports/report-10.pdf>.

⁷⁷ Ayesha Siddiqa-Agha, *Pakistan's Arms Procurement and Military Buildup, 1979-1999*, 53.

every year since 2009, with the revised budget exceeding the original budget estimate by just under five percent on average. While the other services – the Air Force, the Inter-Service organizations, and the Navy – also overspend their allocated budgets, none have done so with such regularity. Finally, the practice of the Pakistani services of exceeding their allocated budget stands in stark contrast to India, where services routinely underspend their budgets.

The Pakistan Army receives just under half of the defense budget, although this figure is effectively much higher.⁷⁸ The defense services budget is divided into four sections: the Pakistan Army, The Pakistan Air Force, the Pakistan Navy, and Inter-Service organizations. The Army has been allocated an average of 47 percent of the budget in each of the last six years, followed by the Air Force (22 percent), inter-service organizations (21 percent), and the Navy (10 percent). The inter-service organizations budget includes funds for two institutions known to be dominated by the Army: the Inter-Service Intelligence Organization (ISI) and the Strategic Plans Division (SPD).⁷⁹ The ISI is led by a three-star general hand-picked by the Army chief.⁸⁰ The director general of the SPD is also a three-star general, although his appointment has been considered less political than his ISI counterpart. This is due in part to the influence of Khalid Kidwai, who received a record 13 extensions as SPD chief until his retirement in 2013. The Pakistan Army is by far the largest service in terms of personnel, budget, and influence. It currently fields 550,000 service members, or 85 percent of the military's total.⁸¹ By contrast, the Pakistan Air Force and Navy represent, respectively, 11 percent and four percent of the military. While the distribution heavily favors the Army, this has always been the case. In fact, the Army accounted for more than 93 percent of military personnel in 1975, and didn't drop below the 90 percent mark until the early 1990s.⁸²

⁷⁸ Pakistan's official defense budget consists of the development and current expenditure budget of the MOD and Ministry of Defence Production. The current expenditure of the MOD is broken down into four components: Defence Services, Defence Division, Survey of Pakistan, and Federal Government Educational Institutions in Cantonments and Garrisons. These documents can be downloaded on the Ministry of Finance website under "Federal Budget Details of Demands for Grants and Appropriations Current Expenditure" and "Federal Budget Details of Demands for Grants and Appropriations 2016-2017 Development Expenditure," http://www.finance.gov.pk/fb_2016_17.html.

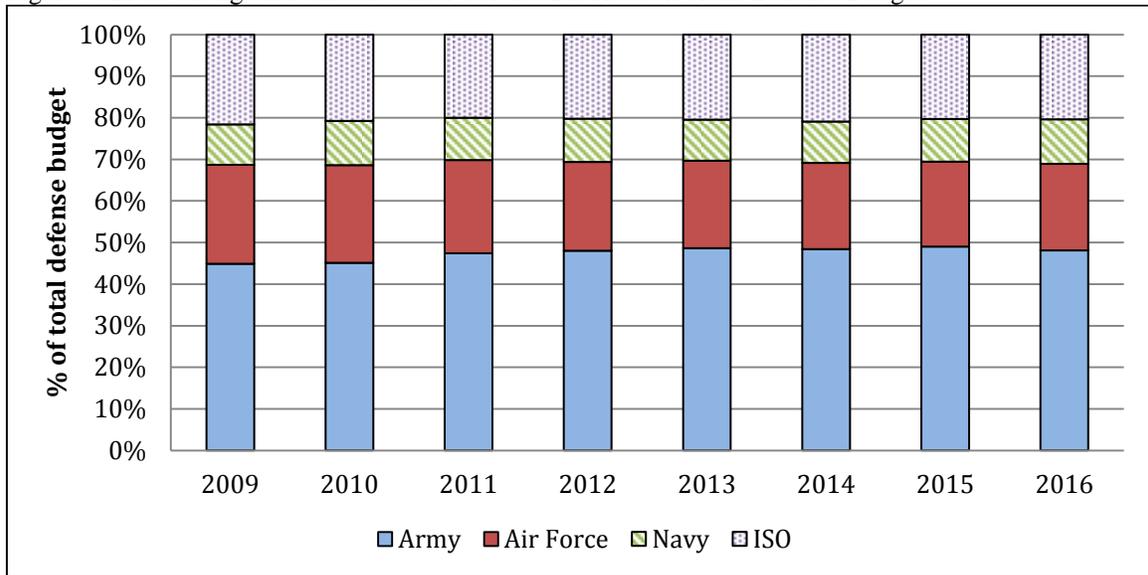
⁷⁹ Senate Committee on National Defence, "Minutes of the Meeting of Senate Standing Committee on Defence and Defence Production Held on 22 October, 2012," <http://www.senatedefencecommittee.com.pk/activity-detail.php?pageid=news-detail&newsid=MjU>; Senate Standing Committee on Defence, "Mid-Year Review of Budget of Ministry of Defence," http://www.senate.gov.pk/uploads/documents/1461129556_480.pdf.

⁸⁰ Saeed Shah, "Pakistan Army Chief Names New Head of ISI," *Wall Street Journal*, September 22, 2014, <http://www.wsj.com/articles/pakistan-army-chief-names-new-head-of-isi-1411380826>.

⁸¹ IISS, *The Military Balance*.

⁸² *Ibid.*

Figure 7: Little Change in Pakistan’s Inter-Service Distribution of the Defense Budget⁸³



The Army outspent its estimated budget each year from 2009 to 2016. Its revised budgets were, on average, five percent higher than what it was allocated.

The Army outspent its estimated budget each year from 2009 to 2016. Its revised budgets were, on average, five percent higher than what it was allocated. While the other services outspent their budgets on occasion, no other branch of the military enjoyed this luxury as frequently as the Army. This practice stands in sharp contrast to the Indian military where, as was discussed earlier, members of Parliament were frustrated that the services underutilized their defense budgets.⁸⁴

In the long run, Rawalpindi will have to make tough choices about purchasing big-ticket weapons systems unless it can do so at concessionary rates. First, the almost-certain decline in military and financial support from the United States will force Pakistan to carry a greater share of its defense spending. American military aid accounted for 21 percent of Pakistan’s defense spending between 2002-2015, allowing the country to maintain high levels of military spending while easing the burden on its federal budget and overall economy.⁸⁵

⁸³ I derived this data from Ministry of Finance, “Federal Budget Publications 2016-2017,” http://www.finance.gov.pk/fb_2016_17.html.

