The nuclear tests conducted by India and Pakistan in May 1998 received wide and vocal support in each country. Patriotic Indians and Pakistanis had much to celebrate: their scientists had surmounted high political, financial, and technical barriers to achieve what only five other states had done: develop and detonate nuclear bombs. That their leaders authorized these tests in spite of strong international political pressures, including the threat of economic sanctions, only spurred the nationalist fervor in India and Pakistan. A year and a half after the Pokhran and Chagai Hills explosions, however, public confusion and anxiety have supplanted euphoria. Military clashes bordering on open warfare in Kashmir make even ardent nuclear advocates question the utility of nuclear deterrence, or whether it actually exists in South Asia. And in the face of deep poverty, outdated economies, and teetering governments, Indians and Pakistanis now prudently ask whether they can afford their growing arms competition.

Government officials in New Delhi and Islamabad insist that no expense should be spared to achieve national security. The development of nuclear weapons and missiles, they contend, is required to deter foreign hostility and coercion. This claim could be correct: nuclear deterrence might foster peace and security in South Asia. But then again, it might fail. India and Pakistan could be drawn into a fourth conventional war — one that could go nuclear. Or, as the Soviet experience reveals, the cost of creating and maintaining a credible nuclear deterrent could climb so high as to bankrupt the governments and societies supporting the development of weapons of mass destruction. The inescapable conclusion is that India and Pakistan could be threatening their future prosperity, prestige, and security for questionable gains.

THE ECONOMIC BURDEN OF NUCLEAR DETERRENCE

It is not easy to calculate the costs or benefits of the Indian and Pakistani nuclear programs. Citing the need for secrecy, New Delhi and Islamabad refuse to reveal what they spend on nuclear weapons or delivery systems. Based on likely labor, facility, and material costs, however, one can estimate that each state has allocated more than $1 billion to design and manufacture a small number of nuclear-capable missiles (Prithvi and Agni for India, Ghauri and Shaheen for Pakistan). Each side is likely to have spent five times that figure for the production of fissile materials and the manufacture of a few nuclear weapons. These are only some of the costs involved in their emerging nuclear and missile programs. Of greater concern is the price Islamabad and New Delhi must pay to establish credible and secure nuclear deterrent forces in the future.

Indian defense expert K. Subrahmanyam reveals that in 1985 the Indian military tasked several officers and scientists to calculate the expenditure required for a “balanced deterrent program.” They estimated that a force of warheads “in low three digit figures” with aircraft and missile delivery systems would cost 70 billion rupees (180 billion in 1999 rupees, or $5 billion). Prime Minister Rajiv Gandhi evidently rejected this option because of the expense. Ironically,
the current government’s decision to create a minimum deterrent will cost considerably more. Indian analysts calculate that New Delhi must spend $1 billion a year for the next 10 years to field a nuclear deterrent force like the one contemplated in 1985. The cost for Pakistan to assemble a similar deterrent arsenal would be slightly less owing to its greater reliance on foreign suppliers.

This level of public expenditure might seem reasonable when compared to the more than $400 billion the United States reportedly paid from 1940 to 1996 to manufacture nuclear weapons. But building bombs consumed just seven percent of the total cost of the U.S. nuclear weapons program. Washington reportedly spent over $3 trillion on weapons deployment, nearly $1 trillion on nuclear targeting and command-and-control, another $1 trillion on defenses against nuclear threats, and about $400 million on dismantling old bombs, managing nuclear waste, and cleaning up the environment. India and Pakistan clearly are embarking on a course of enormous — and partially hidden — financial costs.

India and Pakistan might be able to finance their deterrent programs, lavish as they may be, but at what opportunity cost? Although they have relatively modern industrial sectors with expertise in nuclear energy, missile development, and armaments production (and space, satellite communications, and software design for India), India and Pakistan are afflicted by some of the world’s worst poverty. Widespread unemployment, outdated infrastructure, rising food prices, and low living standards beset each society. India’s 1998 per capita GDP (Gross Domestic Product) of $390 ranks in the bottom fifth worldwide; Pakistan’s is only slightly better. According to one Indian estimate, a single Agni missile costs as much as the annual operation of 13,000 health care centers. More than 3,000 public housing units could be built for the price of one nuclear warhead. The expenditures required to develop India’s “minimum” deterrent could meet 25 percent of the yearly costs of sending every Indian child to school. Nearly all Pakistani children could be educated and fed for the cost of the nuclear and missile arsenal that is being created for their “protection.”

The energy sectors suffer directly from the nuclear arms race. If India and Pakistan abandon their nuclear deterrent programs, sign the Nuclear Non-Proliferation Treaty (NPT) as non-nuclear weapon states, and accept full-scope safeguards on their civilian nuclear power industries, the energy benefits could be tremendous. Fifteen years ago Indian Atomic Energy officials planned on producing 10,000 megawatts of installed nuclear power by the year 2000. India’s 10 aging reactors now produce one fifth of that amount. Although nuclear power production has tapped scarce resources for more than four decades, it generates less than three percent of India’s power consumption. In Pakistan, where energy shortfalls have slowed economic growth for years, the situation is worse. China recently built a 300-megawatt reactor at Chashma, but if this facility is used for military purposes, Pakistan’s only nuclear energy source will remain the 34-year-old Karachi nuclear power plant, which produces less than 100 megawatts of electricity annually. As NPT members in good standing, Pakistan and India could draw critical infusions of capital and technology to jump-start their ailing nuclear power industries. This investment could stimulate economic growth and lessen dependence on foreign energy sources, thereby enhancing national security.

CONVENTIONAL MILITARY COSTS ALSO ARE RISING

The guns-versus-butter tradeoff is one way to assess the costs of South Asia’s nuclear arms competition. The guns-versus-guns tradeoff is another. Indian and Pakistani nuclear hawks argue that developing nuclear deterrent forces will make conventional military buildups unnecessary and reduce overall defense costs. However, Indian defense spending rose 11 percent after the tests; Pakistan’s rose, also. And recent experience suggests that conventional military expenditures are likely to soar even higher alongside rising nuclear and missile costs.

During the summer of 1999, Indian and Pakistani troops (and pro-Pakistan rebels) have fought the fiercest military battles ever waged in the mountains of Kashmir. Journalists report that each side has lost more than 1,000 lives. In financial terms, local media place
the daily expense of Indian military operations at $3 million to $6 million. While Pakistani costs probably are lower because of smaller force commitments, they too are onerous. To offset the expense of staging military operations around Kargil, India’s parliament authorized an emergency grant of $135 million to purchase ordnance, hardware, and high-altitude clothing. The cost of the Kashmir conflict is still climbing. Fighting has abated since its peak in the summer of 1999, but it has not ended. Indian and Pakistani politicians state that they will meet the financial needs of their militaries to replenish equipment and ammunition and to prepare for more conflict.

The fighting in Kargil shows that nuclear deterrence is unstable between India and Pakistan, if it exists at all. The economic costs of this conflict also suggest the serious damage to both economies of a general war. The large military spending increases that a broader war would cause would trigger higher interest rates and inflation, and the war-time destruction of industrial and infrastructure facilities would reduce productivity and drain already limited foreign exchange reserves. The threat of follow-on hostilities or the breakdown of domestic order in parts of India or Pakistan would discourage foreign investment and financial assistance that is crucial for the long-range economic growth and development in each country. In short, a conventional war could ruin India and Pakistan. The human and economic costs of a nuclear war are beyond calculation.

MOUNTING DOMESTIC AND INTERNATIONAL POLITICAL COSTS

The political expense that India and Pakistan will pay to become nuclear powers might rival the economic burden. Ironically, the domestic standing of the Indian and Pakistani governments is lower than it was before the tests. Considering the outbursts of pride and support that swept South Asia last May, it is noteworthy that the coalition government led by India’s Bharatiya Janata Party (BJP) fell in less than a year after the tests.

The BJP lost support because it failed to implement crucial economic reforms and curb rising food prices. Opposition leaders criticized the diversion into the nuclear program of resources that could better be used for basic human needs. Predictably, nuclear deterrence is less salient to India’s population than clean water and affordable food.

The same holds true in Pakistan where opposition to Prime Minister Nawaz Sharif rose in the wake of the tests and the Kargil fiasco. Pakistan People’s Party leaders now question the need for carrying out nuclear tests if a balance of terror cannot be achieved. In the province where the tests were conducted, the Baluchistan National Party criticizes the government’s nuclear policy for diverting scarce resources from development to defense. The majority party in Pakistan’s Northwest Frontier Province also condemns these policies.

Internationally, the nuclear tests produced outrage in most parts of the world and spurred costly sanctions. The five permanent UN Security Council states have criticized the nuclear policies of India and Pakistan, as have the Group of Eight industrial nations, key nonaligned states, and many others. The United States, Japan, Australia, and other nations imposed costly economic sanctions and trade restrictions against the two South Asian countries. With new restrictions on U.S. trade with all entities “involved in nuclear and missile activities,” the dual-use and conventional military efforts of scores of Indian and Pakistani firms will suffer. While the overall economic impact of these sanctions is uncertain, international investor confidence in and the flow of capital to India and Pakistan have plummeted. If India and Pakistan had expected the nuclear tests to improve their international standing and prestige, the results must be disappointing.

RISING MILITARY RISKS

Continued fighting over Kashmir and the downing of aircraft in other areas indicate that nuclear deterrence has not yet emerged in South Asia. The risk of another India-Pakistan conventional war seems higher than ever before and India’s relations with China also have deteriorated. Added to these problems are new risks of inadvertent or accidental nuclear use because of unsophisticated nuclear command-and-control systems and poorly defined nuclear doctrines. And, even if India and Pakistan do manage to establish nuclear
deterrence, moreover, the effect will be that every Indian and Pakistani will live under the threat of nuclear annihilation. Welcome to the nuclear club.

SECURITY AND PROSPERITY WITHOUT NUCLEAR WEAPONS

As U.S. Deputy Secretary of State Strobe Talbott has stated, “India and Pakistan need security, deserve security, and have a right to determine what is necessary to attain security.” Are there ways for India and Pakistan to enhance their security without deploying nuclear weapons and missiles? Considering the dangerous and expensive record of the Soviet-American arms race, the enormous political and economic costs of Indian and Pakistani deterrent programs, and the growing risk of nuclear war in South Asia, India and Pakistan should make every effort to pursue non-nuclear sources of security. And, all concerned states should help them to achieve that security.