⁸⁴ Government of India, “Twenty-Second Report: Standing Committee on Defence (2015-2016),” 59, http://164.100.47.134/lssccommittee/Defence/16_Defence_22.pdf.

⁸⁵ For information on American military aid and reimbursements to Pakistan, see Congressional Research Service, “Direct Overt US Aid and Military Reimbursements to Pakistan, FY 2002-FY 2009,” http://pdf.usaid.gov/pdf_docs/Pcaab883.pdf, “Overt US Aid and Military Reimbursements to Pakistan, FY 2002-FY 2012,” <http://fpc.state.gov/documents/organization/163139.pdf>, “Direct Overt US Aid Appropriations for and Military Reimbursements to Pakistan, FY 2002-FY 2017,” <https://www.fas.org/sgp/crs/row/pakaid.pdf>. Data for Pakistan’s defense budget taken from the SIPRI Military Expenditure Database (2015), <https://www.sipri.org/databases/milex>.

The United States has begun to gradually downgrade its assistance to Pakistan in the near to medium term. First, support in Washington for the bilateral relationship has declined as Rawalpindi seems unable or unwilling to address concerns about violent extremist groups that direct their focus to Afghanistan and India. The case for a close relationship with Pakistan has become more difficult to make in recent years, with many concluding that although US and Pakistani interests converge in some areas, they diverge on issues of key strategic significance. Both Rawalpindi and Washington have an interest in political stability and the security of Pakistan's nuclear weapons. However, American and Pakistani views are at odds regarding the future of Afghanistan, violent extremist groups that target Afghanistan and India, and the geopolitical rise of India. This strategic divergence has found its fullest expression on Capitol Hill, which is a decisive stakeholder on questions related to US military assistance.⁸⁶

Second, American interests are now less engaged in Afghanistan and Pakistan. A significant American military presence in Afghanistan was occasionally a source of friction with Pakistan, but also a significant source of US military and economic assistance. The United States transports most of its supplies for its troops in Afghanistan through Karachi. Although President Barack Obama announced in July 2016 that more than 8,000 US troops would remain in Afghanistan until the end of his term, the US mission there will receive less attention going forward relative to other parts of the world.⁸⁷

In a recent book, former American diplomat Kurt Campbell explains that the US pivot to Asia is “premised on the idea that the Asia-Pacific region not only defines global power and commerce, but also welcomes US leadership and rewards US engagement.”⁸⁸ He argues that the global balance of power in this century will be largely determined by what happens in the “arc of ascendance” – the region that stretches from India to Japan along the rim land of Asia – rather than the “arc of instability” in the greater Middle East, including Pakistan. While a working relationship with Pakistan helps further specific American interests regarding counterterrorism, nuclear security, and strategic stability, this is unlikely to be sufficient to sustain military assistance at high levels.

US military contributions to Pakistan have already begun to decline. Unlike the early 1990s, when Washington precipitously severed its aid relationship with Pakistan after the Soviet withdrawal from Afghanistan, Washington is likely to place its aid on a “glide path” toward lower levels. In August 2016, the Pentagon withheld \$300 million of the \$900 million in Coalition Support Funds (CSF) authorized for Pakistan because Defense Secretary Ashton Carter declined to certify that Pakistan was taking action against the Haqqani network.⁸⁹ This triggered a stipulation in the 2016 National Defense Authorization Act to hold a third of CSF funding contingent on Pakistan taking robust action against the terrorist group.⁹⁰ This setback came on the heels of a contentious debate in early 2016 about the proposed sale of F-16s to Pakistan. In February 2016, the Obama administration announced that it had approved the sale of eight F-16

⁸⁶ Foreign Affairs Committee of the US House of Representatives, “Pakistan: Friend or Foe in the Fight Against Terrorism?”, July 12, 2016, <https://foreignaffairs.house.gov/hearing/joint-subcommittee-hearing-pakistan-friend-foe-fight-terrorism/>.

⁸⁷ Mark Landler, “Obama Says He Will Keep More Troops in Afghanistan Than Planned,” *New York Times*, July 6, 2016, <http://www.nytimes.com/2016/07/07/world/asia/obama-afghanistan-troops.html>.

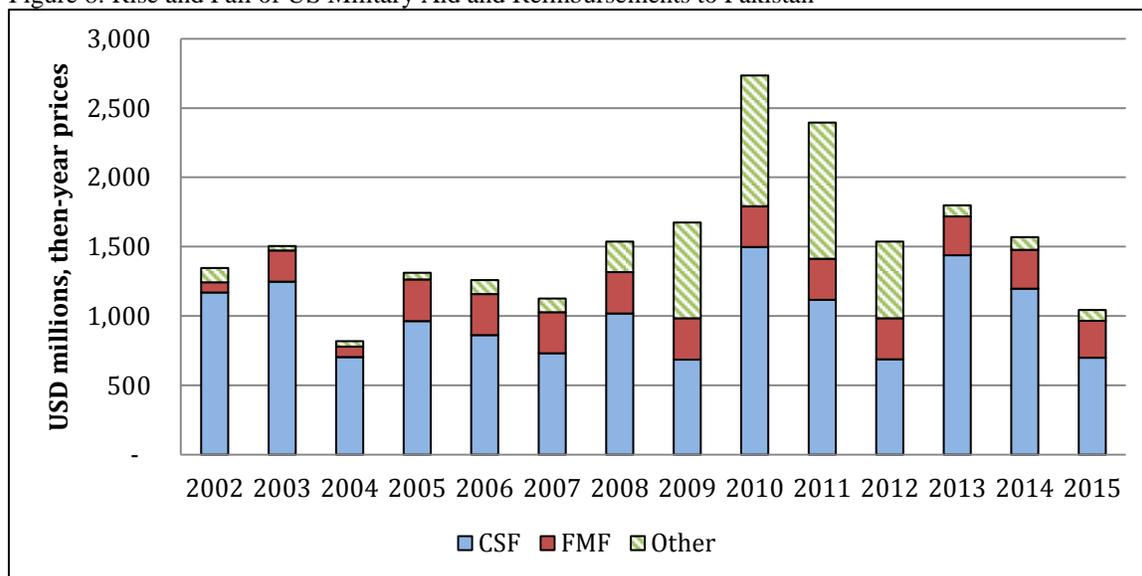
⁸⁸ Kurt M. Campbell, *The Pivot: The Future of American Statecraft in Asia* (New York: Twelve, 2016), 1.

⁸⁹ Missy Ryan, “Pentagon Withholds \$300 Million in Military Aid to Pakistan,” *Washington Post*, August 3, 2016, https://www.washingtonpost.com/world/national-security/pentagon-withholds-300-million-in-military-aid-to-pakistan/2016/08/03/25845d54-5986-11e6-9aee-8075993d73a2_story.html.

⁹⁰ United States Congress, “S.1356 – National Defense Authorization Act for Fiscal year 2016,” 114th Congress (2015-2016), <https://www.congress.gov/bill/114th-congress/senate-bill/1356/text>.

aircraft to Pakistan for an estimated \$699 million. The administration argued that the sale would further US interests by enhancing “Pakistan’s ability to conduct counter-insurgency and counterterrorism operations.”⁹¹ However, opposition to the deal in New Delhi and on Capitol Hill was swift. India summoned the US ambassador in protest, and the defense minister publicly aired his frustration with the sale.⁹²

Figure 8: Rise and Fall of US Military Aid and Reimbursements to Pakistan⁹³



In Washington, Senators Bob Corker and John McCain – influential chairmen of the Foreign Relations and Armed Services committees, respectively – raised objections.⁹⁴ Sen. Corker supported the sale but opposed the United States subsidizing the deal through Foreign Military Finance program.⁹⁵ He claimed that Pakistan was “duplicitous,” cooperating with the United States on a narrow set of counterterrorism issues, while also giving safe haven to extremist groups that threaten American, Afghan, and Indian interests.⁹⁶ In the face of congressional opposition,

⁹¹ Defense Security Cooperation Agency, “The Government of Pakistan – F-16 Block 52 Aircraft,” February 12, 2016, http://www.dsca.mil/sites/default/files/mas/pakistan_15-80.pdf.

⁹² “India Summons US Ambassador over Washington Nod for Sale of Eight F-16 Fighters to Pak,” *Indian Express*, February 13, 2016, <http://indianexpress.com/article/india/india-news-india/us-approves-sale-of-eight-f-16-fighter-jets-to-pakistan-india-to-convey-displeasure/>; Ajai Shukla, “F-16 to Pakistan a ‘Down’ in US-India Relations: Parrikar,” *Business Standard*, February 20, 2016, http://www.business-standard.com/article/economy-policy/f-16-to-pakistan-a-down-in-us-india-relations-parrikar-116022000055_1.html.

⁹³ I derived this information from Congressional Research Service data including “Direct Overt US Aid and Military Reimbursements to Pakistan, FY 2002-FY 2009,” “Overt US Aid and Military Reimbursements to Pakistan, FY 2002-FY 2012,” and “Direct Overt US Aid Appropriations for and Military Reimbursements to Pakistan, FY 2002-FY 2017,” <https://www.fas.org/sgp/crs/row/pakaid.pdf>.

⁹⁴ “F-16 Sale to Pakistan Badly Timed, ‘Complicates’ India-US, Says US Senator John McCain,” *Times of India*, February 25, 2016, <http://timesofindia.indiatimes.com/india/F-16-sale-to-Pakistan-badly-timed-complicates-India-US-ties-says-US-senator-John-McCain/articleshow/51145196.cms>.

⁹⁵ US Senator Bob Corker, “Letter to Secretary of State John Kerry,” February 9, 2016, <https://www.scribd.com/doc/298981679/Letter-Kerry-Pak-F16-09Feb2016>.

⁹⁶ Bill Roggio, “Pakistan is ‘Very Cooperative and Very Engaged in the Fight against Terrorism,’ Secretary Kerry Tells Congress,” *Long War Journal*, February 25, 2016,

the Obama administration notified Pakistan that it could buy the F-16s but would have to fund the purchase itself.⁹⁷ Pakistan argued that without funding support, it would be forced to look “elsewhere” to augment the Pakistan Air Force.⁹⁸ In a parliamentary question-and-answer session, the Pakistan’s defense minister revealed that Pakistan is pursuing the acquisition of F-16s from Jordan and some European nations, presumably as a cost-saving measure.⁹⁹

Second, Pakistan’s access to high-end technology could be constrained by India’s purchasing power and growing geopolitical influence. India is a larger and more attractive market for global defense companies, and will continue to be for the foreseeable future. In part because the country’s indigenous defense industry is so weak, India has become the world’s largest arms importer.¹⁰⁰ Despite anemic growth in capital budgets, India accounted for 14 percent of global arms imports from 2011-2015, a 90 percent increase over the previous five years.¹⁰¹ Russia – India’s partner throughout much of the Cold War – still supplies New Delhi with 70 percent of its arms imports, and is the premier supplier of the IAF. More than 80 percent of IAF aircraft are of Russian origin, including all of the IAF’s most modern, fourth-generation aircraft.¹⁰² While Russia seeks to export arms to Pakistan, it remains to be seen whether Pakistan will have the resources to make significant purchases, and whether Russian arms sales to India will suffer as a result.

Countries and companies who otherwise would be interested in having a defense relationship with Pakistan may be reluctant to do so out of concerns about falling out of favor in New Delhi.

Defense sales to India have become increasingly lucrative for the United States, the world’s largest arms exporter.¹⁰³ India was the leading destination for American military exports in 2014, and sales in 2014 and 2015 have topped \$1.4 billion.¹⁰⁴ As noted above, rising Indian defense budgets and the country’s robust economic growth can be a source of leverage for New Delhi against Pakistan. Countries and companies who otherwise would be interested in having a defense relationship with Pakistan may be

<http://www.longwarjournal.org/archives/2016/02/pakistan-is-very-cooperative-and-very-engaged-in-the-fight-against-terrorism-secretary-kerry-tells-congress.php>.

⁹⁷ US Department of State, “Daily Press Briefing,” May 2, 2016,

<http://www.state.gov/r/pa/prs/dpb/2016/05/256786.htm#PAKISTAN>.

⁹⁸ Mateen Haider, “Pakistan Will Get Jets from Elsewhere if F-16 Funding Not Arranged, Aziz Cautions US,” *Dawn*, May 3, 2016, <http://www.dawn.com/news/1256000>.

⁹⁹ Government of Pakistan, “Questions for Oral Answers and their Replies,” July 20, 2016,

http://www.senate.gov.pk/uploads/documents/questions/1469013106_780.pdf.

¹⁰⁰ Aude Fleurant, Sam Perlo-Freeman, Pieter Wezeman, and Siemon Wezeman, “Trends in International Arms Transfers, 2015,” February 2016, <http://books.sipri.org/files/FS/SIPRIFS1602.pdf>.

¹⁰¹ Ibid.

¹⁰² Ashley Tellis, “Troubles, They Come in Battalions,”

http://carnegieendowment.org/files/Tellis_IAF_final.pdf.

¹⁰³ Fleurant, Perlo-Freeman, Wezeman, and Wezeman, “Trends in International Arms Transfers, 2015.”

<http://books.sipri.org/files/FS/SIPRIFS1602.pdf>.

¹⁰⁴ Gill Plimmer and Victor Mallet, “India Becomes Biggest Foreign Buyer of US Weapons,” *Financial Times*, February 23, 2014, <http://www.ft.com/cms/s/0/ded3be9a-9c81-11e3-b535-00144feab7de.html#axzz4Gr1iNiNG>; SIPRI, “Arms Transfers Database,” 2016,

<https://www.sipri.org/databases/armstransfers>.

reluctant to do so out of concerns about falling out of favor in New Delhi. Over the long term, Pakistan may be unable to access the most advanced weapons systems in the global marketplace. Instead, it may have little choice but to continue to rely on Chinese and possibly Russian military systems, which may or may not be the most appropriate for Pakistan's defense needs.

Defense Spending and Nuclear Weapons in South Asia

This section advances two main arguments about defense spending and nuclear weapons in South Asia. First, Pakistan spends a greater share of its defense budget on nuclear weapons than India does. Based on recent government documents, it appears that India spends at least four percent of its defense budget on nuclear weapons, while Pakistan's nuclear weapons budget accounts for at least 10 percent of military expenditures. Second, unless there is a reevaluation of the utility of nuclear weapons in Pakistan, defense spending trends will likely increase the role of nuclear weapons in Pakistan's defense posture, including "tactical" nuclear weapons that are inherently hard to make safe and secure. In the long term, India will be able to tilt the conventional military balance increasingly in its favor. Unless its portion of the national budget grows, Pakistan's military will face hard choices in the future regarding investments between conventional and nuclear capabilities. Pakistan will almost certainly increasingly rely on nuclear weapons to offset Indian military advantages. In order to make these arguments, I will briefly outline India and Pakistan's current nuclear postures and doctrines, examine Indian and Pakistani defense spending after 1998, explore the relationship between conventional and nuclear budgetary choices, and discuss details about nuclear budgets in both countries.

India likely spends at least four percent of its defense budget on nuclear weapons, while nuclear weapons account for at least 10 percent of Pakistan's military spending. Neither India nor Pakistan includes information about its nuclear weapons budget in official defense budget documents. Until recently, it was extremely difficult to estimate with confidence how much each country spent on its nuclear weapons complex. In the last two years, however, parliamentary oversight has yielded more information than before. While new data do not provide the detail needed to make an accurate estimate, they establish the very minimum cost – or floor – that each country has dedicated to nuclear weapon-related capabilities in recent years.

A report by the Lok Sabha's defense committee released in 2015 includes two important data points with respect to nuclear weapons spending in India. First, it details the budget for the Defense Research and Development Organisation (DRDO) between 2011-2015.¹⁰⁵ The DRDO is one of the most important stakeholders in India's nuclear program, with responsibility for developing nuclear-capable ballistic and cruise missiles.¹⁰⁶ Delivery systems are a cost-intensive component of a nuclear weapons program. For instance, the Congressional Budget Office (CBO) has estimated that more than half of the cost of US nuclear forces between 2015-2024 will be dedicated to nuclear weapon delivery systems.¹⁰⁷ The DRDO data also reveal that its budget is included – although not explicitly – in official budget documents. The parliamentary report notes

¹⁰⁵ Government of India, "Ninth Report: Standing Committee on Defence (2014-2015)," Sixteenth Lok Sabha, Ministry of Defence, Demands for Grants (2015-2016) on Ordnance Factories and Defence Research and Development Organization, (Demand No. 26 & 27), http://164.100.47.134/lssccommittee/Defence/16_Defence_9.pdf.

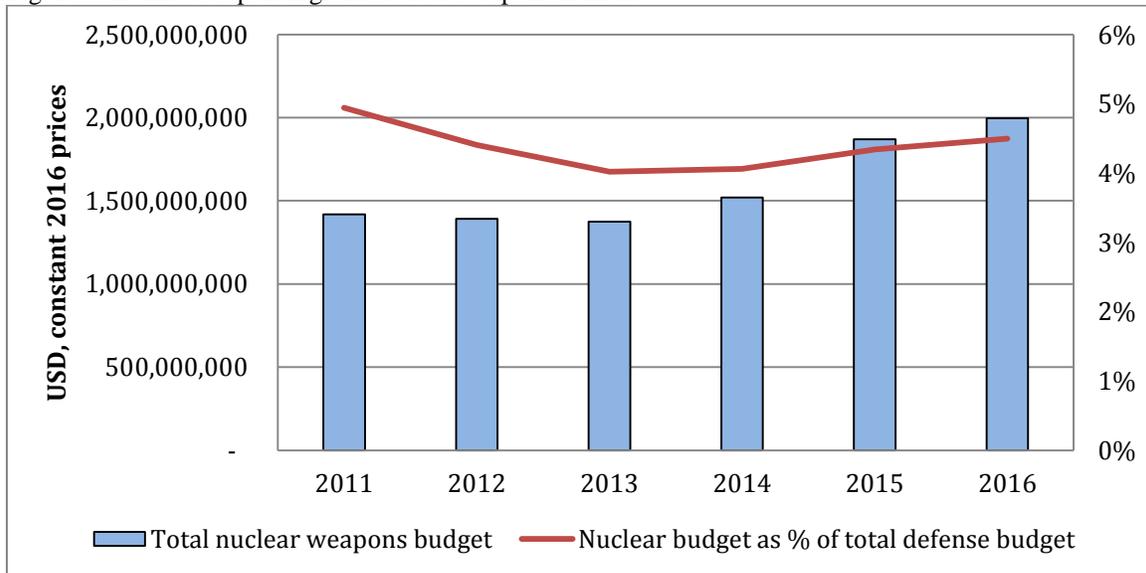
¹⁰⁶ For more on this organization, see Defence Research and Development Organisation (DRDO), "Vision and Mission," <http://www.drdo.gov.in/drdo/English/index.jsp?pg=homebody.jsp>.

¹⁰⁷ US Congressional Budget Office, "Projected Costs of US Nuclear Forces, 2015 to 2024," January 2015, <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49870-NuclearForces.pdf>.

that the DRDO was allocated Rs. 14,358 crore in 2016. This figure can also be reached by adding the research and development budget for defense services (Demand No. 27) and the capital outlay budget (Demand No. 28, line 12).

The second important data point concerns the percentage of the DRDO’s budget dedicated to nuclear-capable missiles. In the Lok Sabha report, an official from the defense ministry, commenting on the FY 2016 budget estimates, states that “approximately 46 per cent [of] funds have been allocated for strategic products [,] and for mission mode, it is approximately 41 per cent.”¹⁰⁸ Using this baseline, one can make a rough estimate of the budget for India’s nuclear weapons program (as seen in the table below) in three steps. First, I calculated 46 percent of the DRDO budget as provided in the Lok Sabha report. Then I doubled that figure to estimate India’s total nuclear weapons budget.¹⁰⁹ Finally, I divided this figure by total defense spending in India to estimate the percentage of the defense budget dedicated to nuclear weapons. In 2016, India will spend at least \$1.9 billion (INR 13,210 crore) on nuclear weapons.¹¹⁰

Figure 9: Estimated Spending on Nuclear Weapons in India¹¹¹



Even less is known about Pakistan’s nuclear weapons budget. Based on the strategic culture of the SPD – the military component responsible for Pakistan’s nuclear weapons – it is likely that only a few people know exactly what the nuclear weapons budget is in a given year.

¹⁰⁸ Government of India, “Ninth Report: Standing Committee on Defence (2014-2015),” http://164.100.47.134/lsscommittee/Defence/16_Defence_9.pdf.

¹⁰⁹ The 2015 CBO report breaks down US nuclear weapons spending by category. It concluded that between 2015-2024, 54 percent of total spending will be dedicated to strategic delivery systems, nearly 3 percent to tactical delivery systems, 26 percent to the national laboratories, and 17 percent to command-and-control and early warning systems. The Indian and US nuclear weapons programs are very different in scale and maturity. However, absent more detailed documentation from the Indian government, doubling the strategic systems funding for the DRDO – which builds India’s nuclear-capable missiles – is perhaps the best guess available to open-source researchers. For additional details on US nuclear weapons spending, see US Congressional Budget Office, “Projected Costs of US Nuclear Forces, 2015 to 2024,” (<https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49870-NuclearForces.pdf>).

¹¹⁰ Conversion from INR to USD (1:0.01499) calculated on October 20, 2016.

¹¹¹ Government of India, “Ninth Report: Standing Committee on Defence (2014-2015),” http://164.100.47.134/lsscommittee/Defence/16_Defence_9.pdf.

Pakistan embraces ambiguity in its nuclear doctrine and force posture as a means to strengthen deterrence.¹¹² This opacity makes it virtually impossible for most Pakistanis and outsiders to estimate Pakistan's nuclear-related budget. Independent analysts in recent years have estimated the annual cost of nuclear spending as somewhere between \$800 million and \$2 billion, or 10 to 30 percent of the official defense budget.¹¹³ As the secretariat of the country's National Command Authority (NCA), the SPD is believed to oversee the organizations responsible for every important function related to nuclear weapons: producing weapons-grade fissile material, designing and developing nuclear-capable ballistic and cruise missiles, and implementing command-and-control, security, and counterintelligence.¹¹⁴ Analysts could only estimate the SPD's budget by calculating the estimated budgets of institutions under the SPD's control – namely, the Space & Upper Atmosphere Research Commission (SUPARCO), the National Engineering Science Commission (NESCOM), the Pakistan Atomic Energy Research Commission (PAEC), the Pakistan Nuclear Regulatory Authority, and the Kahuta Research Laboratories.¹¹⁵ The budgets for some of these organizations can be found in official documents for the Public Sector Development Program (PSDP), Pakistan's primary account to support development expenditures, which is managed by the Ministry of Planning, Development, and Reforms, and is chaired by the prime minister.¹¹⁶ However, PSDP budget documents do not provide much detail, and reporting can be inconsistent. For example, SUPARCO – Pakistan's civilian space agency widely believed to play a role in the country's military space and ballistic missile program – has not appeared in PSDP budget documents since 2014.¹¹⁷

A few data points have emerged in recent years that can serve as a starting point for an estimate of Pakistan's nuclear budget. First, a parliamentary report in April 2016 revealed that the SPD was allocated Rs. 78 billion in 2016, or roughly \$750 million.¹¹⁸ This represents 9.8 percent of the government's stated defense budget, which equaled Rs. 781 billion. Second, at the time of this writing, a proposed bill making its way through parliament would amend the country's NCA Act of 2010.¹¹⁹ Among other things, the amendment includes new language in the section of the act

¹¹² Cotta-Ramusino and Martellini, "Nuclear Safety, Nuclear Stability, and Nuclear Strategy in Pakistan."

¹¹³ See Asim Bashir Khan, "The Price of Nonconventional Security," Carnegie Endowment for International Peace, June 30, 2016, <http://carnegieendowment.org/2016/06/29/price-of-nonconventional-security-pub-63914>; Zia Mian, "Assuring Destruction Forever," 2015, <https://www.princeton.edu/sgs/faculty-staff/zia-mian/Pakistan-2015-Zia.pdf>.

¹¹⁴ Feroz Khan, *Eating Grass: The Making of the Pakistani Bomb* (Stanford, CA: Stanford University Press, 2012), 330; Asim Bashir Khan notes that the SPD oversees NESCOM, SUPARCO, the PAEC, and the uranium enrichment facility at the Kahuta Research Laboratories, Asim Bashir Khan, "The Price of Nonconventional Security," Carnegie Endowment for International Peace, June 30, 2016, <http://carnegieendowment.org/2016/06/29/price-of-nonconventional-security-pub-63914>.

¹¹⁵ Asim Bashir Khan, "The Price of Nonconventional Security," Carnegie Endowment for International Peace, June 30, 2016, <http://carnegieendowment.org/2016/06/29/price-of-nonconventional-security-pub-63914>.

¹¹⁶ Ministry of Planning, Development & Reform, "Public Sector Development Programme 2016-2017," <http://www.pc.gov.pk/annual%20plans/2008-09/ch-4.pdf>.

¹¹⁷ Pakistan Space & Upper Atmosphere Research Commission, <http://www.suparco.gov.pk/>; Nuclear Threat Initiative, "Space and Upper Atmosphere Research Commission," <http://www.nti.org/facilities/637/>.

¹¹⁸ Senate Standing Committee on Defence, "Mid-Year Review of Budget of Ministry of Defence," http://www.senate.gov.pk/uploads/documents/1461129556_480.pdf.

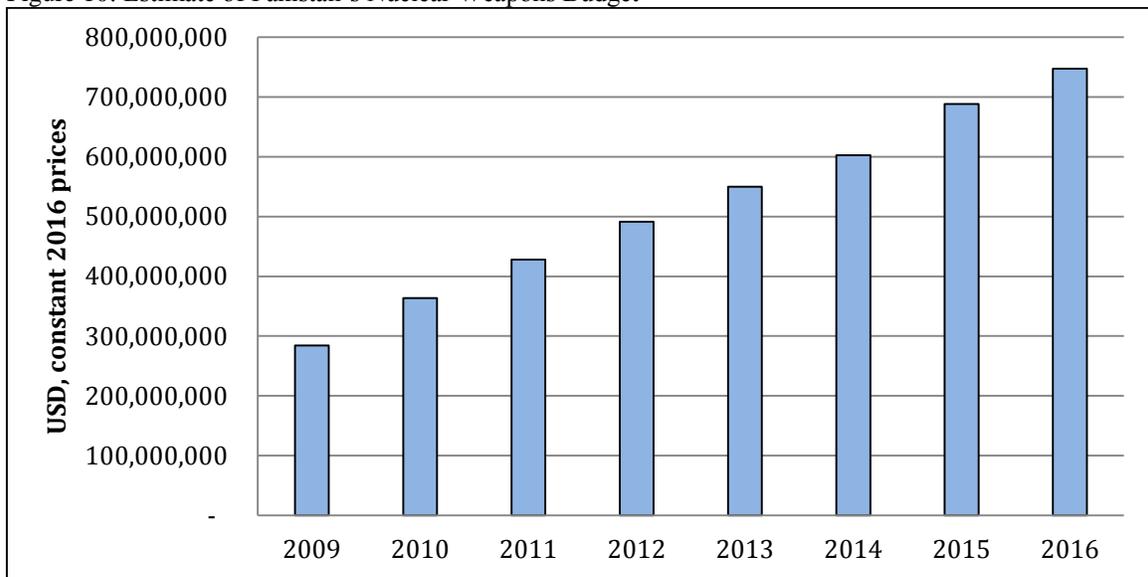
¹¹⁸ PILDAT, <http://www.pildat.org/>.

¹¹⁹ The Gazette of Pakistan, "National Command Authority Act of 2010," March, 11, 2010, http://www.senate.gov.pk/uploads/documents/1363266864_393.pdf; The Gazette of Pakistan, "NCA Amendment Bill of 2016," March 14, 2016, http://www.na.gov.pk/uploads/documents/1466674033_535.pdf.

that deals with the NCA’s budget. The original act states that the “Ministry of Finance shall ensure provision of funds in local and foreign currencies to the Authority through Strategic Plans Division.”¹²⁰ This language established the SPD as the organization responsible for the nuclear weapons budget.

The new amendment goes even further, granting the SPD even greater access to government funds. It states that the “Federal Government shall ensure provision of funds and make contributions in local and foreign currencies through Strategic Plans Division as may be necessary to the Authority.”¹²¹ While the government has not yet explained the purpose or need for this new language, the implications seem clear – the government is obligated to provide the SPD funds that the SPD itself considers “necessary.” Although more information is required to determine exactly what the purpose and implications of this amendment will be, it seems to indicate that it opens the door for more resources and less oversight for the SPD.

Figure 10: Estimate of Pakistan’s Nuclear Weapons Budget



Resource allocations in Pakistan between conventional and nuclear forces will become more difficult in the future, unless Pakistan’s military increases its share of the national budget.

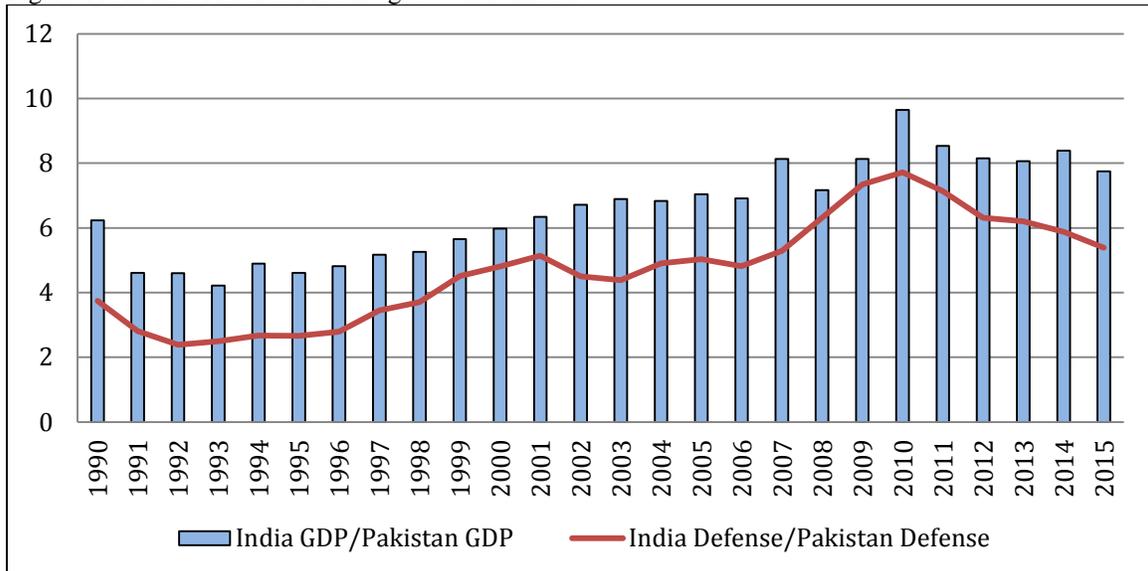
Absent a reevaluation of the utility of nuclear weapons, the role of nuclear weapons in Pakistan’s defense posture is likely to increase, heightening national security dilemmas. India’s relative resource advantage will continue to feed Pakistan’s worst-case perceptions of the conventional military balance. It is unlikely that Rawalpindi will be persuaded by arguments that India’s conventional warfighting advantages are not as great as they appear on paper. Absent a larger percentage of the budget pie and a reevaluation of the utility of nuclear weapons, Rawalpindi is likely to offset a perceived deterioration in the military balance with increased reliance on nuclear weapons. Areas of increased reliance could include short-range nuclear delivery systems and other kinds of “tactical” nuclear weapons, sea-based nuclear weapons, and cruise missiles. Pakistan will continue to rely on ambiguity, demonstrations of readiness to employ nuclear weapons in a crisis, and the threat of escalation, for deterrence purposes.

¹²⁰ Senate Standing Committee on Defence, “Mid-Year Review of Budget of Ministry of Defence,” http://www.senate.gov.pk/uploads/documents/1461129556_480.pdf.

¹²¹ The Gazette of Pakistan, “NCA Amendment Bill of 2016,” March 14, 2016, http://www.na.gov.pk/uploads/documents/1466674033_535.pdf.

India’s larger economy and faster growth rate allows it to spend more on defense relative to Pakistan even while reducing defense spending as a percentage of GDP. India’s economy is nearly eight times larger than Pakistan’s, and has been growing at a faster rate over the past two decades. For example, since 1995 India’s economy grew nine percent annually compared to Pakistan’s six percent.¹²² At the same time, both countries reduced defense spending as a percentage of GDP. India now spends 2.5 percent of GDP on defense, while Pakistan spends between three and four percent of GDP on defense.¹²³ India’s defense spending advantage is considerable and growing. Between 1991 and 2015, India outspent Pakistan by an average ratio of 5:1 each year. As recently as 2009, the balance was 7:1.¹²⁴ In addition, Pakistan’s historic advantage in defense spending per capita is trending in India’s favor. Pakistan’s relative advantage in defense spending per capita was 1.1:1 in 2015, while it was 2.4:1 in 1975.¹²⁵ In the last five years, India has had a relative advantage in spending on nuclear weapons of between 2.5:1 and 3.3:1. While the quantitative balance may not reflect India’s favorable position because of its difficulties in managing the defense budget, the potential resource advantage India enjoys constitutes a serious long-term concern of military leaders and planners in Pakistan.

Figure 11: India’s Relative Advantages Over Pakistan¹²⁶



Choosing Between Conventional and Nuclear Forces

Some scholars have argued that the deterrence value of nuclear weapons is so great that a state that acquires nuclear weapons can decrease conventional military spending without sacrificing its

¹²² IMF, World Economic Outlook.

¹²³ SIPRI, “SIPRI Military Expenditure Database.”

¹²⁴ Ibid.

¹²⁵ IISS, *The Military Balance*.

¹²⁶ GDP figures obtained from IMF, World Economic Outlook Database, April 2016. Figures are GDP figures in US billions, current prices (2016). Defense budget data obtained from SIPRI, “SIPRI Military Expenditure Database,” 2016. Figures are defense spending in current (2014) US billions.

security.¹²⁷ In other words, nuclear weapons can serve as a substitute for expensive conventional programs and force structures. This dynamic would be particularly appealing to a country, like Pakistan, that faces an adversary with a substantial resource advantage. Charles Glaser argues that “by shifting the offense-defense balance heavily toward defense, nuclear weapons enable states that are much less powerful than their adversaries to satisfy their defense requirements and increase their security.”¹²⁸

Ahsan Butt has argued that nuclear substitution has not occurred in India or Pakistan.¹²⁹ First, he argues that India did not enjoy the benefits of nuclear substitution because its political leaders were ambivalent about the military value of nuclear weapons in the early years of its nuclear weapons program.¹³⁰ After conducting a “peaceful nuclear explosion” in 1974, government ministers and the defense bureaucracy “expressed concerns about the additive, rather than complimentary, nature of the costs” of a nuclear arsenal.¹³¹ Consequently, India engaged in robust modernization programs in the 1980s, and is attempting to do the same at present. With respect to Pakistan, Butt contends that there has been no substitution effect in Pakistan because it is a revisionist state.¹³² Specifically, Pakistan has continued to dedicate resources – and has actually allocated growing resources – to conventional forces, because of the country’s stance on Kashmir and its “desire to overturn the territorial status quo” in the region.¹³³

Overturning the status quo in Kashmir seems incredibly unlikely. Even so, Pakistan’s security dilemma poses multiple challenges that require conventional capabilities. These challenges include the possibility of military clashes with India, a counterterrorism campaign in the Federally Administered Tribal Areas, domestic unrest in Balochistan, and uncertain relations with Afghanistan and Iran. In all but one of these challenges, nuclear weapons are of no help. To the contrary, investments in nuclear weapons at the expense of conventional capabilities would weaken Pakistan’s ability to deal with every one of these security challenges.

During the Cold War, both President Dwight Eisenhower and Premier Nikita Krushchev tried, without success, to save money by cutting back on conventional capabilities and relying increasingly on nuclear deterrence. Both the United States and the Soviet Union ultimately decided that this was unwise, concluding that nuclear weapons could not substitute for properly sized and equipped conventional capabilities. It is still too soon to say whether Pakistan’s military decision-makers, faced with increasingly difficult budget choices, will continue to sustain significant investments in nuclear capabilities at the expense of conventional capabilities in the future. Indian leaders are unlikely to face such a choice because of a more favorable economic situation, room for growth in defense expenditures, and a relatively relaxed nuclear posture. India’s challenge will be to improve the management of the defense budget, and incorporate more systematic defense planning to align resources with its national security objectives.

¹²⁷ Charles Glaser, *Rational Theory of International Politics* (Princeton, NJ: Princeton University Press, 2010), 44. The subject is analyzed in depth by Ahsan I. Butt, “Do Nuclear Weapons Affect the Guns-Butter Trade-Off? Evidence on Nuclear Substitution from Pakistan and Beyond,” *Conflict, Security & Development* 15, no. 3: (2015), 229-257; Butt defines “nuclear substitution” as “a situation in which states, due to their nuclear capabilities, shoulder a lighter conventional burden and yet maintain a higher level of security than [they] had before proliferating.”

¹²⁸ Glaser, *Rational Theory of International Politics*, 44.

¹²⁹ Butt, “Do Nuclear Weapons Affect the Guns-Butter Trade-off?”

¹³⁰ *Ibid.*, 247.

¹³¹ *Ibid.*, 247.

¹³² *Ibid.*, 239.

¹³³ *Ibid.*, 231.

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The United States has allowed Pakistan to buy important defense systems at subsidized rates, and has boosted its defense budget through security assistance and coalition support funds. The United States covered 21 percent of Pakistan's defense spending between 2002-2015.¹³⁴ There is ample reason to believe that Washington will no longer continue this practice. U.S. contributions now only account for 11 percent of Pakistan's defense budget. A combination of reduced US support and the end of subsidies will accentuate Pakistan's military budget choices. Rawalpindi will seek additional support from China, but this support is unlikely to be as generous as support from the United States. Rawalpindi could also claim an increased share of budgetary outlays, despite Pakistan's pressing domestic needs.

Even so, hard choices will be unavoidable as both conventional and nuclear bills become due. Increased reliance on nuclear weapons will not address Pakistan's requirements to provide for internal security. Counterinsurgency operations are a high priority. Pakistan's border with Iran cannot be left unattended, and its border with Afghanistan will continue to generate friction. Most important of all, conventional contingencies vis-à-vis India remain very much in place. Reducing conventional capabilities invites damaging outcomes, and damaging conventional outcomes invite the first use of nuclear weapons. While Pakistan retains the option to use nuclear weapons first, to do so in a limited war sparked by anti-India groups that enjoy safe havens within Pakistan could reduce Pakistan to the status of a pariah state, while also inviting uncontrolled escalation.

In other words, increased reliance on nuclear weapons is unlikely to help Pakistan's national security. The dilemma facing Rawalpindi – of choosing between conventional and nuclear-related programs – is not going away. It will only get worse. India does not face this dilemma because it has more resources and has not attached military utility to nuclear weapons.

¹³⁴ For information on US military aid and reimbursements to Pakistan, see Congressional Research Service, "Direct Overt US Aid and Military Reimbursements to Pakistan, FY 2002-FY 2009," "Overt US Aid and Military Reimbursements to Pakistan, FY 2002-FY 2012," "Direct Overt US Aid Appropriations for and Military Reimbursements to Pakistan, FY 2002-FY 2017." Data for Pakistan's defense budget taken from SIPRI, "Military Expenditure Database," 2015.

Conclusion

This report argues that long-term trends in defense spending favor India, whose defense budgets are increasing at an impressive clip. India is the world's largest arms importer, and will likely have the third-largest defense budget in the next quarter-century. However, absent long-delayed reforms, the growth of capital investment within Indian defense spending will be mitigated by rising military salaries, pensions, and defense budget mismanagement. Nonetheless, India outspends Pakistan by a ratio of seven-to-one on defense, and this ratio will increase in the years ahead. This resource imbalance will likely cause dilemmas for military leaders and planners in Pakistan. They face an increasingly stark choice between spending for conventional forces and internal security on the one hand, and nuclear weapon-related capabilities on the other. If Rawalpindi chooses nuclear capabilities as a cost-effective option, its security concerns are likely to grow.

The dilemma facing Pakistan – increased reliance on short-range nuclear weapons at the expense of conventional and counterterrorism capabilities – will heighten as US military assistance and subsidies diminish. This is already apparent with respect to the proposed purchase in 2016 of F-16s from the United States, which did not materialize when Rawalpindi chose not to pay the full price. More of this can be expected. As Rawalpindi's support from Washington diminishes, its reliance on China will assuredly deepen. Pakistan has already moved to increase reliance on Russia, as well. It is unlikely, however, that Chinese and Russian military assistance will completely make up for reduction in US support. With the fastest-growing large economy in the world, India's defense budget is growing accordingly.¹³⁵ India will continue to be an attractive – perhaps the most attractive – defense market in the region and the world. Pakistan cannot compete with Indian military expenditures. The question for the Pakistan Army is not whether it will compete with India, but how. Nuclear weapons are useful for deterrence, but not warfighting. As with other countries, Pakistan is likely to find that there is no substitute for military capabilities necessary for conventional defense and internal security.

¹³⁵ IMF, "World Economic Outlook: Too Slow for Too Long," April 2016, <http://www.imf.org/external/pubs/ft/weo/2016/01/pdf/text.pdf>.

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